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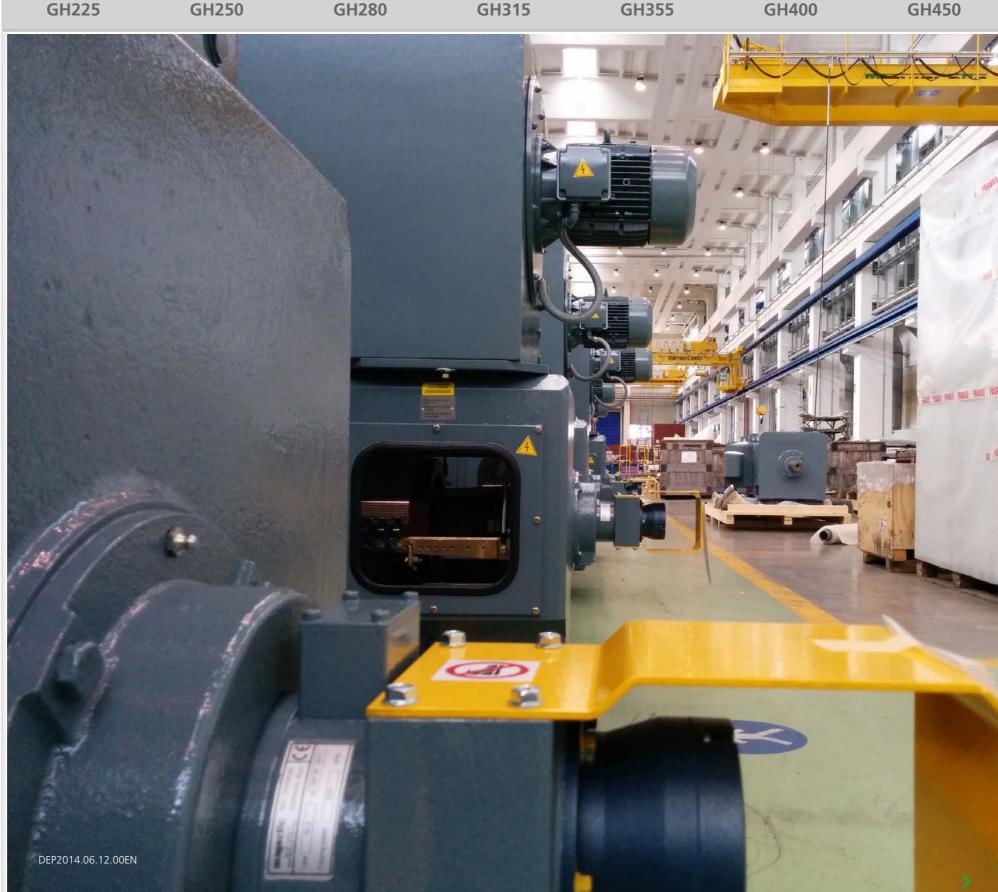
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1. GENERAL INFORMATION

GH 225-630 type machines are designed to meet and exceed the rigorous performance requirements of industrial applications. Their exemplary electrical and mechanical designs assure flawless operation in the most severe, heavy duty service.

All stator cores contain high performance electrical steel laminations, with compensating windings provided in main poles. The standard winding insulation system employs Class H materials, but standard performance is limited to Class F temperatures to extend machine life. Where required, size GH 225 can be supplied without compensation.

Mechanically, modular components are featured to allow the greatest flexibility to meet Customer's varied needs.

GH four-pole series of motors utilizes frames having seven shaft axis heights: 225, 250, 280, 315, 355, 400, and 450 mm.

GH six-pole series covers three shaft axis heights: 500, 560, and 630 mm.

While the usual mounting arrangement is horizontal foot mounted (IM B3 [code I] or IM 1001 [code II] in accordance with EN 60034-7) alternate arrangements are available on request. The factories are equipped with up-to-date machinery and modern manufacturing techniques for the production of the highest quality interchangeable parts.

The motors described in this catalogue cover a range of power output from 160 kW at 1500 rpm (1,019 kNm) [GH225SK] to 1800 kW at 500 rpm (34,38 kNm) [GH630ZK].

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2. STANDARDS AND QUALITY

2.1. REFERENCE STANDARDS

The GH series of motors is designed and manufactured to comply with the International Standard IEC 34-1 and the CENELEC harmonized standards EN 60034 and HD53 for European countries. In particular, the ratings and performance characteristics are in full compliance with EN 60034-1.

Upon request, motors can be supplied to meet the performance requirements of other standards (e.g. NEMA MG-1).

2.2. CE MARKING

GH series machines are manufactured in conformance to European Directive 73/23/EEC mod. 93/68/EEC (LVD) and meet the essential protective requirements specified in the European Directive 89/336/EEC (EMC) mod. 92/31/EEC and 93/68/EEC. The "CE" mark is applied to each machine to certify compliance with these directives.

2.3. QUALITY SYSTEM

The Quality System of NIDEC ASI S.p.A. covers the design, manufacturing and testing of DC machines. Related activities, such as procurement, component quality verification, project management and customer service, are also included within the system's comprehensive scope.

This Quality System is certified by CISQ/RINA (certification n. 50/92) – EQNet (Registration n. IT-2624) to comply with European standards UNI-EN 29001 (ISO 9001).

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3. IDENTIFICATION CODE

4 Machine with compensating winding (if present)

	GH	355	Р	K
1 Machine series				
2 Frame size (shaft height in mm)				
3 Armature core length identification				
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4.1. ROTOR

The armature core is made up of preinsulated steel laminations, and is heatshrunk on the shaft to obtain rigid mechanical integrity. Armature windings are manufactured from preinsulated copper rectangular wire having a Class H enamel coating or enamel covered with glass yarn. Ground insulation is NOMEX®.

Wave or frog-leg armature winding patterns are employed according to the customer's requirements for electrical performance. Commutation capability of the motor can be improved considerably where a frog-leg type arrangement is used instead of lap winding. The armature coil leads are secured to the commutator by means of TIG welding system. Armature winding end turns are supported by special metallic or insulated rings and anchored by pre-impregnated fiberglass bandings. After assembly of the winding, the complete rotor is impregnated with Class H resin, using a Vacuum Pressure Impregnation (VPI) system and oven cured for polymerization. Additionally, a second impregnation with Class H resin is performed in open tank, followed by oven cure (polymerization).

4.2. COMMUTATOR

The commutator is designed to have an overspeed capability greater than that required of the motor. To ensure long term operational stability, these components are mechanically rotated and thermally aged prior to being secured to the shaft by an interference fit.

4.3. STATOR

The magnetically active stator core component, main and commutating poles are fully laminated to provide for rapid response times to transients in load or speed.

During assembly these laminations are hydraulically compressed under tons of pressure, then bound to form a rigid, stable assembly. Stator coils are formed from Class H insulated copper wire, and include NOMEX® ground wall insulation materials.

These coils are bonded to the pole cores with special epoxy resins and interconnected with flexible cables. These cables are braced with high strength, extreme temperature tolerant lacing material. After completion, stator assembly is Vacuum Pressure Impregnated (VPI) with Class H resin and cured in a temperature controlled oven. For severe applications where high humidity, carbon dust or abrasive material is encountered, an additional highbuild resin coating is applied by immersion and thermal catalyzation.

4.4. BRUSHHOLDER YOKE

Designed for strength and stiffness, the brush yoke is mounted to the mechanically rigid end shield. This yoke supports the brush holders, and allows individual adjustment of the brushes for optimal neutral zone alignment. Such design also incorporates sensitivity for the 1% positioning required for tough bi-directional rotating applications.

The brushes are split type, and are manufactured from high quality electrographitic grade material. The brushes are selected to consider the motor rating, application and environmental conditions.

4.5. BEARINGS

Tables 1 and 2 list the standard bearings furnished with each motor frame. These bearings are sized in accordance with the largest rated torque for that frame size, regardless of the length of the machine, to provide for lower bearing temperatures, improved vibrational stability and improved bearing life. In horizontal, direct coupled use, the B10 life is in excess of 40,000 hours, and 20,000 hours for belted applications.

Bearing seals are provided for totally enclosed motors having an IP 55 degree of protection.

Figures 1 and 2 illustrate the bearing arrangement for both the drive and non-drive end.





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4. DESIGN FEATURES

TABLE 1Bearings for GH Series (4 poles)

	OPPOSITE DRIVE END				DRIVE END							
FRAME	OP	POSITE L	OKIVE END		EL	ELASTIC COUPLING						
	B3-B5	Grease g	V1-V3	Grease g	B3-B5	Grease g	V1-V3	Grease g	B3-B5-V1-V3	Grease g		
GH 225	6217 2Z C3	-	6217 2Z C3	-	6218 2Z C3	-	6218 2Z C3	-	NU 218 ECP C3	25		
GH 250	6217 2Z C3	-	6217 2Z C3	-	6218 2Z C3	-	6218 2Z C3	-	NU 218 ECP C3	25		
GH 280	6219 C3	30	7219 BE	30	6221 C3	35	6221 C3	35	NU 221 ECJ C3	35		
GH 315	6221 C3	35	7221 BE	35	6222 C3	40	6222 C3	40	NU 222 ECJ C3	40		
GH 355	6224 C3	45	7224 B	45	6224 C3	45	6224 C3	45	NU 224 ECJ C3	45		
GH 400	6228 C3	55	7228 B	55	NU 228 ECM C3	55	6228 M C3	55	NU 228 ECM C3	55		
GH 450	6232 M C3	70	7232 BCB	70	NU 232 ECM C3	70	6232 M C3	70	NU 232 ECM C3	70		





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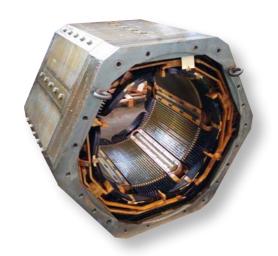
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TABLE 2Bearings for GH Series (6 poles)

		OPPOSITE DRIVE END				DRIVE END							
FRAME	SHAFT	OPI	DRIVE END		ELA	ELASTIC COUPLING							
		B3-B5	Grease g	V1-V3	Grease g	B3-B5	Grease g	V1-V3	Grease g	B3-B5-V1-V3	Grease g		
CILEOO	ø150	6232 M C3	70	7232 BCB M	70	NU232 EC M C3	70	6232 M C3	70	NU232 EC M C3	70		
GH 500	ø170	6236 M C3	83	7236 BCB M	83	NU236 EC M C3	83	6236 M C3	83	NU236 EC M C3	83		
CHECO	ø170	6236 M C3	83	-	-	NU236 EC M C3	83	-	-	NU236 EC M C3	83		
GH 560	ø190	NU1040 M C3 + 6040 M C3	160	-	-	NU1040 M C3	80	-	-	NU1040 M C3	80		
	ø170	6236 M C3	83	-	-	NU236 EC M C3	83	-	-	NU236 EC M C3	83		
GH 630	ø190	NU1040 M C3 + 6040 M C3	160	-	-	NU1040 M C3	80	-	-	NU1040 M C3	80		
	ø210	NU1044 M C3 + 6044 M C3	190	-	-	NU1044 M C3	95	-	-	NU1044 M C3	95		







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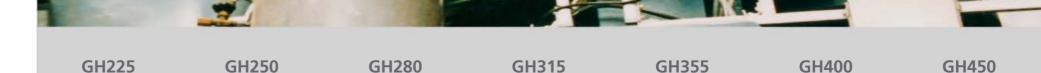
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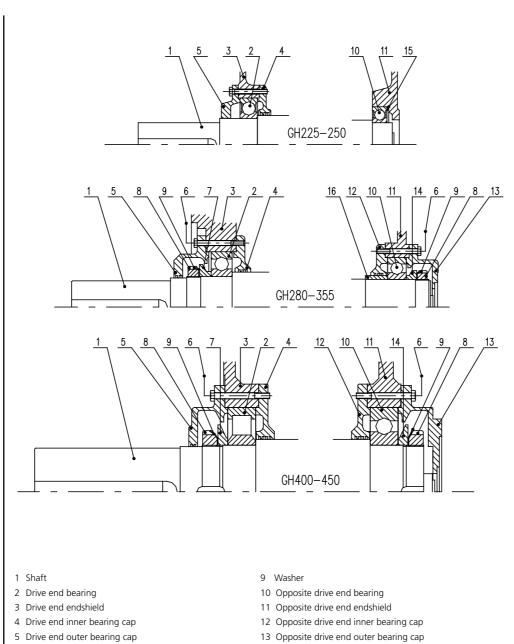
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4. DESIGN FEATURES

FIGURE 1

Bearing assembly



- 6 Grease fitting position
- 7 Drive end bearing grease dispenser
- 8 Bearing locknut

- 14 Opposite drive end bearing grease dispenser
- 15 Preloading spring
- 16 Opposite drive end bearing shoulder ring

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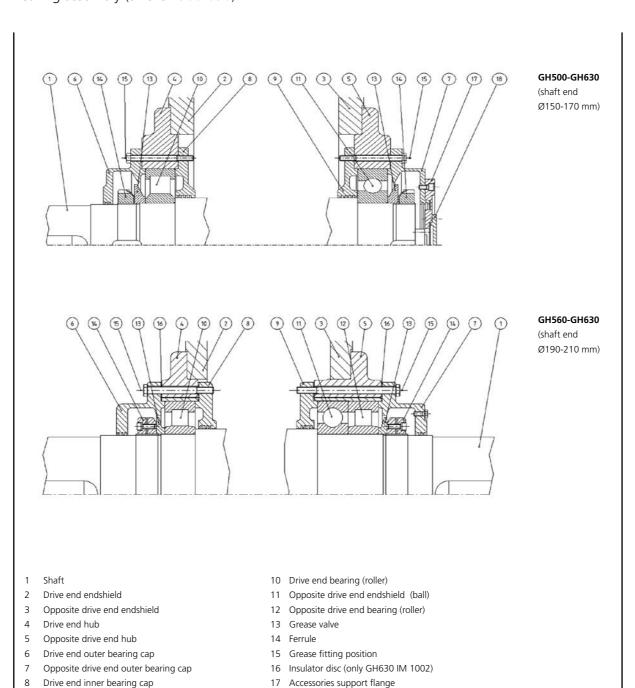
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4. DESIGN FEATURES

FIGURE 2

Bearing assembly (Size GH500-630)



18 Opposite drive end closing cap

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Opposite drive end inner bearing cap





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4.6. BELTED AND RADIAL THRUST APPLICATION

Power transmission components (pulleys, sheaves and belts) must be designed and selected in accordance with the manufacturers recommendations. Once the motor side pulley or sheave has been selected, the allowable radial (side) thrust load must be within the values listed in Table 3 for ball bearings or Table 4 for roller bearings (for other cases, please contact Nidec ASI).

TABLE 3

	ALLOWABLE RADIAL THRUST ON BALL BEARINGS (N)											
SIZE	BEARING	SPEED [RPM]								MAXIMUM SPEED		
		400	600	1000	1500	2000	2500	3000	4000	[RPM]		
GH225	6218-2Z	12200	11500	10650	9700	9100	8650	8300	-	3000		
GH250	6218-2Z	12200	11500	10650	9700	9100	8650	-	-	2800		
GH280	6221	17300	16300	1500	13800	12900	12300	-	-	2600		

TABLE 4

	ALLOWABLE RADIAL THRUST ON ROLLER BEARINGS (N)											
SIZE BEARING	BEARING	SPEED [RPM]							MAXIMUM SPEED			
	400	600	1000	1500	2000	2500	3000	4000	[RPM]			
GH225	NU 218 ECP	24800	24500	23330	21600	20200	19200	18500	-	3000		
GH250	NU 218 ECP	24800	24500	23330	21600	20200	19200	-	-	2800		
GH280	NU 221 ECP	36800	36000	33500	31300	29700	28500	-	-	2600		

It is necessary that pulley length be no more than twice shaft end length, whereas an air gap of about 10 mm has to be kept between the pulley and motor end shield (bearing bracket).





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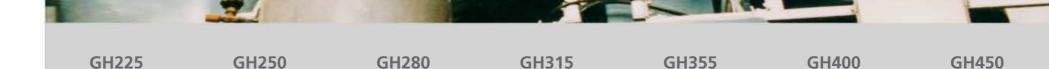
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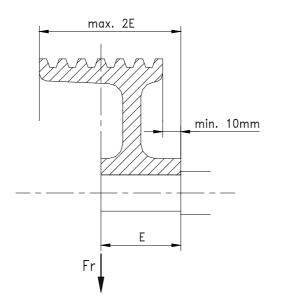
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Radial thrust can be obtained from the equation below:



$$Fr = 19.5 \times 10^6 \times \frac{P}{n \times D} \times K$$

Fr = radial thrust (N)

P = rated motor power (kW)

n = motor speed (rpm)

D = pulley diameter (mm)

K = tension factor (given by the pulley manufacturer)

If K is not available, use as approximate assumption:

 $K = 3.5 \div 4$ for flat leather belts

 $K = 2.2 \div 2.5$ for V-belts or for high adhesion belts

If the radial thrust so obtained is higher than the value specified in the tables, roller bearings or special bearings must be used, or the pulley diameter must be increased.





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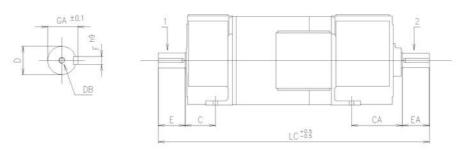
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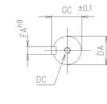
5.1. COUPLING AND SHAFT EXTENSION

Standard machines are furnished with one drive end extension which is cylindrical with a keyway (IM 1001). On request, machines are available with two shaft extensions (IM 1002) for a tandem arrangement, and the shaft end dimensions may be of different size from the standard solution and are shown in Table 5.

Unless otherwise specified, standard machines are designed for direct drive using flexible type couplings.

Shaft extension 1 Shaft extension 2





* Please enquire the manufacturer NIDEC ASI

Dimensions without tolerance UNI ISO 2768 - c

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4.3 Stator

4.4 Brushholder yoke

4.5 Bearings

4.6 Belted and radial thrust application

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5.5 Maximum allowable speeds

5 6 Noise level

5.7 Vibrations and balancing

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5.9 Groud terminals

5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

6.1 Ratings

6.2 Supply voltage

6.3 Maximum loads

6.4 Current rate-of-rise

6.5 Speed regulation

6.6 Duty with large speed regulation

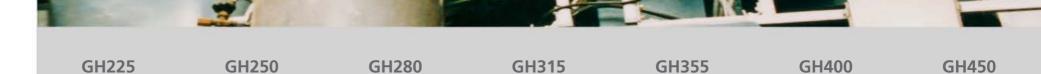
6.7 Excitation

6.8 Maximum current at locked rotor

6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



5. CONSTRUCTION FEATURES

TABLE 5

Machines (GH225-450) with two shaft extensions (IM 1002)

TYPE	SIZE	LC	С	Е	D	F	GA	DB	CA	EA	DA	FA	GC	DC
	S	1365												
	М	1415								170	80M6	22	85	M20X40
GH225	L	1460	149	170	80M6	22	85	M20X40	221					
	Р	1510												
	X	1560												
	М	1569												
GH250	L	1629	168	170	85M6	22	90	M20X40	251	170	80M6	22	85	M20X40
	X	1709												
	S	1710												
GH280	М	1760	190	170	95M6	25	100	M20X40	320	170	00M6	25	95	M20V40
G11280	L	1810	190	170	SOIVIO	23	100	10120740	320	170	90M6	25	95	M20X40
	Р	1870												
	М	2067											106	M20X50
GH315	L	2117	216	210	110M6	28	116	M20X50	471	210	100M6	28		
GIIJIJ	Р	2177	210		1101010	20	110	IVIZOXO	471	210	1001010	20		
	X	2247												
	S	2195					137	M24X65	5 521	210	110M6	28	116	M20X50
GH355	М	2245	254	250	130M6	32								
011333	L	2305	234	230	1301010	32								
	Р	2375												
	М	2400			130M6	32	137							
GH400	L	2480	280	250	1301010	32	157	M24X65	500	250	130M6	32	137	M24X65
	Р	2570			*	*	*							
	М	2490		250	150M6	36	158			250	150M6	36	158	
	L		230	I JUIVIU	30	130			230	1 301010	30	130		
GH450	Р	2720	315					M42X80	315					M42X3X80
	X	2800			170M6	40	179			300	170M6	40	179	
	Y	2890												





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GH225 GH250 GH280 GH315 GH355 GH400 GH450

5. CONSTRUCTION FEATURES

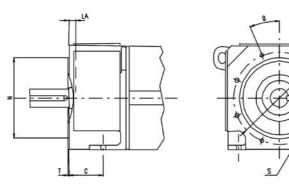
5.2. MOUNTING ARRANGEMENT

Machines are furnished in accordance with EN 60034-7 standard mounting arrangement IM B3 (code I) or IM 1001 (code II). Vertical machines in the IM V1 (code I) or IM 3011 (code II) mounting arrangement and those shown in Figure 3 are available upon request.

For the IM B5 or IM 3001 arrangement, the mounting flange holes and dimensions are shown in Table 6.

TABLE 6

Machines with im B5 mounting arrangement



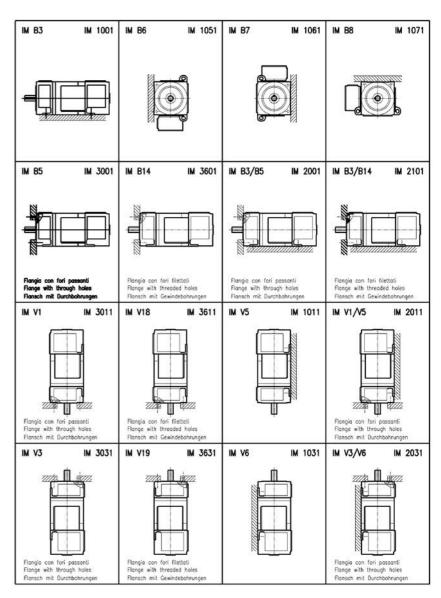
Deve es	sere in forma costruttiva IM2001 (B3/B5)
	mounting orrongement IM2001 (B3/B5)
Nur für	Baulorm /M2001 (B3/B5)

Quote senza indic. di tolleranza Dimensions without tolerance Abmessungen ohne toleranzangabe	UNI ISO 2768 - m
---	------------------

TYPE	С	N	Т	М	S	В	LA
GH225	149	350J6	5	400	8 X Ø18	22.5°	20
GH250 *	168	350J6	5	400	8 X Ø18	22.5°	20

FIGURE 3

Main Mounting Arrangements







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8. OUTPUT POWER DIAGRAMS



GH315

GH355

GH400

GH450

GH250

5. CONSTRUCTION FEATURES

5.3. DEGREE OF PROTECTION

Machines are normally furnished with one of the following degrees of protection, in accordance with EN 60034-5:

GH280

IP 23: Protected machine IP 44: Enclosed machine

GH225

Other enclosures or more restrictive degrees of protection are available on request.

5.4. COOLING METHOD

The various standard cooling methods are listed in Table 7. Cooling method IC666 (air-to-air heat exchanger with primary and secondary air blowers) or IC410 (enclosed machine, not ventilated) require special handling by the factory (Table 8).

Normal environmental conditions according to EN 60034-1:

- altitude: 0 ÷ 1000 m above sea-level;
- temperature: -15°C ÷ +40°C;
- humidity: not less than 5 g/m³ in absolute value, not more than 90% in relative value;
- cooling air: free of dust, oils, or aggressive gases such as, in particular, ammonia, chlorine, sulfur and silicon.

Applications using water-to-air heat exchangers may require special handling due to water temperatures or non-fresh water sources.





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5. CONSTRUCTION FEATURES

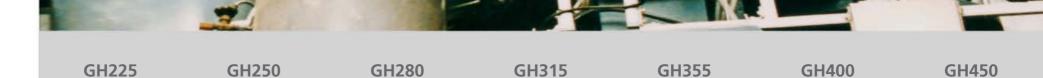
- 5.1 Coupling and shaft extension
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5. CONSTRUCTION FEATURES

TABLE 7

Standard cooling methods

TIPO DI RAFFREDDAMENTO EN 60034-6	GRADO DI PROTEZIONE EN 60034-5		DESCRIPTION
IC06	IP 23	SEPARATE VENTILATION USING A MOTOR-DRIVEN BLOWER MOUNTED ON THE OPPOSITE DRIVE END ENDSHIELD	
IC17	IP 23	SEPARATE VENTILATION FROM AN AIR DUCT CONNECTED TO THE OPPOSITE DRIVE END	
IC37	IP 44	SEPARATE VENTILATION FROM AIR DUCTS CONNECTED TO BOTH ENDS. AIR INLET ON THE OPPOSITE DRIVE END	
IC86W	IP 44	TOTALLY ENCLOSED WITH AIR TO WATER HEAT EXCHANGER	

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GH225 GH250 GH280 GH315 GH355 GH400 GH450

5. CONSTRUCTION FEATURES

TABLE 8

Special cooling methods

TIPO DI RAFFREDDAMENTO EN 60034-6	GRADO DI PROTEZIONE EN 60034-5		DESCRIPTION
IC666	IP 44	TOTALLY ENCLOSED WITH AIR TO AIR HEAT EXCHANGER	
IC410	IP 44 / IP 55	TOTALLY ENCLOSED NON VENTILATED	

HOME \$\frac{1}{2}\$





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- 4.5 Bearings
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5. CONSTRUCTION FEATURES

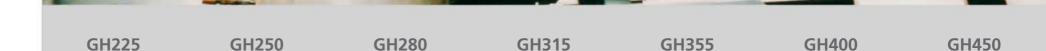
- 5.1 Coupling and shaft extension
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- 5.3 Degree of protection
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5. CONSTRUCTION FEATURES

5.4.1. COOLING METHOD IC06 WITH BLOWER MOUNTED ON THE MOTOR (PVA)

For frames 225 through 450 the blower assembly is normally mounted on the non-drive end shield.

Frames 500 and 630 have the blower assembly mounted on the drive end shield.

Blower assemblies are always furnished with a filter.

The blower motor kW ratings are listed in Table 9, with the normal power supply of 400 V, 3 Ph, 50 Hz. Other voltages and frequencies may be available upon request.

TABLE 9Blower motor power (50 Hz)

SIZ	ΖE	GH225	GH250	GH280	GH315	GH355
POV [KV		2.2	3.0	5.5	5.5	7.5
SIZ	ΖE	GH400	GH450	GH500	GH560	GH630
POV [KV		7.5	9.2	9.2	11.0	11.0

5.4.2. COOLING METHOD IC17 AND IC37 WITH AIR DUCTS (PVB AND CVB)

When cooling air is supplied from separate ventilation ducts (provided by the Customer), the required air flow and expected pressure drop across the motor are listed in Table 10.

TABLE 10Ventilation data

FRAME	AIR FLOW	INTERNAL PRESSURE DROP OF THE MACHINE				
	[m³/min]	IC17 [Pa]	IC37 [Pa]			
GH225	50	1400	1300			
GH250	70	1400	1300			
GH280	85	2050	1950			
GH315	120	1800	1700			
GH355	140	2050	1950			
GH400	180	1600	1500			
GH450	220	1250	1150			
GH500	260	1200	1200			
GH560	320	1200	1200			
GH630	380	1200	1200			





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- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

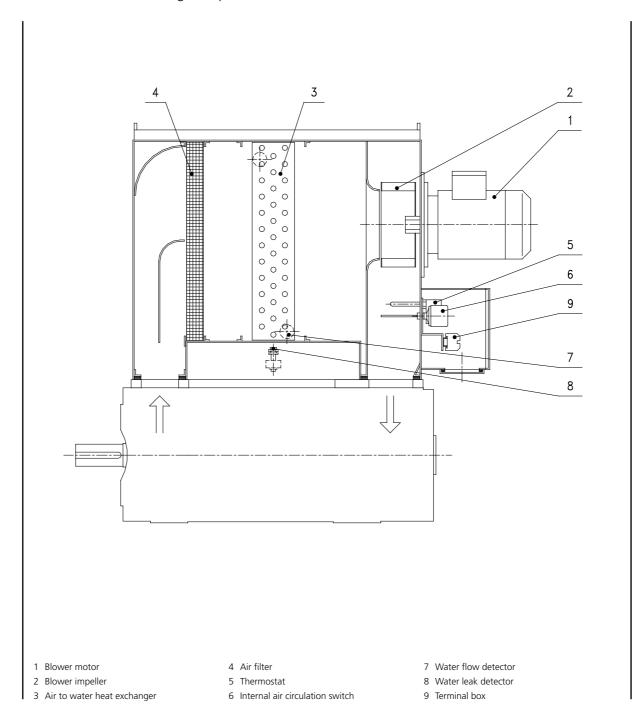
8. OUTPUT POWER DIAGRAMS



5. CONSTRUCTION FEATURES

FIGURE 4

Air to water heat exchanger (4-pole GH motors)



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GH225 GH250 GH280 GH315 GH355 GH400 GH450

5. CONSTRUCTION FEATURES

5.4.3. COOLING METHOD IC86W, TOTALLY ENCLOSED WATER-TO-AIR COOLED (TEWAC)

The air-to-water heat exchanger, available for fresh water, is of simple tube type with finned tube bundles. The tubes are made of copper and the fins of anticorodal. A motor-driven centrifugal blower circulates the internal air through the motor

All standard air-to-water heat exchangers are normally provided with a filter for the internal air and provided with the following accessories:

- water flow indicator (connected on water inlet pipe) with electric contacts;
- water leak detector with electric contacts;

and then through the finned heat exchanger.

- internal air flow indicator with electric contacts;
- air thermostat with electric contacts;
- inlet and outlet water block valves (pipe thread connection, flanged alternate).

As an alternate it is possible to limit the accessories to the air thermostat only.

The water supply system must be connected to the heat exchanger through flexible pipes to avoid the transmission of vibrations. The above mentioned heat exchangers are built for fresh water only. In addition the water hardness should not exceed 15 French degrees. Other special heat exchangers may be supplied for particular water types (seawater, dirty or acid water, etc.).

The standard heat exchanger is designed for an inlet water temperature of 30°C and a temperature difference between inlet and outlet of about 3-4 K. The rated water pressure is 500 kPa (5 bar) and the test pressure is 1000 kPa (10 bar).

The normal pressure drop in the water circuit is about 50 kPa (500 mbar). Figure 4 shows a cross-section drawing of an air to water heat exchanger. In sizes GH 500-630 (6 poles motor) the internal air circulates in the opposite direction (cold air entering the motor on drive end).

The blower motor power ratings at 50 Hz are given in Table 11. The accessories terminal markings are shown on Figure 6.

TABLE 11Blower motor power for air to water heat exchangers (50 Hz)

SIZE	GH225	GH250	GH280	GH315	GH355
POWER [KW]	4.0	4.0	5.5	7.5	9.2
SIZE	GH400	GH450	GH500	GH560	GH630
POWER [KW]	15.0	15.0	11.0	11.0	18.5

5.4.4. COOLING METHOD IC666, AIR-TO-AIR COOLED (TEAAC)

Use of an air-to-air heat exchanger requires consultation with the manufacturer for proper application and design. Standard heat exchangers consist of aluminum alloy tubes (< 0.2% copper), steel tube sheets and a fabricated steel plate housing.

This assembly is mounted to the machine frame, and is provided with two blowers. One blower, mounted on the opposite drive end of the machine (GH225-450) or on the drive end of the machine (GH500-630), circulates internal air through the tube bundle. A second blower, mounted on the top of the assembly, moves external air up through the heat exchanger tubes. A washable filter is mounted in the air duct assembly at the hot air entrance.

The following accessories are provided:

- internal air flow indicator with electric contacts;
- external air flow indicator with electric contacts
- air thermostat with electric contacts.

Other accessories are available on request.

Figure 5 shows a sectional view of a TEAAC machine.

Terminal markings for the accessory devices are shown in Figure 7.





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- Current rate-of-rise 6.4
- Speed regulation 6.5
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

HOME

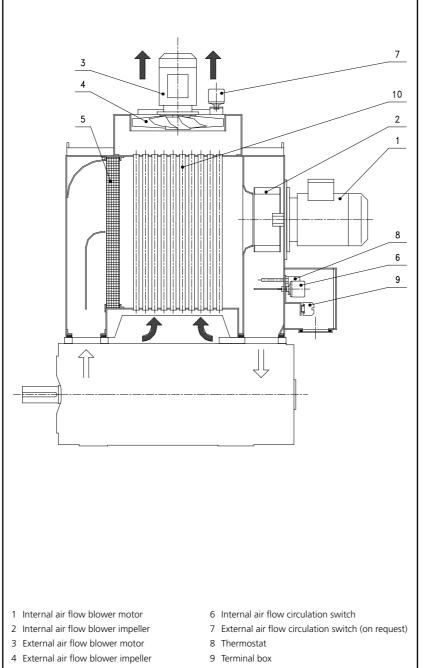
OUTPUT POWER DIAGRAMS

GH225 GH250 **GH280 GH315 GH355 GH400 GH450**

5. CONSTRUCTION FEATURES

FIGURE 5

Air-to-air heat exchanger (4-pole GH motors)



5 Filter

10 Air-to-air heat exchanger

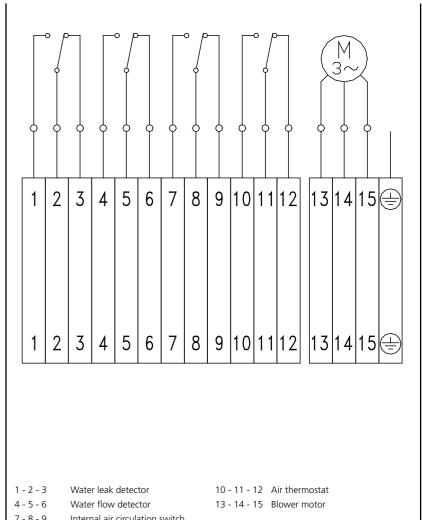
5.4.5. 5.4.5 COOLING METHOD IC410 (CNV)

Enclosed Machine with protection degree between IP 44 and IP 55, without internal and external air heat exchanger.

Cooling systems by natural convection: the heat is dissipated through the machine. This cooling method requires consultation with the manufacturer for proper application and design.

FIGURE 6

Connection diagram of air-to-water heat exchanger



7-8-9 Internal air circulation switch

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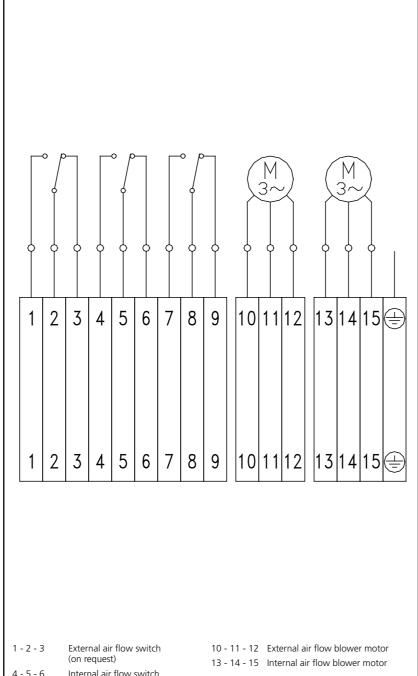
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

5. CONSTRUCTION FEATURES

FIGURE 7

Connection diagram of air-to-air heat exchanger



^{4 - 5 - 6} Internal air flow switch 7 - 8 - 9 Internal air thermostat

5.5. MAXIMUM ALLOWABLE SPEEDS

Table 12 lists the maximum allowable operating speeds, maximum mechanical speeds and maximum overspeeds for 4 pole machines ¹.

TABLE 12

Maximum allowable speeds

SIZE	MAXIMUM OPERATING SPEED (*) [rpm]	MAXIMUM MECHANICAL SPEED [RPM]	OVERSPEED [RPM]
GH225	3000	3000	3450
GH250 M, L	2800	2800	3300
GH250 X	2700	2700	3100
GH280	2600	2600	3050
GH315 M, L, P	2400	2400	2800
GH315 X	2300	2300	2600
GH355 S, M, L	2200	2200	2650
GH355 P	2100	2100	2350
GH400 M, L	2000	2000	2400
GH400 P	1900	1900	2250
GH450 M, L, P	1800	1800	2160
GH450 X	1700	1700	2050
GH450 Y	1600	1600	1950

^(*) With 160% maximum load and 1:2 maximum speed range by field control.

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¹ This product catalogue excludes the performance of 6 pole machines, so in case you need to make assessments on the maximum allowable speed for a motor GH 500-560-630 it is recommended to ask for a verification to the technical office of Nidec ASI.





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- 6.6 Duty with large speed regulation
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5. CONSTRUCTION FEATURES

5.6. NOISE LEVEL

Motor noise levels are evaluated on the weighted A scale basis, by either the Sound Pressure Level L_p , or the Sound Power Level L_w , and are measured in accordance with ISO 1680/1. Standard machine noise levels comply with the limits of EN 60034-9. Machines with reduced noise levels can be furnished upon request.

TABLE 13

Limits of maximum vibration magnitude (in displacement, velocity and acceleration)

5.7. VIBRATIONS AND BALANCING

Where the shaft extension includes a keyway, rotor balancing is performed with a half key secured in the slot. Otherwise, the rotor is balanced without the half coupling, pulley or other device mounted. Any component added to the rotor after this must be independently balanced.

All machines comply EN 60034-14 and CENELEC HD 53.14.51 with vibration level "A" for all frames. On request, the motors may be supplied in compliance with level "B" (special).

Motor vibration levels are listed in Table 13, with a tolerance of +10%. These values are applicable also where the operating speed of the motor exceeds the maximum speed listed in the table (CENELEC HD 53.14.51).

	SHAFT HEIGHT, H [mm]	56	$56 \le H \le 132$			132 < H ≤ 280			H > 280		
VIBRATION GRADE	MOUNTING	DISPLAC.	VEL.	ACC.	DISPLAC.	VEL.	ACC.	DISPLAC.	VEL.	ACC.	
		μm	mm/s	m/s²	μm	mm/s	m/s²	μm	mm/s	m/s²	
А	FREE SUSPENSION	25	1.6	2.5	35	2.2	3.5	45	2.8	4.4	
	RIGID MOUNTING	21	1.3	2.0	29	1.8	2.8	37	2.3	3.6	
В	FREE SUSPENSION	11	0.7	1.1	18	1.1	1.7	29	1.8	2.8	
	RIGID MOUNTING				14	0.9	1.4	24	1.5	2.4	

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5.8. CONDUIT BOX

Terminal box, usually supplied for all motor frames, is manufactured in IP 55 protection, and it is normally mounted on motor right side, seeing from drive end; position on the left is always possible, whereas position on motor top generally requires a confirmation by Nidec ASI, based on motor frame.

Terminal box position cannot be the same as blower position; for motors with air-to-water heat exchanger, standard position for terminal box is opposite to water connections.

Terminal box is usually supplied closed; on request it is possible to have it provided with cable glands.

Terminal box types are shown in Figure 8 and Figure 9, for four-pole and six-pole machines respectively; terminal end markings are shown in Table 14. On request different solutions can be adopted (for example, execution with free cable ends).

5.9. GROUD TERMINALS

To ground the machine, two terminals are provided with threaded holes and screws. One terminal is available in the conduit box; the other is on the frame near the box, complete of identification nameplate.

TABLE 14Terminal head markings

	CORDING TO 034-8	DESCRIPTION
A1	A2	ARMATURE WINDING (ROTOR)
B1	B2	COMMUTATING POLES WINDING
C1	C2	COMPENSATING WINDING
D1	D2	SERIES EXCITATION WINDING
E1	E2	SHUNT EXCITATION WINDING
F1	F2	SEPARATE EXCITATION WINDING

FIGURE 8

Terminal box for 4-pole GH machines

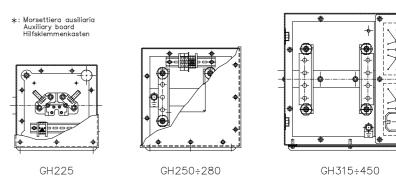
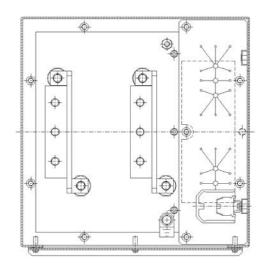


FIGURE 9

Terminal box for GH500-630 machines







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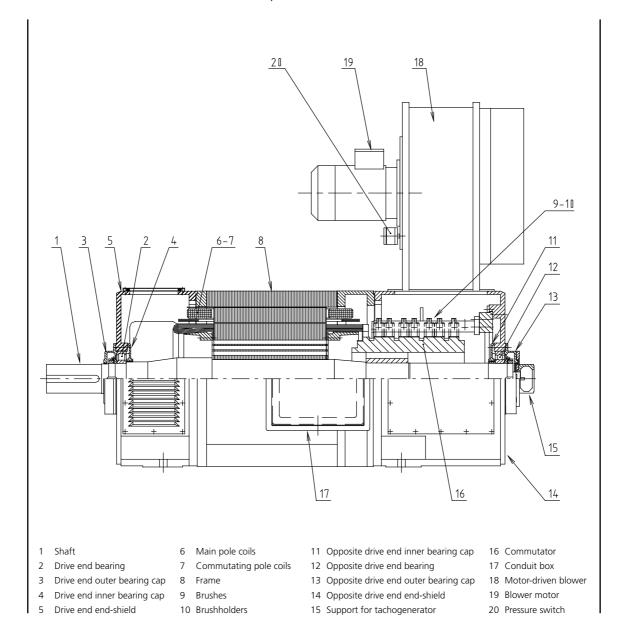
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5.10. CROSS-SECTION DRAWING

A typical sectional assembly drawing for frames GH225-450 is shown in Figure 10.

FIGURE 10

Sectional view of a GH series motor (4 poles)







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6.1. RATINGS

Maximum ratings, with de-rating curves for field weakening operation, for each GH 4 pole (225-450) motor design are given in the tables of the following section, together with dimensional drawings. These data are valid in the conditions shown hereafter.

- Continuous duty (S1), per EN 60034-1.
- Cooling by forced ventilation (IC06, IC17, IC37, IC86W for EN 60034-5).
- Cooling air temperature not exceeding 40°C, or cooling water temperature not exceeding 30°C.
- Altitude of the installation not exceeding 1000 meters.
- Power supply from a static converter connected in a fully controlled three-phase bridge (identification code for converter connection: B6C per IEC 971).

The maximum current ripple factor is 18%. The manufacturer must be consulted for other power supply conditions to determine if an external series inductor must be added. Current ripple (r) is defined (EN 60034-1) as the ratio between current alternating component RMS value and current average value. A current shape factor (f) can be also used: it is defined as the ratio between current RMS value and current average value. For an ideal direct current it would be f = 1, whereas for a real rectified current, with the same rated value, it would be f < 1, in general: this causes power loss to increase, but worse commutation too derives from this. Here is the relation between the above parameters: $f^2 = 1 + r^2$.

To prevent commutation capability decrease and power loss increase it is necessary that current dissimmetry be lower than 10%. Current dissimmetry can be defined as the ratio (in percent) between the two following quantities: the difference between maximum and minimum value of rectified current, in one cycle; and rated current.

- Speed regulation lower than 1:1.5 by means of field weakening control for non-compensated machines, and 1:2.5 for compensated machines. The manufacturer must be consulted for wider speed range regulation by means of field weakening control. Additional information is given in paragraph 6.5.
- Maximum load of 160% for 15 s per EN 60034-1. The duty cycle should be such that RMS current does not exceed rated current. Additional information on overload capability is given in paragraph 6.3.
- Class F temperature rises, according to EN 60034-1; insulating system is Class H. The effects of cooling air temperature and altitude on machine power and speed are shown in Table 15.

The manufacturer must be consulted for other temperature rise requirements (Class H or Class B).

In all cases where required working conditions are different (eg, intermittent services, ventilation and air-to-air heat exchangers or executions without ventilation, field weakening operation, heavy overloads, etc.) please check with the technical department of Nidec ASI.

In the performance tables are described the characteristics of each four-pole GH motor related of armature voltage and normal speed, more precisely:

- power (kW);
- efficiciency (%);
- armature current in S1 duty (A);
- resistance of the armature circuit at 115°C (Ω);
- saturated armature inductance (mH);
- armature winding code;
- maximum excitation power (W);
- time constant of excitation circuit (s);
- motor weight, in IC06, including the fan (kg);
- moment of inertia (kg m²).

The performances shown in the tables for the machines GH 225-450 are deducted from the calculation and do not take into account the loss of the excitation circuit (if separate, as usual) and power for forced ventilation.

2 All the following tables are related to the performance of four-pole motors. For the selection of a six-pole machine or higher a check by Nidec ASI technical department is always necessary.

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TABLE 15

Derating factors for power and speed based on altitude and ambient temperature

ALTITUDE	K_{p}	K	AMBIENT TEMPERATURE	K _p	K
m a.s.l.	ρ	11	°C	ρ	П
1000	1	1	30	1	1
1500	1.03	0.99	35	1	1
2000	1.07	0.98	40	1	1
2500	1.11	0.96	45	1.04	0.98
3000	1.15	0.94	50	1.09	0.96
3500	1.20	0.92	55	1.13	0.93
4000	1.27	0.90	60	1.17	0.90

6.2. SUPPLY VOLTAGE

GH355

Supply voltage values as indicated in rating tables can be obtained from full rectifier bridge converter (B6C), from the following typical AC supplies:

GH400

GH450

220 V from 220 V - 50 Hz 420 V from 400 V - 50 Hz 460 V from 400 V - 50 Hz 520 V from 500 V - 50 Hz 600 V from 500 V - 50 Hz 700 V from 600 V - 50 Hz

Motors with different suppply voltages are in any case available. If voltage is not indicated in catalogue ratings, motor speed n can be obtained from the relation:

$$n = n_c \left(\frac{V - \Delta V}{V_c - \Delta V} \right)$$

where:

 $\Delta V = R \cdot I + 2.5 \text{ (V)}$

n: required speed (rpm)
 n_c: catalogue speed (rpm)
 V: armature voltage (V)

V_c: catalogue closest voltage value (V)

 ΔV : motor voltage drop (V)

R: armature resistance at 115°C (Ω)

1: armature current (A)

Motor power can be calculated with good accuracy by assuming a linear relation between two group catalogue data:

$$P = P_2 + \frac{(P_1 - P_2)(n - n_2)}{n_1 - n_2}$$

where:

P = new power (kW) at voltage V

 P_1 = catalogue power (kW) at the closest (rounded up) catalogue voltage P_2 = catalogue power (kW) at the closest (rounded down) catalogue voltage

 n_1 = catalogue base speed (rpm) at the closest (rounded up) catalogue voltage

 n_2 = catalogue base speed (rpm) at the closest (rounded down) catalogue voltage

When V is higher than the maximum catalogue voltage for the armature winding considered, ask the Manufacturer.





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6.3. MAXIMUM LOADS

As noted in paragraph 6.1, maximum loading is subject to a specific set of conditions. GH type machines are designed to meet and exceed the severe operating demands of industrial applications. Capabilities of uncompensated and compensated wound machines are noted hereafter.

Non-compensated size GH225

The maximum torque is 1.6 times the rated torque for 15 s on the basis of approximately 200% instantaneous current with such cycling that the RMS load value during a 5 minute load cycle does not exceed the rated armature current.

Motors with a stabilizing series field are capable of carryng out a torque 1.8-2.0 times the rated torque with a current twice the rated current.

Compensated sizes GH 225-450

The maximum torque is 1.8 times the rated torque for 15 s on the basis of approximately 200% current with such cycling that the RMS load value during a 5 minute load cycle does not exceed the rated armature current.

6.4. CURRENT RATE-OF-RISE

Reference signal step variations in control loops normally adopted in industrial plants, such as speed and torque control loops, cause current to vary rapidly, with high peak values; current derivative (with respect to time) maximum value, or current temporal rate-ofrise, during transient affects commutation in DC machines.

A current rate-of-rise of 200 In /s at rated current and speed is generally allowed (In being rated current value).

6.5. SPEED REGULATION

Values of maximum allowable speeds are listed in Table 12.

Each motor can operate at full field (with speed control) at constant torque up to one fiftieth (1/50) of the base speed

without significant torque pulsation.

Each motor can operate with field weakening speed regulation (with a stabilizing series field or compensating winding)

up to the maximum mechanical speed. When the motor speed is controlled by field weakening, it is necessary to reduce the rating given in the tables in accordance with the derating diagram.

In particular: $P = P_n \times K$

Where:

P = allowable output power,

 P_n = output power given in the tables,

K = derating coefficient shown in the diagrams versus maximum required speed and winding code.

For each frame size, the derating diagram is indicated for the machine having the maximum frame length. For motors having a shorter frame length, the maximum speed is obtained by multiplying the speed determined from the diagram by the derating coefficients given in the tables.





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GH280

6.6. DUTY WITH LARGE SPEED REGULATION

GH250

The use of mixed control systems provides a large increase in the allowable speed range, including overloads. This type of speed regulation reaches maximum speed by a combination of increasing armature voltage (and corresponding decrease in current) and field weakening.

This arrangement provides the advantages of operating with a predetermined ratio of field weakening, and of reducing armature current approximately by the ratio between the speed at the beginning of field weakening, and base speed.

It is good for commutation since it depends not only on current value (reactance voltage), but also on the saturation of the commutating pole circuit (divergent black commutation bands).

The adoption of a mixed type speed control (or "false characteristic") does not involve changes in either frame size or core length. While the static converter size increases for larger current, the cost is compensated by the improved operation of the complete drive system.

6.7. EXCITATION

GH225

All standard motors, with or without compensating windings, are designed for separate excitation without the use of a stabilizing series winding.

Size GH225 can be fitted with a stabilizing series field upon request. Standard excitation voltages are 220 V and 330 V, with alternate voltages available upon request.

Connection diagrams and terminal markings are shown in Table 16 (for normalized, cf. Table 14).

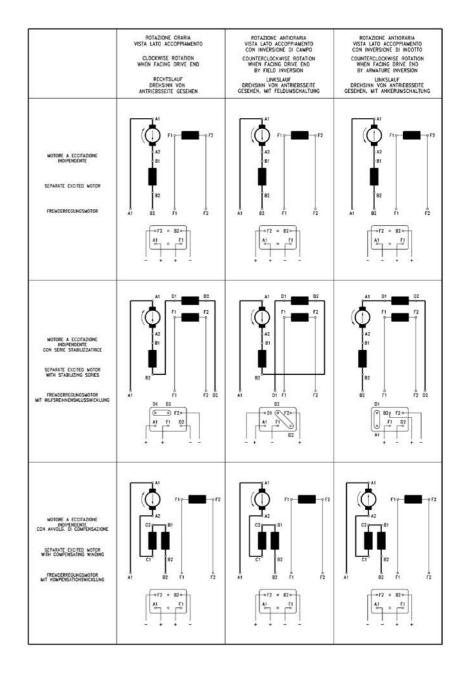
TABLE 16Terminal marking

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GH400

GH450

GH315



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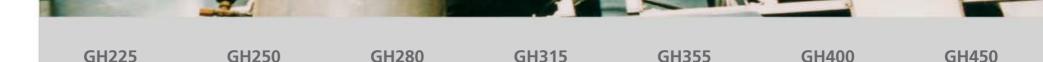
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6.8. MAXIMUM CURRENT AT LOCKED ROTOR

Typical maximum permissible values of armature current at locked rotor condition based on time are specified in Table 17. This data are for information use only: the manufacturer must be consulted for data applicable to specific machine ratings and applications.

6.9. ACCESSORIES

Following a summary of the main accessories normally mounted on GH machines.

Stator thermal protective devices

To prevent machine from reaching dangerous temperature values, or at any rate higher temperature values than allowed, it is advisable to adopt one of the following solutions:

- opening an electric circuit by means of bimetallic thermostats (this is Nidec ASI standard solution: a first thermostat protecting excitation winding, a second one protecting interpole winding);
- same action as above, by means of thermistor devices (on request);
- continuous temperature monitoring by means of resistance temperature detectors (PT100, on request).

Temperature detectors' leads are normally wired to the auxiliary board in main terminal box.

Space heaters

Space heaters of armoured type can be provided on request. Typical ratings are given in Table 18 for 220 V, 1-phase, 50 Hz power supply. When automatic control of the space heaters is desired, a dedicated thermostat is available upon request.

Air flow switch

On request, a pressure switch is mounted on motors with separate ventilation blowers or air duct connections to detect the presence, or absence, of cooling air. This device is also part of the standard equipment of the air-water or air-to-air exchangers (see diagrams in Figure 6 and Figure 7).

Please note that the device cannot in any case protect the machine in case of insufficient air flow due to dirty or clogged filter.

Speed monitoring devices

Motors are usually supplied with a pre-arrangement for solid shaft tachogenerator or digital encoder, for axial mounting on opposite drive end side, with stardard RE.0444 type connection flange (Euroflange). An elastic coupling to connect the device is always included in standard pre-arrangement (normally the coupling bore diameter is 11 mm).

It is possible, on request, to supply different devices and special pre-arrangements (for instance, pre-arrangement for hollow shaft encoders, for mounting without elastic coupling).

On machines with two shaft ends, intended for tandem front position, a special arrangement is available for B5 mounting of speed control devices on drive end side (transmission by means of pulley and belt).





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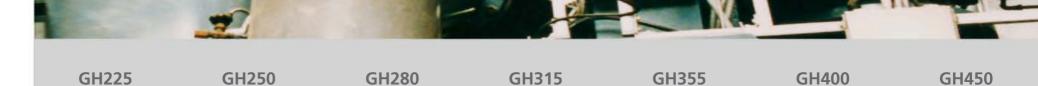
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TABLE 17Maximum current at locked rotor

ARMATURE CURRENT	TIME PERIOD
%	S
200	10
150	20
100	30
50	90
20	600
15	Continuous

TABLE 18Space heaters ratings

SIZE	225	250	280	315	355	400	450	500	560	630
POWER W	120	200	300	300	400	400	720	2X 720	2X 720	2X 720





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7. TESTS

Each motor is subjected to all tests that are necessary to ensure the product is fully acceptable; in particular, for each DC machine of ours a specific electric set-up is performed, in order to get good commutation at rated load and in overload, in the whole speed range.

We distinguish routine tests, performed on each machine built, and type tests, intended to prototypes or performed at the request of the customer. See also Table 19.

TABLE 19

Main tests

TEST	ROUTINE TEST	TYPE TEST
Winding resistance at room temperature	×	×
Saturation curves		×
No-load losses		×
Speed regulation at base and top speed	×	×
Constant torque characteristics	×	×
Constant power characteristics	×	×
Heat run test		×
Visual commutation check	×	×
Momentary overload tests	×	×
Noise Level		×
Vibrations	×	×
Overspeed	×	×
High-potential test (AC)	×	×
Insulation resistance	×	×
Measurement of moment of inertia		×





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GH225

GH250

GH280

GH315

GH355

GH400

GH450

GH225

Derating for field weakening operation

GH225 - GH225 K

Performance of uncompensated motors

GH225 S

GH225 M

GH225 L

GH225 P

GH225 X

Performance of compensated motors

GH225 SK

GH225 MK

GH225 LK

GH225 PK

GH225 XK

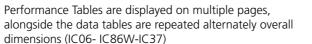
Overall dimensions

GH225 IM1001-IP23-IC06

GH225 IM1001-IP54-IC86W

GH225 IM1001-IP44-IC37















1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

5. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

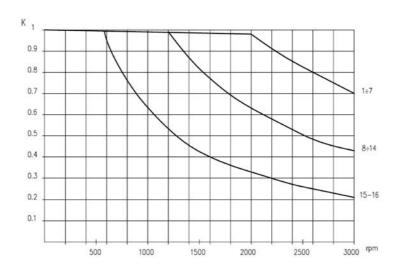
GH400

GH450

GH 225

RIDUZIONE DELLA POTENZA IN DISECCITAZIONE DERATING FOR FIELD WEAKENING OPERATION LEISTUNGSREDUZIERUNG BEI FELDSWÄCHUNG

GH 225 (non compensata - uncompensated - unkompensiert)
[160% sovraccarico - overload - überlast]



 $P = K \times P$ tabella potenza disponibile Allowable power output $P = K \times P$ table Werfügbare Leistung $P = K \times P$ table

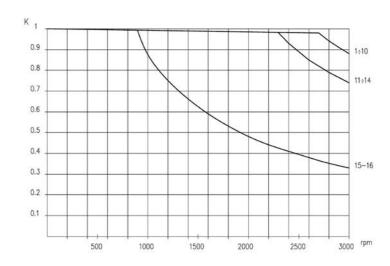
per/for/für GH 225 S K = K x 1.5 GH 225 M K = K x 1.41 GH 225 L K = K x 1.25 GH 225 P K = K x 1.11 GH 225 X K = K x 1.1

Per K ≥ 1 niente declassamento For K ≥ 1 no derating Für K ≥ □1 keine Leistungreduzierung

GH 225 K

RIDUZIONE DELLA POTENZA IN DISECCITAZIONE DERATING FOR FIELD WEAKENING OPERATION LEISTUNGSREDUZIERUNG BEI FELDSWÄCHUNG

GH 225 K (compensata - compensated - kompensiert)
[180% sovraccarico - overload - überlast]



P = K x P tabella potenza disponibile	Allowable power or	utput P = K x P table	Werfügbare Leistung P = K x P table
per/for/für	GH 225 SK	K = K x 1.5	
(\$1.5 St. \$5.10 St. \$1.10	GH 225 MK	$K = K \times 1.41$	
	GH 225 LK	$K = K \times 1.25$	
	GH 225 PK	$K = K \times 1.11$	
	GH 225 XK	$K = K \times 1.0$	
Per K ≥ 1 niente declassamento	For K≥1 n	o derating	Für K ≥□1 keine Leistungreduzierung

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





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4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

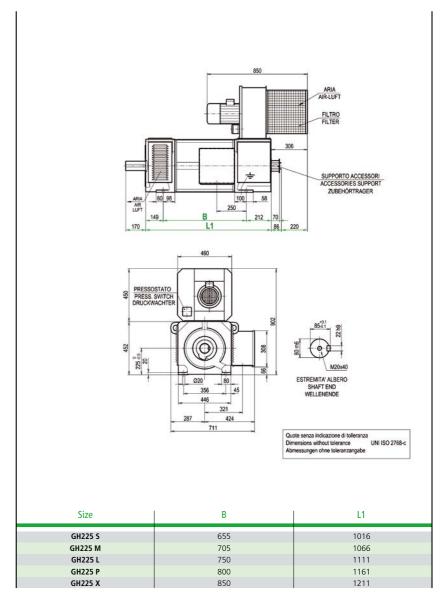
GH400

GH450

GH225 S

Rated speed (rpm) at armature voltage				Excitation power (W): 2400 Field time costant (s): 0.68 Motor mass (kg): 795 (IC06) Moment of inertia (kg m²): 1.75			Armature circuit		Winding code		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
1300						149	750	90.6			
	2470					281	750	93.7	0.412	0.019	1
		2630				292	740	93.9			
1190						128	650	89.9		0.023	
	2250					239	640	93.2	0.509		2
		2370	2500			251	640	93.4			
4000			2590			269	625	93.8			
1080	2070					114 213	585 575	88.9 92.7			
	20/0	2170				213	575	92.7	0.583	0.028	3
		2170	2390			247	575	93.4			
950			2330			107	550	88.5			
330	1830					204	550	92.7			
		1920				215	550	92.9	0.746	0.033	4
			2120			228	530	93.4			
				2410		254	520	93.9			
860						94	490	87.2		0.043	5
	1650					178	485	91.9			
		1750				188	485	92.2	0.914		
			1920			207	485	92.6	0.514	0.045	
				2190		230	475	93.2			
					2540	262	465	93.9			
780	1530					85	450	86.2			
	1520	1590				161 169	440 440	91.3 91.6			
		1390	1760			186	440	91.6	1.047	0.052	6
			1700	2000		203	420	93.0			
				2000	2320	230	410	93.7			
740						81	430	85.8			
	1450					153	420	91.2			
		1520				161	420	91.4	1.179	0.055	_
			1670			177	420	92.0		0.056	7
				1910		197	410	92.6			
					2210	227	405	93.6			
590						70	380	83.6			
	1160					134	375	90.0	1.754	0.075	8
		1220				140	370	90.3	57	0.075	
			1350			154	370	91.0			

GH225 IM1001 - IP23 - IC06



								TECHNICAL DA
Siz	e M	lotor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225	5 S	755	1.75	2400	0.68	3000	50	1400
GH225	5 M	810	1.95	2600	0.77	3000	50	1400
GH225	5 L	870	2.2	3000	0.81	3000	50	1400
GH225	5 P	925	2.4	3300	0.84	3000	50	1400
GH225	5 X	1000	2.6	3500	0.87	3000	50	1400
GH225	5 SK	755	1.75	2100	0.58	3000	50	1400
GH225	5 MK	810	1.95	2400	0.62	3000	50	1400
GH225	5 LK	870	2.2	2600	0.65	3000	50	1400
GH225	5 PK	925	2.4	2900	0.68	3000	50	1400
GH225	5 XK	1000	2.6	3200	0.71	3000	50	1400

1/2

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





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2. STANDARDS AND QUALITY

- 2.1 Reference standards
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3. IDENTIFICATION CODE

4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

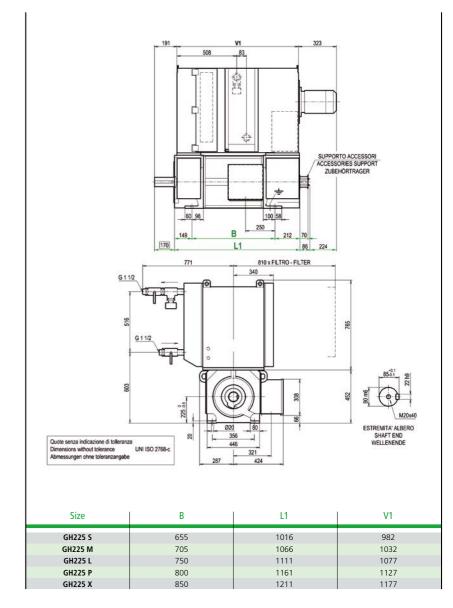
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 S

R	ated spee	ed (rpm) a	at armatı	ıre voltaç	je	Excitation power (W): 2400 Field time costant (s): 0.68 Motor mass (kg): 795 (IC06) Moment of inertia (kg m²): 1.75			Armatu	Winding code	
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
540						60	330	82.7			
	1040					116	325	89.6			
		1110				123	325	89.9	2.105	0.094	9
			1220	1200		135	325	90.7			
400				1390		151	320	91.6			
480	950					52 102	290 288	81.1 88.7			
	950	1010				102	288	89.2	2.454	0.115	10
		1010	1120			118	288	89.9	2.434	0.115	10
				1280		135	288	90.8			
420						47		80.7			
	850					94		88.6			
		900				99	265	89.1	3.080	0.137	11
			990			108		89.8	3.000	0.137	''
				1130	4240	125		90.7			
					1310	145		91.8			
370	700					41		77.5			
	760	810				83 88	240	86.4 87.1			
		010	900			96	240	88.0	3.704	0.168	12
				1020		112		90.2			
					1200	130		90.6			
340						35		73.6			
	700					73		85.3			
		730				77	216	85.8	4.362	0.209	13
			820			86		86.7	4.502	0.203	15
				930	1090	98 115		88.5 89.5			
	CEO				1090			85.3			
	650	700				72 76		85.9			
		700	760			84	210	86.7	4.779	0.224	14
				890		95		88.5	,5	0.221	
					1030	111		89.0			
	540					62		82.9			
		560				65	185	83.6	7.015	0.304	15
			630			72		84.9			
	480					54		82.5			
		520				58	165	83.0	8.419	0.382	16
			560			64		84.5	5.715	0.502	
				660		73		86.0			

GH225 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

2/2

Bearings	Dri	Opposite drive end		
	Coupling	Pulley		
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3	
Electrical blower (IC06)	Weight	Blower motor power		
	40 kg	2.2 kW (50/60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	240 kg	3.0 kW (50/60 Hz)		





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2. STANDARDS AND QUALITY

- 2.1 Reference standards
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3. IDENTIFICATION CODE

4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
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6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

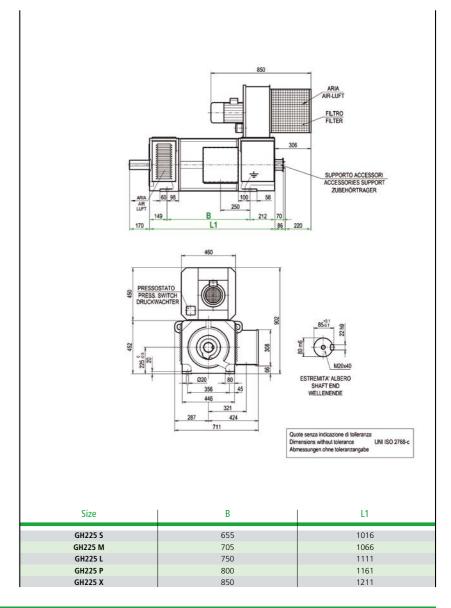
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 M

R	Rated speed (rpm) at armature voltage						Excitation power (W): 2600 Field time costant (s): 0.77 Motor mass (kg): 850 (IC06) Moment of inertia (kg m²): 1.95		Motor mass (kg): 850 (IC06)				Winding code	
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω				
1120						148	750	90.2						
	2120					280	750	93.5	0.466	0.020	1			
		2260				291	740	93.7	0.400	0.020	'			
			2460			309	715	94.0						
1020						128	650	89.4						
	1930					238	640	93.0						
		2030				250	640	93.2	0.551	0.025	2			
			2230			269	625	93.6						
				2560		300	615	94.0						
930						114	585	88.4						
	1170					212	575	92.5						
		1860				224	575	92.8	0.646	0.030	3			
			2050			246	575	93.2						
				2340		272	560	93.8						
820						107	550	88.2						
	1570					203	550	92.5						
		1650				214	550	92.7	0.817	0.035	4			
			1820			227	530	93.2	0.017	0.033	4			
				2070		253	520	93.7						
					2420	283	500	94.3						
740						93	490	86.4						
	1420					177	485	91.5						
		1500				187	485	91.8	0.994	0.045	5			
			1650			205	485	92.3	0.554	0.043	,			
				1880		230	475	93.0						
					2180	261	465	93.7						
670						84	450	85.3						
	1300					160	440	90.9						
		1370				168	440	91.2	1.149	0.056	6			
			1510			185	440	91.8	1.145	0.030	0			
				1720		202	420	92.6						
					2000	230	410	93.3						
640						80	430	84.8						
	1240					152	420	90.7						
		1300				160	420	91.0	1.286	0.060	7			
			1440			176	420	91.6	1.200	0.000	,			
				1640		197	410	92.3						
					1900	226	405	93.2						
510						69	380	82.4						
	990					133	375	89.4	1.965	0.081	81 8			
		1050				140	370	89.8	1.505	0.081	0			
			1160			153	370	90.5						

GH225 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
CH225 YV	1000	2.6	2200	0.71	2000	50	1400

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





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- Quality system

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- Commutator 4.2
- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
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- Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage 6.2
- Maximum loads 6.3
- Current rate-of-rise
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- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

HOME

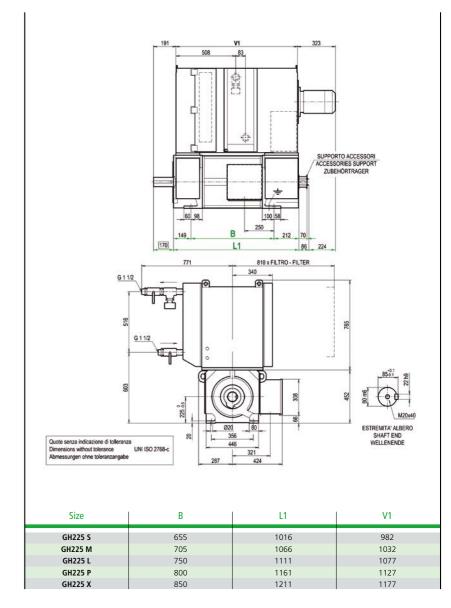
OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 M

R	ated spe	ed (rpm) a	at armatı	ıre volta <u>c</u>	je	Field ti Motor r	Excitation power (W): 2600 Field time costant (s): 0.77 Motor mass (kg): 850 (IC06) Moment of inertia (kg m²): 1.95		Armatu	re circuit	Winding code
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
460						59	330	81.6			
	900					115	325	89.0			
		950				122	325	89.4	2.321	0.103	9
			1050	1200		135	325	90.2			
440				1200		151	320	91.1			
410	820					51 101	290 288	79.8 88.0			
	020	870				107	288	88.5	2.702	0.127	10
		070	960			118	288	89.3	2.702	0.127	10
				1100		135	288	90.3			
360						46		79.4			
	730					93		87.9			
		770				98	265	88.4	3.314	0.148	11
			850			108		89.2	3.314	0.140	- ''
				970	4420	124		90.2			
					1130	145		91.3			
320	550					40		75.8			
	660	690				82 87	240	85.9 86.5			
		050	770			96	240	87.5	4.038	0.182	12
				880		111		88.7			
					1030	130		90.0			
290						34		72.6			
	600					72		84.2			
		630				76	216	84.8	4.747	0.226	13
			700			85		86.0	4.747	0.220	13
				800	940	98 115		87.4 88.8			
	560				940						
	560	600				71 75		84.2 84.9			
		000	660			83	210	86.0	5.236	0.242	14
			000	760		95	2.0	87.4	3.230	0.242	14
					890	111		88.9			
	460					60		81.6			
		480				64	185	82.4	7.520	0.325	15
			540			71		83.8			
	410					53		81.2			
		440				57	165	82.0	8.960	0.408	16
			480			63		83.4	0.300	0.400	10
				565		73		85.1			

GH225 IM1001 - IP54 - IC86W



							TECHNICAL DAT
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

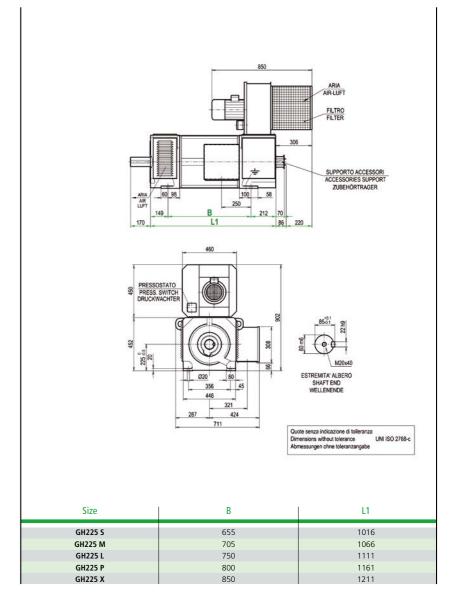
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 L

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor r	Excitation power (W): 30 Field time costant (s): 0.: Motor mass (kg): 910 (ICI Moment of inertia (kg m²)		Armatuı	Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
990						148	750	89.8				
	1870					280	750	93.3	0.524	0.021	1	
		1980				290	740	93.5	0.324	0.021	'	
			2200			310	720	93.8				
900						127	655	88.9				
	1710					238	640	92.8				
		1800				250	640	93.0	0.620	0.027	2	
			1970			268	625	93.4				
				2260		300	615	93.9				
820						113	585	87.9				
	1560					212	575	92.3				
		1650				223	575	92.5	0.726	0.033	3	
			1810			245	575	93.0				
				2060		275	565	93.6				
730						107	555	87.6				
	1390					202	550	92.2				
		1460				213	550	92.5	0.919	0.038	4	
			1610			229	535	92.9	0.5.5	0.050	·	
				1840		253	520	93.6				
					2150	282	500	94.1				
650						93	495	85.6				
	1260					176	485	91.1				
		1330				186	485	91.4	1.118	0.048	5	
			1460			205	485	92.0			-	
				1660		230	475	92.8				
					1950	261	465	93.5				
590						83	450	84.4				
	1150					159	440	90.5				
		1210	1222			167	440	90.8	1.292	0.060	6	
			1330	4500		185	440	91.4				
				1520	1770	201	420	92.2				
					1770	231	415	92.9				
560	4000					79	430	83.8				
	1090	4450				151	420	90.2				
		1150	1270			159	420	90.6	1.446	0.064	7	
			1270	1450		176	420	91.2				
				1450	1600	196	410	92.0				
440					1680	225	405	92.8				
440	222					68	380	81.2			37 8	
	880	020				133	375	88.8	2.211	2.211 0.087		
		920	1030			138	370	89.3				
	l	I	1020			153	370	90.0				

GH225 IM1001 - IP23 - IC06



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Dr	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

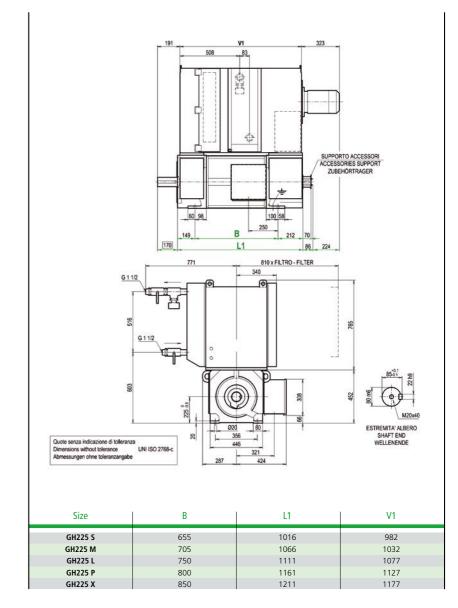
8. OUTPUT POWER DIAGRAMS



GH225 L

F	Rated spe	ed (rpm)	at armatı	ıre voltag	je	Excitation power (W): 3000 Field time costant (s): 0.81 Motor mass (kg): 910 (IC06) Moment of inertia (kg m²): 2.2		Armature circuit			
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
400						58	330	80.5			
	790	040				115	325	88.4			
		840	930			121 134	325 325	88.9 89.7	2.612	0.110	9
			930	1060		150	320	90.6			
360						50	290	78.5			
500	730					100	288	87.3			
		770				106	288	87.8	3.041	0.133	10
			850			117	288	88.7			
				970		134	288	89.8			
320						45		78.1			
	640	680				92 97	265	87.2 87.7			
		080	750			108	200	88.6	3.729	0.159	11
			750	860		123		89.7			
					1000	144		90.8			
280						39		74.1			
	580					81		85.0			
		610				86	241	85.6	4.544	0.194	12
			680			96		86.7	4.544	0.154	12
				770	910	110 129		88.0 89.4			
	520				910	71		83.1			
	520	550				76		83.1			
		330	610			84	216	85.1	5.341	0.243	13
				700		97		86.6			
					830	114		88.1			
	490					70		83.2			
		520				74		83.9			
			580	670		82	210	85.2	5.892	0.260	14
				670	780	94		86.7 88.2			
	400				/80	110 59		80.3			
	400	420				63	185	80.3	8.461	0.348	15
		420	470			70	103	82.7	0.401	0.340	13
	360		2			52		79.9			
		380				56	165	80.8			
			425			62		82.3	10.082	0.436	16
				490		72		84.2			

GH225 IM1001 - IP54 - IC86W



							TECHNICA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Dri	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- Commutator 4.2
- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- Groud terminals
- 5.10 Cross-section drawing

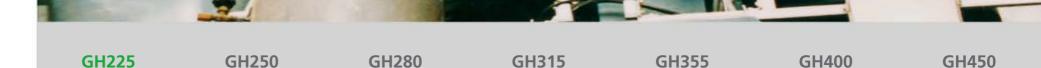
MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

HOME

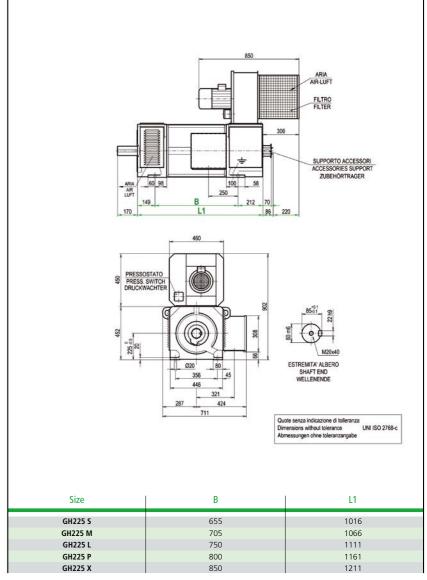
OUTPUT POWER DIAGRAMS



GH225 P

220	R	ated spee	ed (rpm) a	at armatı	ıre voltag	je	Field ti Motor r	on power (W me costant (9 nass (kg): 96 of inertia (kg	s): 0.84 5 (IC06)	Armatu	Winding code	
1670	220 V	400 V	420 V	460 V	520 V	600 V	OUTPUT	CURRENT		INDUCTANCE	AT 115 °C	
1750	880											
1750		1670								0.588	0.023	1
1510			1750							0.500	0.023	'
1510				1950			310					
1590	790											
720 1390 1460 1460 1610 1830 1615 1830 1640 1230 1300 1615 1830 1640 1230 1300 1655 1669 1230 1430 1430 1430 1430 1430 1430 1430 14		1510										
720 1390 1460 1460 1460 1610 1830 1640 1830 106 575 92.0 1830 106 106 575 92.7 565 93.5 640 1230 1300 1430 1440 14			1590							0.696	0.029	2
1390				1750								
1390					2000							
1460	720											
1610		1390										
640 1230 1300 1300 1430 1440 1			1460							0.815	0.036	3
1230 1300 1300 1430 202 555 86.9 91.9 1.032 1.032 0.041 4 1.05 1.				1610								
1230					1830							
1300	640											
1430		1230										
1630			1300							1.032	0.041	4
110				1430	4520							
110					1630	1000						
1110						1900						
1170	580	4440										
1290		1110	1170									
1470			11/0	1200						1.256	0.052	5
520 1020 1070 1180 1180 1350 158 440 90.0 1180 1350 200 420 91.8 159 415 92.6 490 970 1120 1280 137 130 131 131 137 137 1370 1380 130 137 1370 1380 138.5 140 93.2 1.451 0.065 6 1.451 0.065 6 1.451 0.065 6 1.451 0.065 6 1.451 0.065 6 1.451 0.065 6 1.451 0.065 6 1.451 0.065 6 1.451 0.065 6 1.451 0.065 6 1.451 0.065 8 0.069 7 8 8 8 8 8 8 8 8 8 8 8 8				1290	1.470							
1020					14/0	1710						
1020 1070 1180 158 440 90.0 167 4440 90.4 1.451 0.065 6 184 440 91.0 1.451 0.065 6 184 440 91.0 1.451 0.065 6 1850 1570 230 415 92.6 1570 230 415 92.6 1570 158 420 89.7 158 420 90.1 1.624 0.069 7 1280 1580 158 420 90.8 1.624 0.069 7 158 1500 225 405 92.5 159.5	F20					1710						
1070 1180 167 440 90.4 1.451 0.065 6 184 440 91.0 1.451 0.065 6 184 440 91.0 1.451 0.065 6 184 440 91.0 1.451 0.065 6 184 440 91.0 1.451 0.065 6 1870 187	520	1020										
1180		1020	1070									
1350			10/0	1180						1.451	0.065	6
1570 230 415 92.6				1100	1350							
1020 1020					.550	1570						
970 1020 150 420 89.7 158 420 90.1 1.624 0.069 7 1280 1500 225 405 92.5 1500 132 375 88.2 820 137 370 88.6 2.485 0.094 8	490											
1020	450	970										
1120		3,0	1020									
1280				1120						1.624	0.069	7
390 67 380 80.0 132 375 88.2 820 137 370 88.6 2.485 0.094 8					1280							
770 132 375 88.2 2.485 0.094 8						1500	225	405	92.5			
770 132 375 88.2 2.485 0.094 8	390						67	380	80.0			
820 137 370 88.6 2.485 0.094 8		770										
900 152 370 89.5			820							2.485	0.094	8
				900			152	370	89.5			

GH225 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Dr	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

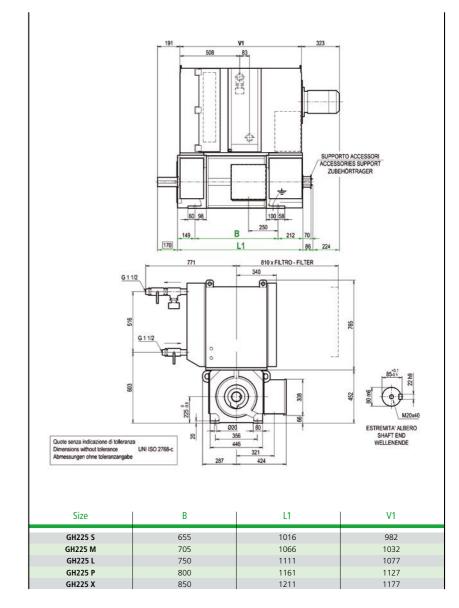
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 P

R	Rated speed (rpm) at armature voltage						on power (w me costant (s nass (kg): 96 of inertia (kg	s): 0.84 5 (IC06)	Armatu	re circuit	Winding code
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
350						57	330	79.2			
	700					114	325	87.7			
		740				120	325	88.2	2.935	0.118	9
			820			133	325	89.1			
				940		150	320	90.1			
320						49	290	77.0			
	640	680				99	288	86.6	2 447		40
		080	750			105 116	288 288	87.1 88.1	3.417	0.144	10
			/30	860		133	288	89.2			
280				000		44	200	76.6			
200	570					91		86.4			
	370	600				96	265	86.9			
			670			107		87.9	4.190	0.171	11
				760		122		89.1			
					890	143		90.3			
	510					81		84.0			
		540				85		84.7			
			600			95	240	85.9	5.106	0.209	12
				690		109		87.3			
					800	128		88.8			
	460					70		82.0			
		490	540			75	24.5	82.8			
			540	620		83 96	216	84.1 85.8	6.002	0.261	13
				020	730	113		87.4			
	430				730	69		82.1			
	430	460				73		82.9			
		400	510			81	210	84.2	6.621	0.280	14
			3.0	590		93	2.0	85.8	0.021	0.200	1-7
					690	110		87.5			
	350					58		79.0			
		370				62	185	79.9	9.508	0.375	15
			410			69		81.5			
	320					51		78.5			
		340				55	165	79.5	11.329	0.470	16
			370			61		81.1	11.529	0.4/0	10
				430		71		83.1			

GH225 IM1001 - IP54 - IC86W



							TECHNICAL [
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	Drive end					
	Coupling	Pulley					
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3				
Electrical blower (IC06)	Weight	Blower motor power					
	40 kg	2.2 kW (50/60 Hz)					
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power					
	240 kg	3.0 kW (50/60 Hz)					





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
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- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
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- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
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- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
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- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

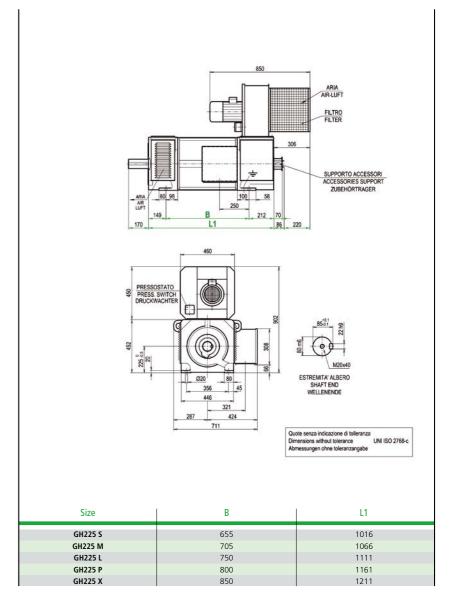
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 X

R	ated spe	ed (rpm) a	at armatu	ıre voltag	je	Field ti Motor m	Excitation power (W): 3500 Field time costant (s): 0.87 Motor mass (kg): 1040 (IC06) Moment of inertia (kg m²): 2.6		Field time costant (s): 0.87 Motor mass (kg): 1040 (IC06) Armature circuit		Winding code		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω			
790						146	750	88.8					
	1500					278	750	92.8	0.652	0.025	1		
		1600	4750			292	750	93.0	0.032	0.025			
740			1750			310	720	93.6					
710	1360					126 235	655 640	87.8 92.3					
	1300	1430				248	640	92.5	0.772	0.031	2		
		1430	1580			267	625	93.0	0.772	0.031	2		
				1800		300	615	93.7					
650						111	585	86.6					
	1240					210	575	91.6					
		1310				222	575	91.9	0.905	0.037	3		
			1440			244	575	92.4					
				1640		274	565	93.2					
570						105	555	86.2					
	1100					201	550	91.5					
		1160				210	550	91.8	1.145	0.044	4		
			1280	1400		227	535	92.3					
				1460	1720	251 280	520 500	93.0 93.8					
510					1720	91	495	83.9					
310	1000					175	495	90.3					
	1000	1050				184	485	90.6					
		1050	1160			203	485	91.2	1.393	0.055	5		
				1320		228	475	92.2					
					1540	260	465	93.0					
460						81	450	82.5					
	910					157	440	89.5					
		960				166	440	89.9	1.610	0.068	6		
			1060			183	440	90.6	1.010	0.000	Ů		
				1210	4440	200	420	91.7					
					1410	230	415	92.6					
440	070					77	430	81.8					
	870	910				149 158	420 420	89.2 89.6					
		910	1010			174	420	90.3	1.802	0.074	7		
			1010	1150		198	410	91.2					
					1350	224	405	92.3					
350						66	380	78.8					
	690					131	375	87.5					
		730				136	370	88.0	2.759	0.101	8		
			810			150	370	88.9					

GH225 IM1001 - IP23 - IC06



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Dr	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

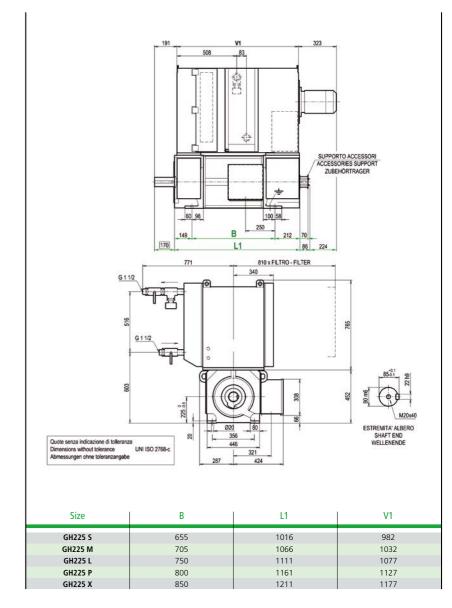
8. OUTPUT POWER DIAGRAMS



GH225 X

F	Rated speed (rpm) at armature voltage			Excitation power (W): 3500 Field time costant (s): 0.87 Motor mass (kg): 1040 (IC06) Moment of inertia (kg m²): 2.6			Armatu	re circuit	Winding code			
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
310						56	330	77.9				
	630					113	325	87.1				
		660	720			119	325	87.6	3.258	0.126	9	
			730	840		132 148	325 320	88.5 89.6				
280				040		48	290	75.6				
280	570					98	290	85.8				
	3/0	600				104	288	86.4	3.793	0.154	10	
		000	670			115	288	87.4	3.733	0.154	10	
				770		132	288	88.6				
250						43		75.2				
	510					90		85.6				
		530				95	265	86.2	4.651	0.184	11	
			590			106		87.2	4.031	0.104	- ''	
				680	200	121		88.5				
					800	142		89.8				
	450	400				80		83.1				
		480	530			84 94	240	83.8 85.1	5.668	0.224	12	
			330	610		108	240	86.6			0.224	12
				0.0	720	127		88.1				
	410					69		80.9				
		430				74		81.7				
			480			82	216	83.2	6.662	0.280	13	
				560		95		84.9				
					650	112		86.7				
	390					68		81.0				
		410				71		81.8				
			450	F20		79	210	83.3	7.349	0.300	14	
				520	620	92 109		85.0 86.8				
	310				020	57		77.6				
	310	330				61	185	78.6	10.554	0.402	15	
		330	370			68	100	80.3	10.334	0.402	13	
	280		3.0			50		77.2				
	200	300				54	165	78.2				
			330			60		80.0	12.575	0.504	16	
				390		70		82.1				

GH225 IM1001 - IP54 - IC86W



							TECHNICAL D	Αī
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
GH225 S	755	1.75	2400	0.68	3000	50	1400	
GH225 M	810	1.95	2600	0.77	3000	50	1400	
GH225 L	870	2.2	3000	0.81	3000	50	1400	
GH225 P	925	2.4	3300	0.84	3000	50	1400	
GH225 X	1000	2.6	3500	0.87	3000	50	1400	
GH225 SK	755	1.75	2100	0.58	3000	50	1400	
GH225 MK	810	1.95	2400	0.62	3000	50	1400	
GH225 LK	870	2.2	2600	0.65	3000	50	1400	
GH225 PK	925	2.4	2900	0.68	3000	50	1400	
GH225 XK	1000	2.6	3200	0.71	3000	50	1400	

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

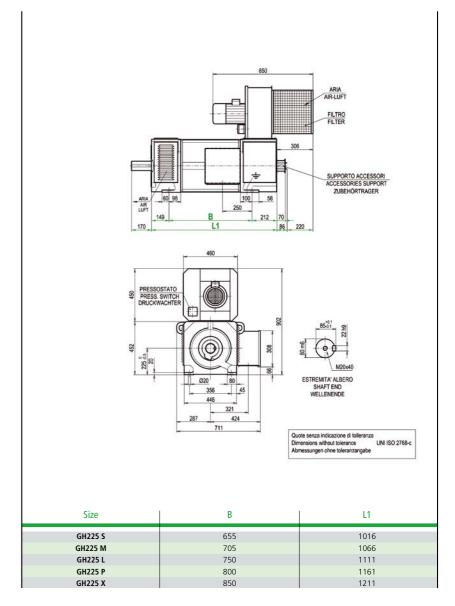
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 SK

R	lated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor n	Excitation power (W): 2100 Field time costant (s): 0.58 Motor mass (kg): 795 (IC06) Ioment of inertia (kg m²): 1.75			re circuit	Winding code
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
1290						148	750	89.7			
	2450					280	750	93.4	0.141	0.024	1
		2570				293	745	93.5			
1180						128	650	89.4			
	2220	2340				237 250	640 640	93.0 93.2	0.190	0.029	2
		2340	2580			250	625	93.2			
1060			2500			115	585	88.1			
1000	2030					212	575	92.3			
		2140				223	575	92.7	0.204	0.032	3
			2350			245	575	92.9			
940						107	555	87.6			
	1810					203	550	92.3			
		1900				214	550	92.7	0.261	0.036	4
			2100	2390		228 253	535 520	93.0 93.6			
840				2330		94	495	86.3			
040	1630					177	495	90.9			
	1050	1720				186	485	91.3			_
			1900			205	485	91.8	0.331	0.050	5
				2150		228	475	92.5			
					4660	260	465	93.5			
760						81	450	82.5			
	1500	1570				157	440	89.5			
		1570	1740			166 183	440 440	89.9 90.6	1.610	0.068	6
			1740	1980		200	420	91.7			
					2300	230	415	92.6			
730						80	430	84.7			
	1410					152	420	90.3			
		1500				159	420	90.5	0.393	0.059	7
			1650			175	420	91.3	0.555	0.033	,
				1890	2200	196	410	91.9			
570					2200	225 69	405 380	93.0 82.8			
3/0	1140					132	370	82.8 89.5			
	1140	1200				132	370	89.8	0.628	0.083	8
			1320			153	370	91.5	0.020	0.005	
				1520		171	360	91.4			

GH225 IM1001 - IP23 - IC06



							TECHNICAL DA	ì
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)	
GH225 S	755	1.75	2400	0.68	3000	50	1400	
GH225 M	810	1.95	2600	0.77	3000	50	1400	
GH225 L	870	2.2	3000	0.81	3000	50	1400	
GH225 P	925	2.4	3300	0.84	3000	50	1400	
GH225 X	1000	2.6	3500	0.87	3000	50	1400	
GH225 SK	755	1.75	2100	0.58	3000	50	1400	
GH225 MK	810	1.95	2400	0.62	3000	50	1400	
GH225 LK	870	2.2	2600	0.65	3000	50	1400	
GH225 PK	925	2.4	2900	0.68	3000	50	1400	
GH225 YK	1000	2.6	3200	0.71	3000	50	1/100	

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

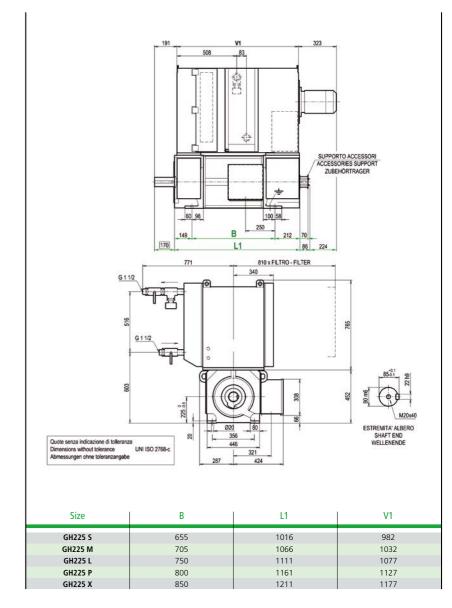
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 SK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor r	Excitation power (W): 2100 Field time costant (s): 0.58 Motor mass (kg): 795 (IC06) Moment of inertia (kg m²): 1.75 Armature circuit		58 Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
520						58	330	81.9			
	1030					114	325	88.7			
		1080				121	325	88.5	0.699	0.105	9
			1200			133	325	90.3			
				1370		150	320	91.1			
460						51	290	80.3			
	940					101	288	87.8			
		990	4440			106	288	88.7	0.801	0.125	10
			1110	1200		117	288	89.2			
				1260	1470	134 156	288 288	90.2 90.7			
410					14/0		200				
410	840					46 93		80.0 87.3			
	040	890				98	265	88.0			
		050	980			107	203	88.9	1.056	0.146	11
			300	1120		123		90.1			
				1120	1300	144		91.0			
360						39		74.5			
500	740					82		85.0			
	7.10	780				86	241	86.3			
			880			95		86.6	1.203	0.197	12
				1000		110		88.2			
					1170	128		89.5			
330						34		72.5			
	670					72		84.4			
		720				76	216	85.0	1.412	0.231	13
			800			85		86.1	1.412	0.231	15
				920		97		88.0			
					1070	114		88.9			
	640					70		83.5			
		670				74		84.2			
			750			82	210	85.0	1.461	0.243	14
				870		94		86.9			
					900	110		88.0			
	520					60		81.1			
		550	540			64	185	82.5	2.359	0.338	15
			610	710		70		83.4			
	165			710		81		85.2			
	460	500				53	105	80.2			
		500	550			56 62	165	81.5 83.2	3.270	0.408	16
			550	640		71		83.2 84.9			
	l	I	l	040		/1		04.9			

GH225 IM1001 - IP54 - IC86W



							TECHNICAL DAT
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- 5.9 Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

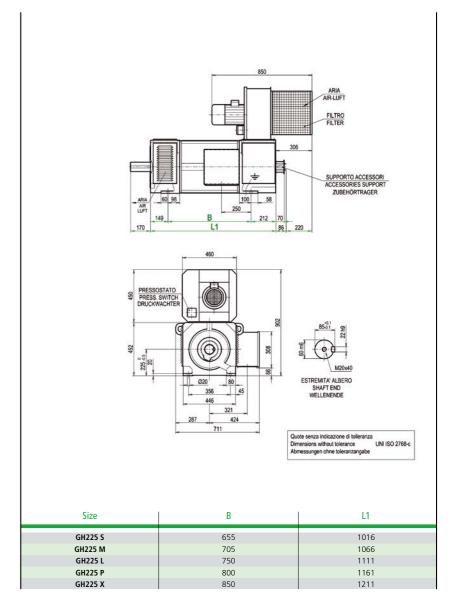
OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355

GH225 MK

220	R	ated spe	ed (rpm) a	at armatu	ıre voltag	je	Excitation power (W): 2400 Field time costant (s): 0.62 Motor mass (kg): 850 (IC06) Moment of inertia (kg m²): 1.95		Armatuı	re circuit	Winding code	
2100	220 V	400 V	420 V	460 V	520 V	600 V	OUTPUT	CURRENT		INDUCTANCE	AT 115 °C	
1010	1110											
2210		2100								0.159	0.022	1
1910			2210							0.155	0.022	
1910 2010 2220 2250 640 92.9 250 640 93.1 0.206 0.026 2 2 2 2 2 2 2 2 2				2450								
2010 2220 250 640 93.1 0.206 0.026 2	1010											
910 1750 1840 2220 2530 298 610 94.0		1910	2040									_
910 1750 1840 2020 2020 2310 2020 2310 2020 2310 2020 2310 275 588 775 92.0 207 92.7 92.7 92.7 92.7 92.0 2310 2020 2310 275 588 92.7 92.0 2020 211 555 92.7 92.0 213 550 92.0 213 550 92.0 213 550 92.3 1800 2050 2050 213 550 92.3 1800 2050 2050 2050 2050 2050 2050 207 500 93.4 9			2010	2220						0.206	0.026	2
1750				2220	2520							
1750	010				2530							
1840 2020 222 575 92.3 0.226 0.034 3	910	1750										
1550		1/50	1040							0.336	0.034	2
1550 1630 1800 2310 275 568 93.1			1040	2020						0.226	0.034	3
1550				2020	2310							
1550 1630 1800 202 550 92.0 92.0 1800 2050 228 535 92.7 2050 2280 252 520 93.4 2050 2400 282 500 93.9 2050 2400 282 500 93.9 2050 2400 282 500 93.9 2050 2400 282 500 93.9 2050 2400 282 500 93.9 2050 2400 282 500 93.9 2050 2400 282 500 93.9 2050 2600 2	910				2510							
1630	010	1550										
1800		1330	1630									
720 1400 1480 1480 1630 1850 2160 228 475 228 476 32.2 487 488 487 490 11350 11490 11890 1188			1030	1800						0.286	0.038	4
1400					2050							
1400						2400	282	500	93.9			
1480	720						93	495	85.0			
1630		1400					176	485	90.7			
1630			1480				185	485	91.1	0.200	0.053	-
1290 1350 1490 1700 185 440 90.6 1700 1980 232 415 93.2 1290 1420 159 420 90.2 1420 1620 1680 410 91.7 1620 1890 225 405 92.8 131 370 89.0 1030 139 370 89.5 0.703 0.090 8				1630			204	485	91.6	0.300	0.052	3
1290 1350 1490 168 440 90.6 168 440 90.9 185 440 91.5 185 440 91.5 185 445 92.3 185 445 92.3 185 445 93.2 185					1850							
1290						2160	260					
1350 1490 168 440 90.9 0.370 0.059 6 185 440 91.5 440 91.5 6 6 6 6 6 6 6 6 6	660						83	450	84.7			
1490		1290										
1490			1350							0.370	0.059	6
1980 232 415 93.2 79 430 83.2 1220 150 420 89.9 1290 159 420 90.2 1420 175 420 90.9 1620 196 410 91.7 1890 225 405 92.8 490 68 380 81.7 980 131 370 89.0 1030 139 370 89.5 1140 153 370 90.2				1490	1700							
630 1220 1290 1290 1420 150 420 89.9 159 420 90.2 0.429 0.429 0.063 7 1620 1890 225 405 92.8 490 980 1030 131 370 89.0 1030 1140 153 370 90.2					1700	1000						
1220	620					1980						
1290	630	1220										
1420		1220	1290									
1620 196 410 91.7 1890 225 405 92.8 490 68 380 81.7 131 370 89.0 1030 139 370 89.5 1140 153 370 90.2			1230	1420						0.429	0.063	7
1890 225 405 92.8				1420	1620							
490 980 68 380 81.7 131 370 89.0 1030 139 370 89.5 0.703 0.090 8 1140 153 370 90.2						1890						
980 131 370 89.0 1030 139 370 89.5 0.703 0.090 8 1140 153 370 90.2	490											
1030 139 370 89.5 0.703 0.090 8 1140 153 370 90.2	.50	980										
1140 153 370 90.2			1030							0.703	703 0.090 8	8
1300 170 360 91.1				1140			153	370	90.2			
					1300		170	360	91.1			

GH225 IM1001 - IP23 - IC06



GH400

GH450

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	







1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

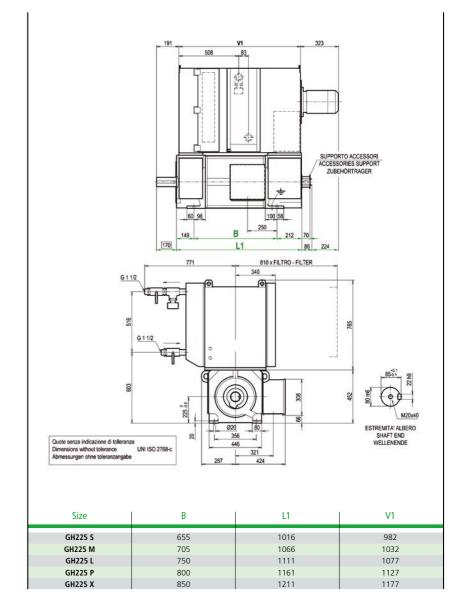
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 MK

R	ated spe	ed (rpm) a	at armatı	ıre voltag	je	Excitation power (W): 2400 Field time costant (s): 0.62 Motor mass (kg): 850 (IC06) Moment of inertia (kg m²): 1.95			Armatuı	e circuit	Winding code
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
440						57	330	79.2			
	890					114	325	87.7			
		930	4000			120	325	88.2	0.771	0.115	9
			1030	1180		133 150	325 320	89.0 90.0			
400				1100		50	290	78.1			
400	810					100	290	87.1			
	010	850				106	288	87.6			
		030	950			117	288	88.5	0.882	0.138	10
				1080		134	288	89.6			
					1260	156	288	90.7			
350						45		77.7			
	720					92		86.9			
		760				97	265	87.5	1.136	0.158	11
			840			107		88.4	1.150	0.150	
				960	4420	123		89.5			
					1120	144		90.6			
310	C40					38		73.2			
	640	670				81 86	241	84.5 85.1			
		6/0	750			95	241	86.2	1.312	0.213	12
			750	860		109		87.6			
					1000	128		89.0			
280						34		71.7			
	580					72		83.6			
		620				76	216	84.3	4 527	0.350	12
			685			85		85.5	1.537	0.250	13
				790		97		87.0			
					920	114		88.5			
	550					69		82.3			
		580				73		83.0			
			650	745		81 94	210	84.3	1.601	0.263	14
				/45	870	110		85.9 87.6			
	440				6/0						
	440	470				59 63	185	80.6 81.4			
		4/0	520			70	103	82.9	2.529	0.361	15
			320	610		81		84.7	9		
	400					52		79.3			
		425				55	165	80.2			
			470			62		81.8	3.480	0.436	16
				550		71		83.7			

GH225 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	Drive end					
	Coupling	Pulley					
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3				
Electrical blower (IC06)	Weight	Blower motor power					
	40 kg	2.2 kW (50/60 Hz)					
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power					
	240 kg	3.0 kW (50/60 Hz)					





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

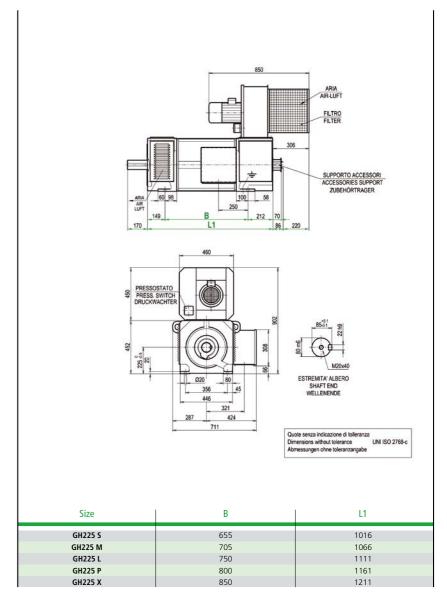
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 LK

	Rated speed (rpm) at armature voltage					Excitation power (W): 2600 Field time costant (s): 0.65 Motor mass (kg): 910 (IC06) Moment of inertia (kg m²): 2.2			Armatuı	re circuit	Winding code		
	220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
	980						147	750	89.0				
		1850					278	750	92.9				
			1950	2150			293	750	93.1	0.179	0.024	1	
				2150	2450		309 337	720 690	93.5 93.9				
ì	890				2430		127	655	88.6				
	050	1690					237	640	92.7				
		1030	1780				250	640	92.9	0.231	0.028	2	
				1960			268	625	93.3				
					2250		300	615	93.8				
	800						112	585	86.9				
		1540					211	575	91.7				
			1620				222	575	92.0	0.254	0.037	3	
				1790	2050		244	575	92.5	0.231	0.037	,	
					2050	2370	276 305	570 545	93.0 93.6				
	710					2370	106	560	86.7				
	/10	1370					201	550	91.7				
		1370	1440				212	550	92.0				
				1590			227	535	92.5	0.321	0.042	4	
					1810		251	520	93.1				
						2110	281	500	93.6				
	630						92	495	84.2				
		1240					175	485	90.3				
			1300				184	485	90.7	0.404	0.056	5	
				1430	1640		203 227	485 475	91.3 92.0				
					1040	1910	260	4/5	92.0				
	580					1510	83	450	83.8				
	300	1130					158	440	90.2				
			1190				167	440	90.5				
				1320			184	440	91.2	0.414	0.065	6	
					1500		203	425	92.0				
						1750	231	415	92.8				
	550						78	430	82.3				
		1080					150	420	89.4				
			1140	1250			158	420	89.8	0.480	0.068	7	
				1250	1430		174 197	420 415	90.5 91.3				
					1430	1670	224	405	92.4				
	I		I	I	I	10/0	224	403	J2.4				

GH225 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

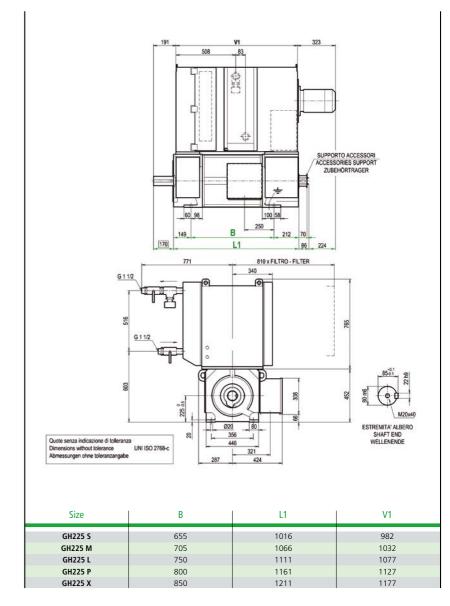
GH400

GH450

GH225 LK

R	ated spe	peed (rpm) at armature voltage				Field ti Motor r	Excitation power (W): 2600 Field time costant (s): 0.65 Motor mass (kg): 910 (IC06) Moment of inertia (kg m²): 2.2			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
430						67	380	80.6				
	860					132	375	88.5				
		910	4000			138	370	88.9	0.789	0.097	8	
			1000	1150		152 169	370 360	89.7 90.7				
390				1130		57	330	78.0				
390	780					113	330	87.0				
	700	820				119	325	87.6	0.865	0.124	9	
			910			132	325	88.5	0.005	0.121	,	
				1040		148	320	89.6				
350						49	290	76.8				
	710					99	288	86.4				
		750				105	288	87.0	0.990	0.150	10	
			830			116	288	87.9	0.550	0.130	10	
				950	1110	133 156	288 288	89.1 90.3				
210					1110		200	76.3				
310	630					44 91		86.2				
	030	660				96	265	86.8				
		000	740			106	203	87.7	1.275	0.170	11	
				840		122		88.9				
					990	143		90.2				
270						37		71.5				
	560					80		83.6				
		590				85	241	84.2	1.472	0.230	12	
			660	755		94 108		85.5 86.9				
				/33	890	108		88.4				
	510				050	71		82.6				
	310	540				75		83.4				
			600			84	216	84.7	1.724	0.270	13	
				690		96		86.2				
					810	113		87.8				
	480					68		81.2	0 4 1.796 0.284			
		510				72		82.0				
			570			80	210	83.4			14	
				660	770	93		85.1				
			l	l	770	109		86.8				

GH225 IM1001 - IP54 - IC86W



							TECHNICAL DA	Ì
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)	
GH225 S	755	1.75	2400	0.68	3000	50	1400	
GH225 M	810	1.95	2600	0.77	3000	50	1400	
GH225 L	870	2.2	3000	0.81	3000	50	1400	
GH225 P	925	2.4	3300	0.84	3000	50	1400	
GH225 X	1000	2.6	3500	0.87	3000	50	1400	
GH225 SK	755	1.75	2100	0.58	3000	50	1400	
GH225 MK	810	1.95	2400	0.62	3000	50	1400	
GH225 LK	870	2.2	2600	0.65	3000	50	1400	
GH225 PK	925	2.4	2900	0.68	3000	50	1400	
GH225 YK	1000	2.6	3200	0.71	3000	50	1/100	

Bearings	Drive	Drive end					
	Coupling	Pulley					
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3				
Electrical blower (IC06)	Weight	Blower motor power					
	40 kg	2.2 kW (50/60 Hz)					
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power					
	240 kg	3.0 kW (50/60 Hz)					





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

8. OUTPUT POWER DIAGRAMS

GH315

GH225 LK

GH225

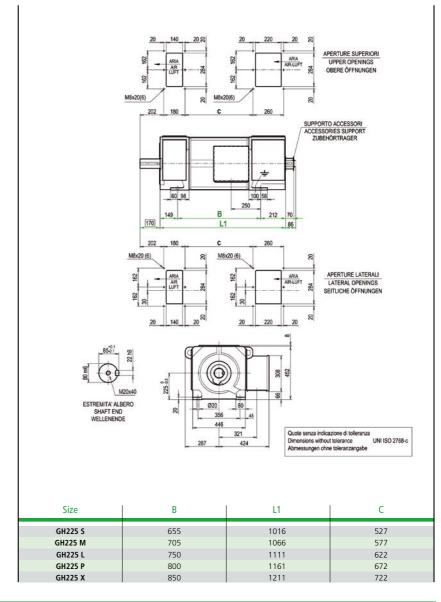
Rated speed (rpm) at armature voltage						Excitation power (W): 2600 Field time costant (s): 0.65 Motor mass (kg): 910 (IC06) Moment of inertia (kg m²): 2.2			Armatur	Winding code	
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
	390					58		79.3			15
		410				62	185	80.2	2.837	0.390	
			460			69		81.8	2.037	0.550	15
				530		80		83.7			
	350					51		77.9			
		370				55	165	78.9	2 007 0 471		16
			410			61		80.6	3.907	07 0.471	10
				480		71		82.6			

GH280

GH250

GH225 IM1001 - IP44 - IC37

GH355



GH400

GH450

							TECHNICAL DAT
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	

GO TO MENU





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- Stator 4.3
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

HOME

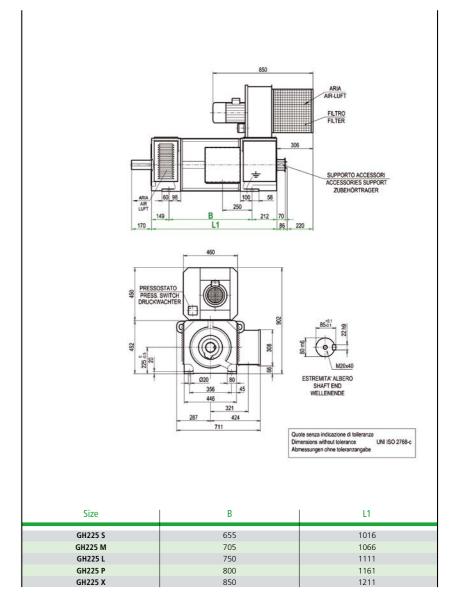
OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 PK

Rated speed (rpm) at armature voltage						Field ti Motor r	Excitation power (W): 2900 Field time costant (s): 0.68 Motor mass (kg): 965 (IC06) Moment of inertia (kg m²): 2.4			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
860						145	750	88.4				
	1640					277	750	92.5				
		1730	4000			291	750	92.7	0.200	0.026	1	
			1900	2200		308	720 690	93.3 93.7				
700				2200		336						
780	1490					127 236	655 640	88.2 92.5				
	1490	1570				249	640	92.5	0.259	0.031	2	
		1370	1730			267	625	93.1	0.233	0.031	_	
				2000		300	615	93.7				
710						111	585	86.2				
	1360					210	575	91.4				
		1440				221	575	91.7	0.284	0.040	3	
			1580			244	575	92.2	0.284	0.040	3	
				1800		275	570	92.9				
					2100	306	545	93.5				
630						105	560	86.0				
	1210					200	550	91.4				
		1280	4440			211	550	91.7	0.359	0.044	4	
			1410	1610		226 251	535 520	92.2 92.8				
				1010	1870	281	520	92.8				
560					10/0	91	495	83.3				
300	1100					174	485	89.9				
	1100	1150				184	485	90.3				
			1270			202	485	90.9	0.452	0.060	5	
				1450		226	475	91.7				
					1680	258	465	92.5				
510						82	450	82.9				
	1000					158	440	89.7				
		1050				166	440	90.1	0.463	0.070	6	
			1160			184	440	90.8	0.403	0.070	Ů	
				1330	1550	202	425	91.6				
					1550	230	415	92.4				
490	050					77	430	81.3				
	950	1000				149 157	420 420	88.8 89.3				
		1000	1110			173	420	90.0	0.538	0.073	0.073 7	
			1110	1270		196	415	90.9				
					1470	223	405	91.8				

GH225 IM1001 - IP23 - IC06



							TECHNICAL DAT
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

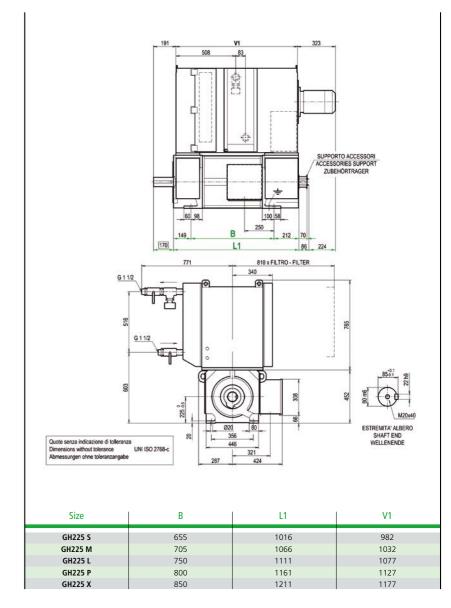
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 PK

R	ated spe	ed (rpm) a	at armatı	ıre voltag	je	Excitation power (W): 2900 Field time costant (s): 0.68 Motor mass (kg): 965 (IC06) Moment of inertia (kg m²): 2.4			Armatuı	re circuit	Winding code	
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
380						66	380	79.4				
	760					132	375	87.8				
		800				137	370	88.3	0.885	0.104	8	
			890			152	370	89.2				
				1020		169	360	90.2				
340						55	330	76.6				
	690					112	325	86.3				
		730	000			118	325	86.9	0.969	0.132	9	
			800	920		131	325	87.9				
200				920		148	320	89.0				
300	625					48 98	290 288	75.4 85.6				
	020	660				104	288	86.2				
		000	730			115	288	87.3	1.110	0.161	10	
			750	840		132	288	88.5				
				040	980	155	288	89.8				
270						43		74.8				
210	550					90		85.4				
		590				95	265	86.0				
			650			106		87.1	1.429	0.183	11	
				740		121		88.3				
					870	142		89.6				
	490					79		82.6				
		520				84		83.3				
			580			93	241	84.6	1.650	0.246	12	
				660		108		86.2				
					780	127		87.8				
	450					70		81.6				
		475				74		82.4				
			530			83	216	83.7	1.932	0.289	13	
				610	720	96		85.4				
					720	113		87.1				
	420	450				68		80.0				
		450	E00			72	210	80.9	2.045	0.00		
			500	580		80 92	210	82.4 84.2	2.012	0.304	14	
				300	680	108		86.1				
	l	I	I	I	000	100		00.1				

GH225 IM1001 - IP54 - IC86W



							TECHNICAL D	Αī
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
GH225 S	755	1.75	2400	0.68	3000	50	1400	
GH225 M	810	1.95	2600	0.77	3000	50	1400	
GH225 L	870	2.2	3000	0.81	3000	50	1400	
GH225 P	925	2.4	3300	0.84	3000	50	1400	
GH225 X	1000	2.6	3500	0.87	3000	50	1400	
GH225 SK	755	1.75	2100	0.58	3000	50	1400	
GH225 MK	810	1.95	2400	0.62	3000	50	1400	
GH225 LK	870	2.2	2600	0.65	3000	50	1400	
GH225 PK	925	2.4	2900	0.68	3000	50	1400	
GH225 XK	1000	2.6	3200	0.71	3000	50	1400	

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	

GO TO MENU





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

8. OUTPUT POWER DIAGRAMS



GH225 GH250

GH280

GH315

GH355

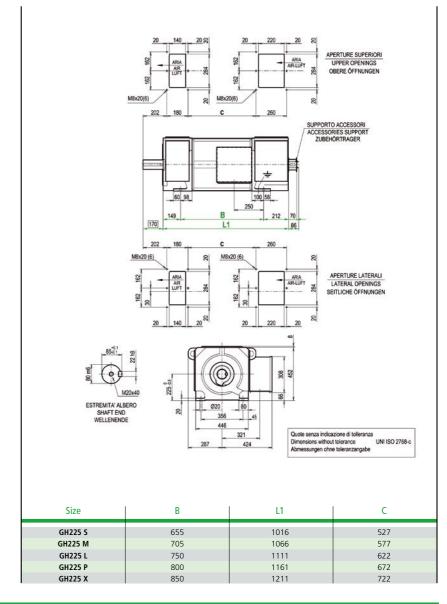
GH400

GH450

GH225 PK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 2900 Field time costant (s): 0.68 Motor mass (kg): 965 (IC06) Moment of inertia (kg m²): 2.4			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
	340	200				57	105	78.0			15	
		360	400			61 68	185	79.0 80.7	3.180	0.418		
			400	465		79		82.7				
	310					50		76.5				
		320				54	165	77.5	4.381	0.505	16	
			360			60		79.3	4.301	0.505	16	
				420		70		81.5				

GH225 IM1001 - IP44 - IC37



							TECHNICAL D	AT.
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
GH225 S	755	1.75	2400	0.68	3000	50	1400	
GH225 M	810	1.95	2600	0.77	3000	50	1400	
GH225 L	870	2.2	3000	0.81	3000	50	1400	
GH225 P	925	2.4	3300	0.84	3000	50	1400	
GH225 X	1000	2.6	3500	0.87	3000	50	1400	
GH225 SK	755	1.75	2100	0.58	3000	50	1400	
GH225 MK	810	1.95	2400	0.62	3000	50	1400	
GH225 LK	870	2.2	2600	0.65	3000	50	1400	
GH225 PK	925	2.4	2900	0.68	3000	50	1400	
GH225 XK	1000	2.6	3200	0.71	3000	50	1400	

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

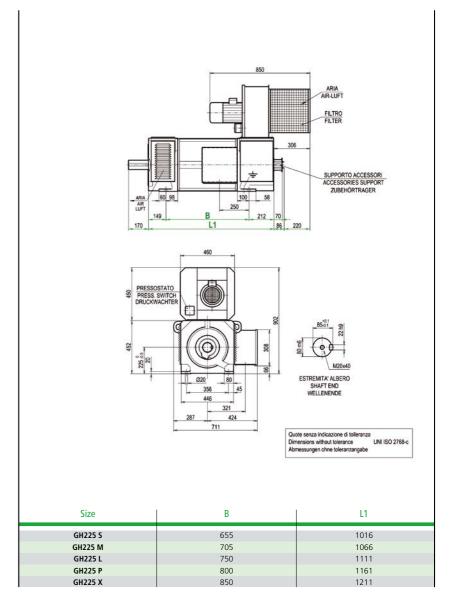
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH225 XK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor m	on power (W me costant (9 nass (kg): 104 of inertia (kg	s): 0.71 10 (IC06)	Armatu	re circuit	Winding code
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
770						144	750	88.0			
	1470					276	750	92.4			
		1550				290	750	92.7	0.221	0.027	1
			1720			308	720	93.1			
				1970		336	690 93.8				
700						126	655	87.6			
	1350					235	640	92.2			
		1410	1580			247	640 625	92.5 92.9	0.286	0.033	2
			1380	1800		267 300	615	93.5			
630				1000		110	585	85.6			
030	1220					210	575	91.1			
	1220	1300				220	575	91.4			
		1500	1420			243	575	92.0	0.314	0.042	3
				1630		273	568	92.5			
					1900	305	545	93.4			
560						105	560	85.3			
	1100					200	550	90.9			
		1150				210	550	91.3	0.397	0.048	4
			1260			225	535	91.9	0.597	0.046	4
				1450		250	520	92.7			
					1690	280	500	93.3			
500						90	495	82.4			
	980					173	485	89.4			
		1030	4450			183	485	89.8	0.500	0.064	5
			1150	1300		202 225	485 475	90.5 91.4			
				1300	1520	257	465	92.2			
450					1320	80	450	82.0			
430	900					157	440	89.3			
	300	950				165	440	89.7			
			1050			183	440	90.4	0.512	0.074	6
				1200		200	425	91.2			
					1400	230	415	92.1			
430						76	430	80.3			
	850					148	420	88.3			
		900				156	420	88.8	0.538	0.073	7
			1000			173	420	89.6	0.330	0.073	,
				1140		195	415	90.5			
					1320	222	405	91.5			

GH225 IM1001 - IP23 - IC06



							TECHNICAL DA	AT/
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
GH225 S	755	1.75	2400	0.68	3000	50	1400	
GH225 M	810	1.95	2600	0.77	3000	50	1400	
GH225 L	870	2.2	3000	0.81	3000	50	1400	
GH225 P	925	2.4	3300	0.84	3000	50	1400	
GH225 X	1000	2.6	3500	0.87	3000	50	1400	
GH225 SK	755	1.75	2100	0.58	3000	50	1400	
GH225 MK	810	1.95	2400	0.62	3000	50	1400	
GH225 LK	870	2.2	2600	0.65	3000	50	1400	
GH225 PK	925	2.4	2900	0.68	3000	50	1400	
GH225 XK	1000	2.6	3200	0.71	3000	50	1400	

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	







1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

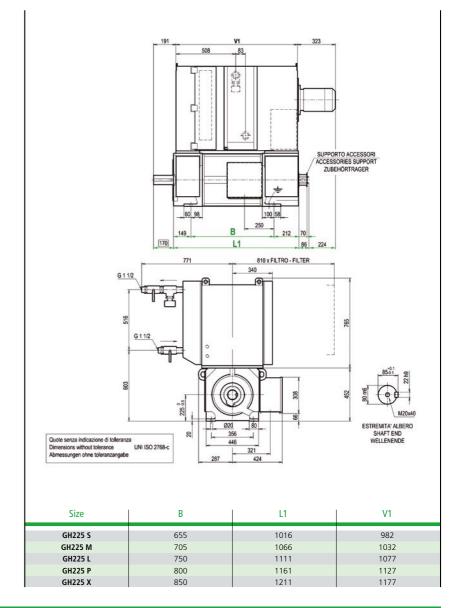
8. OUTPUT POWER DIAGRAMS



GH225 XK

	Rated speed (rpm) at armature voltage						Excitation power (W): 3200 Field time costant (s): 0.71 Motor mass (kg): 1040 (IC06) Moment of inertia (kg m²): 2.6			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
340						65	380	78.2				
	680					130	375	87.2				
		720				135	370	87.7	0.981	0.111	8	
			800			150	370	88.6				
				910		168	360	89.7				
300						55	330	75.3				
	610	CEO.				111	325	85.6	4.074			
		650	720			118 130	325 325	86.2 87.2	1.074	0.141	9	
			/20	820		147	320	88.5				
270				020		47	290	74.0				
2/0	560					97	288	84.9				
	300	590				103	288	85.5				
			660			114	288	86.6	6 1.229	0.170	10	
				750		131	288	87.9				
					880	154	288	89.3				
	490					89		84.6				
		520				94		85.2				
			580			105	265	86.4	1.583	0.195	11	
				670		120		87.7				
					790	141		89.1				
	440					78		81.6				
		460				83		82.4				
			520	500		92	241	83.8	1.828	0.262	12	
				590	700	107 126		85.4 87.1				
	400				700							
	400	420				69 73		80.5 81.4				
		420	470			82	216	82.8	2.140	0.309	13	
			4/0	540		95	210	84.6	2.140	0.509	13	
					640	112		86.4				
	380					67		78.9				
		400				71		79.8				
			450			79	210	81.4	2.228	0.324	14	
				520		92		83.4				
					610	107		85.3				

GH225 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	

GO TO MENU





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH315

GH225 XK

GH225

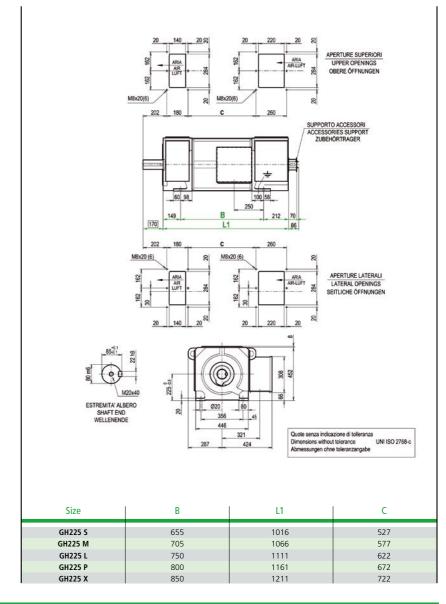
F	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor m	ion power (W me costant (s nass (kg): 104 of inertia (kg	s): 0.71 10 (IC06)	Armatuı	re circuit	Winding code
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
	300					56		76.7			15
		320				60	185	77.7	3.523	0.446	
			360			67		79.5	3.323	0.440	13
				410		78		81.7			
	270					49		75.1			
		290				53	165	76.2	4.056	0.530	16
			320			59		78.1	4.856	0.539	16
				370		68		80.4			

GH280

GH250

GH225 IM1001 - IP44 - IC37

GH355



GH400

GH450

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	40 kg	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	

GO TO MENU





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

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- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

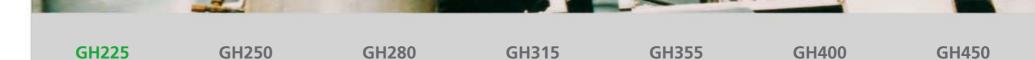
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

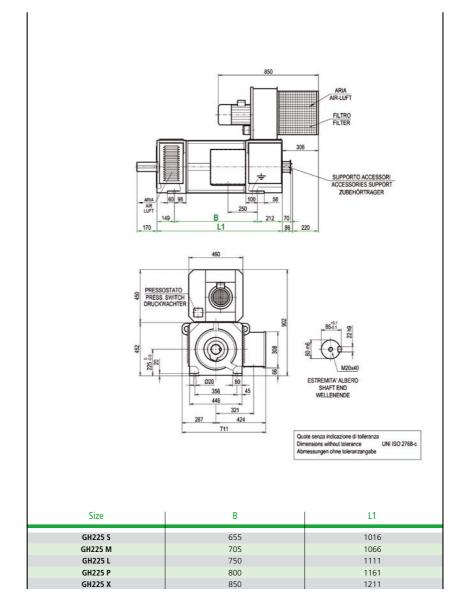
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH225 IM1001 - IP23 - IC06



								TECHNICAL DAT
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
i	GH225 S	755	1.75	2400	0.68	3000	50	1400
	GH225 M	810	1.95	2600	0.77	3000	50	1400
	GH225 L	870	2.2	3000	0.81	3000	50	1400
	GH225 P	925	2.4	3300	0.84	3000	50	1400
	GH225 X	1000	2.6	3500	0.87	3000	50	1400
	GH225 SK	755	1.75	2100	0.58	3000	50	1400
	GH225 MK	810	1.95	2400	0.62	3000	50	1400
	GH225 LK	870	2.2	2600	0.65	3000	50	1400
	GH225 PK	925	2.4	2900	0.68	3000	50	1400
	GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Driv	Opposite drive end	
	Coupling	Pulley	
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	6218 2Z C3 NU 60 Weight Blower 40 kg 2.2 k Weight Heat	2.2 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	240 kg	3.0 kW (50/60 Hz)	





1. GENERAL INFORMATION

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- 2.1 Reference standards
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3. IDENTIFICATION CODE

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- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

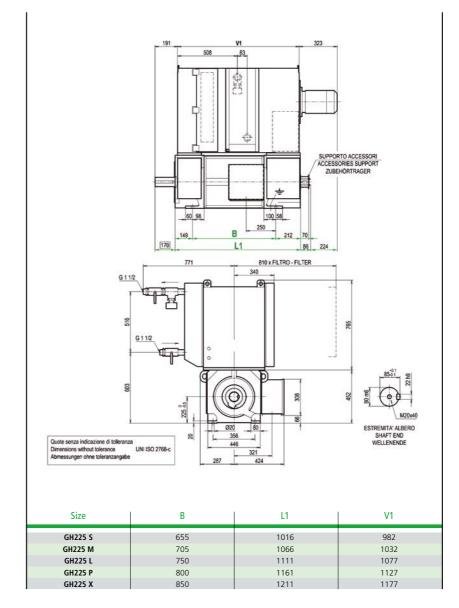
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH225 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	Drive end				
	Coupling	Pulley				
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3			
Electrical blower (IC06)	Weight	Blower motor power				
	40 kg	2.2 kW (50/60 Hz)				
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	240 kg	3.0 kW (50/60 Hz)				





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- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

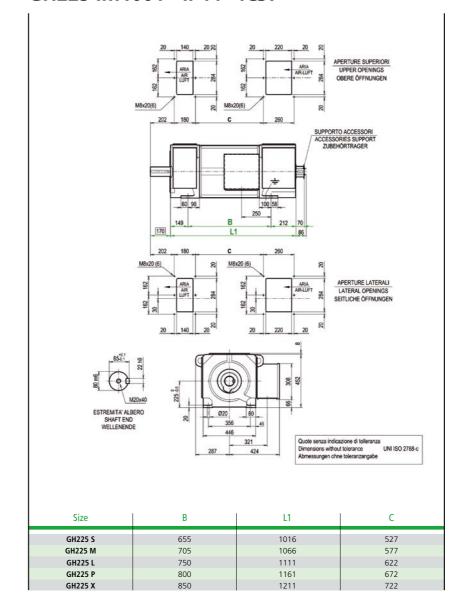
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH225 IM1001 - IP44 - IC37



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	Pressure drop (Pa)
GH225 S	755	1.75	2400	0.68	3000	50	1400
GH225 M	810	1.95	2600	0.77	3000	50	1400
GH225 L	870	2.2	3000	0.81	3000	50	1400
GH225 P	925	2.4	3300	0.84	3000	50	1400
GH225 X	1000	2.6	3500	0.87	3000	50	1400
GH225 SK	755	1.75	2100	0.58	3000	50	1400
GH225 MK	810	1.95	2400	0.62	3000	50	1400
GH225 LK	870	2.2	2600	0.65	3000	50	1400
GH225 PK	925	2.4	2900	0.68	3000	50	1400
GH225 XK	1000	2.6	3200	0.71	3000	50	1400

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
GH225 S-M-L-P-X	6218 2Z C3	NU218ECP C3	6217 2Z C3		
Electrical blower (IC06)	Weight	Blower motor power			
	40 kg	2.2 kW (50/60 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	240 kg	3.0 kW (50/60 Hz)			





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- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application 4.6

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- Coupling and shaft extension 5.1
- Mounting arrangement 5.2
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- 5.9 Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

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- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- Speed regulation 6.5
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

GH400

GH450

GH250

Derating for field weakening operation

Performance of compensated motors

GH250 MK

GH250 LK

GH250 XK

Dimensioni di ingombro

GH250 IM1001-IP23-IC06

GH250 IM1001-IP54-IC86W

GH250 IM1001-IP44-IC37



Performance Tables are displayed on multiple pages, alongside the data tables are repeated alternately overall dimensions (IC06- IC86W-IC37)











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4.5 Bearings

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6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

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6.4 Current rate-of-rise

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6.6 Duty with large speed regulation

6.7 Excitation

6.8 Maximum current at locked rotor

6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

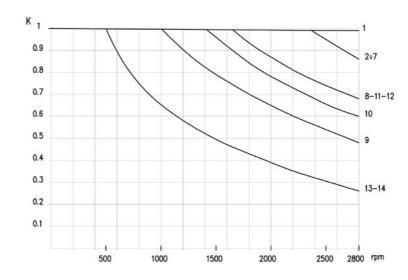
GH400

GH450

GH 250 K

RIDUZIONE DELLA POTENZA IN DISECCITAZIONE DERATING FOR FIELD WEAKENING OPERATION LEISTUNGSREDUZIERUNG BEI FELDSWÄCHUNG

GH 250 K (compensata - compensated - kompensiert)
[180% sovraccarico - overload - überlast]



P = K x P tabella potenza disponibile Allowable power output P = K x P table Werfügbare Leistung P = K x P table

per/for/für GH 250 MK K = K x 1.33 GH 250 LK K = K x 1.16 GH 250 XK K = K x 1.0

Per K ≥ 1 niente declassamento

For K ≥ 1 no derating

Für K ≥□1 keine Leistungreduzierung

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK	1080	3.37	3200	1.01	2800	70	1400
GH250 LK	1160	3.73	3600	1.05	2800	70	1400
GH250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3	6217 2Z C3		
Electrical blower (IC06)	Weight	Blower motor power			
	90 kg	3.0 kW (50/60 Hz) - 4.0 kV	V (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	300 kg	4.0 / 5.5 kW (50/60 Hz)			





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4. **DESIGN FEATURES**

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- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
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6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
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- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

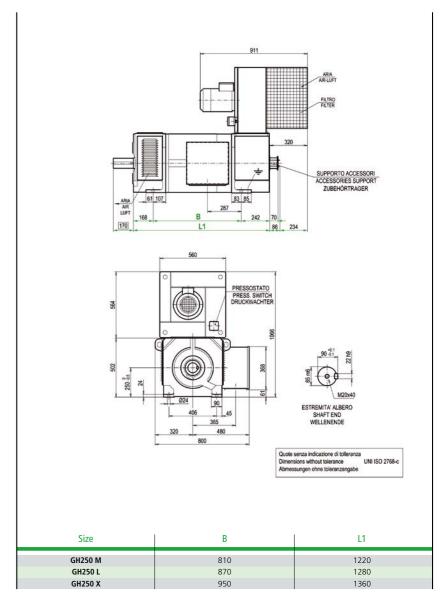
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH250 MK

R	ated spee	ed (rpm) a	at armatı	ıre voltag	je	Field ti Motor m	on power (W me costant (9 nass (kg): 117 of inertia (kg	s): 1.01 70 (IC06)	Armatuı	re circuit	Winding code
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
950						161	822	90.0			
	1800					305	815	93.4			
		1890				320	815	93.6	0.186	0.017	1
			2080	2360		350 396	810 810	93.8 94.2			
000				2300							
800	1500					158 290	806 780	89.1 93.0			
	1500	1570				305	780	93.0			
		1370	1730			330	765	93.5	0.269	0.022	2
			1750	1970		360	735	94.1			
					2300	410	725	94.4			
700						141	730	88.0			
	1320					260	700	92.5			
		1400				272	700	92.6	0.400	0.027	3
			1540			300	700	93.0	0.409	0.027	3
				1760		321	660	93.8			
					2050	370	653	94.2			
610						117	625	86.3			4
	1200					223	610	91.4			
		1250	4270			235	610	91.7	0.358	0.037	
			1370	1560		260 294	610 610	92.4 92.8			
				1300	1810	342	610	93.4			
570					1010	104	555	85.3			
3/0	1050					198	545	91.0			
	1030	1100				208	545	91.2			
		1100	1220			230	545	91.7	0.538	0.046	5
				1390		262	545	92.4			
					1610	304	545	93.1			
490						83		83.6			
	930					163		90.0			
		980				172	454	90.4	0.499	0.062	6
			1080			190		91.0	0.455	0.002	U
				1250		216		91.8			
					1440	252		92.5			
380						72		81.9			
	760	900				143	400	89.1			_
		800	880			150 166	400	89.5 90.2	0.847	0.080	7
			000	1000		189		90.2			
	I	I	I	1000		109		31.1			

GH250 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK GH250 LK GH250 XK	1080 1160 1260	3.37 3.73 4.20	3200 3600 4000	1.01 1.05 1.09	2800 2800 2700	70 70 70	1400 1400 1400

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3	6217 2Z C3		
Electrical blower (IC06)	Weight	Blower motor power			
	90 kg	3.0 kW (50/60 Hz) - 4.0 kV	V (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	300 kg	4.0 / 5.5 kW (50/60 Hz)			





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

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4. DESIGN FEATURES

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- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

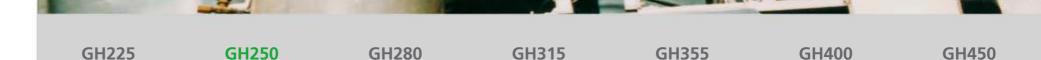
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

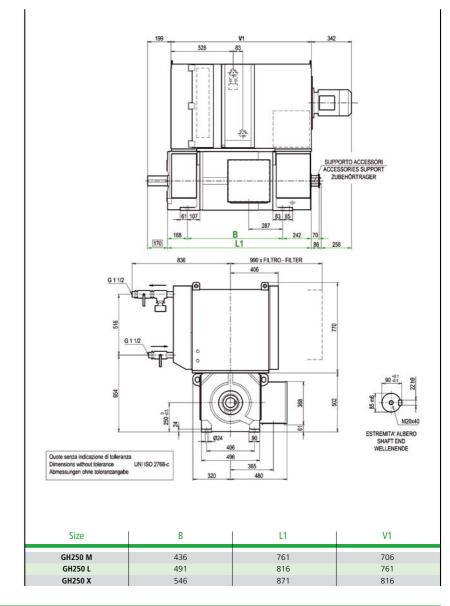
8. OUTPUT POWER DIAGRAMS



GH250 MK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 3200 Field time costant (s): 1.01 Motor mass (kg): 1170 (IC06) Moment of inertia (kg m²): 3.37			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
340						64		80.0				
	680	720				128 135	364	88.0 88.3				
		720	800			150	304	89.2	0.904	0.101	8	
			000	910		170		90.2				
					1060	200		91.3				
310						56		76.4				
	615					116		86.2				
		650	740			122	337	86.7	1.460	0.130	9	
			710	800		135 156		87.7 89.2				
				000	940	182		90.1				
270						52		76.3				
	550					106		86.2				
		580				112	310	86.7	1.408	0.141	10	
			640			125		87.7	1.400	0.141	10	
				740	050	143		88.9				
240					860	167		90.1				
240	480					43 93		71.7 84.1				
	400	500				97	275	84.4				
			550			109		85.7	2.226	0.195	11	
				640		125		87.5				
					750	146		88.5				
210						36		71.3				
	430	450				76	220	83.4				
		450	500			81 90	230	84.1 85.3	1.958	0.236	12	
			300	580		103		86.8				
				300	680	121		88.3				
	340					67		80.3				
		360				71	210	81.1	3.388	0.318	13	
			400			79		82.6	3.388	0.518	15	
				480		92		84.4				
	250	205				50	100	76.3				
		265	300			52 59	163	76.7 78.8	E 0.41	0.530	14	
			300	350		68		81.0	5.841	0.520	14	
				330	420	81		83.2				

GH250 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK	1080	3.37	3200	1.01	2800	70	1400
GH250 LK	1160	3.73	3600	1.05	2800	70	1400
GH250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	90 kg	3.0 kW (50/60 Hz) - 4.0 kV	V (60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	300 kg	4.0 / 5.5 kW (50/60 Hz)	

HOME 2/2

GO TO MENU





1. GENERAL INFORMATION

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- Quality system

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- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
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- Supply voltage
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- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

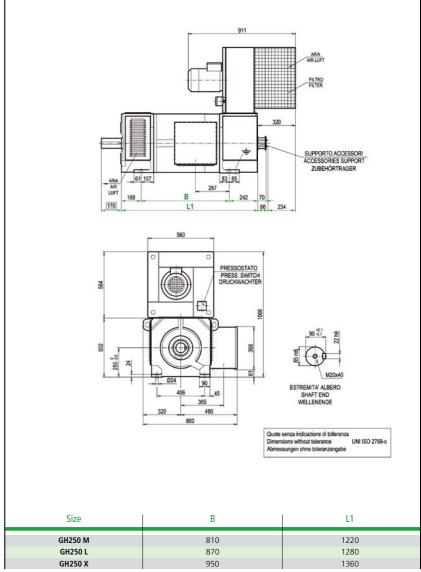
OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH250 LK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 3600 Field time costant (s): 1.05 Motor mass (kg): 1250 (IC06) Moment of inertia (kg m²): 3.73			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
830						163 8	27	89.5				
	1590	1650				303	815	93.0		0.040		
		1650	1820			319 350	815 810	93.2 93.8	0.211	0.019	1	
			1820	2050		396	810	93.8				
710				2030		156	810	88.0				
710	1320					290	780	92.7				
	1320	1380				304	780	92.9				
			1510			328	765	93.3	0.306	0.024	2	
				1720		360	735	94.0				
					2000	410	725	94.3				
610						140	730	87.3				
	1160					258	700	92.0				
		1220				272	700	92.3	0.466	0.029	3	
			1350			298	700	92.8	0.400	0.023	,	
				1540	1000	321	660	93.6				
					1800	370	655	94.0				
550	1040					117	625	85.4				
	1040	1080				222 234	610 610	91.0 91.3				
		1000	1200			254	610	91.9	0.407	0.040	4	
			1200	1370		294	610	92.5				
					1600	341	610	93.2				
490						103	555	84.2				
	920					197	545	90.4				
		960				207	545	90.7	0.013	0.050	5	
			1070			229	545	91.3	0.612	0.050	5	
				1210		261	545	92.1				
					1410	303	545	92.8				
420						82		82.6				
	810	050				162	455	89.5				
		850	940			171 189	455	89.8 90.5	0.566	0.067	6	
			940	1080		216		90.5				
				1000	1250	251		92.2				
340					1230	71		80.7				
340	660					142		88.5				
		690				150	400	88.9	0.964	0.086	7	
			770			165		89.7		0.000 /		
				880		188		90.6				

GH250 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK	1080	3.37	3200	1.01	2800	70	1400
GH250 LK	1160	3.73	3600	1.05	2800	70	1400
GH250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	90 kg	3.0 kW (50/60 Hz) - 4.0 kV	V (60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	300 kg	4.0 / 5.5 kW (50/60 Hz)	





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- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

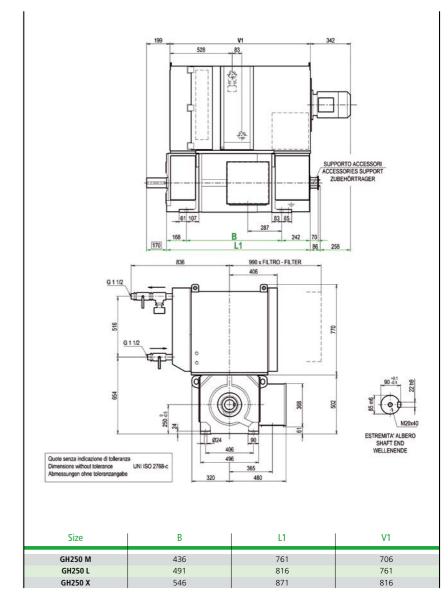
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH250 LK

R	ated spee	ed (rpm) a	at armatı	ıre voltag	je	Excitation power (W): 3600 Field time costant (s): 1.05 Motor mass (kg): 1250 (IC06) Moment of inertia (kg m²): 3.73			Armatuı	re circuit	Winding code	
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
300						63		78.1				
	600					127		87.1				
		630	500			134	364	87.6	1.028	0.110	8	
			690	800		148 170		88.5 89.6				
				000	930	198		90.7				
270						56		75.6				
270	530					116		85.5				
		560				122	337	86.0	1.663	0.141	9	
			600			135		87.0	1.003	0.141	9	
				700		156		88.6				
240					820	180		89.5				
240	480					51 105		74.6 85.2				
	400	500				111	310	85.8				
		500	560			123	310	86.9	1.602	0.153	10	
				650		142		88.2				
					750	166		89.5				
200						43		70.5				
	410					92		82.6				
		430	480			96 108	276	83.2 84.5	2.536	0.211	11	
			400	550		123		86.1				
				330	650	145		87.7				
	370					75		82.2				
		390				80	230	83.0				
			430			89		84.3	2.228	0.256	12	
				500		102		85.9				
	200				590	120		87.5				
	290	310				66 70	210	79.0 79.7				
		310	350			78	210	81.3	3.858	0.345	13	
			330	410		90		83.3				
	220					49		74.4				
		230				52	163	75.2				
			260			57		76.9	6.652	0.564	14	
				300		68		80.0				
					360	80		81.9				

GH250 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK	1080	3.37	3200	1.01	2800	70	1400
GH250 LK	1160	3.73	3600	1.05	2800	70	1400
GH250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3	6217 2Z C3
Electrical blower (IC06)	Weight	Blower motor power	
	90 kg	3.0 kW (50/60 Hz) - 4.0 kV	V (60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	300 kg	4.0 / 5.5 kW (50/60 Hz)	

GO TO MENU





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8. OUTPUT POWER DIAGRAMS

GH315

GH280

GH250 XK

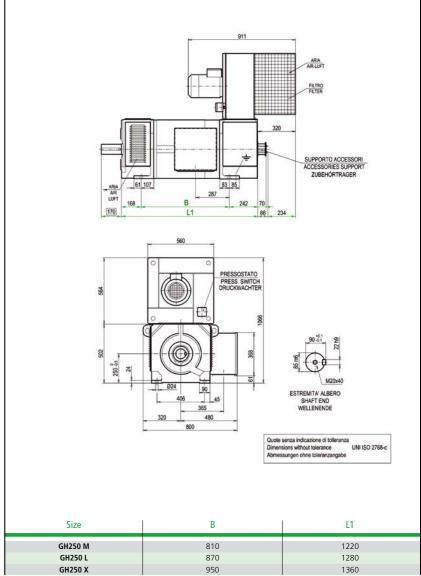
GH225

220	R	Rated speed (rpm) at armature voltage				je	Field ti Motor m	ion power (W me costant (nass (kg): 135 of inertia (kg	s): 1.09 50 (IC06)	Armatu	Winding code	
1350	220 V	400 V	420 V	460 V	520 V	600 V	OUTPUT	CURRENT		INDUCTANCE	AT 115 °C	
1410	710						161	825	88.8			
1120		1350					302	815	92.7			
1120			1410				318	815	92.9	0.245	0.021	1
1120				1560								
1120					1800		395	810	93.7			
1170	580						155	810	87.2			
1300		1120					288	780	92.2			
1300			1170				303			0.256	0.027	2
1750 409 725 94.0				1300						0.550	0.027	2
1050					1470							
990 1050 257 700 91.6 270 700 92.4 0.542 0.032 3 3 3 3 3 3 3 3 3						1750	409	725				
1050	520											
1150		990										
1150 297 700 32.4 320 660 33.2 320 660 33.2 320 660 33.2 320 3300 3300 655 39.8 320 3300 3300 3300 3300 3000			1050							0.542	0.032	3
1550 370 655 93.8				1150						0.542	0.032	
116					1310							
900 930 220 610 90.5 0.473 0.044 4						1550						
1030	450											
1030		900										
1030			930							0.473	0.044	4
1380 340 610 92.9				1030	1100							
101					1180	1200						
780 820 910 195 545 89.7 206 545 90.1 0.711 0.055 5 910 227 545 90.8 90.8 90.8 91.6 1030 259 545 92.4 1030 88.7 1050 250 91.6 1050 250 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91.7 1050 91						1360						
820 910 206 545 90.1 0.711 0.055 5 1030 227 545 90.8 9.8 91.6 1030 302 545 92.4 340 690 720 161 88.7 720 170 455 89.1 800 188 89.9 900 215 90.8 188 89.9 280 699 79.0 280 560 140 87.6 590 650 163 88.9	400	700										
910 227 545 90.8 0.711 0.055 5		/80	020									
1030 259 545 91.6 1200 302 545 92.4 340 690 720 800 1050 1050 1050 1050 1050 1050 1050			820	010						0.711	0.055	5
1200 302 545 92.4				910	1020							
340 690 720 800 161 88.7 170 455 89.1 89.9 188 89.9 188 89.9 188 89.1 188 89.9 188 89.9 188 89.1 188 89.9 188 89.1 188 89.9 188					1030	1200						
161 88.7 170 455 89.1 0.656 0.074 6	240					1200		J+3				
720 800 170 455 89.1 0.656 0.074 6 900 215 90.8 1050 250 91.7 280 560 590 1440 87.6 590 650 163 88.9	340	600										
800 188 89.9 0.656 0.074 6		090	720					VEE				
900 215 90.8 91.7 280 69 79.0 560 140 87.6 590 148 400 88.1 1.121 0.095 7			/20	800				400		0.656	0.074	6
280 1050 250 91.7				600	900							
280 69 79.0 560 140 87.6 590 148 400 88.1 650 163 88.9					300	1050						
560 140 87.6 590 148 400 88.1 1.121 0.095 7 650 163 88.9 88.9 7	200					1030						
590 148 400 88.1 1.121 0.095 7 650 163 88.9	280	560										
650 163 88.9		300	590					400		1 121	0.005	7
			330	650				400		1.121	0.095	/
750 187 90.0				030	750							

GH250

GH250 IM1001 - IP23 - IC06

GH355



GH400

GH450

								TECHNICAL DA
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH	1250 MK	1080	3.37	3200	1.01	2800	70	1400
GH	1250 LK	1160	3.73	3600	1.05	2800	70	1400
GH	1250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Drive	Opposite drive end			
	Coupling	Pulley			
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3	6217 2Z C3		
Electrical blower (IC06)	Weight	Blower motor power			
	90 kg	3.0 kW (50/60 Hz) - 4.0 kW	V (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight Heat exchanger motor power				
	300 kg	4.0 / 5.5 kW (50/60 Hz)			





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- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

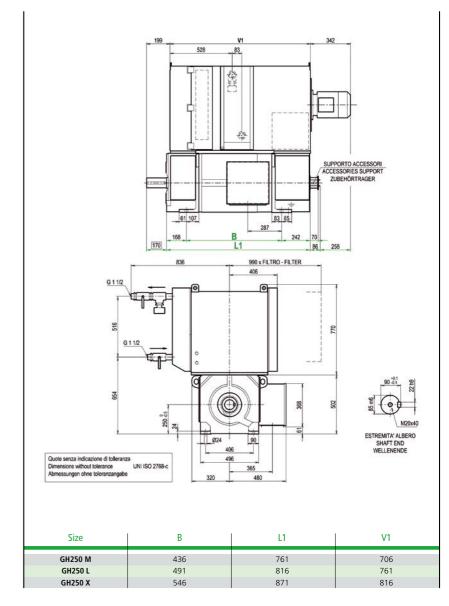
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH250 XK

R	ated spe	ed (rpm) a	at armatı	ıre voltag	je	Excitation power (W): 4000 Field time costant (s): 1.09 Motor mass (kg): 1350 (IC06) Moment of inertia (kg m²): 4.20			Armatuı	re circuit	Winding code	
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
250						62		77.0				
	500					125		86.1				
		530				132	364	86.7	1.195	0.121	8	
			590	680		146 168		87.6 88.8				
				000	790	196		90.0				
220					750	53		72.3				
220	450					113		84.0				
		480				119	337	84.7	4 000	0.456	•	
			530			133		85.8	1.933	0.156	9	
				600		152		87.3				
					710	179		88.7				
190						49		72.3				
	400	430				104	210	84.0		0.169		
		430	470			110 122	310	84.7 85.8	1.862		10	
			470	540		140		87.2				
					640	165		88.7				
	340					89		80.9				
		360				94	276	81.7				
			410			105		83.2	2.949	0.233	11	
				470		121		84.9				
					550	143		86.7				
	310	220				74	220	80.7				
		330	370			78 87	230	81.5 83.0	2.588	0.282	12	
			370	420		101		84.7	2.388	0.282	12	
				420	500	119		86.5				
	250					64		76.8				
		260				68	210	77.8				
			290			76		79.6	4.484	0.382	13	
				340		89		81.8				
	180					46		71.2				
		190				49	163	72.5				
			220	250		56		74.8	7.733	0.622	14	
				250	200	65		77.5				
	l		l	l	300	78		80.3				

GH250 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK	1080	3.37	3200	1.01	2800	70	1400
GH250 LK	1160	3.73	3600	1.05	2800	70	1400
GH250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3 6217 2Z C			
Electrical blower (IC06)	Weight	Blower motor power			
	90 kg	3.0 kW (50/60 Hz) - 4.0 kW	V (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	300 kg	4.0 / 5.5 kW (50/60 Hz)			

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6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

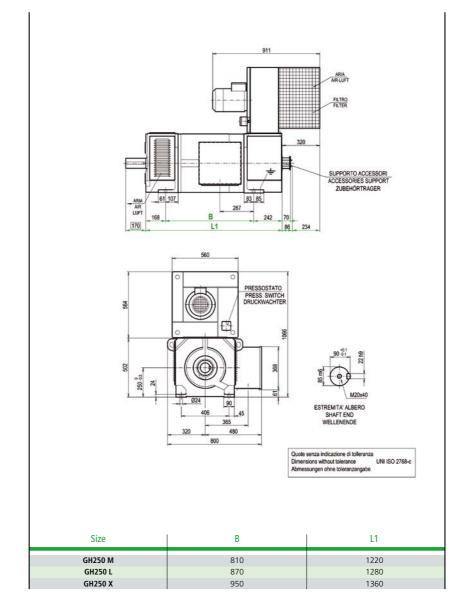
- 6.1 Ratings
- 6.2 Supply voltage
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- 6.6 Duty with large speed regulation
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7. TESTS

8. OUTPUT POWER DIAGRAMS



GH250 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK	1080	3.37	3200	1.01	2800	70	1400
GH250 LK	1160	3.73	3600	1.05	2800	70	1400
GH250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Drive	Opposite drive end		
	Coupling	Pulley		
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3 6217 2Z C3		
Electrical blower (IC06)	Weight			
	90 kg	3.0 kW (50/60 Hz) - 4.0 kV	V (60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	300 kg	4.0 / 5.5 kW (50/60 Hz)		





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6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

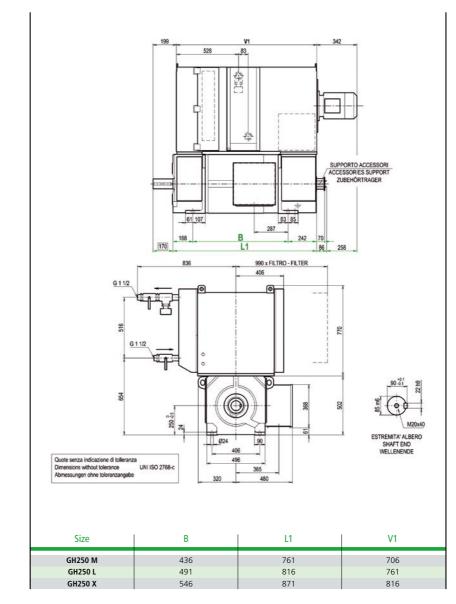
- 6.1 Ratings
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- 6.3 Maximum loads
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- 6.6 Duty with large speed regulation
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8. OUTPUT POWER DIAGRAMS



GH250 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK	1080	3.37	3200	1.01	2800	70	1400
GH250 LK	1160	3.73	3600	1.05	2800	70	1400
GH250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Driv	Drive end				
	Coupling	Pulley				
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3	6217 2Z C3			
Electrical blower (IC06)	Weight	Blower motor power				
	90 kg	3.0 kW (50/60 Hz) - 4.0 kV	V (60 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	300 kg	4.0 / 5.5 kW (50/60 Hz)				





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6.8 Maximum current at locked rotor

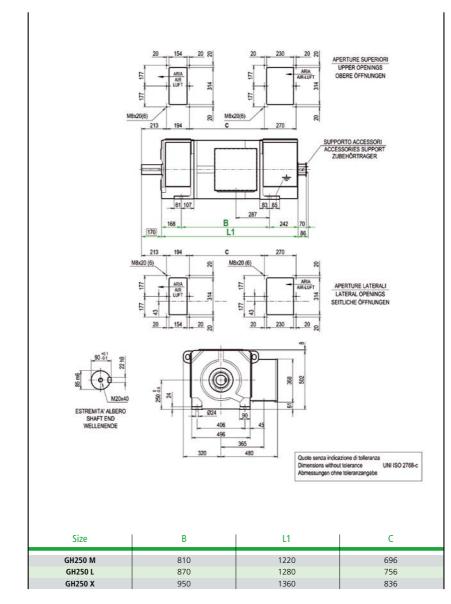
6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH250 IM1001 - IP44 - IC37



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH250 MK	1080	3.37	3200	1.01	2800	70	1400
GH250 LK	1160	3.73	3600	1.05	2800	70	1400
GH250 XK	1260	4.20	4000	1.09	2700	70	1400

Bearings	Drive	Opposite drive end		
	Coupling	Pulley		
GH250 MK-LK-XK	6218 2Z C3	NU218ECP C3 6217 2Z C3		
Electrical blower (IC06)	Weight	Weight Blower motor power		
	90 kg	3.0 kW (50/60 Hz) - 4.0 kV	V (60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	300 kg	4.0 / 5.5 kW (50/60 Hz)		





1. GENERAL INFORMATION

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- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

IDENTIFICATION CODE

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- 4.1 Rotor
- 4.2 Commutator
- Stator 4.3
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- Mounting arrangement 5.2
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- 5.9 Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- Speed regulation 6.5
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

GH400

GH450

GH280

Derating for field weakening operation

Performance of compensated motors

GH280 SK

GH280 MK

GH280 LK

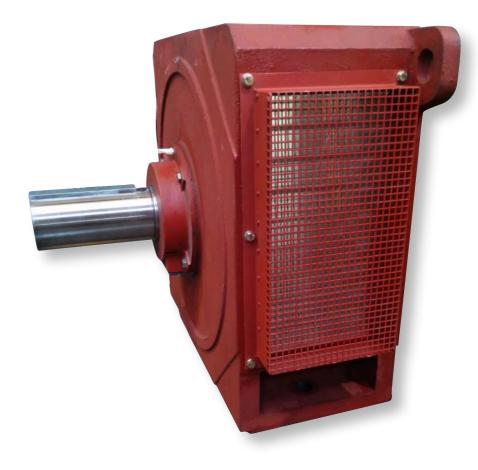
GH280 PK

Overall dimensions

GH280 IM1001-IP23-IC06

GH280 IM1001-IP54-IC86W

GH280 IM1001-IP44-IC37



Performance Tables are displayed on multiple pages, alongside the data tables are repeated alternately overall dimensions (IC06- IC86W-IC37)











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4.2 Commutator

4.3 Stator

4.4 Brushholder yoke

4.5 Bearings

4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

5.1 Coupling and shaft extension

5.2 Mounting arrangement

5.3 Degree of protection

5.4 Cooling method

5.5 Maximum allowable speeds

5 6 Noise level

5.7 Vibrations and balancing

5.8 Conduit box

5.9 Groud terminals

5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

6.1 Ratings

6.2 Supply voltage

6.3 Maximum loads

6.4 Current rate-of-rise

6.5 Speed regulation

6.6 Duty with large speed regulation

6.7 Excitation

6.8 Maximum current at locked rotor

6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

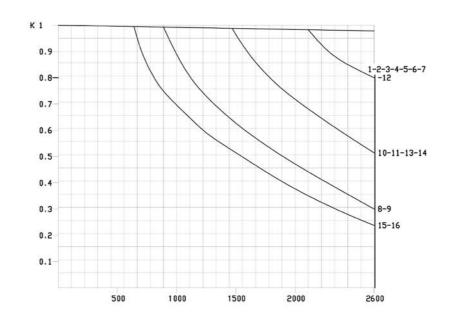
GH400

GH450

GH 280 K

RIDUZIONE DELLA POTENZA IN DISECCITAZIONE DERATING FOR FIELD WEAKENING OPERATION LEISTUNGSREDUZIERUNG BEI FELDSWÄCHUNG

GH 280 K (compensata - compensated - kompensiert)
[180% sovraccarico - overload - überlast]



P = K x P tabella potenza disponibile Allowable power output P = K x P table Werfügbare Leistung P = K x P table

per/for/für GH 280 SK K = K x 1.30 GH 280 MK K = K x 1.20 GH 280 LK K = K x 1.12

 $\mbox{Per } K \geq 1 \mbox{ niente declassamento} \qquad \qquad \mbox{For } K \geq 1 \mbox{ no derating} \qquad \qquad \mbox{F\"ur } K \geq \square 1 \mbox{ keine Leistungreduzierung}$

							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





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2. STANDARDS AND QUALITY

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- 2.2 CE Marking
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4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

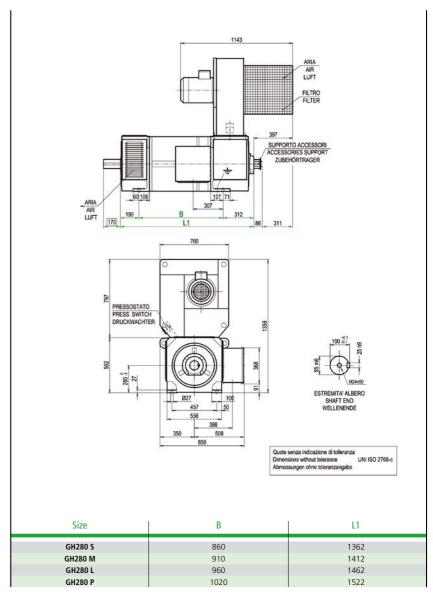
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH280 SK

R	ated spee	ed (rpm) a	at armatı	ıre voltaç	je	Excitation power (W): 3400 Field time costant (s): 1.07 Motor mass (kg): 1505 (IC06) Moment of inertia (kg m²): 4.9			Armatu	re circuit	Winding code
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
750						210	1080	88.4			
	1450					405	1100	92.5			
		1530				428	1100	92.8	0.142	0.017	1
			1730	1050		472	1100	93.3			
500				1950		514	1055	93.6			
690	1310					192 362	990 980	88.2 92.6			
	1310	1380				382	980	92.0			
		1500	1520			421	980	93.4	0.209	0.019	2
				1760		467	960	93.7			
					2060	542	960	94.2			
620						170	885	87.4			
	1200					322	875	92.1			
		1260				340	875	92.3	0.187	0.024	3
			1380			373	875	92.8	0.107	0.024	3
				1610	1870	4 <u>2</u> 4 484	875 860	93.4 93.9			
550					18/0		800				
550	1060					148 286		85.8 91.3			
	1000	1120				302	785	91.5			
		1120	1220			333	703	92.1	0.256	0.031	4
				1400		380		92.8			
					1630	440		93.5			
500						133		85.0			
	960					259		90.8			
		1010				275	715	91.2	0.374	0.036	5
			1120	1270		302 343		91.7 92.5			
				12/0	1480	400		92.5			
450					1400	119		83.6			
430	880					234		90.1			
	000	930				247	650	90.4			
			1020			273		91.3	0.305	0.045	6
				1180		310		91.9			
					1350	360		92.7			
380						102		81.7			
	760					203		89.1			
		800	000			215	570	89.4	0.572	0.058	7
			880	1000		237 270		90.3 91.2			
				1000	1200	312		91.2			
	I	I	I	I	1200	312		92.0			

GH280 IM1001 - IP23 - IC06



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Degrings	Drive	e end	Opposite drive and
Bearings		I	Opposite drive end
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

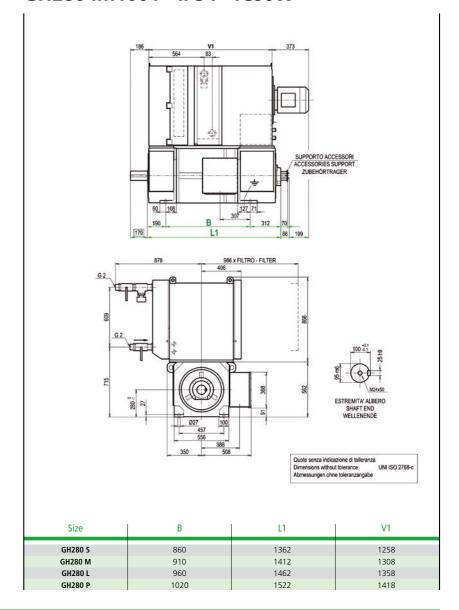
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH280 SK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 3400 Field time costant (s): 1.07 Motor mass (kg): 1505 (IC06) Moment of inertia (kg m²): 4.9			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
330						94		80.0				
	670					189		88.2				
		710				200	537	88.6	0.589	0.068	8	
			780			222		89.7				
				890		253		90.5				
300						86		79.4				
	610	540				172	400	87.8				
		640	700			181 201	490	88.3 89.3	0.871	0.078	9	
			700	810		230		90.3				
				010	950	268		91.2				
270					330	75		78.0				
270	550					151		86.9				
	330	580				160	435	87.4				
			650			177		88.5	0.741	0.097	10	
				740		202		89.5				
					865	236		90.6				
210						56		72.5				
	440					119		84.2				
		465				127	355	84.7	1.546	0.148		
			510			140		85.7	1.546	0.148	11	
				590		161		87.5				
					690	189		88.9				
	400					106		82.7				
		420				113	323	83.4				
			460			126		85.1	1.241	0.181	12	
				540		145		86.3				
					630	170		87.9				
	370					103		82.2				
		390	440			110	316	82.9				
			440	F10		123		84.6	1.655	0.191	13	
				510	590	141 166		85.9 87.6				
	240				390							
	340	360				91 98	283	80.9 81.8				
		300	400			110	263	83.6	2.399	0.231	14	
		400	460		125		85.0	2.399	0.231	14		
				400	540	147		86.7				
	1	1	I	1								

GH280 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





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- 4.6 Belted and radial thrust application

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- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

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- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH225 GH250 GH280 GH

GH315

GH355

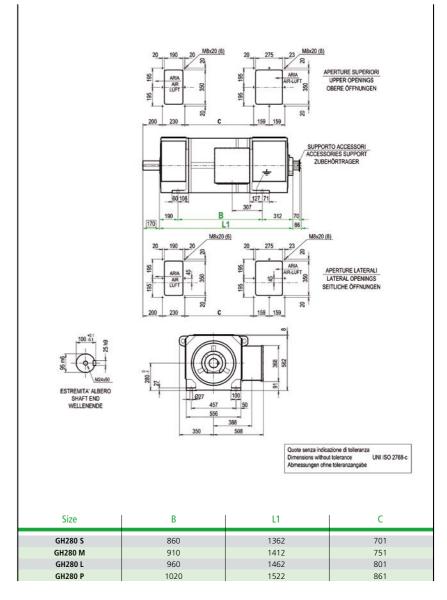
GH400

GH450

GH280 SK

R	Rated speed (rpm) at armature voltage				Field ti Motor m	on power (W me costant (s nass (kg): 150 of inertia (kg	s): 1.07 05 (IC06)	Armatur	Winding code		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
	300					85		78.8			
		320				91	270	79.8	2.358	0.273	15
			360			102		81.9	2.336	0.275	1.3
				410		118		83.4			
	270					76		78.1			
		290				82	245	79.0			
			320			91		81.0	3.485	0.313	16
				370		105		82.8			
					440	124		84.9			

GH280 IM1001 - IP44 - IC37



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	

HOME 3/3





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- 5 6 Noise level
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- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

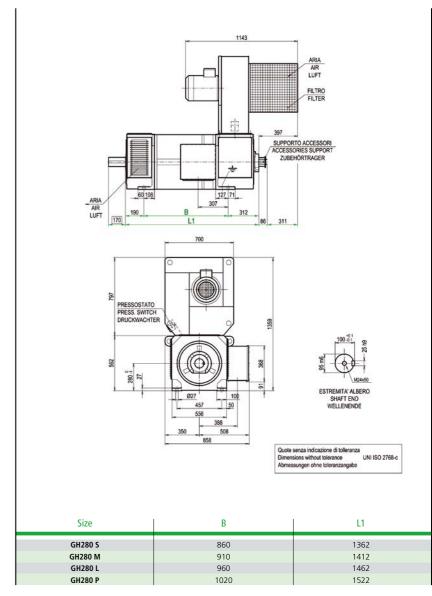
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH280 MK

220		Rated spe	Excitation power (W): 3700 Field time costant (s): 1.12 Motor mass (kg): 1605 (IC06) Moment of inertia (kg m²): 5.6						Armatuı	Armature circuit			
1300	220	V 400 V	420 V	460 V	520 V	600 V	OUTPUT	CURRENT		INDUCTANCE	AT 115 °C		
1370	660)					207	1080	87.9				
150		1300											
1160			1370							0.158	0.018	1	
1160				1510	4720								
1160 1220 1370 361 980 92.3 380 990 92.5 1370 1550 466 960 93.2 1550 1820 540 960 93.8 160 1220 1230 1230 1650 483 860 93.8 1650 483 860 93.8 1650 483 860 93.8 1650 483 860 93.8 1650 483 860 93.8 1650 483 860 93.8 1650 483 860 93.8 1650 483 860 93.8 1650 483 860 93.8 1650 1440 440 1650 1240 12	500				1/30								
1220	600												
1370		1160	1220										
1550			1220	1370						0.233	0.020	2	
1060				1570	1550								
1060						1820							
1120	550)					169	885	86.7				
1230		1060					321	875	91.8				
1230			1120				338	875	92.1	0.200	0.025	2	
1650				1230						0.209	0.025	3	
1480 940 990 1090 1090 301 785 91.0 92.0 93.3 4 1440 440 93.3 1440 440 93.3 1440 440 93.3 1440 440 93.3 1440					1400								
940 990 1090 285 91.0 91.0 92.0 92.0 1240 378 92.6 92.0 1240 440 93.3 44 440 850 900 273 715 90.8 90.5 91.6 1120 342 92.2 92.9 1310 397 92.9 92.9 1825 233 89.7 780 223 88.5 90.1 900 272 91.0 91.6 1030 310 91.6 1200 360 92.4 8.6 680 720 780 900 269 90.8 80.0 90.8 90.8 90.8 90.8 90.8 90.						1650		860					
990 1090 1240 331 785 91.3 92.0	480												
1090		940						705					
1240			990	1000				/85		0.286	0.033	4	
1440				1090	12/10								
132					1240	1440							
850 900 990 258 273 715 90.8 90.5 90.8 90.6 990 301 91.6 91.6 92.9 92.9 92.9 92.9 92.9 92.9 92.9 92	440)				1110							
900 990 1120 342 91.6 91.6 91.6 92.2													
390 3120 342 92.2 349			900					715					
390				990			301		91.6	0.418	0.039	5	
390					1120		342		92.2				
780 825 900 233 89.7 90.047 6 90.1 91.0 1030 310 91.6 1200 360 92.4 1010 80.8 88.6 720 88.6 720 88.6 720 89.0 90.0 90.0 90.0 90.0 90.0 90.0 90.						1310	397		92.9				
825 900 246 650 90.1 91.0 0.340 0.047 6 1030 310 91.6 1200 360 92.4 1010 80.8 8.6 1020 88.6 1020 88.6 1030 236 90.0 90.0 90.0 90.0 90.0 90.0 90.0 90.	390)					118		82.8				
900 272 91.0 0.340 0.047 6 1030 310 91.6 92.4 340 680 720 88.6 720 780 236 90.0 90.8 900 269 90.8		780											
340 1030 310 91.6			825					650		0.340	0.047	6	
1200 360 92.4				900	1020								
340 680 720 80.8 82.6 202 88.6 89.0 720 236 90.0 90.8 90.8 90.8 90.8 90.8 90.8 90.8					1030	1200							
680	246	,				1200							
720 213 570 89.0 0.639 0.062 7 90.0 90.0 90.8	340												
780 236 90.0 0.639 0.062 7 900 269 90.8		000	720					570					
900 269 90.8			720	780				370		0.639	0.062	7	
					900								
						1050							

GH280 IM1001 - IP23 - IC06



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Degrings	Drive	Opposite drive and	
Bearings		Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

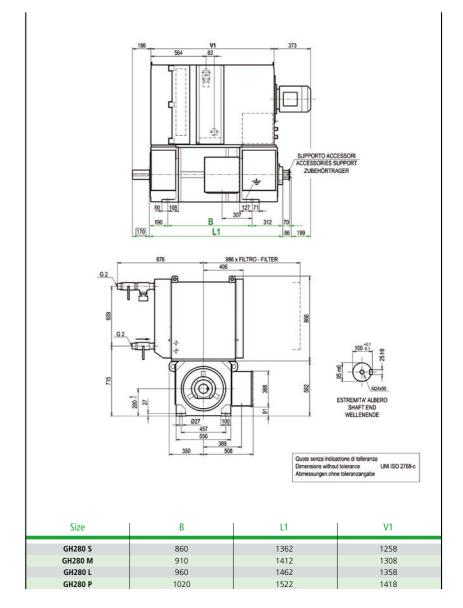
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH280 MK

R	ated spe	ed (rpm) a	at armatı	ıre voltag	le	Excitation power (W): 3700 Field time costant (s): 1.12 Motor mass (kg): 1605 (IC06) Moment of inertia (kg m²): 5.6			Armatuı	Winding code		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
290						93		78.9				
	600					188		87.6				
		640				198	537	88.0	0.659	0.073	8	
			680	780		220 251		89.2 90.1				
270				700		83		78.3				
2/0	530					170		87.3				
	330	560				180	490	87.8				
			620			200		88.9	0.976	0.083	9	
				710		228		89.8				
					830	266		90.8				
240						72		76.3				
	490					149		86.2				
		520	570			158	435	86.9	0.829	0.103	10	
			5/0	650		176 202		88.0 89.0				
				030	760	235		90.2				
	380					118		83.4				
	300	400				125	355	84.0				
			450			140		85.4	1.732	0.157	11	
				520		160		86.8				
					610	188		88.3				
	350					105		81.8				
		370				112	323	82.5				
			410	470		125 143		84.4 85.6	1.387	0.192	12	
				4/0	550	169		87.3				
	330					102		81.2				
	330	350				109	316	82.0				
			390			122		84.0	1.852	0.203	13	
				450		140		85.2				
					520	164		86.9				
	290					90		79.8				
		310	250			96	283	80.6				
			350	400		108 123		82.7 84.1	2.687	0.246	14	
				400	470	123		84.1				
		I	l	l	4/0	140		00.0				

GH280 IM1001 - IP54 - IC86W



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH225

GH250

GH280

GH315

GH355

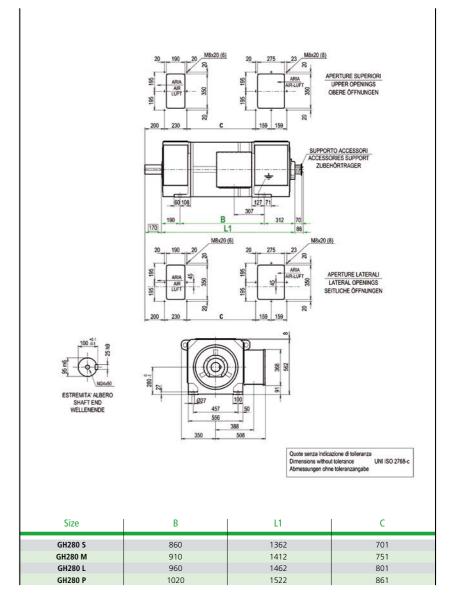
GH400

GH450

GH280 MK

R	Rated speed (rpm) at armature voltage				Excitation power (W): 3700 Field time costant (s): 1.12 Motor mass (kg): 1605 (IC06) Moment of inertia (kg m²): 5.6			Armatuı	Winding code		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
	260					83		77.6			
		280				89	270	78.6	2.638	0.290	15
			310			100		80.8	2.050	0.230	1.5
				360		115		82.4			
	240					75		76.8			
		255				80	245	77.8			
			290			90		80.0	3.904	0.333	16
				330		104		81.8			
					390	124		84 3			

GH280 IM1001 - IP44 - IC37



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- Stator 4.3
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

GH225 GH250

GH280

GH315

GH355

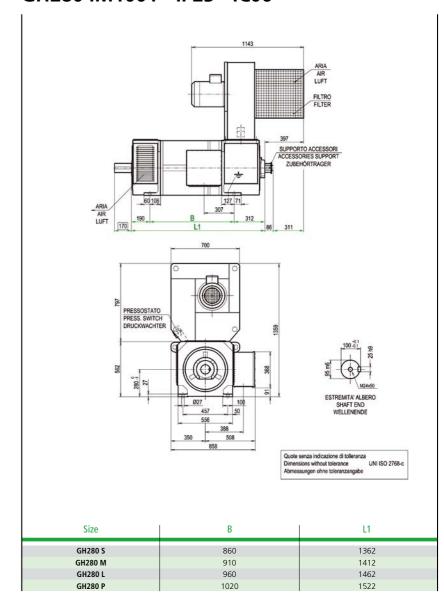
GH400

GH450

GH280 LK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 4000 Field time costant (s): 1.17 Motor mass (kg): 1705 (IC06) Moment of inertia (kg m²): 6.1			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
590						208	1080	87.6				
	1150					405	1100	92.1				
		1210				426	1100	92.3	0.174	0.019	1	
			1350			470	1100	92.9				
				1550		512	1060	93.4				
540						191	990	87.6				
	1040					361	980	92.3				
		1100				380	980	92.5	0.258	0.022	2	
			1210			420	980	93.0	0.230	0.022	_	
				1400	4520	466	960	93.2				
					1630	540	960	93.8				
490	050					167	885	86.0				
	950	1000				320	875	91.5				
		1000	1100			337	875 875	91.7 92.4	0.230	0.027	3	
			1100	1250		372 424	875	93.0				
				1230	1480	482	860	93.5				
430					1400	145	000	84.5				
430	840					284		90.6				
	040	890				300	785	90.8				
		050	980			331	703	91.7	0.315	0.035	4	
			300	1110		377		92.2				
					1290	438		92.9				
390						131		83.5				
	760					257		90.0				
		800				271	715	90.3				
			880			300		91.0	0.463	0.041	5	
				1010		341		91.8				
					1170	396		92.6				
350						117		81.9				
	700					232		89.1				
		740				245	650	89.5	0.375	0.050	-	
			810			270		90.5	0.5/5	0.050	6	
				920		308		91.1				
					1070	360		92.2				
300						100		79.8				
	600					200		88.1				
		635				211	570	88.5	0.707	0.065	5 7	
			700			235		89.5	0.707	0.003		
				800		267		90.3				
					940	311		91.3				

GH280 IM1001 - IP23 - IC06



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Dogwings	Drive	Opposite drive and	
Bearings		Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

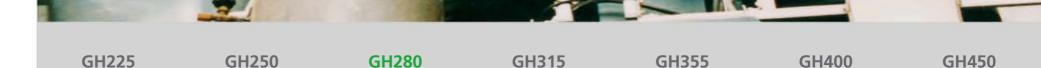
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

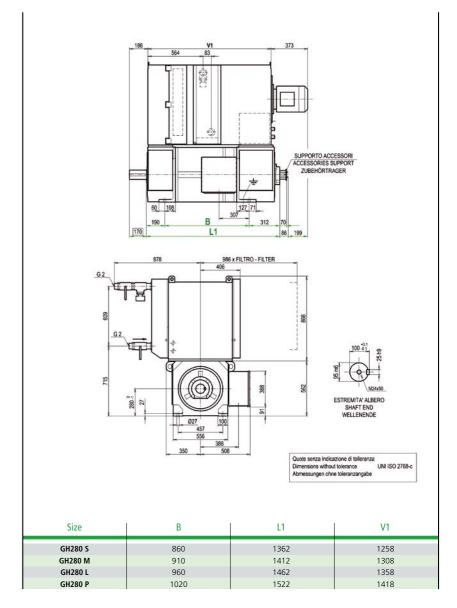
8. OUTPUT POWER DIAGRAMS



GH280 LK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 4000 Field time costant (s): 1.17 Motor mass (kg): 1705 (IC06) Moment of inertia (kg m²): 6.1			Armature circuit		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
260						92		77.8				
	530					187		87.0				
		560				197	537	87.5	0.729	0.077	8	
			610			219		88.6				
				700		250		89.5				
240						83		77.0				
	480					170		86.7				
		510				180	490	87.2	1.080	0.088	9	
			560			199		88.3		0.000	,	
				650	750	228		89.4				
					750	266		90.5				
210	440					72		75.0				
	440	470				149	425	85.6				
		470	520			157 175	435	86.1 87.4	0.916	0.109	10	
			520	590		200		87.4				
				390	690	234		89.8				
	240				030							
	340	360				117 124	355	82.5 83.2				
		300	400			138	333	84.8	1.917	0.167	11	
			400	460		160		86.3	1.917	0.167	- 11	
				400	550	186		87.8				
	310				330	104		80.8				
	310	330				110	323	81.6				
		330	370			124	323	83.4	1.5333	0.204	12	
			370	420		142		84.9	1.5555	0.204	12	
				120	500	168		86.7				
	300					101		80.2				
	300	320				108	316	81.0				
		320	350			120	510	83.0	2.048	0.216	13	
				400		138		84.4	2.040	0.210		
					470	163		86.3				
	260					89		78.8				
		280				95	283	79.7				
			320			106		81.7	2.975	0.261	14	
				360		122		83.3				
					430	144		85.3				

GH280 IM1001 - IP54 - IC86W



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	e end	Opposite drive end
	Coupling		
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- CE Marking 2.2
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- Commutator 4.2
- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- Mounting arrangement 5.2
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- 5 6 Noise level
- 5.7 Vibrations and balancing
- Conduit box 5.8
- Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- Speed regulation 6.5
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS



GH225 GH250

GH280

GH315

GH355

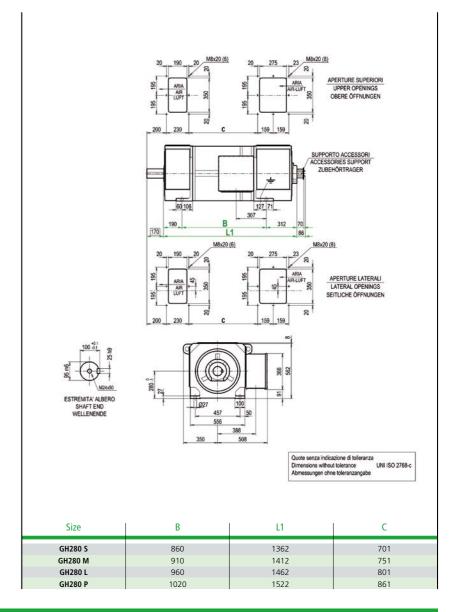
GH400

GH450

GH280 LK

Rated speed (rpm) at armature voltage					Field ti Motor m	on power (W me costant (s nass (kg): 170 of inertia (kg	s): 1.17 05 (IC06)	Armatur	Winding code		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
	240					83		76.4			
		260				88	270	77.4	2.918	0.308	15
			280			99		79.7	2.510	0.500	.5
				320		114		81.5			
		230				80	245	77.7			
			260			89		79.0	4 222	0.353	10
				295		104		80.9	4.322	0.353	16
					350	122		83.2			

GH280 IM1001 - IP44 - IC37



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

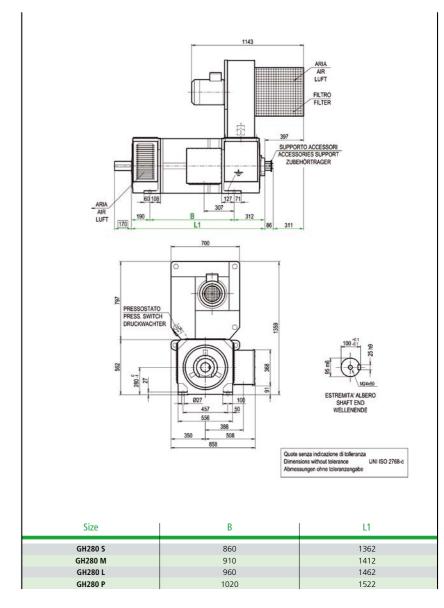
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH280 PK

F	Rated speed (rpm) at armature voltage				Excitation power (W): 4400 Field time costant (s): 1.25 Motor mass (kg): 1825 (IC06) Moment of inertia (kg m²): 6.8			Armatuı	re circuit	Winding code	
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
530						205	1080	86.4			
	1020					405	1100	91.9			
		1080				425	1100	92.1	0.194	0.020	1
			1200			468	1100	92.6			
				1390		511	1060	93.0			
480	020					188	990	86.4			
	930	980				360 378	980 980	91.8 92.0			
		900	1080			417	980	92.0	0.287	0.023	2
			1000	1250		465	960	93.2			
				1250	1480	540	960	93.8			
440						166	885	85.3			
110	850					320	875	91.2			
		900				336	875	91.4			
			990			370	875	92.0	0.256	0.029	3
				1120		421	875	92.6			
					1330	481	860	93.4			
380						144		83.6			
	750					283		90.2			
		790				298	785	90.5	0.351	0.037	4
			870	200		330		91.4			
				990	1150	375 437		92.0 92.8			
340					1150	130		92.8 82.6			
340	680					256		89.6			
	000	720				270	715	90.0			
		720	790			298	/13	90.8	0.515	0.044	5
				900		340		91.6			
					1050	395		92.4			
310						115		80.9			
	620					230		88.7			
		660				243	650	89.1	0.417	0.054	_
			730			270		90.1	0.417	0.054	6
				820		306		90.9			
					960	357		91.9			
260						98		78.6			
	530					199		87.5			
		560				210	570	88.0	0.787	0.070	7
			620	710		233		89.0			
				710	020	265		90.0			
	1	l		l	830	310		91.1			

GH280 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	e end	Opposite drive end
	Coupling		
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

5. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
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- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

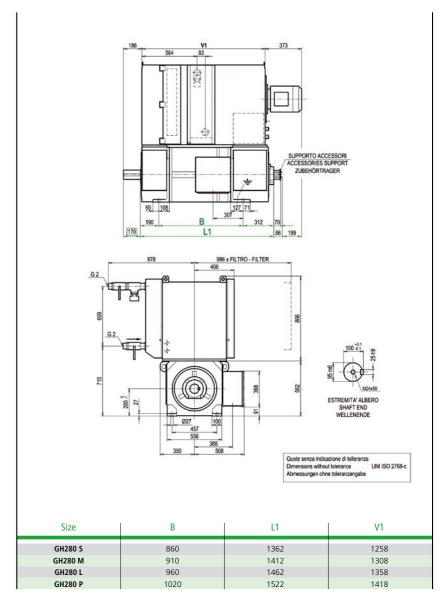
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH280 PK

	Rated speed (rpm) at armature voltage				Field ti Motor m	tion power (W): 4400 time costant (s): 1.25 mass (kg): 1825 (IC06) it of inertia (kg m²): 6.8			re circuit	Winding code			
2	20 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
2	230						90		76.5				
		470					185		86.3				
			500				196	537	86.8	0.814	0.082	8	
				550			217		88.0				
					630		249		89.1				
2	210						81		75.7				
		420	450				167	407	86.0				
			450	500			177 197	487	86.5 87.8	1.206	0.094	9	
				500	570		225		88.8				
					370	670	263		90.1				
		390				0,0	147		84.7				
		330	410				155	435	85.3				
				450			174		86.8	1.021	0.116	10	
					520		198		87.9				
						610	232		89.3				
		300					115		81.5				
			320				122	355	82.2				
				360			137		84.1	2.140	0.178	11	
					410		157		85.4				
						480	185		87.1				
		270					103		79.7				
			290				110	323	80.6				
				330	270		122		82.5	1.708	0.217	12	
					370	440	141 166		84.0 85.9				
		260				440	99		79.1				
		200	280				106	316	80.0				
			200	310			119	310	82.0	2.285	0.230	13	
				310	350		137		83.5	2.203	0.230	15	
						420	162		85.5				
		230					87		77.5				
			250				93	283	78.4				
				280			105		80.6	3.321	0.279	14	
					320		121		82.3			14	
						380	143		84.5				

GH280 IM1001 - IP54 - IC86W



							TECHNICAL I
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

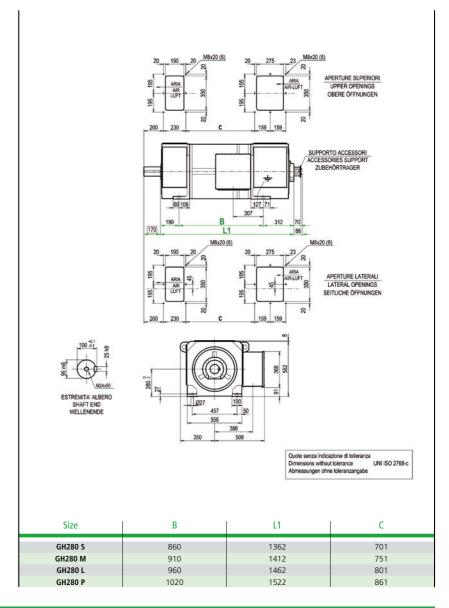


GH225 GH250 GH280 GH315 GH355 GH400

GH280 PK

Rated speed (rpm) at armature voltage					Excitation power (W): 4400 Field time costant (s): 1.25 Motor mass (kg): 1825 (IC06) Moment of inertia (kg m²): 6.8			Armatur	Winding code		
220 V	400 V	420 V	460 V	520 V	600 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
	200					81		74.9			
		220				86	270	76.0	3.254	0.329	15
			250			97		78.5	3.254	0.329	15
				280		113		80.3			
		200				78	244	75.7			
			220			88		78.0	4.024	0.377	16
				260		101		79.7	4.824	0.377	I b
					310	120		82.2			

GH280 IM1001 - IP44 - IC37



							TECHNICAL I
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	

GO TO MENU

GH450





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

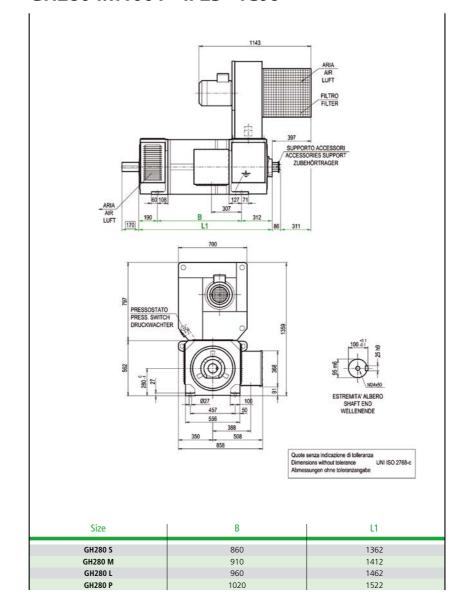
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH280 IM1001 - IP23 - IC06



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Drive end					
	Coupling	Pulley					
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3				
Electrical blower (IC06)	Weight	Blower motor power					
	105 kg	5.5 kW (50/60 Hz)					
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power					
	370 kg	5.5 / 7.5 kW (50/60 Hz)					





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
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3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

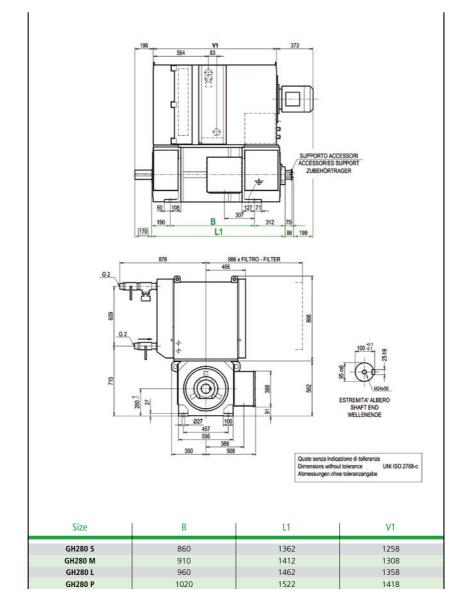
7. TESTS

8. OUTPUT POWER DIAGRAMS



GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH280 IM1001 - IP54 - IC86W



							TECHNICAL I
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





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5.9 Groud terminals

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6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

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6.3 Maximum loads

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6.5 Speed regulation

6.6 Duty with large speed regulation

6.7 Excitation

6.8 Maximum current at locked rotor

6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

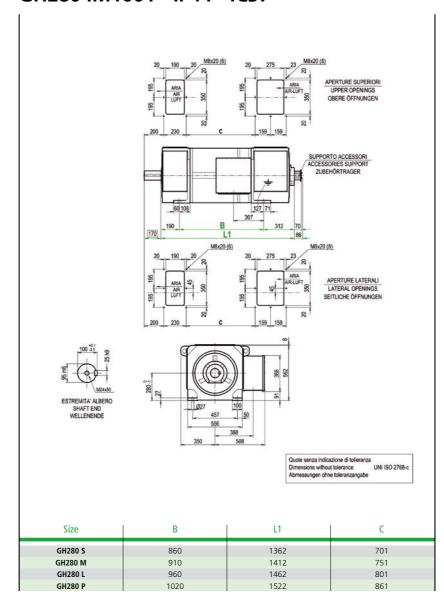
GH355

GH400

GH450

GH225 GH250 GH280 GH315

GH280 IM1001 - IP44 - IC37



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH280 SK	1400	4.9	3400	1.07	2600	85	2050
GH280 MK	1500	5.6	3700	1.12	2600	85	2050
GH280 LK	1600	6.1	4000	1.17	2600	85	2050
GH280 PK	1720	6.8	4400	1.25	2600	85	2050

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
GH280 SK-MK-LK-PK	6221 C3	NU221ECP	6219 C3
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50/60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	370 kg	5.5 / 7.5 kW (50/60 Hz)	





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Stator 4.3

Brushholder yoke 4.4

4.5 Bearings

Belted and radial thrust application 4.6

CONSTRUCTION FEATURES

Coupling and shaft extension 5.1

Mounting arrangement 5.2

Degree of protection 5.3

Cooling method

Maximum allowable speeds 5.5

Noise level 5 6

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Conduit box 5.8

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MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

Ratings 6.1

Supply voltage

Maximum loads 6.3

Current rate-of-rise

Speed regulation 6.5

Duty with large speed regulation 6.6

6.7

Maximum current at locked rotor

6.9 Accessories

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OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

GH400

GH450

GH315

Derating for field weakening operation

Performance of compensated motors

GH315 MK

GH315 LK

GH315 PK

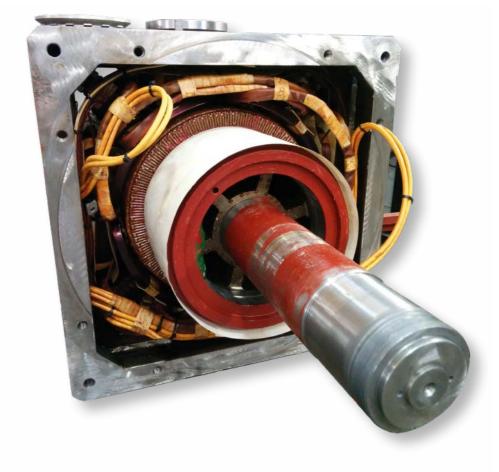
GH315 XK

Overall dimensions

GH315 IM1001-IP23-IC06

GH315 IM1001-IP54-IC86W

GH315 IM1001-IP44-IC37



Performance Tables are displayed on multiple pages, alongside the data tables are repeated alternately overall dimensions (IC06- IC86W-IC37)











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5 6 Noise level

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5.9 Groud terminals

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6.6 Duty with large speed regulation

6.7 Excitation

6.8 Maximum current at locked rotor

6.9 Accessories

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8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

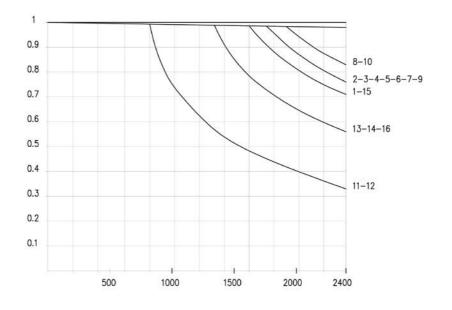
GH400

GH450

GH 315 K

RIDUZIONE DELLA POTENZA IN DISECCITAZIONE DERATING FOR FIELD WEAKENING OPERATION LEISTUNGSREDUZIERUNG BEI FELDSWÄCHUNG

GH 315 K (compensata - compensated - kompensiert)
[180% sovraccarico - overload - überlast]



P = K x P tabella potenza disponibile

per/for/für

Allowable power output P = K x P table Werfügbare Leistung P = K x P table

 $K = K \times 1.40$

GH 315 MK

Per $K \ge 1$ niente declassamento

For $K \ge 1$ no derating

Für K ≥ 1 keine Leistungreduzierung

							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Drive	Opposite drive end		
	Coupling	Pulley		
B3 – B5	6222 C3	NU222ECJ C3	6221 C3	
V1 – V3	6222 C3	NU222ECJ C3	7221 BE	
Electrical blower (IC06)	Weight			
	105 kg	5.5 kW (50 Hz) - 7.5 kW (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	450 kg	7.5 kW (50/60 Hz)		
		•		





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- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

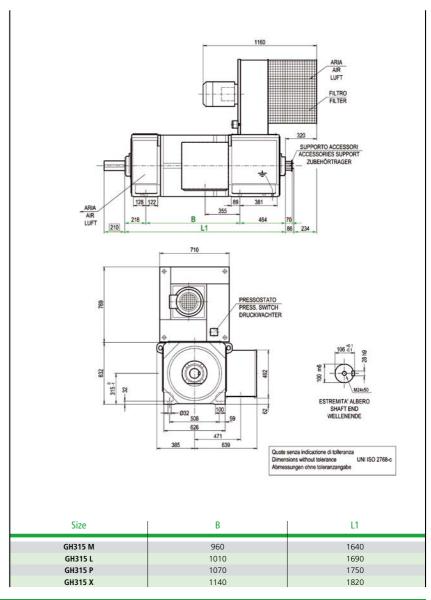
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 MK

R	lated spe	ed (rpm) a	at armatı	ıre voltag	je	Field ti Motor m	on power (W me costant (9 nass (kg): 220 of inertia (kg	s): 0.85 05 (IC06)	Armatuı	Winding code	
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
1380						483		93.3			
	1450					509	1295	93.6	0.077	0.012	1
		1600				559		93.8			
1180						436		93.3			
	1240					460		93.5			_
		1360				505	1171	93.8	0.126	0.014	2
			1550			573		94.1			
1070						392		92.6			
	1130					413		92.8			
		1240				455	1060	93.3	0.159	0.018	3
			1410			517		93.8			
				1630		599		94.2			
970						341		91.7			
	1020					360		92.1			
		1130				396	931	92.5	0.145	0.024	4
			1290			450		93.1	0.145	0.024	7
				1490		523		93.7			
					1750	613		94.2			
900						320		91.4			
	950					337		91.6			
		1050	4400			372	876	92.3	0.187	0.027	5
			1190	1200		423		92.9			
				1380	1620	492 577		93.5 94.1			
020					1020						
830	870					289		91.1			
	8/0	960				305 336	793	91.7 92.1			
		300	1100			382	755	92.7	0.234	0.031	6
			1100	1280		444		93.3			
				1200	1510	521		94.0			
780						265		90.9			
700	820					280		91.2			
		900				309	731	91.9			
			1030			351		92.5	0.300	0.035	7
				1200		409		93.2			
					1410	480		93.8			
660						235		89.4			
	700					248		89.9			
		770				274	657	90.7	0.312	0.049	8
			880			312		91.4	0.512	0.049	0
	1	1		1020		364		92.2			

GH315 IM1001 - IP23 - IC06



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

93.0

1200

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6222 C3	NU222ECJ C3	6221 C3
V1 – V3	6222 C3	NU222ECJ C3	7221 BE
Electrical blower (IC06)	Weight Blower motor power		
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	450 kg	7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

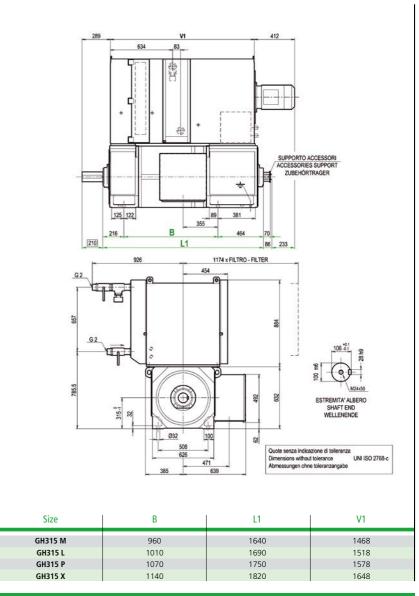
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 MK

R	ated spe	ed (rpm) a	at armatı	ıre voltag	je	Field ti Motor m	on power (W me costant (s ass (kg): 220 of inertia (kg	s): 0.85 05 (IC06)	Armatu	re circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
610						210		88.5			
	640					222		89.0			
		700				245	594	89.7	0.382	0.060	9
			810	0.40		280		90.7			
				940	1110	327 385		91.6 92.5			
					1110						
560	590					200		88.2 88.8			
	590	650				211 234	568	88.8 89.6			
		030	750			267	300	90.5	0.443	0.065	10
			730	870		311		91.5			
					1030	367		92.4			
500						186		88.0			
	530					197		88.5			
		580				218	530	89.4	0.645	0.071	11
			660			249		90.3			
				770		290		91.4			
460						166		87.5			
	480					176		88.2			
		530				194	475	88.8	0.908	0.084	12
			610			222		90.0	0.500	0.004	12
				710	040	260		91.1			
					840	306		92.1			
410	430					148 157		85.5 86.1			
	430	480				174	434	87.2			
		400	560			199	454	88.5	0.728	0.109	13
			300	650		233		89.8			
					770	276		91.0			
350						116		82.9			
	370					123		83.7			
		410				137	350	85.1	0.054	0.165	14
			470			157		86.5	0.854	0.165	14
				560		185		88.0			
					660	219		89.5			

GH315 IM1001 - IP54 - IC86W



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6222 C3	NU222ECJ C3	6221 C3
V1 – V3	6222 C3	NU222ECJ C3	7221 BE
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	450 kg	7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH225 GH250 GH280

280 GH315

GH355

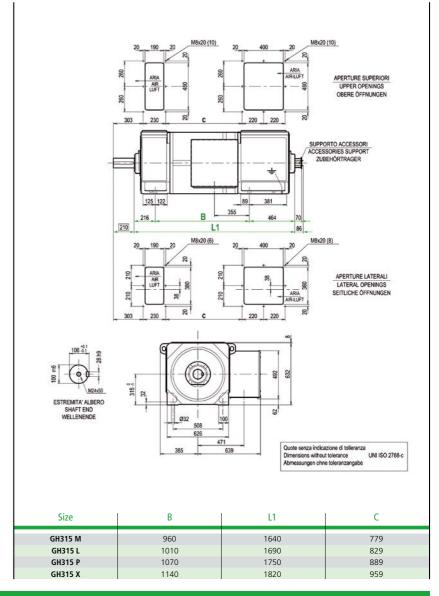
GH400

GH450

GH315 MK

R	ated spe	ed (rpm) a	at armatı	ure voltag	je	Field ti Motor m	ion power (W me costant (s nass (kg): 220 of inertia (kg	s): 0.85 05 (IC06)	Armatur	e circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
300						105		81.3			
	320					112		82.1			
		350				125	325	83.6	1.231	0.196	15
			400			144		85.3	1.231	0.190	13
				470		169		87.0			
					560	201		88.6			
270						93		81.1			
	280					99		81.8			
		330				111	288	83.8	1.605	0.224	16
			370			127		85.1	1.005	0.224	10
				440		150		86.9			
					520	178		88.5			

GH315 IM1001 - IP44 - IC37



							TECHNICAL I
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Dri	Opposite drive end			
	Coupling	Pulley			
B3 – B5	6222 C3	NU222ECJ C3	6221 C3		
V1 – V3	6222 C3	NU222ECJ C3	7221 BE		
Electrical blower (IC06)	Weight	Blower motor power	wer		
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	450 kg	7.5 kW (50/60 Hz)			





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

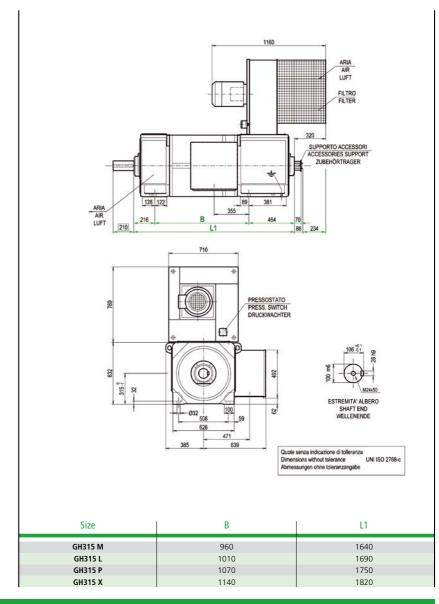
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 LK

	Rated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor m	on power (W me costant (9 nass (kg): 230 of inertia (kg	s): 0.92)5 (IC06)	Armatu	re circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
1230						482		93.3			
	1300					508	1295	93.4	0.084	0.013	1
		1420				558		93.7			
1050						435		92.9			
	1100	1210				458 504	1171	93.1 93.6	0.138	0.015	2
		1210	1380			504	11/1	93.6			
950			1300			391		92.4			
330	1000					413		92.8			
	1000	1110				455	1060	93.3	0.176	0.019	3
			1260			516		93.6			
				1460		598		94.1			
870						340		91.4			
	920					358		91.6			
		1000				395	931	92.2	0.159	0.026	4
			1150	1220		449		92.9			
				1330	1570	522 613		93.5 94.1			
800					13/0	319		91.1			
800	840					336		91.1			
	040	930				370	876	91.8			
			1060			422		92.7	0.205	0.029	5
				1230		491		93.4			
					1450	576		94.0			
740						288		90.8			
	780					303		91.0			
		860				334	793	91.6	0.257	0.033	6
			980	4440		381		92.4			-
				1140	1350	443 520		93.1 93.8			
690					1330	264		90.5			
090	730					279		90.9			
	750	810				308	731	91.6			
			920			350		92.2	0.331	0.038	7
				1070		408		93.0			
					1260	479		93.6			
590						233		88.9			
	620					247		89.5			
		680				273	657	90.3	0.343	0.052	8
			780	910		311		91.0 92.0			
				910	1070	362 427		92.0			
	1	I	1	1	10/0	427		92.8			

GH315 IM1001 - IP23 - IC06



ı								TECHNICAL D	ΑT
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
i	GH315 MK	2100	9.2	4200	0.85	2400	120	1800	
	GH315 LK	2200	10.4	4500	0.92	2400	120	1800	
	GH315 PK	2340	11.5	4900	1.01	2400	120	1800	
	GH315 XK	2500	12.7	5300	1.10	2300	120	1800	

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6222 C3	NU222ECJ C3	6221 C3
V1 – V3	6222 C3	NU222ECJ C3	7221 BE
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	450 kg	7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

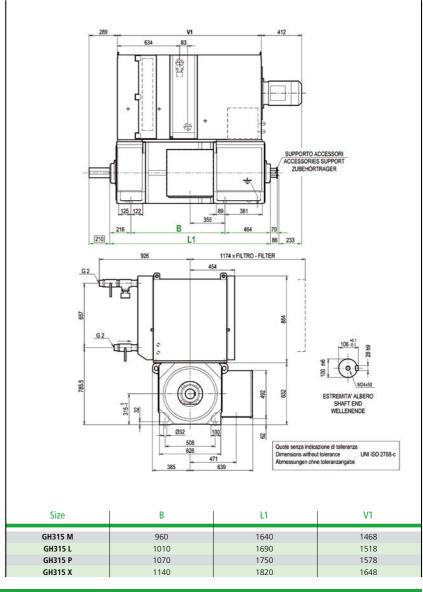
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 LK

R	ated spe	ed (rpm) a	at armatı	ıre voltag	je	Field ti Motor m	on power (W me costant (s ass (kg): 230 of inertia (kg	s): 0.92 05 (IC06)	Armatuı	re circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
540						209		87.9			
	570					220		88.2			
		630				244	594	89.3	0.420	0.064	9
			720	040		279		90.3	0.120	0.001	,
				840	000	325		91.3			
					990	385		92.3			
500	530					199		87.7 88.0			
	530	590				210	568				
		390	670			232 266	308	88.8 90.1	0.488	0.069	10
			670	780		310		91.1			
				700	920	366		92.1			
440					320	185		87.4			
440	460					196		88.1			
	100	510				218	530	89.4	0.712	0.075	11
			590			247		89.9			
				690		289		91.0			
400						165		86.9			
	420					174		87.2			
		470				193	475	88.3	4.004	0.000	42
			540			221		89.5	1.004	0.089	12
				630		258		90.7			
					750	305		91.7			
370						147		84.5			
	390					155		85.0			
		430				173	434	86.7	0.803	0.115	13
			490	500		198		88.0			
				580	680	232		89.3			
240					080	275		90.6			
310	220					115		82.0			
	330	270				121	250	82.3 83.2			
		370	420			134 157	350	85.2 85.8	0.941	0.174	14
			420	490		183		87.5			
				450	590	218		89.0			
	I	I	I	I	330	210		05.0			

GH315 IM1001 - IP54 - IC86W



							TECHNICAL D	AT/
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
GH315 MK	2100	9.2	4200	0.85	2400	120	1800	
GH315 LK	2200	10.4	4500	0.92	2400	120	1800	
GH315 PK	2340	11.5	4900	1.01	2400	120	1800	
GH315 XK	2500	12.7	5300	1.10	2300	120	1800	

Bearings	Dr	ive end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6222 C3	NU222ECJ C3	6221 C3
V1 – V3	6222 C3	NU222ECJ C3	7221 BE
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	450 kg	7.5 kW (50/60 Hz)	

HOME 2/3





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

HOME

8. OUTPUT POWER DIAGRAMS



GH225 GH250 GH280

280 GH315

GH355

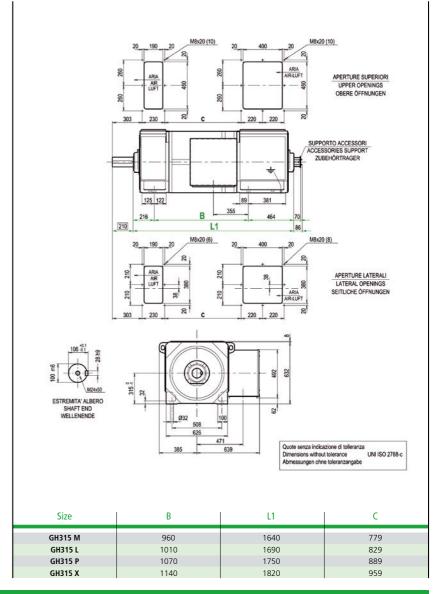
GH400

GH450

GH315 LK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor m	ion power (W me costant (s nass (kg): 220 of inertia (kg	s): 0.85 05 (IC06)	Armatur	e circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
260						104		80.3			
	270					111		81.3			
		300				123	325	82.3	1.357	0.208	15
			360			143		84.5	1.55/	0.206	13
				420		168		86.3			
					500	200		88.1			
240						92		80.1			
	250					98		81.0			
		280				109	288	82.3	1.771	0.238	16
			330			126		84.4	1.771	0.238	10
				390		149		86.2			
					460	177		87.9			

GH315 IM1001 - IP44 - IC37



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Dr	Opposite drive end	
	Coupling	Pulley	
B3 – B5	6222 C3	NU222ECJ C3	6221 C3
V1 – V3	6222 C3	NU222ECJ C3	7221 BE
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	50 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	450 kg	7.5 kW (50/60 Hz)	

3/3





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

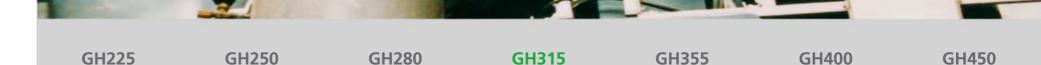
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

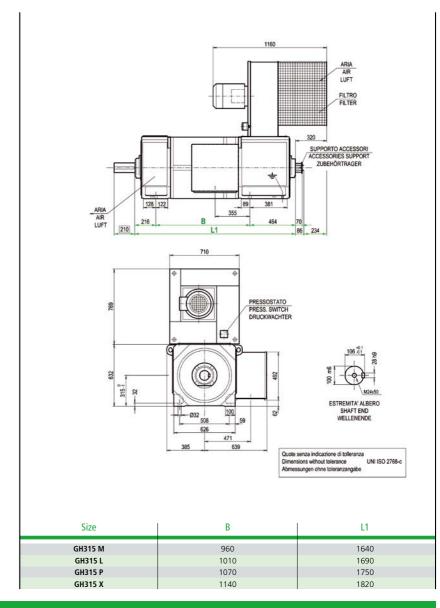
8. OUTPUT POWER DIAGRAMS



GH315 PK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor m	on power (W me costant (9 nass (kg): 244 of inertia (kg	s): 1.01 15 (IC06)	Armatu	re circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
1120						481	1295	92.9			
	1180					506	1295	93.2	0.094	0.013	1
		1330				546	1270	93.5			
950						433	1171	92.6			
	1000					457	1171	92.9	0.154	0.016	2
		1130				503	1171	93.4	0.154	0.010	
			1280			561	1150	93.8			
850						390	1060	92.1			
	900					411	1060	92.3			
		990	4450			453	1060	92.9	0.195	0.020	3
			1150	1200		510	1050	93.4			
770				1360		585	1040	94.0			
770	010					338	931	91.0			
	810	890				357 394	931 931	91.3 92.0			
		890	1020			394 448	931	92.0	0.176	0.027	4
			1020	1230		515	920	93.3			
				1230	1450	598	910	93.9			
710					1 150	318	876	90.7			
710	750					335	876	91.1			
	750	830				370	876	91.8			
			940			421	876	92.4	0.228	0.031	5
				1100		480	860	93.1			
					1300	551	840	93.8			
660						286	793	90.4			
	700					302	793	90.7			
		770				333	793	91.3	0.305	0.033	6
			870			379	793	92.1	0.286	0.033	ь
				1020		442	793	92.9			
					1200	513	785	93.6			
620						263		90.1			
	650					278		90.5			
		710				306	731	91.0	0.368	0.040	7
			820	0.55		349		91.9	0.500	0.040	
				950	1120	406		92.7			
					1120	478		93.4			
520	EE0.					232		88.3			
	550	C10				245	C57	88.8			
		610	690			271 309	657	89.7 90.6	0.381	0.055	8
			090	810		361		90.6			
				010	950	425		92.5			
	I	I	I	I	330	723		1 52.5			

GH315 IM1001 - IP23 - IC06



ı								TECHNICAL D	ΑT
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
i	GH315 MK	2100	9.2	4200	0.85	2400	120	1800	
	GH315 LK	2200	10.4	4500	0.92	2400	120	1800	
	GH315 PK	2340	11.5	4900	1.01	2400	120	1800	
	GH315 XK	2500	12 7	5300	1 10	2300	120	1800	

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6222 C3	NU222ECJ C3	6221 C3
V1 – V3	6222 C3	NU222ECJ C3	7221 BE
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	450 kg	7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

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- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

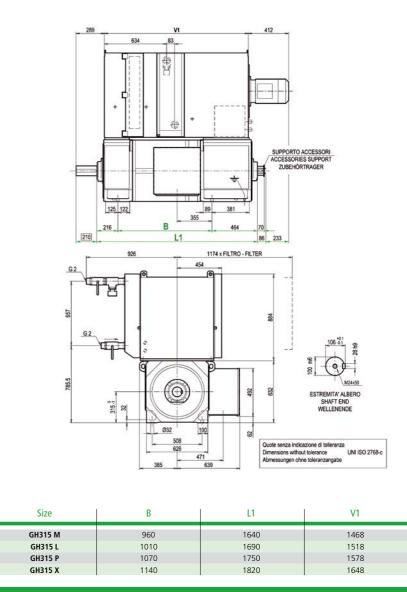
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 PK

R	lated spe	ed (rpm)	at armatı	ıre volta <u>c</u>	je	Field ti Motor m	on power (W me costant (9 nass (kg): 244 of inertia (kg	s): 1.01 I5 (IC06)	Armatuı	re circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
480						207		87.3			
	510					220		88.2			
		560				242	594	88.6	0.466	0.068	9
			640	750		277		89.8			
				750	880	324 382		90.9 91.9			
440					000			87.0			
440	460					197 209		87.0 87.6			
	400	510				231	568	88.4			
		3.0	590			264	300	89.6	0.541	0.073	10
				690		309		90.7			
					820	365		91.8			
390						183		86.8			
	410					194		87.3			
		460				215	529	88.4	0.793	0.081	11
			520			246		89.4			
				610		287		90.6			
360						164		86.1			
	380	420				173	475	86.7			
		420	480			192 220	475	87.9 89.0	1.119	0.095	12
			400	560		257		90.2			
				500	660	304		91.3			
320						145		84.0			
	340					154		84.5			
		380				171	434	85.7	0.893	0.123	13
			440			197		87.3	0.893	0.123	13
				510		231		88.8			
					610	273		90.1			
280						114		80.9			
	300	220				121	251	82.1			
		330	370			134 155	351	83.0 85.0	1.046	0.181	14
			3/0	440		182		86.7			
				440	520	217		88.4			
	I	I	I	l	320	217		00.4			

GH315 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6222 C3	NU222ECJ C3	6221 C3
V1 – V3	6222 C3	NU222ECJ C3	7221 BE
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	450 kg	7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

HOME

OUTPUT POWER DIAGRAMS



GH225 GH250 GH280

GH315

GH355

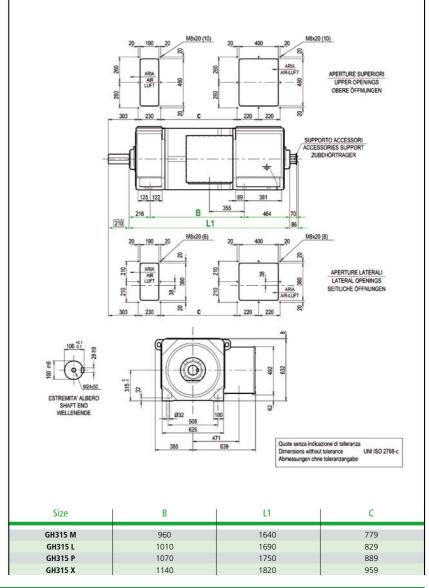
GH400

GH450

GH315 PK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor m	on power (W me costant (s ass (kg): 244 of inertia (kg	s): 1.01 15 (IC06)	Armatur	e circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
230						103		79.1			
	240					110		80.6			
		270				122	325	81.6	1.509	0.223	15
			310			141		83.6	1.509	0.223	13
				370		167		85.6			
					440	199		87.4			
210						92		78.6			
	220					98		79.6			
		250				110	293	81.6	1.971	0.254	16
			290			126		83.2	1.9/1	0.254	10
				340		150		85.2			
					410	178		87.1			

GH315 IM1001 - IP44 - IC37



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Drive	Opposite drive end		
	Coupling	Pulley		
B3 – B5	6222 C3	NU222ECJ C3	6221 C3	
V1 – V3	6222 C3	NU222ECJ C3	7221 BE	
Electrical blower (IC06)	Weight	Blower motor power		
	105 kg	5.5 kW (50 Hz) - 7.5 kW (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	450 kg	7.5 kW (50/60 Hz)		
		GO	TO MENU	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

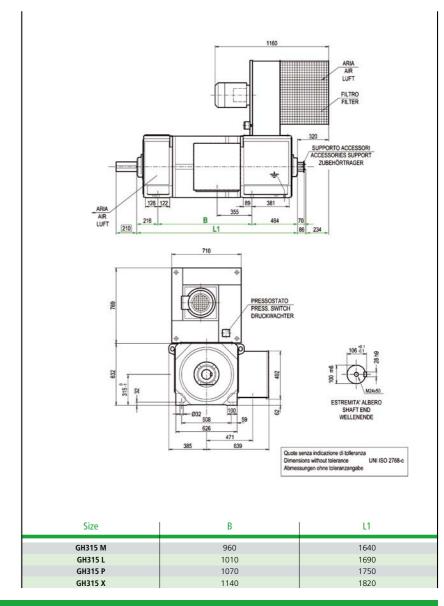
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 XK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor m	on power (W me costant (s ass (kg): 260 of inertia (kg	s): 1.10 05 (IC06)	Armatu	Winding code	
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
1000						475		92.7			
	1050					500	1280	93.0	0.104	0.015	1
		1150				550		93.3			
850						430	1160	92.5			
	890					451	1160	92.6	0.171	0.017	2
		980	1130			497 555	1160 1140	93.1 93.6			
770			1130			385	1050	91.8			
770	800					407	1050	92.2			
	000	890				449	1050	92.7	0.218	0.021	3
			1020			500	1030	93.2	0.210	0.021	,
				1200		574	1020	93.8			
690						333	920	90.6			
	730					351	920	91.0			
		800				388	920	91.7	0.196	0.029	4
			920			441	920	92.3	0.130	0.025	7
				1070	4200	507	910	93.1			
					1280	590	900	93.7			
640	670					316	875 875	90.3 90.6			
	6/0	750				333 368	875	90.6			
		750	850			419	875	92.0	0.254	0.033	5
			050	1000		474	850	92.8			
					1170	544	830	93.5			
590						285	790	90.0			
	620					300	790	90.4			
		690				331	790	91.0	0.319	0.038	6
			780			377	790	91.7	0.519	0.036	O
				910		439	790	92.6			
					1080	510	780	93.3			
550	500					262		89.5			
	580	640				276 305	730	90.0 90.6			
		040	730			348	/30	91.5	0.411	0.043	7
			/30	850		405		92.4			
				030	1000	477		93.2			
470						231		87.8			
., 0	490					244		88.3			
		540				270	657	89.1	0.40	0.000	
			630			308		90.1	0.424	424 0.060	8
				730		359		91.2			
					860	424		92.2			

GH315 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12 7	5300	1 10	2300	120	1800

Bearings	Drive	e end	Opposite drive end			
	Coupling	Pulley				
B3 – B5	6222 C3	NU222ECJ C3	6221 C3			
V1 – V3	6222 C3	NU222ECJ C3	7221 BE			
Electrical blower (IC06)	Weight	Blower motor power				
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	0 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	450 kg	7.5 kW (50/60 Hz)				





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

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- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

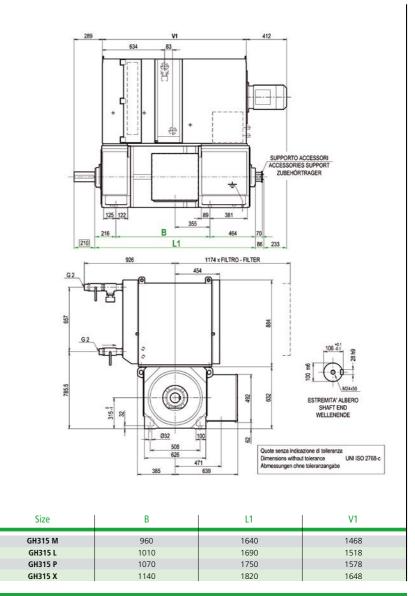
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355

GH315 XK

Rated speed (rpm) at armature voltage 400 V 420 V 460 V 520 V 600 V 430				le	Field ti Motor m	on power (W me costant (s lass (kg): 260 of inertia (kg	s): 1.10 05 (IC06)	Armatur	Winding code		
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
430						206		86.5			
	450					218		87.2			
		500	F70			242	594	88.5	0.519	0.073	9
			5/0	670		276 322		89.2 90.4			
				070	800	381		91.5			
400					000	196		86.2			
400	420					207		86.8			
		470				230	568	87.8			
			530			262		89.0	0.603	0.079	10
				620		307		90.2			
					740	363		91.3			
355						183		85.9			
	370					192		86.5			
		410				215	530	87.7	0.888	0.087	11
			4/5	550		244		88.8			
				550		286		90.1			
320	220					162 172		85.3 86.0			
	330	275				1/2	475	87.0			
		3/3	430			218	4/3	88.3	1.254	0.102	12
			450	500		255		89.6			
					590	302		90.9			
290						145		83.0			
	310					152		83.7			
		350				170	434	85.1	1.001	0.132	13
			400			195		86.5	1.001	0.132	15
				460		230		88.1			
					550	272		89.6			
245	250					112		79.8			
	260	200				120	250	81.6			
		290	330			133 155	350	82.3 84.0	1.168	0.200	14
			330	400		180		86.0		0.200	
				400	470	215		87.7			
	I	I	I	I				2			

GH315 IM1001 - IP54 - IC86W



GH400

GH450

							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Dri	Opposite drive end		
	Coupling	Pulley		
B3 – B5	6222 C3	NU222ECJ C3	6221 C3	
V1 – V3	6222 C3	NU222ECJ C3	7221 BE	
Electrical blower (IC06)	Weight	Blower motor power		
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	450 kg	7.5 kW (50/60 Hz)		

HOME 2/3





1. GENERAL INFORMATION

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- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

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- 4.2 Commutator
- Stator 4.3
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- Mounting arrangement 5.2
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING **AND OPERATING CONDITIONS**

- 6.1 Ratings
- 6.2 Supply voltage
- Maximum loads
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

GH225 GH355 GH400 GH450

GH250 GH280 GH315

GH315 XK GH315 IM1001 - IP44 - IC37

Rated speed (rpm) at armature voltage						je	Field ti Motor m	Excitation power (W): 5300 Field time costant (s): 1.10 Motor mass (kg): 2605 (IC06) Ioment of inertia (kg m²): 12.7			Armature circuit		
	400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
	205						102		77.8		0.240	15	
		215					108		79.0				
			250				120	325	80.5	1.1687			
				280			140		82.5	1.108/	0.240	15	
					330		166		84.6				
						400	198		86.6				
			220				108	293	80.0				
				260			125		82.1		0.272	4.5	
					310		149		84.3	2.204	204 0.273	16	
						370	177		86.3				

=	20 190 20 M8x20 (10) RR ARIA BR C C C C C C C C C C C C C C C C C C	SUPPO ACCES ZUE 89 381 355 464 70 86 M8x20	APERTURE SUPERIORI UPPER OPENINGS OBERE ÖFFNUNGEN ORTO ACCESSORI SORIES SUPPORT IEHÖRTRAGER
ESTREMITA ALBERO SHAFT ERO WELLENENDE		Quote senza indica Dimensions withou Abmessungen ohn	t tolerance UNI ISO 2768-c
Size	В	L1	С
GH315 M	960	1640	779
GH315 L	1010	1690	829
GH315 P	1070	1750	889
GH315 X	1140	1820	959

								TECHNICAL DA
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
i	GH315 MK	2100	9.2	4200	0.85	2400	120	1800
	GH315 LK	2200	10.4	4500	0.92	2400	120	1800
	GH315 PK	2340	11.5	4900	1.01	2400	120	1800
	GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Drive	Drive end					
	Coupling	Pulley					
B3 – B5	6222 C3	NU222ECJ C3	6221 C3				
V1 – V3	6222 C3	NU222ECJ C3	7221 BE				
Electrical blower (IC06)	Weight	Blower motor power					
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	0 Hz)				
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power					
	450 kg	7.5 kW (50/60 Hz)					

HOME 3/3 GO TO MENU





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

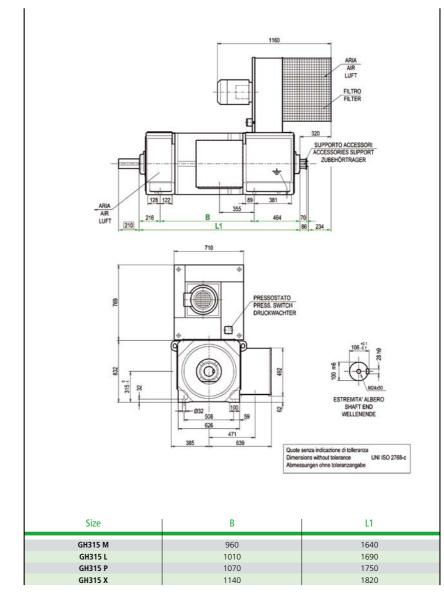
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Driv	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6222 C3	NU222ECJ C3	6221 C3
V1 – V3	6222 C3	NU222ECJ C3	7221 BE
Electrical blower (IC06)	Weight	Blower motor power	
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	450 kg	7.5 kW (50/60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

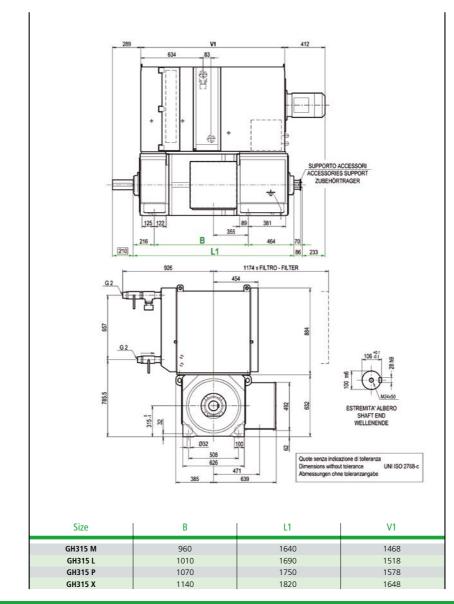
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

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8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 IM1001 - IP54 - IC86W



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	rings Drive end					
	Coupling	Pulley				
B3 – B5	6222 C3	NU222ECJ C3	6221 C3			
V1 – V3	6222 C3	NU222ECJ C3	7221 BE			
Electrical blower (IC06)	Weight	Blower motor power				
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	0 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	450 kg	7.5 kW (50/60 Hz)				





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- 5.1 Coupling and shaft extension
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- 5.3 Degree of protection
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- 5.5 Maximum allowable speeds
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6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

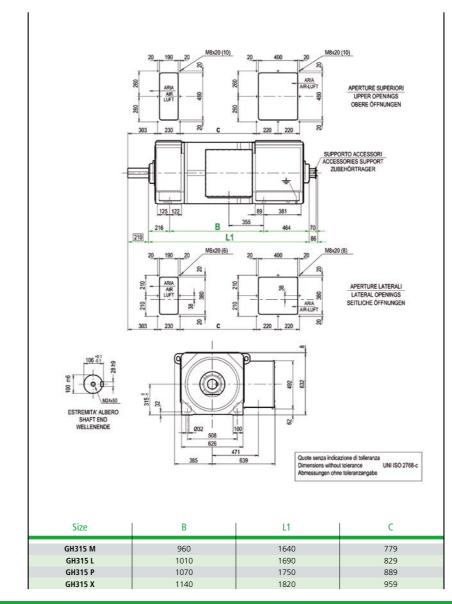
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
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- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

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8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH315 IM1001 - IP44 - IC37



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH315 MK	2100	9.2	4200	0.85	2400	120	1800
GH315 LK	2200	10.4	4500	0.92	2400	120	1800
GH315 PK	2340	11.5	4900	1.01	2400	120	1800
GH315 XK	2500	12.7	5300	1.10	2300	120	1800

Bearings	Drive	Drive end				
	Coupling Pulley					
B3 – B5	6222 C3	NU222ECJ C3	6221 C3			
V1 – V3	6222 C3	NU222ECJ C3	7221 BE			
Electrical blower (IC06)	Weight	Weight Blower motor power				
	105 kg	5.5 kW (50 Hz) - 7.5 kW (6	i0 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	450 kg	7.5 kW (50/60 Hz)				





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5.2 Mounting arrangement

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Cooling method

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Noise level 5 6

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Maximum current at locked rotor

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OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

GH400

GH450

GH355

Derating for field weakening operation

Performance of compensated motors

GH355 SK

GH355 MK

GH355 LK

GH355 PK

Overall dimensions

GH355 IM1001-IP23-IC06

GH355 IM1001-IP54-IC86W

GH355 IM1001-IP44-IC37



Performance Tables are displayed on multiple pages, alongside the data tables are repeated alternately overall dimensions (IC06- IC86W-IC37)











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Degree of protection 5.3

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Supply voltage

Maximum loads 6.3

Current rate-of-rise 6.4

Speed regulation 6.5

Duty with large speed regulation 6.6

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Maximum current at locked rotor

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OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

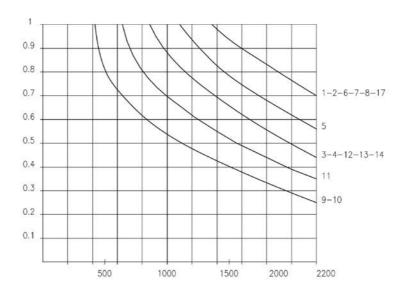
GH400

GH450

GH 355 K

RIDUZIONE DELLA POTENZA IN DISECCITAZIONE DERATING FOR FIELD WEAKENING OPERATION LEISTUNGSREDUZIERUNG BEI FELDSWÄCHUNG

GH 355 K (compensata - compensated - kompensiert) [180% sovraccarico - overload - überlast]



P = K x P tabella potenza disponibile Allowable power output P = K x P table Werfügbare Leistung P = K x P table

> per/for/für **GH 355 SK** $K = K \times 1.40$ $K = K \times 1.26$ **GH 355 MK** GH 355 LK $K = K \times 1.12$ **GH 355 PK**

Per K ≥ 1 niente declassamento For $K \ge 1$ no derating

Für K ≥ 1 keine Leistungreduzierung

							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





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- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

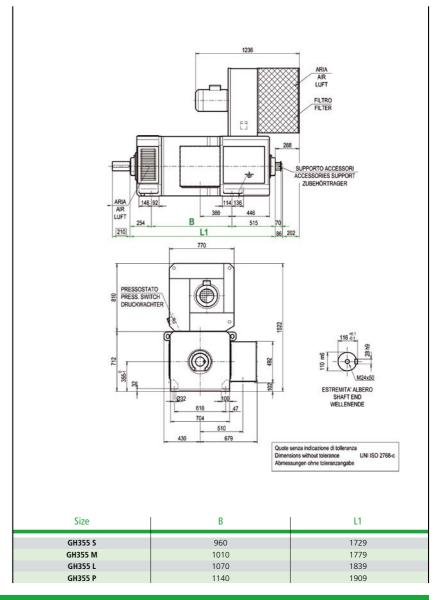
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 SK

	Ra	ated spee	ed (rpm) a	at armatı	ıre voltag	je	Excitation power (W): 5000 Field time costant (s): 1.33 Motor mass (kg): 2810 (IC06) Moment of inertia (kg m²): 15.0			Armatuı	Winding code	
4	100 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
1	1010						556	1500	92.7			
		1080	4200				585	1500	93.0	0.211	0.012	1
			1200	1370			645 725	1500 1485	93.4 93.9			
	920			1370			510	1380	92.2			
		970					535	1380	92.5			
			1060				589	1380	92.9	0.253	0.015	2
				1250	4.450		665	1370	93.5			
	840				1450		760 465	1350	94.1 91.9			
	840	900					405	1260 1260	92.2			
		300	980				537	1260	92.7			
				1140			611	1260	93.3	0.307	0.017	3
					1340		698	1240	93.9			
						1570	800	1210	94.4			
	750	790					410 431	1115 1115	91.8 92.1			
		750	870				474	1115	92.6			
				1010			540	1115	93.2	0.375	0.020	4
					1170		624	1110	93.8			
						1370	720	1090	94.4			
	680	720					371	1019	91.0			
		720	790				391 431	1019 1019	91.4 91.9			
			750	910			491	1019	92.6	0.450	0.025	5
					1060		565	1010	93.4			
						1250	660	1005	94.0			
	590	620					312		89.6			
		620	680				329 364	872	90.0 90.7			
			000	780			415	0/2	91.6	0.587	0.036	6
					910		483		92.5			
						1090	570		93.3			
	540						285		89.4			
		570	620				300	700	89.8			
			620	710			331 378	796	90.5 91.4	0.704	0.040	7
					830		440		92.3			
						970	519		93.1			

GH355 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3 NU224ECJ C3		7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





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7. TESTS

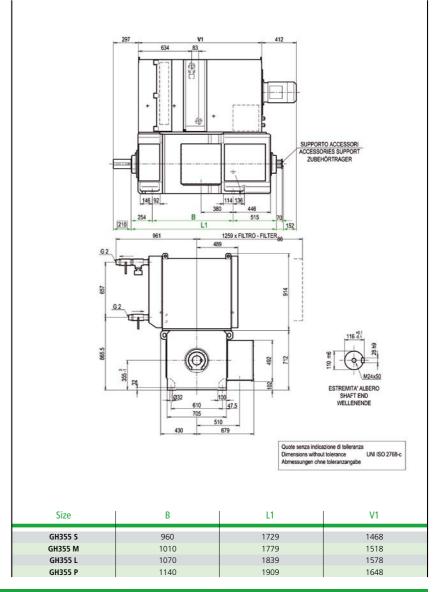
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 SK

Rated speed (rpm) at armature voltage				Excitation power (W): 5000 Field time costant (s): 1.33 Motor mass (kg): 2810 (IC06) Moment of inertia (kg m²): 15.0			Armature circuit		Winding code			
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
450						240		87.8				
	480					251		88.3				
		530				278	678	89.2	0.970	0.056	8	
			600			318		90.2	0.570	0.030	0	
				700		371		91.3				
					820	438		92.3				
400						216	628	86.2				
	420					230	628	86.8				
		460				250	621	87.8	1.295	0.071	9	
			530			287	621	89.0				
				620		336	621	90.3				
350						189		85.9				
	370					200		86.5				
		410				222	552	87.5	1.574	0.083	10	
			480	540		255		88.8				
				540	660	298		90.0				
					660	352		91.2				
320	220					171		84.2				
	330	270				181	540	84.9		0.102		
		370	420			202	510	86.1	1.880		11	
			420	490		232 272		87.5 89.0				
				490	580	322		90.3				
270					300			81.3				
2/0	280					139 148		82.1				
	280	310				165	429	83.5				
		310	360			190	429	85.3	2.459	0.147	12	
			300	420		224		87.0				
				420	500	266		88.6				
250					300	128		81.0				
230	260					135		81.8				
	200	290				151	395	83.3				
		250	330			174	333	85.0	2.938	0.163	13	
				390		206		86.8				
					460	245		88.5				
200						105		77.6				
200	220					112		78.6				
		240				125	340	80.4				
			280			146		82.5	4.023	0.227	14	
				320		172		84.6				
					380	206		86.6				

GH355 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





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7. TESTS

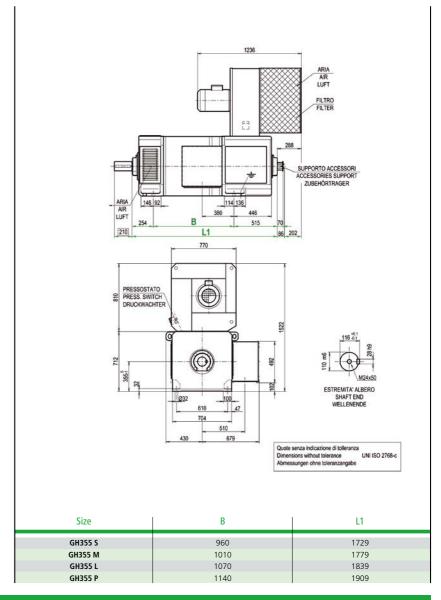
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 MK

Rated speed (rpm) at armature voltage				Excitation power (W): 5200 Field time costant (s): 1.40 Motor mass (kg): 3060 (IC06) Moment of inertia (kg m²): 16.5			Armature circuit		Winding code		
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
910	200					558	1508	92.5			
	980	1080				587 646	1508 1508	92.7 93.2	0.222	0.013	1
		1000	1240			725	1485	93.7			
830						507	1380	91.9			
	870					534	1380	92.2			
		960	1110			588	1380	92.7	0.267	0.016	2
			1110	1300		664 763	1370 1355	93.3 93.9			
760				1500		462	1260	91.6			
	800					486	1260	91.9			
		880				536	1260	92.5	0.323	0.018	3
			1010	4470		610	1260	93.1	0.323	0.010	,
				1170	1400	697 800	1240 1215	93.7 94.4			
680					1400	408	1115	91.5			
000	710					430	1115	91.8			
		780				473	1115	92.4	0.395	0.021	4
			890			539	1115	93.0	0.595	0.021	4
				1050	1250	623 720	1110 1090	93.7 94.3			
610					1230	370	1020	90.7			
010	650					390	1020	91.0			
		710				430	1020	91.7	0.474	0.026	5
			810			490	1020	92.4	0.474	0.026	5
				960	1120	565	1010	93.2			
530					1120	663 311	1010	93.8 89.2			
330	560					328		89.6			
		620				362	872	90.4	0.647	0.030	
			700			414		91.3	0.617	0.038	6
				820	000	482		92.2			
400					980	568		93.0			
480	510					283 298		88.9 89.4			
	310	560				330	796	90.2			
			640			377		91.1	0.741	0.043	7
				750		439		92.0			
					880	517		92.9			

GH355 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





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- 6.9 Accessories

7. TESTS

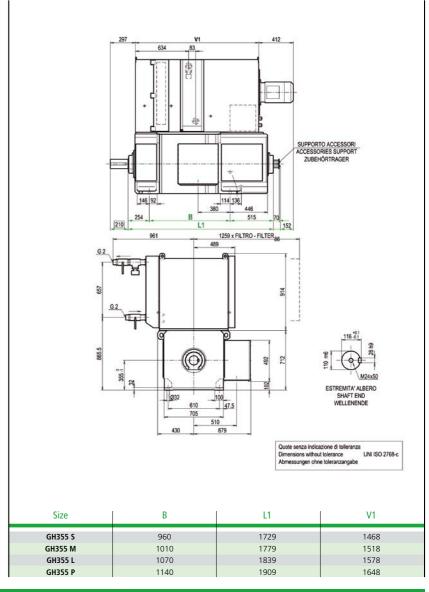
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 MK

R	Rated speed (rpm) at armature voltage				Excitation power (W): 5200 Field time costant (s): 1.40 Motor mass (kg): 3060 (IC06) Moment of inertia (kg m²): 16.5			Armatuı	Winding code		
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
410						236		87.3			
	430	470				250	670	87.8			
		470	540			276 316	678	88.7 89.8	1.021	0.060	8
			340	630		370		90.9			
					740	436		92.0			
360						216	628	85.6			
	380					228	628	86.2			
		410	400			250	620	87.3	1.363	0.075	9
			480	560		285 334	620 620	88.6 89.9			
310				300		188	020	85.2			
510	330					199		85.9			
		370				221	552	86.9	1.057	0.007	10
			440			253		88.3	1.657	0.087	10
				510	540	297		89.6			
200					610	351		90.9			
280	300					170 180		83.5 84.2			
	300	330				200	510	85.4			
			380			230		86.9	1.979	0.108	11
				440		270		88.5			
					520	320		89.9			
235						138		80.4			
	250	200				146	420	81.3			
		280	320			163 189	429	82.8 84.6	2.589	0.155	12
			320	380		222		86.4			
					450	265		88.1			
220						126		80.1			
	230					134		81.0			
		260	200			150	395	82.5	3.093	0.172	13
			300	350		173 204		84.3 86.2			
				330	410	243		88.0			
		210				124		79.4			
			250			144	340	81.6	4.225	0.240	1.1
				290		171		83.9	4.235	0.240	14
					350	204		85.9			

GH355 IM1001 - IP54 - IC86W



							TECHNICAL
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

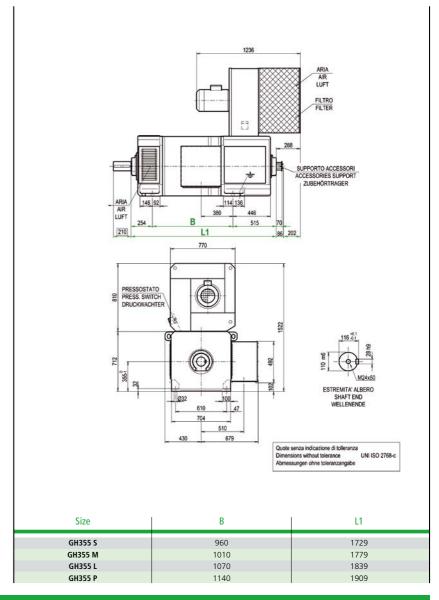
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 LK

R	Rated speed (rpm) at armature voltage					Excitation power (W): 5600 Field time costant (s): 1.48 Motor mass (kg): 3210 (IC06) Moment of inertia (kg m²): 18.8			Armature circuit		Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
810						556	1508	92.2			
	860					586	1508	92.5	0.236	0.014	1
		960	1080			645 723	1508 1485	93.0 93.5			
730			1000			505	1380	91.6			
,50	770					532	1380	91.9			
		850				586	1380	92.5	0.283	0.017	2
			1010			663	1370	93.1			
670				1150		761	1355	93.8			
670	710					461 485	1260 1260	91.3 91.6			
	710	780				535	1260	92.2			
			910			610	1260	92.9	0.343	0.019	3
				1060		695	1240	93.5			
					1250	800	1215	94.2			
600	630					406	1115 1115	91.1 91.5			
	030	700				428 472	1115	91.5			
		700	790			537	1115	92.8	0.419	0.023	4
				940		622	1110	93.5			
					1110	720	1090	94.1			
540						370	1021	90.3			
	570	630				388 428	1021 1021	90.6 91.3			
		030	720			489	1021	92.1	0.502	0.028	5
				830		563	1010	92.9			
					1010	662	1010	93.6			
470						309		88.7			
	500	550				326	872	89.2 90.0			
		550	620			360 412	8/2	90.0	0.654	0.040	6
			020	720		480		91.9			
					860	566		92.8			
430						281		88.4			
	450					297		88.9			
		500	570			328 375	796	89.7 90.7	0.785	0.045	7
			3/0	660		438		90.7			
					780	516		92.6			

GH355 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





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2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

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- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH315

GH280

GH355 LK

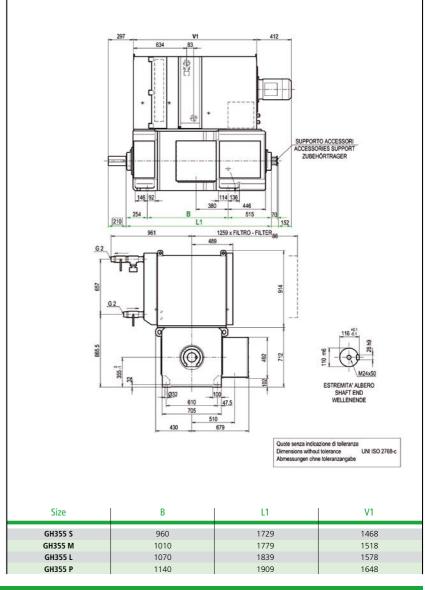
GH225

R	ated spe	ed (rpm) a	at armatı	ıre voltag	je	Excitation power (W): 5600 Field time costant (s): 1.48 Motor mass (kg): 3210 (IC06) Moment of inertia (kg m²): 18.8			Armatuı	Winding code		
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
360						234		86.6				
	380					248		87.2				
		420	480			275 315	678	88.1	1.082	0.063	8	
			480	560		368		89.3 90.5				
				300	660	435		91.6				
315						215	628	84.9				
	330					226	628	85.5				
		370				250	620	86.6	1.445	0.080	9	
			430			285	620	88.0				
275				520		332	620	89.4				
275	290					186 197		84.4 85.1				
	230	320				219	552	86.3				
			390			251		87.7	1.756	0.093	10	
				450		295		89.1				
					530	349		90.4				
245						168		82.6				
	260	290				178 198	510	83.3 84.7				
		290	340			228	510	86.3	2.098	0.115	11	
			340	390		268		87.9				
					465	319		89.4				
210						136		79.3				
	220					144		80.2				
		250	290			161 187	429	81.8 83.7	2.744	0.165	12	
			290	340		221		85.7				
				540	400	263		87.5				
190						124		79.0				
	210					132		79.9				
		230				148	395	81.5	3.278	0.183	13	
			260	210		171		83.5	5.270	0.103	15	
				310	360	202 241		85.5 87.4				
		185			300	123		79.0				
		103	215			143	340	80.6				
				255		170	2.70	83.0	4.489	0.255	14	
					305	203		85.2				

GH250

GH355 IM1001 - IP54 - IC86W

GH355



GH400

GH450

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
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3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

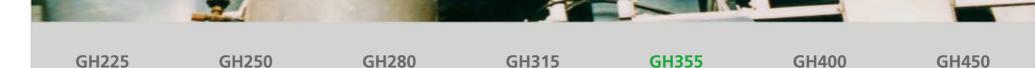
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

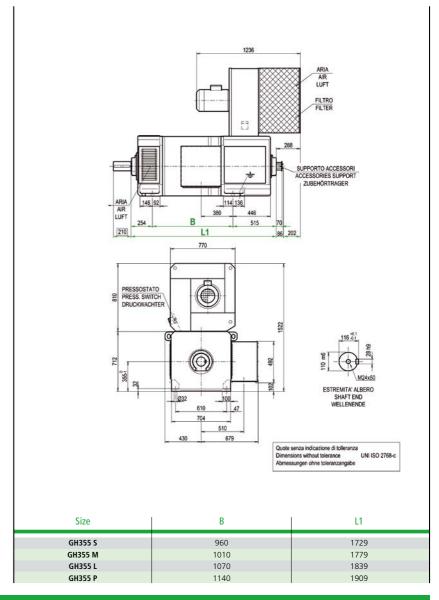
8. OUTPUT POWER DIAGRAMS



GH355 PK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Excitation power (W): 6000 Field time costant (s): 1.55 Motor mass (kg): 3430 (IC06) Moment of inertia (kg m²): 21.0			Armatuı	Winding code	
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
720						555	1508	91.9			
	760					585	1508	92.2	0.251	0.015	1
		830	960			643 720	1508 1485	92.7 93.3			
655			900			503	1380	91.3			
033	685					530	1380	91.6			
	003	760				584	1380	92.2	0.301	0.018	2
			860			660	1370	92.8			
				1020		760	1355	93.5			
600						460	1260	90.9			
	630					482	1260	91.2			
		690	700			532	1260	91.8	0.366	0.021	3
			790	920		606 695	1260 1240	92.6 93.3			
				320	1110	800	1210	94.1			
530					1110	405	1115	90.7			
330	560					426	1115	91.1			
		620				470	1115	91.7	0.447	0.035	,
			700			536	1115	92.5	0.447	0.025	4
				820		620	1110	93.2			
					980	722	1100	93.9			
485						366	1020	89.8			
	510	560				386 426	1020 1020	90.2 90.9			
		300	650			426	1020	90.9	0.536	0.031	5
			050	750		560	1010	92.6			
					890	660	1010	93.4			
420						307		88.1			
	440					324		88.6			
		490				358	872	89.4	0.698	0.043	6
			560			410		90.5	0.050	0.015	Ů
				650	770	478		91.5			
200					770	564		92.5			
380	400					277 293		87.9 88.4			
	400	440				324	790	89.2			
			500			370	, 50	90.3	0.837	0.049	7
				590		433		91.3			
					690	510		92.3			

GH355 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





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2. STANDARDS AND QUALITY

- 2.1 Reference standards
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- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

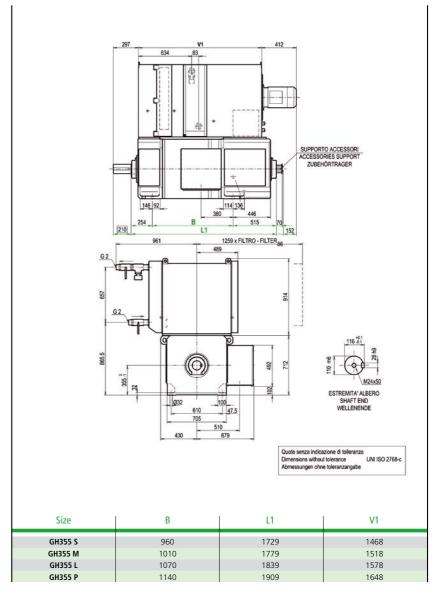
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 PK

R	ated spee	ed (rpm) a	at armatu	ıre voltag	le	Field ti Motor m	on power (W me costant (s lass (kg): 343 of inertia (kg	s): 1.55 80 (IC06)	Armatuı	re circuit	Winding code	
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
315						232		85.8				
	335					246		86.4				
		370				272	678	87.5	1.153	0.069	8	
			425	495		313 366		88.7 90.0				
				493	585	433		91.2				
275					303	212	628	83.8				
273	290					224	628	84.5				
		320				245	620	85.7	1.540	0.087	9	
			370			280	620	87.2				
				440		330	620	88.7				
240						184		83.5				
	255					195		84.2				
		285	330			217 250	553	85.5 87.0	1.872	0.101	10	
			330	390		250		87.0				
				330	460	348		89.9				
215						166		81.5				
2.13	230					176		82.3				
		255				196	510	83.7	2 227	0.125		
			295			226		85.5	2.237	0.125	11	
				350		266		87.2				
					410	317		88.8				
180	400					134		78.0				
	190	215				142 159	430	79.0 80.7				
		213	250			185	430	82.7	2.925	0.179	12	
			250	295		219		84.8				
					345	261		86.8				
		200				146		80.4				
			230			169	395	82.5	2.405	0.100	12	
				270		200		84.6	3.495	0.198	13	
					320	239		86.6				
		160				120		76.8				
			190	225		140	340	79.3	4.786	0.277	14	
				225	270	167 200		81.9 84.3				
					2/0	200		84.3				

GH355 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

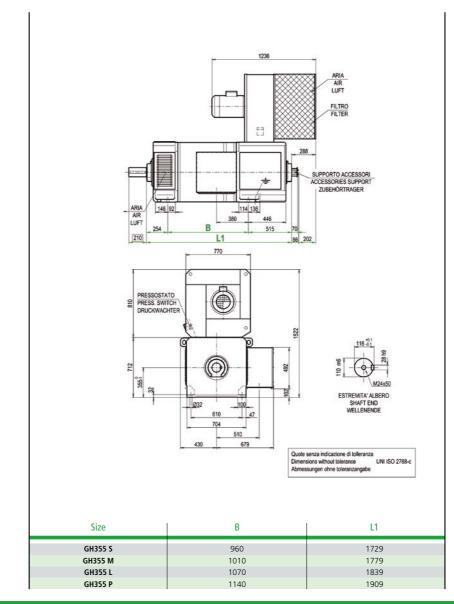
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 IM1001 - IP23 - IC06



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	
	•		





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2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

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- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

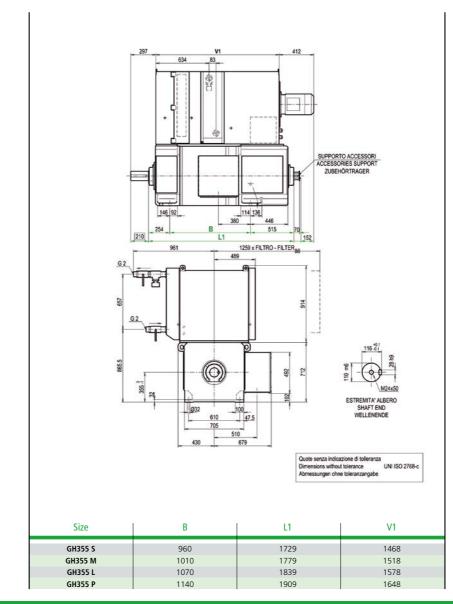
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 IM1001 - IP54 - IC86W



							TECHNICAL I
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH355 SK	2700	15.0	5000	1.33	2200	140	2050
GH355 MK	2950	16.5	5200	1.40	2200	140	2050
GH355 LK	3100	18.8	5600	1.48	2200	140	2050
GH355 PK	3320	21.0	6000	1.55	2100	140	2050

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	
	•		





I. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

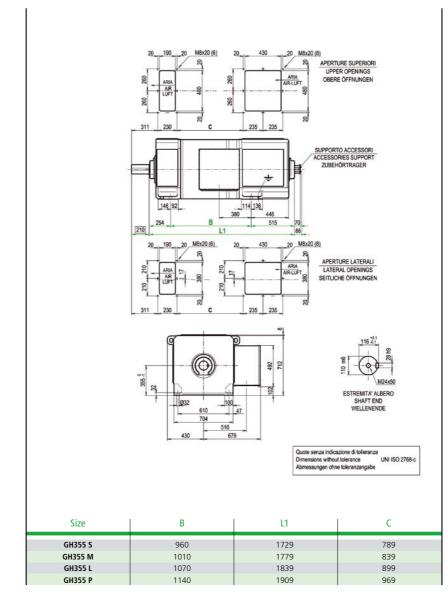
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH355 IM1001 - IP44 - IC37



								TECHNICAL D	ΑT
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
i	GH355 SK	2700	15.0	5000	1.33	2200	140	2050	
	GH355 MK	2950	16.5	5200	1.40	2200	140	2050	
	GH355 LK	3100	18.8	5600	1.48	2200	140	2050	
	GH355 PK	3320	21.0	6000	1.55	2100	140	2050	

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	6224 C3	NU224ECJ C3	6224 C3
V1 – V3	6224 C3	NU224ECJ C3	7224 B
Electrical blower (IC06)	Weight	Blower motor power	
	110 kg	7.5 kW (50 / 60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	440 kg	9.2 kW (50 / 60 Hz)	





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4.2 Commutator

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Brushholder yoke 4.4

4.5 Bearings

Belted and radial thrust application 4.6

CONSTRUCTION FEATURES

Coupling and shaft extension 5.1

Mounting arrangement 5.2

Degree of protection 5.3

Cooling method

Maximum allowable speeds 5.5

Noise level 5 6

5.7 Vibrations and balancing

Conduit box 5.8

5.9 Groud terminals

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MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

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Supply voltage

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Current rate-of-rise

Speed regulation 6.5

Duty with large speed regulation 6.6

6.7

Maximum current at locked rotor

6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

GH400

GH450

GH400

Derating for field weakening operation

Performance of compensated motors

GH400 MK

GH400 LK

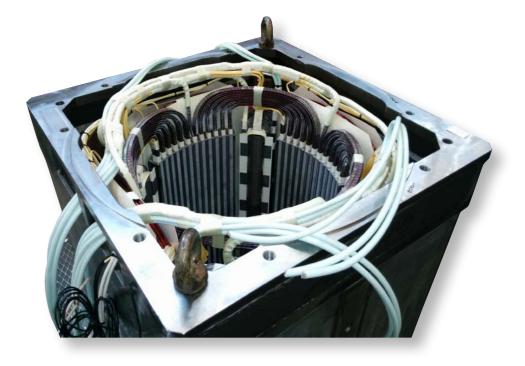
GH400 PK

Overall dimensions

GH400 IM1001-IP23-IC06

GH400 IM1001-IP54-IC86W

GH400 IM1001-IP44-IC37



Performance Tables are displayed on multiple pages, alongside the data tables are repeated alternately overall dimensions (IC06- IC86W-IC37)











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4.3 Stator

4.4 Brushholder yoke

4.5 Bearings

4.6 Belted and radial thrust application

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5.1 Coupling and shaft extension

5.2 Mounting arrangement

5.3 Degree of protection

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5 6 Noise level

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6.6 Duty with large speed regulation

6.7 Excitation

6.8 Maximum current at locked rotor

6.9 Accessories

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8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

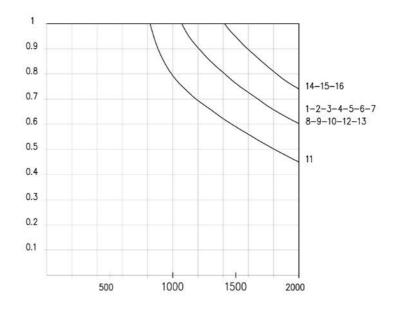
GH400

GH450

GH 400 K

RIDUZIONE DELLA POTENZA IN DISECCITAZIONE DERATING FOR FIELD WEAKENING OPERATION LEISTUNGSREDUZIERUNG BEI FELDSWÄCHUNG

GH 400 K (compensata - compensated - kompensiert)
[180% sovraccarico - overload - überlast]



P = K x P tabella potenza disponibile

per/for/für

Allowable power output P = K x P table Werfügbare Leistung P = K x P table

GH 400 MK K = K x 1.57 GH 400 LK K = K x 1.35

GH 400 PK

K = K x 1.17

Per K ≥ 1 niente declassamento

For $K \ge 1$ no derating

Für K ≥ 1 keine Leistungreduzierung

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH400 MK GH400 LK GH400 PK	3700 4200 4600	31.5 34.5 38.5	5700 6200 6600	1.20 1.30 1.40	2000 2000 1900	180 180 180	1300 1300 1300

Bearings	Dri	Opposite drive end		
	Coupling	Pulley		
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3	
V1 – V3	6228 C3	NU228ECM C3	7228 B	
Electrical blower (IC06)	Weight	Blower motor power		
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	60 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	620 kg	15.0 / 15.0 kW (50/60 Hz)		





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- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

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- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
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- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

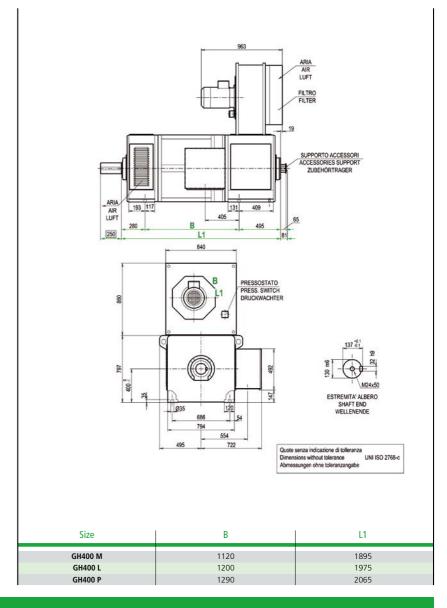
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH400 MK

R	Rated spee	ed (rpm) a	at armatı	ıre voltag	je	Excitation power (W): 5700 Field time costant (s): 1.2 Motor mass (kg): 3860 (IC06) Moment of inertia (kg m²): 31.5			Armatuı	Winding code		
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE MH	RESISTANCE AT 115 °C Ω		
780						612	1650	92.7				
	810					646	1650	93.2				
		900	4000			710	1650	93.5	0.23	0.0135	1	
			1030	1190		806 916	1650 1620	93.9 94.2				
700				1190								
700	740					590 622	1600 1600	92.2 92.6				
	740	810				685	1600	92.0	0.26	0.016	2	
		010	920			769	1580	93.6	0.20	0.010	2	
			320	1080		885	1565	94.2				
640						538	1470	91.5				
0.10	670					568	1470	92.0				
		740				625	1470	92.4				
			850			703	1450	93.2	0.31	0.019	3	
				980		812	1440	94.0				
					1150	932	1410	94.4				
520						450	1250	90.0				
	540					472	1240	90.6				
		600				519	1240	91.0	0.44	0.028	4	
			680			593	1240	92.0	0.44	0.020	-	
				790	020	685	1230	92.8				
					930	788	1200	93.8				
470						394	1100	89.5				
	500	550				416	1100	90.0				
		550	620			458 520	1100 1095	90.5 91.3	0.55	0.032	5	
			020	730		604	1093	92.4				
				750	860	700	1070	93.5				
430						355	1000	88.8				
450	450					375	1000	89.3				
		500				413	1000	89.8				
			570			467	990	90.7	0.66	0.040	6	
				670		544	990	91.6				
					790	630	970	92.8				
400						328	930	88.2				
	420					346	930	88.6				
		470				382	930	89.2	0.78	0.044	7	
			530			436	930	90.2	0.70	0.044	,	
				620	70.0	498	910	91.2				
			l		730	582	900	92.4				

GH400 IM1001 - IP23 - IC06



							TECHNICAL DA	AT.
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
GH400 MK	3700	31.5	5700	1.20	2000	180	1300	
GH400 LK GH400 PK	4200 4600	34.5 38.5	6200 6600	1.30 1.40	2000 1900	180 180	1300 1300	

Bearings	Drive	Opposite drive end			
	Coupling	Pulley			
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3		
V1 – V3	6228 C3	NU228ECM C3	7228 B		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	V (50 Hz) - 9.2 kW (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	620 kg	15.0 / 15.0 kW (50/60 Hz)			

HOME 1/3





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- 4.3 Stator
- 4.4 Brushholder yoke
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- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

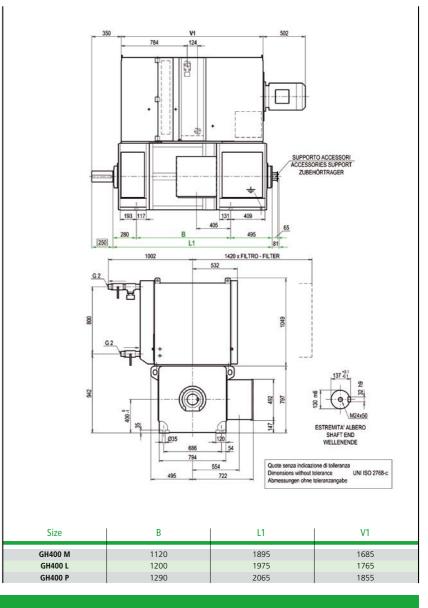
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH400 MK

R	ated spe	ed (rpm) a	at armatı	ıre volta <u>c</u>	je	Excitation power (W): 5700 Field time costant (s): 1.2 Motor mass (kg): 3860 (IC06) Moment of inertia (kg m²): 31.5			Armatu	Winding code	
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
370						298	855	87.1			
	390					316	855	88.0			
		430				348	855	88.5	0.92	0.056	8
			490	580		398 462	855 850	89.5 90.6			
				380	680	528	820	90.6			
320					000	264	770	85.7			
320	340					204	770	86.9			
	340	380				310	770	87.5			
		300	430			354	770	88.4	1.17	0.063	9
				510		414	760	90.8			
					600	484	760	91.0			
310						247		85.2			
	320					262		86.0			
		350				289	725	86.7	1.25	0.073	10
			400			332		88.1	1.23	0.073	10
				470		389		89.4			
					560	460		90.6			
270						226		84.6			
	290					241		85.9			
		320	350			265	668	86.2 88.1	1.46	0.081	11
			350	430		306 357		89.1			
				430	500	423		90.5			
250					300	206		83.1			
230	260					220		84.5			
		290				242	620	84.9			
			330			279	120	86.5	1.74	0.100	12
				390		327		87.9			
					460	389		89.6			
230						189		82.2			
	240					202		83.6			
		270				223	575	84.3	1.90	0.110	13
			310			257		86.0	1.90	0.110	13
				370		302		87.5			
					440	359		89.2			

GH400 IM1001 - IP54 - IC86W



								TECHNICAL DA	AT.
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
i	GH400 MK	3700	31.5	5700	1.20	2000	180	1300	
	GH400 LK	4200	34.5	6200	1.30	2000	180	1300	
	GH400 PK	4600	38.5	6600	1.40	1900	180	1300	

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3
V1 – V3	6228 C3	NU228ECM C3	7228 B
Electrical blower (IC06)	Weight	Blower motor power	
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	620 kg	15.0 / 15.0 kW (50/60 Hz)	

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- 4.4 Brushholder yoke
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- 4.6 Belted and radial thrust application

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- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
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- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH225 GH250 GH280

280 GH315

GH355

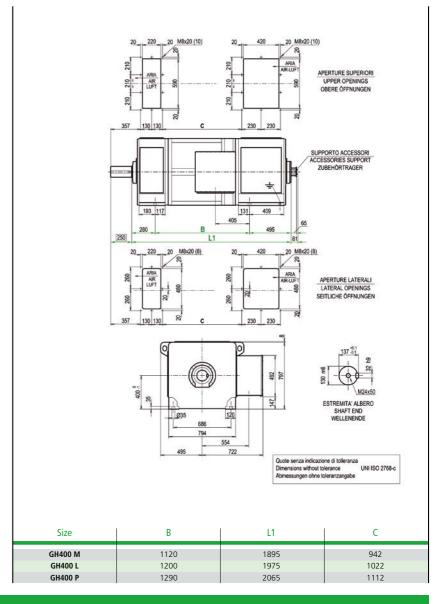
GH400

GH450

GH400 MK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 5700 Field time costant (s): 1.2 Motor mass (kg): 3860 (IC06) Moment of inertia (kg m²): 31.5			Armature circuit	
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE MH	RESISTANCE AT 115 °C Ω	
210						171		79.2			
	220					183		80.7			14
		250				202	540	81.3	2.30	0.150	
			280	220		235		83.7	2.50	0.150	
				330	400	277 330		85.5 87.3			
					400						
190	200					156		78.8			
	200	220				167	495	80.3			
		220	260			185 216	495	81.2 83.9	2.70	0.157	15
			200	310		253		85.2			
				310	370	302		87.2			
	190				370	154		78.9			
	190	210				173	465	80.9			
		210	240			202	403	83.5	3.00	0.170	16
			240	290		237		84.9	3.00	0.170	10
				250	340	283		86.9			
		l	l	I	340	283		80.9			

GH400 IM1001 - IP44 - IC37



								TECHNICAL D	ATA
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
j	GH400 MK	3700	31.5	5700	1.20	2000	180	1300	
	GH400 LK GH400 PK	4200 4600	34.5 38.5	6200 6600	1.30 1.40	2000 1900	180 180	1300 1300	

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3
V1 – V3	6228 C3	NU228ECM C3	7228 B
Electrical blower (IC06)	Weight	Blower motor power	
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	620 kg	15.0 / 15.0 kW (50/60 Hz)	

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- Quality system

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- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

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- Coupling and shaft extension 5.1
- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage 6.2
- Maximum loads 6.3
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

GH280

GH315

GH400 LK

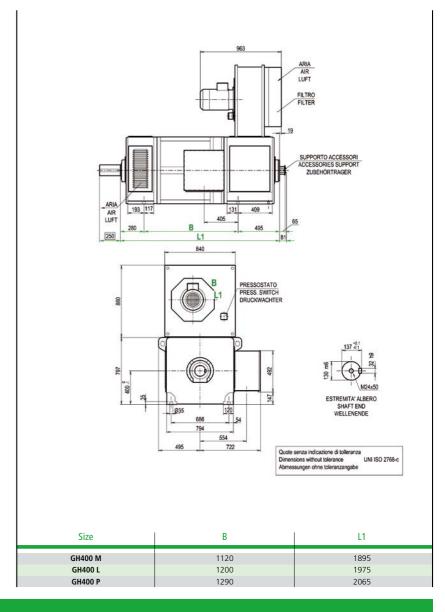
GH225

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field t	on power (W ime costant (lass (kg): 436 of inertia (kg	(s): 1.3	Armatuı	re circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
660						608	1650	92.1			
	700					644	1650	92.9			
		780				708	1650	93.3	0.26	0.014	1
			890	1030		805 927	1650 1640	93.8 94.2			
600				1030							
600	630					584 620	1600 1600	91.3 92.3			
	030	690				684	1600	92.3	0.30	0.016	2
		050	790			766	1580	93.2	0.50	0.010	
				920		880	1560	94.0			
550						535	1470	91.0			
	580					564	1470	91.4			
		640				622	1470	92.1	0.36	0.020	3
			730			701	1450	93.0	0.50	0.020	3
				840		810	1440	93.8			
					990	936	1420	94.2			
430						443	1240	89.3			
	460	F10				467	1240	89.7			
		510	580			516 587	1240 1235	90.5 91.4	0.52	0.030	4
			300	680		682	1233	91.4			
				000	800	790	1210	93.3			
400						390	1095	89.0			
100	430					411	1095	89.4			
		470				453	1095	89.9		0.024	-
			540			516	1090	91.0	0.64	0.034	5
				630		599	1085	92.0			
					740	697	1070	93.1			
360						352	1000	88.0			
	390					372	1000	88.6			
		430	400			410	1000	89.1	0.77	0.044	6
			490	570		465 542	990 990	90.3 91.2			
				370	680	633	980	92.3			
340					000	324	930	87.1			
340	360					343	930	87.8			
		400				379	930	88.6			
			460			435	930	90.0	0.90	0.048	7
				530		501	920	90.8			
					630	586	910	92.0			

GH250

GH400 IM1001 - IP23 - IC06

GH355



GH400

GH450

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH400 MK 3700 GH400 LK 4200		31.5	5700	1.20	2000	180	1300
GH400 LK GH400 PK	4200 4600	34.5 38.5	6200 6600	1.30 1.40	2000 1900	180 180	1300 1300

Bearings	Drive	e end	Opposite drive end			
	Coupling	Pulley	1			
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3 7228 B			
V1 – V3	6228 C3	NU228ECM C3				
Electrical blower (IC06)	Weight					
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	620 kg	15.0 / 15.0 kW (50/60 Hz)				
	020 Ng	15.07 15.0 KTT (50,00 112)				

HOME 1/3





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

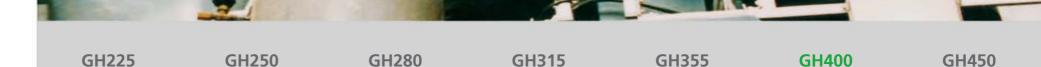
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

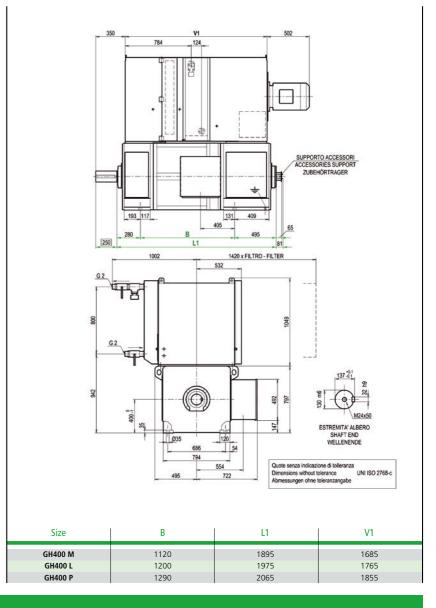
8. OUTPUT POWER DIAGRAMS



GH400 LK

R	ated spe	ed (rpm) a	at armatı	ure voltaç	je	Field t Motor m	on power (W ime costant (ass (kg): 436 of inertia (kg	(s): 1.3 50 (IC06)	Armatuı	e circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE MH	RESISTANCE AT 115 °C Ω	
310						297	855	86.8			
	330					314	855	87.4			
		370				346	855	88.0	1.08	0.058	8
			420			393	850	88.9	1.00	0.030	Ů
				500	500	453	840	89.9			
					590	528	825	91.4			
280	200					262		85.1			
	300	320				277 305	770	85.7 86.1			
		320	370			352	//0	87.9	1.36	0.068	9
			3/0	440		412		89.2			
				-110	520	489		90.7			
260						244		84.1			
200	280					259		85.1			
		310				286	725	85.8			
			350			329		87.3	1.70	0.078	10
				410		387		89.0			
					490	457		90.0			
230						224		83.8			
	240					238		84.8			
		270				262	668	85.3	2.00	0.087	11
			310			303		87.2	2.00	0.007	11
				360		354		88.3			
					440	420		89.8			
210						202		81.5			
	220	250				216		82.9			
		250	290			239 276	620	83.8 85.6	2.32	0.107	12
			290	340		324		85.6 87.1			
				340	400	324		88.7			
200					400	186		80.9			
200	210					200		80.9			
	210	230				200	575	83.2			
		230	270			255	3/3	85.3	2.62	0.118	13
				320		299		86.7			
					380	356		88.4			

GH400 IM1001 - IP54 - IC86W



								TECHNICAL DA	AT.
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
i	GH400 MK	3700	31.5	5700	1.20	2000	180	1300	
	GH400 LK	4200	34.5	6200	1.30	2000	180	1300	
	GH400 PK	4600	38.5	6600	1.40	1900	180	1300	

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3
V1 – V3	6228 C3	NU228ECM C3	7228 B
Electrical blower (IC06)	Weight	Blower motor power	
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	620 kg	15.0 / 15.0 kW (50/60 Hz)	

HOME 2/3





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- CE Marking 2.2
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- Commutator 4.2
- 4.3 Stator
- Brushholder yoke 4.4
- Bearings 4.5
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- Mounting arrangement 5.2
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- Speed regulation 6.5
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS



GH225 GH250 GH280 GH315

GH355

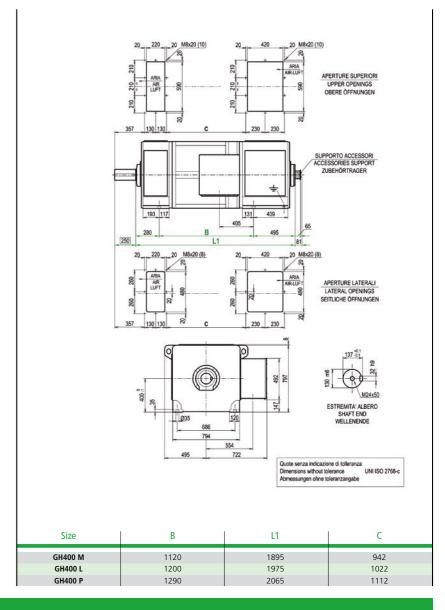
GH400

GH450

GH400 LK

R	ated spee	ed (rpm) a	at armatı	ıre voltag	je	Excitation power (W): 6200 Field time costant (s): 1.3 Motor mass (kg): 4360 (IC06) Moment of inertia (kg m²): 34.5			Armatur	Winding code				
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω				
		210				198	540	79.7						
			240			231		82.3	2.80	0.163	14			
							290		272		84.0		0.103	14
					350	326		86.2						
				200				181	495	79.5				
			230			213		82.8	3.60	0.168	15			
				270		250		84.2	3.00	0.100	13			
					320	300		86.6						
			210			198	465	81.9						
				250		234		83.9	4.03	0.185	16			
					300	280		86.0						

GH400 IM1001 - IP44 - IC37



							TECHNICAL D	AT/
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
GH400 MK GH400 LK	3700 4200	31.5 34.5	5700 6200	1.20 1.30	2000 2000	180 180	1300 1300	
GH400 PK	4600	38.5	6600	1.40	1900	180	1300	

Bearings	Drive	Opposite drive end	
	Coupling	Pulley	
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3
V1 – V3	6228 C3	NU228ECM C3	7228 B
Electrical blower (IC06)	Weight	Blower motor power	
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	620 kg	15.0 / 15.0 kW (50/60 Hz)	

HOME 3/3 GO TO MENU





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

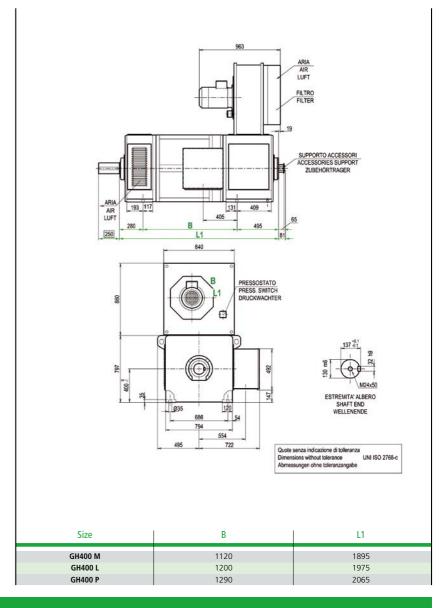
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH400 PK

R	ated spe	ed (rpm)	at armatı	ure voltag	je	Excitation power (W): 6600 Field time costant (s): 1.4 Motor mass (kg): 4760 (IC06) Moment of inertia (kg m²): 38.5			Armatuı	re circuit	Winding code
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
570						607	1650	92.0			
	600					640	1650	92.4			
		660				704	1650	92.8	0.30	0.016	1
			760	870		803 916	1650 1620	93.6 94.2			
F10				0/0							
510	540					585 616	1600 1600	91.4 91.7			
	540	590				677	1600	91.7	0.35	0.018	2
		330	680			764	1580	93.0	0.55	0.016	2
			000	790		878	1560	93.8			
470						532	1470	90.5			
	500					557	1460	90.8			
		550				614	1460	91.4		0.024	
			630			697	1450	92.4	0.41	0.021	3
				730		800	1430	93.2			
					860	923	1400	94.2			
380						442	1240	89.1			
	400					465	1240	89.3			
		440				512	1240	89.8	0.60	0.032	4
			500	500		584	1235	90.8			
				580	690	679 788	1230 1210	92.0 93.0			
350					050	386	1095	88.1			
330	370					407	1095	88.5			
	370	400				448	1095	88.9			
		100	460			512	1090	90.4	0.74	0.037	5
				530		592	1080	91.4			
					640	692	1068	92.6			
310						349	1000	87.3			
	330					368	1000	87.6			
		370				406	1000	88.3	0.90	0.047	6
			420			462	990	89.7	0.90	0.047	U
				490	500	539	990	90.7			
					580	631	980	92.0			
290	210					321	930	86.3			
	310	240				339	930	86.9			
		340	390			375 426	930 920	87.7 89.0	1.05	0.052	7
			330	460		420	910	89.9			
				400	540	577	900	91.6			
	1	I	1	1			2.50	2			

GH400 IM1001 - IP23 - IC06



								TECHNICAL DA
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
ī	GH400 MK	3700	31.5	5700	1.20	2000	180	1300
	GH400 LK	4200	34.5	6200	1.30	2000	180	1300
	GH400 PK	4600	38.5	6600	1.40	1900	180	1300

Bearings	Drive	Opposite drive end		
	Coupling	Pulley		
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3	
V1 – V3	6228 C3	3 NU228ECM C3 7228		
Electrical blower (IC06)	Weight	Blower motor power		
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	620 kg	15.0 / 15.0 kW (50/60 Hz)		

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1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

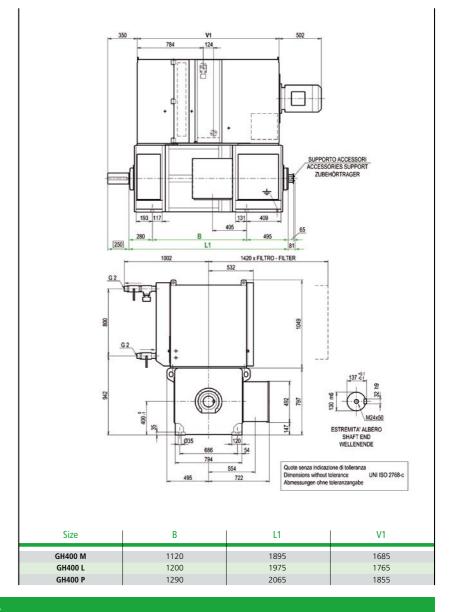
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH400 PK

	Rated speed (rpm) at armature voltage						ion power (W ime costant (nass (kg): 476 of inertia (kg	(s): 1.4 50 (IC06)	Armature circuit		Winding code			
400 V	420 V	460 V	520 V	600 V	700 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω				
270						292	855	85.4						
	280					310	855	86.3						
		310				343	855	87.2	1.26	0.065	8			
			360			390	850	88.2	1.20	0.003				
				420	500	454	840	90.0						
					500	525	825	90.9						
240						258	770	83.8						
	250					274	770	84.7						
		280	220			304	770	85.8	1.57	0.075	9			
			320	200		344	760	87.0						
				380	450	400	756	88.2						
					450	473	750	90.1						
230	240					241		83.1						
	240	270				256	725	84.0						
		270	200			283	725	84.9	1.90	0.083	10			
			300	350		327 383		86.7 88.0						
				330	420	455		89.7						
200					420			82.7						
200	210					221 235		83.8						
	210	230				260	668	84.6						
		230	270			300	000	86.4	2.30	0.095	11			
			270	320		351		87.6						
				320	380	416		89.0						
	190				300	213		81.8						
	150	210				238	620	83.5						
		210	250			274	020	85.0	2.60	0.110	12			
			230	290		322		86.6	2.00	0.110	12			
	1				350	383		88.2						
		200				219	575	82.8						
		200	230			253	5/5	84.6						
			230	270		295		85.5	3.04	0.125	13			
					320	354		88.0						
			210			288	540	81.2						
			210	250		267	540	82.4	3.20	0.178	14			
					300	322		85.2	3.20	0.170	1.4			
			190		300	209	495	81.2						
			130	220		247	493	83.2	4.10	0.182	15			
				220	270	296		86.4	4.10	0.102	13			
				210	2,0	230	465	82.4						
	1			210	250	230	400	85.1	3.20	0.178	16			
	1			1	230	2//		03.1						

GH400 IM1001 - IP54 - IC86W



								TECHNICAL DA			
	Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)			
i	GH400 MK	3700	31.5	5700	1.20	2000	180	1300			
	GH400 LK	4200	34.5	6200	1.30	2000	180	1300			
	GH400 PK	4600	38.5	6600	1.40	1900	180	1300			

Bearings	Drive	Opposite drive end			
	Coupling	Pulley			
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3		
V1 – V3	6228 C3	NU228ECM C3 7228 B			
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	620 kg	15.0 / 15.0 kW (50/60 Hz)			

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1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

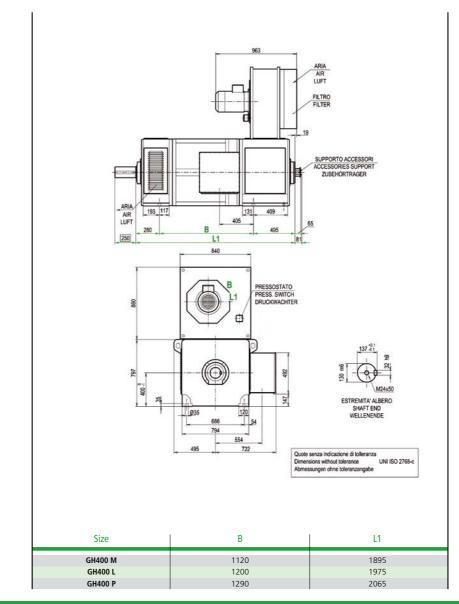
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH400 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH400 MK	3700	31.5	5700	1.20	2000	180	1300
GH400 LK GH400 PK	4200 4600	34.5 38.5	6200 6600	1.30 1.40	2000 1900	180 180	1300 1300

Bearings	Dri	Opposite drive end			
	Coupling	Pulley			
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3		
V1 – V3	6228 C3	NU228ECM C3			
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	620 kg	15.0 / 15.0 kW (50/60 Hz)			





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

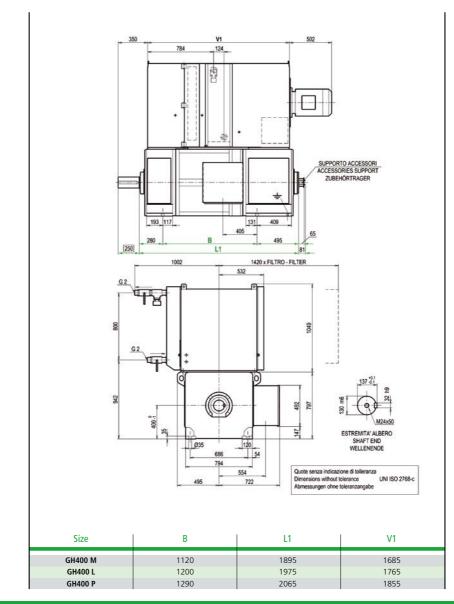
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400

GH400 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH400 MK	3700	31.5	5700	1.20	2000	180	1300
GH400 LK GH400 PK	4200 4600	34.5 38.5	6200 6600	1.30 1.40	2000 1900	180 180	1300 1300

Bearings	Dri	Opposite drive end		
	Coupling	Pulley		
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3	
V1 – V3	6228 C3	Pulley		
Electrical blower (IC06)	Weight	Blower motor power		
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)	
Air-To-Water Heat Exchanger (IC 86W)	Weight			
	620 kg	15.0 / 15.0 kW (50/60 Hz)		

GH450





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

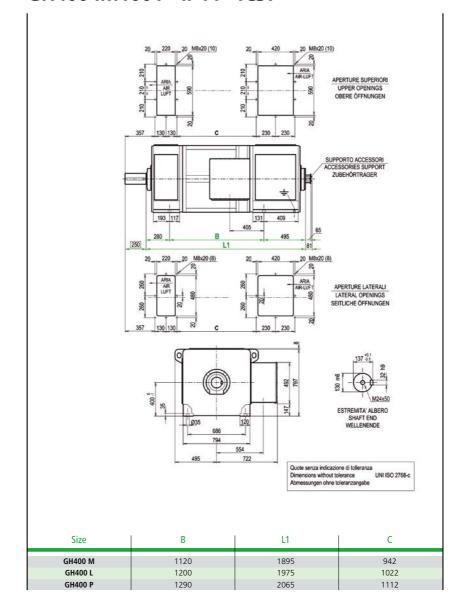
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH400 IM1001 - IP44 - IC37



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH400 MK	3700	31.5	5700	1.20	2000	180	1300
GH400 LK GH400 PK	4200 4600	34.5 38.5	6200 6600	1.30 1.40	2000 1900	180 180	1300 1300

Bearings	Dri	Opposite drive end			
	Coupling	Pulley			
B3 – B5	NU228ECM C3	NU228ECM C3	6228 C3		
V1 – V3	6228 C3	NU228ECM C3	7228 B		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	7.5 kW (50 Hz) - 9.2 kW (6	0 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	620 kg	15.0 / 15.0 kW (50/60 Hz)			





1. GENERAL INFORMATION

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2.1 Reference standards

2.2 CE Marking

Quality system

IDENTIFICATION CODE

DESIGN FEATURES

4.1 Rotor

4.2 Commutator

Stator 4.3

Brushholder yoke 4.4

4.5 Bearings

Belted and radial thrust application

CONSTRUCTION FEATURES

Coupling and shaft extension 5.1

Mounting arrangement 5.2

Degree of protection 5.3

Cooling method

Maximum allowable speeds 5.5

Noise level 5 6

5.7 Vibrations and balancing

Conduit box 5.8

5.9 Groud terminals

5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

Ratings 6.1

Supply voltage

Maximum loads 6.3

Current rate-of-rise

6.5 Speed regulation

Duty with large speed regulation 6.6

6.7

Maximum current at locked rotor

6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

GH400

GH450

GH450

Derating for field weakening operation

Performance of compensated motors

GH450 MK

GH450 LK

GH450 PK

GH450 XK

GH450 YK

Overall dimensions

GH450 IM1001-IP23-IC06

GH450 IM1001-IP54-IC86W

GH450 IM1001-IP44-IC37



Performance Tables are displayed on multiple pages, alongside the data tables are repeated alternately overall dimensions (IC06- IC86W-IC37)











1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

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- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

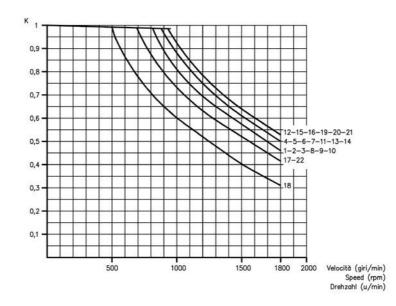
GH400

GH450

GH 450 K

RIDUZIONE DELLA POTENZA IN DISECCITAZIONE DERATING FOR FIELD WEAKENING OPERATION LEISTUNGSREDUZIERUNG BEI FELDSWÄCHUNG

GH 450 K (compensata - compensated - kompensiert)
[180% sovraccarico - overload - überlast]



P = K x P tabella potenza disponibile Allowable power output P = K x P table Werfügbare Leistung P = K x P table

per/for/für GH 450 M K = K x 1.55 GH 450 L K = K x 1.40 GH 450 P K = K x 1.25 GH 450 X K = K x 1.10 GH 450 Y K = K x 1

 $Per \ K \geq 1 \ niente \ declassamento \qquad \qquad For \ K \geq 1 \ no \ derating$

Für K ≥ 1 keine Leistungreduzierung

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Driv	e end	Opposite drive end		
	Coupling				
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3		
V1 – V3	6232 C3	NU232ECM C3	7232 BCB		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	650 kg	15.0 kW (50 / 60 Hz)			





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

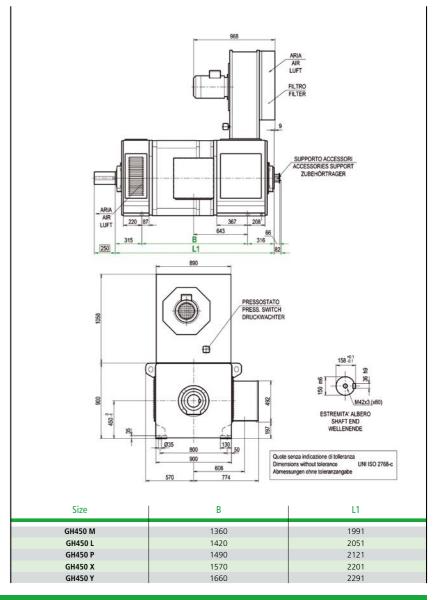
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH450 MK

R	Rated spe	ed (rpm) a	at armatı	ıre voltaç	je	Excitation power (W): 5300 Field time costant (s): 1.5 Motor mass (kg): 5060 (IC06) Moment of inertia (kg m²): 38.0			Armatuı	Winding code	
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
730						751		92.2			
	800					829		92.9	0.22	0.011	1
		910				942	1940	93.4	0.22	0.011	'
			1070			1090		94.0			
690						724	1870	92.2			
	760					799	1870	92.9	0.25	0.012	2
		860	1000			908	1870	93.4			
***			1000			1045	1855	93.9			
600	670					654 721	1700 1700	91.6 92.2			
	6/0	760				820	1700	92.2	0.32	0.015	3
		700	880			953	1700	93.4	0.52	0.013	3
			000	1050		1110	1685	94.2			
570						626		91.4			
370	630					692		92.2			
		720				786	1630	92.7	0.35	0.016	4
			840			914		93.4			
				980		1073		94.2			
550						606		91.4			
	610					668		92.0			
		690				760	1578	92.6	0.38	0.017	5
			810			883		93.3			
				950		1038		94.0			
510						563		91.2			
	570					620		91.7			
		640	750			706	1470	92.4	0.44	0.019	6
			750	880		822 964		93.2 93.7			
470				000							
470	520					516 571		89.7 90.6			
	320	590				650	1370	91.3			
		330	690			759	1570	92.3	0.50	0.024	7
			050	810		893		93.1			
					940	1027		93.7			
440						473		89.4			
	490					524		90.4			
		560				597	1260	91.2	0.57	0.035	
			650			697		92.2	0.57	0.026	8
				760		819		92.8			
					880	942		93.5			

GH450 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3		
V1 – V3	6232 C3	NU232ECM C3	7232 BCB		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	650 kg	15.0 kW (50 / 60 Hz)			





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225

GH250

GH280

GH315

GH355

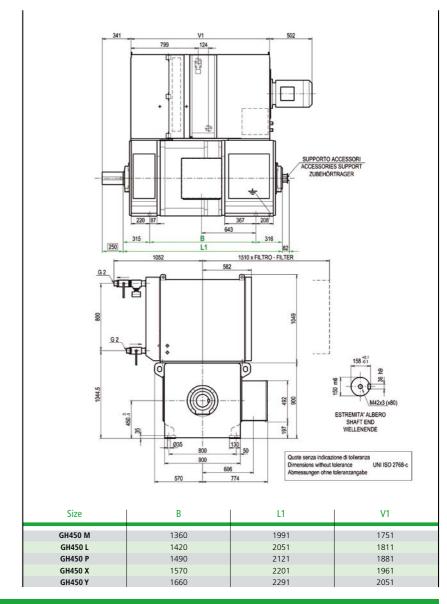
GH400

GH450

GH450 MK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field t Motor m	ion power (W ime costant (nass (kg): 506 of inertia (kg	(s): 1.5 50 (IC06)	Armatuı	Winding code	
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
420						441		89.3			
	460					489		90.4			
		520				557	1176	91.1	0.64	0.029	9
			610			648		91.9	0.04	0.023	
				720	020	764		92.8			
					830	880		93.5			
390	420					426		89.0			
	430	490				471 537	1140	89.8 90.6			
		490	580			628	1140	91.8	0.71	0.032	10
			300	680		739		92.6			
					780	851		93.3			
370						407		88.6			
	410					451		89.6			
		470				515	1094	90.6	0.70	0.034	
			550			602		91.7	0.78	0.034	11
				650		709		92.6			
					750	817		93.3			
340						374		87.6			
	380					414		88.6			
		430	540			473	1016	89.5	0.91	0.040	12
			510	600		554 654		90.9 91.9			
				600	690	754		91.9			
320					050	343		86.9			
320	360					384		88.8			
	300	410				435	940	89.1			
			480			509		90.2	1.01	0.047	13
				560		602		91.5			
					650	696		92.5			
300						319		86.5			
	340					353		87.4			
		380				405	878	88.7	1.14	0.052	14
			450			474		90.0	1.14	0.032	
				530	540	561		91.3			
					610	649		92.2			

GH450 IM1001 - IP54 - IC86W



							TECHNICAL D	ATA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)	
GH450 M	4900	38.0	5300	1.50	1800	220	1250	
GH450 L	5200	43.0	6000	1.95	1800	220	1250	
GH450 P	5500	49.0	6500	2.00	1800	220	1250	
GH450 X	5900	55.0	7000	2.05	1700	220	1250	
GH450 Y	6350	62.0	7500	2.10	1600	220	1250	

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3		
V1 – V3	6232 C3	NU232ECM C3	7232 BCB		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	650 kg	15.0 kW (50 / 60 Hz)			





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- 5.2 Mounting arrangement
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- 5.9 Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage 6.2
- Maximum loads 6.3
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

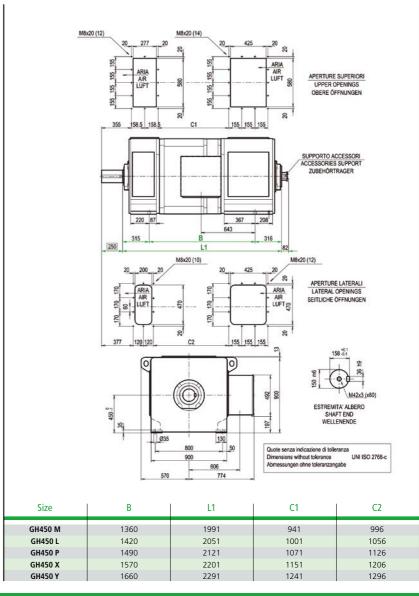
GH355 GH400 GH450

GH225 GH250 GH280 GH315

GH450 MK

Rated speed (rpm) at armature voltage					Excitation power (W): 5300 Field time costant (s): 1.5 Motor mass (kg): 5060 (IC06) Moment of inertia (kg m²): 38.0			Armatur	Winding code			
420	V 460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
290	0					309		85.3		1.22 0.059		
	320					343		86.5				
		370				393	862	87.7	1 22		15	
			430			461		89.1	1.22			
				510		546		90.5				
					590	630		91.3				
270	0					282		84.7				
	300					313		85.9				
		340				360	792	87.4	1.39	0.067	16	
			400			422		88.8	1.59	0.067	10	
				470		500		90.1	0.1			
					550	577		91.1				

GH450 IM1001 - IP44 - IC37



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Driv	Opposite drive end				
	Coupling	Pulley				
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3			
V1 – V3	6232 C3	NU232ECM C3	7232 BCB			
Electrical blower (IC06)	Weight	Blower motor power				
	160 kg	9.2 kW (50 Hz) - 11.0 kW	(50 Hz) - 11.0 kW (60 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	650 kg	15.0 kW (50 / 60 Hz)				

HOME 3/3





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2. STANDARDS AND QUALITY

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- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

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- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

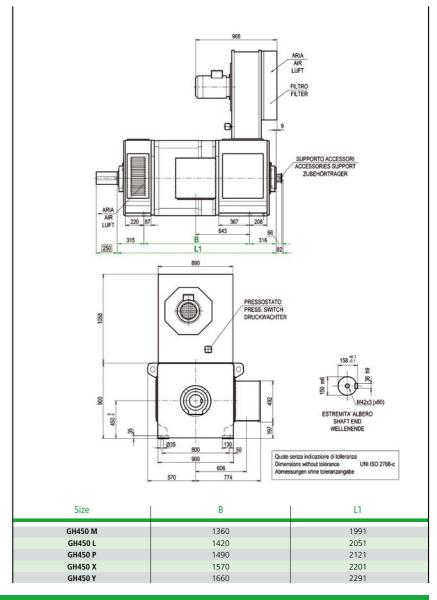
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH450 LK

R	ated spe	ed (rpm) a	at armatu	ıre volta <u>c</u>	je	Field ti Motor m	on power (W me costant (9 nass (kg): 536 of inertia (kg	s): 1.95 50 (IC06)	: 1.95 (IC06) Armature circuit		
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
650	720	820	950			750 827 940 1080	1940 1940 1940 1920	92.0 92.7 93.2 93.8	0.24	0.011	1
610	680	770	890			722 797 906 1040	1870 1870 1870 1870	92.0 92.7 93.2 93.8	0.27	0.012	2
540	600	680	790	930		652 720 817 950 1106	1700 1700 1700 1700 1700	91.3 92.0 92.5 93.2 94.1	0.34	0.016	3
510	560	640	750	880		625 690 784 912 1072	1630	91.3 92.0 92.5 93.2 94.0	0.37	0.017	4
490	540	620	720	840		605 666 758 881 1036	1578	91.3 91.8 92.4 93.1 93.8	0.40	0.018	5
460	500	570	670	780		562 619 705 820 962	1470	91.0 91.5 92.2 93.0 93.5	0.46	0.020	6
420	460	530	620	730	840	514 568 648 756 891 1025	1370	89.3 90.1 91.0 92.0 93.0 93.5	0.53	0.026	7
390	440	500	580	680	790	472 524 596 696 817 940	1260	89.2 90.4 91.0 92.1 92.6 93.3	0.60	0.028	8

GH450 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3		
V1 – V3	6232 C3	NU232ECM C3	7232 BCB		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	650 kg	15.0 kW (50 / 60 Hz)			





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

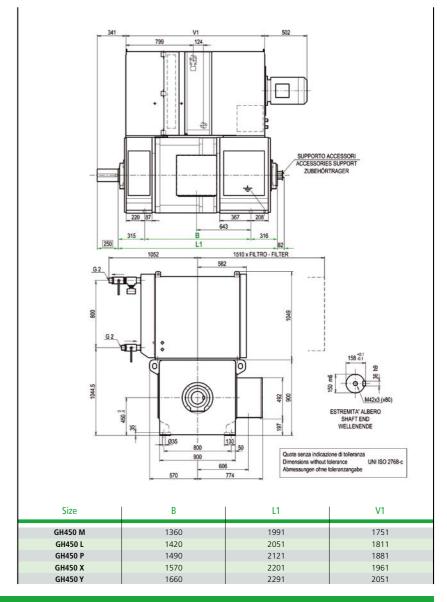
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH450 LK

R	ated spe	ed (rpm)	at armatı	ıre voltaç	je	Field ti Motor m	Excitation power (W): 6000 Field time costant (s): 1.95 Motor mass (kg): 5360 (IC06) Moment of inertia (kg m²): 43.0		Field time costant (s): 1.95 Motor mass (kg): 5360 (IC06) Armature circuit		Winding code
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
370						440		89.1			
	410					488		90.2			
		470				555	1176	90.8	0.67	0.032	9
			550	640		647		91.7	0.07	0.032	
				640	740	762 878		92.6 93.3			
250					740						
350	390					425 470		88.8 89.7			
	390	440				536	1140	90.4			
		440	510			626	1140	91.5	0.75	0.033	10
			310	610		737		92.4			
					700	849		93.1			
330						373		87.4			
	370					413		88.4			
		420				472	1016	89.3	0.96	0.043	11
			490			552		90.6	0.90	0.96 0.043	- ''
				580		652		91.7			
					670	752		92.5			
300						373		87.4			
	340					413		88.4			
		390	450			472	1016	89.3	0.96	0.043	12
			450	530		552 652		90.6 91.7			
				330	620	752		92.5			
290					020	342		86.6			
230	320					383		88.5			
	320	360				434	940	88.9			
			430			508		90.1	1.07	0.050	13
				500		600		91.2			
					580	694		92.3			
270						318		86.2			
	300					352		87.2			
		340				404	878	88.5	1.20	0.054	14
			400			473		89.8	1.20	0.034	
				470		560		91.1			
					550	646		92.0			

GH450 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3		
V1 – V3	6232 C3	NU232ECM C3	7232 BCB		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	650 kg	15.0 kW (50 / 60 Hz)			





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- Quality system

IDENTIFICATION CODE

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- 4.1 Rotor
- Commutator 4.2
- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- Mounting arrangement 5.2
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- 5.9 Groud terminals
- 5.10 Cross-section drawing

MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage 6.2
- Maximum loads 6.3
- Current rate-of-rise
- 6.5 Speed regulation
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

OUTPUT POWER DIAGRAMS

GH225

GH250 GH280

GH315

GH355

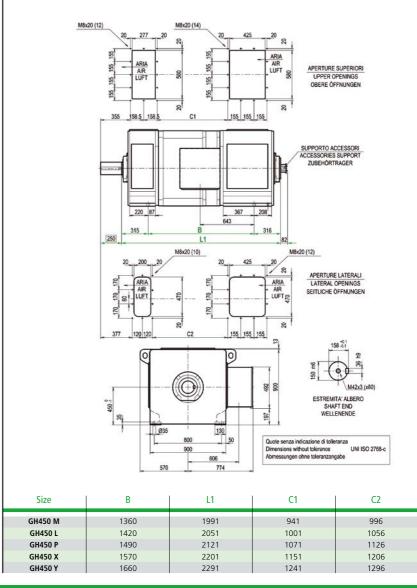
GH400

GH450

GH450 LK

Rated speed (rpm) at armature voltage				Excitation power (W): 6000 Field time costant (s): 1.95 Motor mass (kg): 5360 (IC06) Moment of inertia (kg m²): 43.0			Armatur	Winding code			
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
260						308		85.0			
	290					342		86.3			
		330				392	862	87.5	1.29	0.062	15
			380			460		88.9	1.29		15
				450		544		90.2			
					520	628		91.1			
240						281		84.5			
	270					312		85.6			
		300				359	792	87.2	1.47	0.071	16
			360			421		88.6	1.4/	0.071	10
				420		500		90.1			
					590	576		90.9			

GH450 IM1001 - IP44 - IC37



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Driv	Opposite drive end	
	Coupling	Pulley	
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3
V1 – V3	6232 C3	NU232ECM C3	7232 BCB
Electrical blower (IC06)	Weight	Blower motor power	
	160 kg	9.2 kW (50 Hz) - 11.0 kW	(60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	650 kg	15.0 kW (50 / 60 Hz)	

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1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH315

GH450 PK

GH225

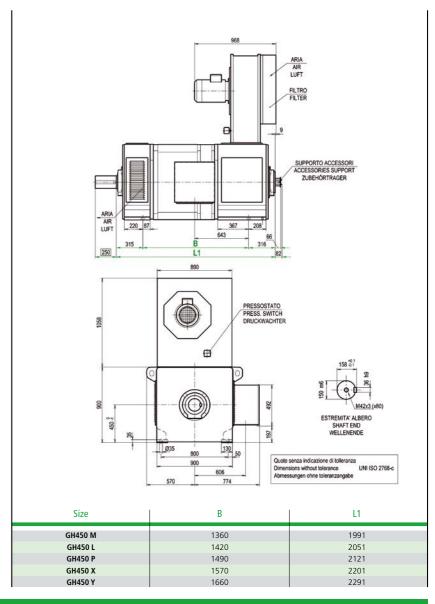
R	Rated speed (rpm) at armature voltage						Excitation power (W): 6500 Field time costant (s): 2.0 Motor mass (kg): 5660 (IC06) Moment of inertia (kg m²): 49.0		Armatu	Armature circuit		
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
580						749	1940	91.9				
	640					826	1940	92.6	0.25	0.012	1	
		720				940	1940	93.2	0.23	0.012	'	
			840			1080	1920	93.8				
540						717	1860	91.8				
	600					792	1860	92.6	0.28	0.013	2	
		680	700			900	1860	93.1				
400			790			1040	1850	93.7				
480	530					650 718	1700 1700	90.7 91.7				
	330	600				817	1700	92.5	0.35	0.016	3	
		000	700			953	1700	93.4	0.55	0.010	,	
			700	830		1105	1680	94.1				
450						620		90.6				
	500					687		91.6				
		570				781	1630	92.1	0.39	0.018	4	
			670			909		92.9				
				800		1069		93.7				
430						600		90.5				
	480					663		91.3				
		550				755	1578	92.0	0.43	0.019	5	
			640			880		92.9				
				750		1034		93.6				
410						560		90.7				
	450	540				616	4470	91.1				
		510	590			702 818	1470	91.8 92.7	0.49	0.021	6	
			350	700		962		93.5				
370				700		514		89.3				
370	410					564		89.5				
		470				645	1370	90.6				
			550			754		91.7	0.56	0.027	7	
				650		887		92.5				
					740	1023		93.3				
350						471		89.0				
	380					519		89.5				
		440				593	1260	90.5	0.64	0.030	8	
			510			692		91.5	0.04	0.030	8	
				610	700	816		92.5				
			l	l	700	940		93.3				

GH250

GH280

GH450 IM1001 - IP23 - IC06

GH355



GH400

GH450

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	e end	Opposite drive end		
	Coupling	Pulley			
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3		
V1 – V3	6232 C3	NU232ECM C3	7232 BCB		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	650 kg	15.0 kW (50 / 60 Hz)			





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2. STANDARDS AND QUALITY

- 2.1 Reference standards
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- 2.3 Quality system

3. IDENTIFICATION CODE

4. **DESIGN FEATURES**

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

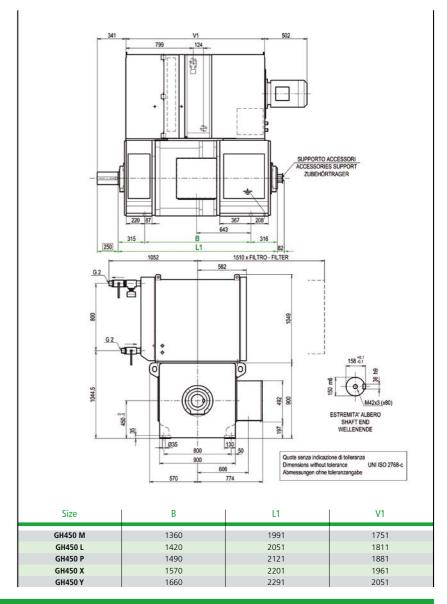
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH450 PK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 6500 Field time costant (s): 2.0 Motor mass (kg): 5660 (IC06) Moment of inertia (kg m²): 49.0		Armatuı	Armature circuit		
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
320	200					438		88.7				
	360	410				482 552	1176	89.1 90.3				
		410	480			644	1170	91.3	0.71	0.033	9	
			100	570		760		92.3				
					660	876		93.1				
310						423		88.3				
	340					465		88.7				
		390				533	1140	89.9	0.80	0.036	10	
			460			623		91.1	0.00	0.030	10	
				540	520	736		92.2				
200					620	847		92.9				
300	330					405 445		88.1 88.5				
	330	370				511	1094	89.8		0.039	11	
		370	440			598	1034	91.1	0.87			
				510		705		92.1				
					590	813		92.9				
270						371		86.9				
	300					410		87.7				
		340				470	1016	89.0	1.01	0.047	12	
			400			549		90.0	1.01	0.047	12	
				470		650		91.4				
					550	750		92.3				
250	200					342 376		86.5				
	280	320				433	941	86.9 88.5				
		320	380			506	541	89.7	1.13	0.052	13	
				450		598		90.8				
					520	692		91.9				
240						318		86.2				
	270					350		86.7				
		300				402	878	88.0	1.27	0.058	14	
			360			471		89.4	1.27	0.036		
				420	400	557		90.6				
					490	644		91.7				

GH450 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3
V1 – V3	6232 C3	NU232ECM C3	7232 BCB
Electrical blower (IC06)	Weight	Blower motor power	
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	650 kg	15.0 kW (50 / 60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS



GH280

GH315

GH355

GH400

GH450

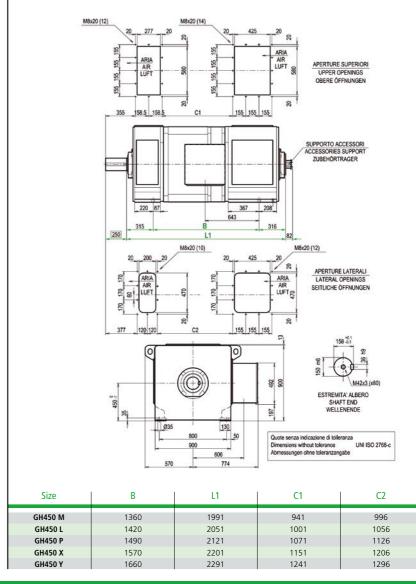
GH450 PK

GH225

	R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field t Motor m	on power (W ime costant (ass (kg): 566 of inertia (kg	(s): 2.0 50 (IC06)	Armatur	e circuit	Winding code
	420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
ı	230						306		84.5			
		250					337		85.0			
			290				389	862	86.8	1.36	0.067	15
				340			457		88.3	1.30	0.067	15
					400		541		89.7			
						460	626		90.8			
	210						279		83.9			
		230					308		84.5			
			270				356	792	86.4	1.56	0.075	16
				320			418		88.0	1.50	0.075	10
					380		496		89.5			
						430	574		90.6			

GH250

GH450 IM1001 - IP44 - IC37



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Driv	Opposite drive end	
	Coupling	Pulley	
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3
V1 – V3	6232 C3	NU232ECM C3	7232 BCB
Electrical blower (IC06)	Weight	Blower motor power	
	160 kg	9.2 kW (50 Hz) - 11.0 kW	(60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	650 kg	15.0 kW (50 / 60 Hz)	

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1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
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3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

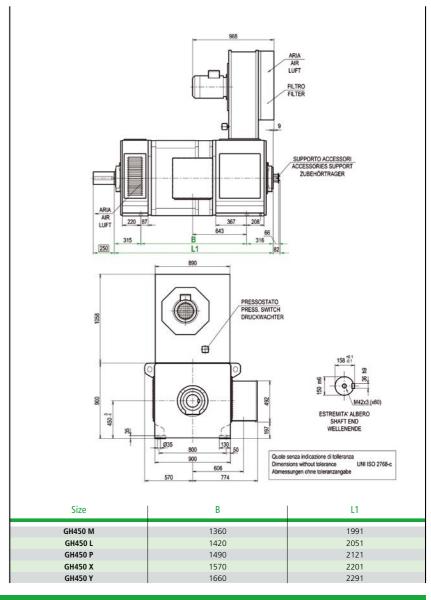
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH450 XK

R	Rated speed (rpm) at armature voltage						Excitation power (W): 7000 Field time costant (s): 2.05 Motor mass (kg): 6060 (IC06) Moment of inertia (kg m²): 55.0			Armature circuit		
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
510						740	1920	91.6				
	560					816	1920	91.4	0.27	0.013	1	
		640				928	1920	92.9	0.27	0.013	'	
			750			1072	1910	93.8				
480						709		91.2				
	530					783		92.0	0.30	0.014	2	
		600				892	1850	92.7	0.50	0.014		
			700			1037		93.4				
420						646	1700	90.5				
	460					715	1700	91.4				
		530				815	1700	92.2	0.39	0.018	3	
			620	740		950	1700	93.1				
				740		1100	1680	93.8				
400	440					610		90.2				
	440	500				676	1610	91.3 91.9		0.040		
		500	590			769 895	1010	91.9	0.44	0.019	4	
			390	690		1053		93.4				
380				050		596		89.9				
380	420					659		90.8				
	420	480				752	1578	91.6	0.45	0.021	5	
		400	560			876	1370	92.5	0.45	0.021		
				660		1032		93.4				
350						551		89.9				
330	390					610		90.8				
		450				695	1460	91.5	0.52	0.023	6	
			520			810		92.5				
				610		952		93.2				
330						505		88.4				
	360					558		89.2				
		410				637	1360	90.1	0.60	0.030	7	
			480			745		91.3	0.60	0.030	/	
				570		877		92.1				
					660	1012		93.0				
310						462		88.0				
	340					513		89.2				
		390				585	1250	90.0	0.68	0.032	8	
			450	520		683		91.1	1.00			
				530	620	806		92.1				
					620	928		92.8				

GH450 IM1001 - IP23 - IC06



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Driv	Opposite drive end			
	Coupling	Pulley			
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3		
V1 – V3	6232 C3	NU232ECM C3	7232 BCB		
Electrical blower (IC06)	Weight	Blower motor power			
	160 kg	9.2 kW (50 Hz) - 11.0 kW	(60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power			
	650 kg	15.0 kW (50 / 60 Hz)			





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

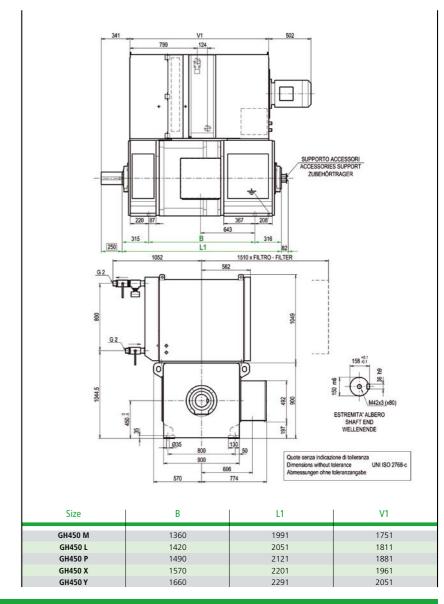
8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH450 XK

	R	ated spe	ed (rpm)	at armatı	ure voltag	je	Field ti Motor m	on power (w me costant (s nass (kg): 606 of inertia (kg	s): 2.05 50 (IC06)	Armatur	e circuit	Winding code
	420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
	290						428		87.8			
		320					473		88.6			
			360				541	1160	89.7	0.76	0.035	9
				430	500		632 746		90.8 91.9			
					500	580	860		91.9			
	270					300	415		87.4			
	2/0	300					460		88.5			
		300	340				526	1130	89.5			
				400			615		90.7	0.85	0.038	10
					470		726		91.8			
						550	836		92.5			
	260						396		87.3			
		290					440		88.6			
			330				502	1080	89.4	0.93	0.041	11
				380			587		90.6	0.55	0.041	
					450	520	693		91.7			
	240					520	798		92.4			
	240	260					361 400		86.0 87.0			
		260	300				400	1000	88.3			
			300	350			538	1000	89.7	1.08	0.050	12
				330	420		636		90.9			
						480	734		91.8			
	220						335		85.3			
		250					370		86.0			
			280				426	935	87.6	1.20	0.055	13
				330			500		89.1	1.20	0.033	13
					390		591		90.3			
ı						450	683		91.3			
	210	220					308		84.7			
		230	270				342 383	866	85.9			
			270	310			383 461	866	87.3 88.7	1.35	0.062	2 14
				310	370		546		90.1			
					3,0	430	632		91.2			
		I	I	I	I							

GH450 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	e end	Opposite drive end
	Coupling	Pulley	
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3
V1 – V3	6232 C3	NU232ECM C3	7232 BCB
Electrical blower (IC06)	Weight	Blower motor power	
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	650 kg	15.0 kW (50 / 60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

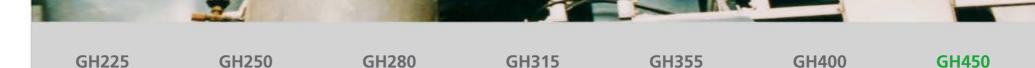
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

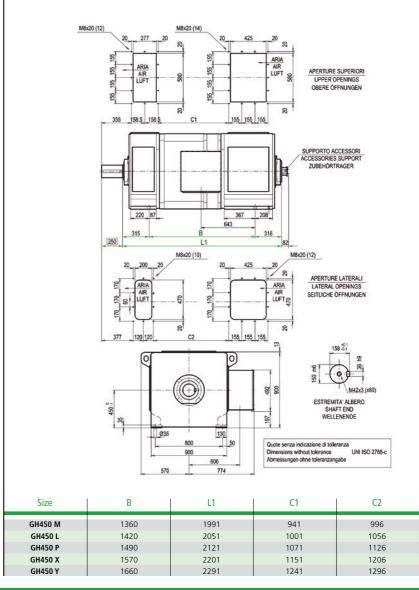
8. OUTPUT POWER DIAGRAMS



GH450 XK

	Rated spe	ed (rpm) a	at armatı	ıre voltaç	je	Field ti Motor m	on power (W me costant (s nass (kg): 606 of inertia (kg	s): 2.05 50 (IC06)	Armatur	re circuit	Winding code	
420 \	/ 460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω		
200						297		83.2				
	220					329		84.1				
		250				380	850	86.0	1.45	0.070	15	
			300			447		87.6	1.45	0.070	13	
				350		530		89.1				
					410	614		90.3				
180						272		83.0				
	200					301		83.9				
		240				347	780	85.6	1.66	0.081	16	
			280			408		87.2	1.00	0.081	10	
				330		485		88.8				
					380	562		90.1				

GH450 IM1001 - IP44 - IC37



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
611450.14	4000	20.0	5200	4.50	4000	220	4250
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	Drive end				
	Coupling	Pulley				
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3			
V1 – V3	6232 C3	NU232ECM C3	7232 BCB			
Electrical blower (IC06)	Weight	Blower motor power				
	160 kg	9.2 kW (50 Hz) - 11.0 kW	(60 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	650 kg	15.0 kW (50 / 60 Hz)				





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

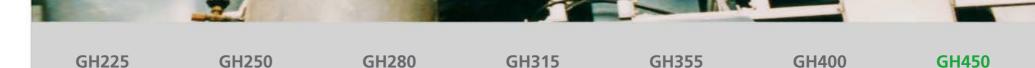
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

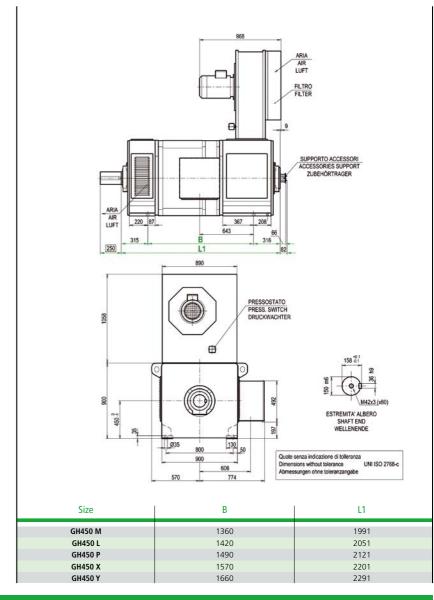
8. OUTPUT POWER DIAGRAMS



GH450 YK

R	ated spe	ed (rpm) a	at armatı	ıre voltaç	je	Excitation power (W): 7500 Field time costant (s): 2.10 Motor mass (kg): 6510 (IC06) Moment of inertia (kg m²): 62.0			Armature circuit		Winding code
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
450						731		91.2			
	500					808		92.0	0.28	0.014	1
		570				920	1910	92.6	0.20	0.014	'
			660			1069		93.3			
420						700		91.1			
	470	520				772 879	1020	91.7 92.4	0.32	0.015	2
		530	620			1023	1830	92.4			
370			020			636		90.1			
370	410					703		91.0			
		470				802	1680	91.8	0.42	0.0185	3
			550			935		92.8			
				640		1100		93.5			
350						608		89.9			
	390					672		90.8			
		450				766	1610	91.5	0.47	0.020	4
			520	C10		890		92.3			
340				610		1050 586		93.1 88.4			
340	380					648		90.3			
	300	430				740	1560	91.2	0.48	0.022	5
		150	500			862	1500	92.0	0.40	0.022	,
				590		1016		93.0			
310						534		88.3			
	350					595		89.8			
		400				681	1440	90.9	0.56	0.025	6
			460	- 40		794		91.9			
				540		936		92.9			
290	220					493		87.6			
	320	370				546 625	1340	88.6 89.7			
		3/0	430			730	1340	90.8	0.64	0.032	7
			450	500		861		91.8			
					580	993		92.6			
270						456		87.6			
	300					505		88.5			
		340				577	1240	89.5	0.72	0.035 8	8
			400			675		90.7	0.72	0.033	0
				470	540	797		91.8			
	I				540	918		92.5			

GH450 IM1001 - IP23 - IC06



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	Drive end				
	Coupling	Pulley				
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3			
V1 – V3	6232 C3	NU232ECM C3	7232 BCB			
Electrical blower (IC06)	Weight	Blower motor power				
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	650 kg	15.0 kW (50 / 60 Hz)				





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

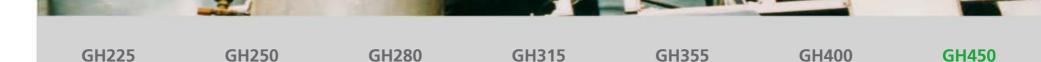
- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

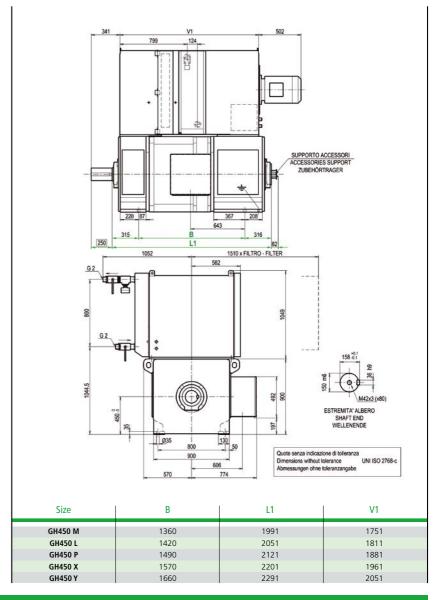
8. OUTPUT POWER DIAGRAMS



GH450 YK

R	lated spe	ed (rpm)	at armatı	ıre volta <u>ç</u>	je	Excitation power (W): 7500 Field time costant (s): 2.10 Motor mass (kg): 6510 (IC06) Moment of inertia (kg m²): 62.0			Armatu	Winding code	
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
250						420		87.0			
	280					467		88.3			
		320				534	1150	89.3	0.81	0.039	9
			380	440		624 737		90.4 91.6			
				440	510	850		92.4			
240					310	408		86.7			
240	270					453		87.9			
	2,0	300				517	1120	88.8			
			360			605		90.0	0.91	0.042	10
				420		715		91.2			
					480	826		92.2			
230						388		86.3			
	250					432		87.8			
		290				494	1070	88.8	0.99	0.045	11
			340	400		578		90.0			
				400	460	684 788		91.3 92.0			
210					400						
210	230					354 394		85.1 86.5			
	230	270				451	990	87.6			
		270	310			529	330	89.1	1.15	0.054	12
				370		626		90.3			
					430	724		91.4			
200						326		84.4			
	220					360		85.1			
		250				416	920	87.0	1.28	0.062	13
			290			488		88.4	1.28	0.002	13
				350		580		90.0			
					400	670		91.0			
180						304		84.2			
	200	220				336	000	84.9			
		230	200			388	860	86.8	1.44	0.068 14	14
			280	330		455 540		88.2 89.7			
				330	380	624		90.7			
	I	I	I	I	300	024		50.7			

GH450 IM1001 - IP54 - IC86W



							TECHNICAL DAT
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	rion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Dri	Opposite drive end				
	Coupling	Pulley				
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3			
V1 – V3	6232 C3	NU232ECM C3	7232 BCB			
Electrical blower (IC06)	Weight	Blower motor power				
	160 kg	9.2 kW (50 Hz) - 11.0 kW	(60 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	650 kg	15.0 kW (50 / 60 Hz)				





1. GENERAL INFORMATION

STANDARDS AND QUALITY

- 2.1 Reference standards
- CE Marking 2.2
- Quality system

IDENTIFICATION CODE

DESIGN FEATURES

- 4.1 Rotor
- Commutator 4.2
- 4.3 Stator
- Brushholder yoke 4.4
- 4.5 Bearings
- Belted and radial thrust application

CONSTRUCTION FEATURES

- Coupling and shaft extension 5.1
- Mounting arrangement 5.2
- Degree of protection 5.3
- Cooling method
- Maximum allowable speeds 5.5
- Noise level 5 6
- 5.7 Vibrations and balancing
- Conduit box 5.8
- 5.9 Groud terminals
- 5.10 Cross-section drawing

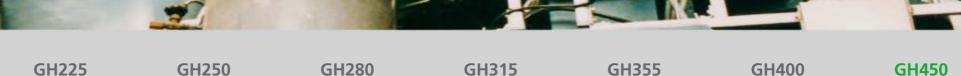
MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- Ratings 6.1
- Supply voltage
- Maximum loads 6.3
- Current rate-of-rise
- Speed regulation 6.5
- Duty with large speed regulation 6.6
- 6.7
- Maximum current at locked rotor
- 6.9 Accessories

TESTS

HOME

OUTPUT POWER DIAGRAMS



GH280

GH315

GH355

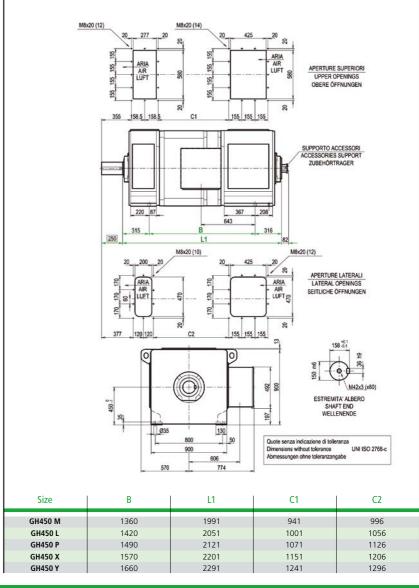
GH400

GH450

GH450 YK

Rated speed (rpm) at armature voltage			Excitation power (W): 7500 Field time costant (s): 2.10 Motor mass (kg): 6510 (IC06) Moment of inertia (kg m²): 62.0			Armature circuit		Winding code			
420 V	460 V	520 V	600 V	700 V	800 V	RATED OUTPUT kW	ARMATURE CURRENT A	EFFICIENCY %	SATURATED INDUCTANCE mH	RESISTANCE AT 115 °C Ω	
	190					322		83.3		0.077	
		220				372	840	85.2			15
			260			438		86.9	1.55		
				310		521		88.6			
					360	603		89.7			
	180					295		83.3			
		210				339	770	84.7			
			240			400		86.6	1.77	0.088	16
				290		475		88.1			
					340	551		89.4			

GH450 IM1001 - IP44 - IC37



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Drive	e end	Opposite drive end			
	Coupling	Coupling Pulley				
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3			
V1 – V3	6232 C3	NU232ECM C3	7232 BCB			
Electrical blower (IC06)	Weight	Blower motor power				
	160 kg	9.2 kW (50 Hz) - 11.0 kW ((60 Hz)			
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power				
	650 kg	15.0 kW (50 / 60 Hz)				





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

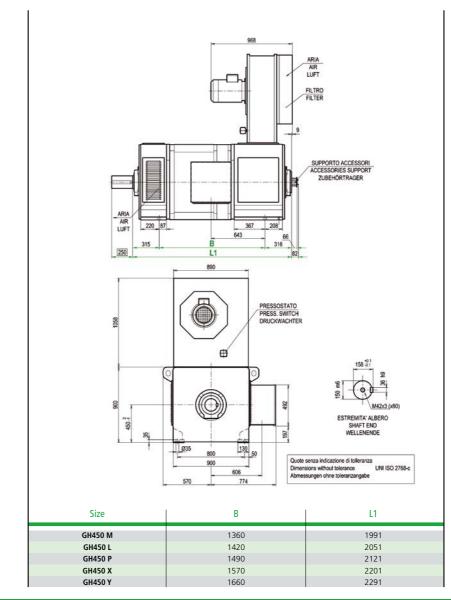
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH450 IM1001 - IP23 - IC06



							TECHNICAL D
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	on data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Driv	re end	Opposite drive end
	Coupling	Pulley	
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3
V1 – V3	6232 C3	NU232ECM C3	7232 BCB
Electrical blower (IC06)	Weight		
	160 kg	9.2 kW (50 Hz) - 11.0 kW	(60 Hz)
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power	
	650 kg	15.0 kW (50 / 60 Hz)	





1. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

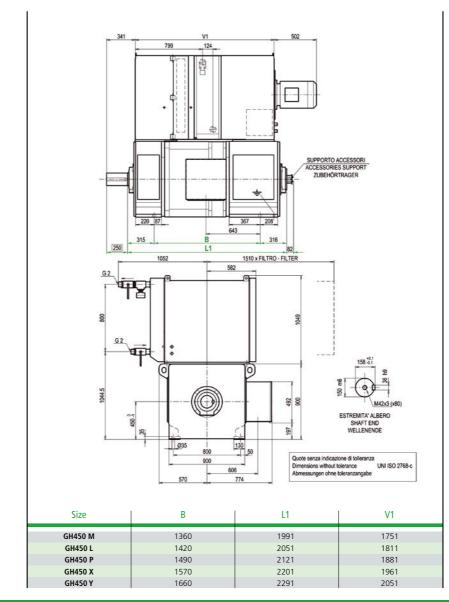
- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

8. OUTPUT POWER DIAGRAMS

GH225 GH250 GH280 GH315 GH355 GH400 GH450

GH450 IM1001 - IP54 - IC86W



							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Driv	Opposite drive end		
	Coupling	Pulley		
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3	
V1 – V3	V1 – V3 6232 C3		7232 BCB	
Electrical blower (IC06)	Weight	Blower motor power		
	160 kg	9.2 kW (50 Hz) - 11.0 kW (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	650 kg	15.0 kW (50 / 60 Hz)		





I. GENERAL INFORMATION

2. STANDARDS AND QUALITY

- 2.1 Reference standards
- 2.2 CE Marking
- 2.3 Quality system

3. IDENTIFICATION CODE

4. DESIGN FEATURES

- 4.1 Rotor
- 4.2 Commutator
- 4.3 Stator
- 4.4 Brushholder yoke
- 4.5 Bearings
- 4.6 Belted and radial thrust application

5. CONSTRUCTION FEATURES

- 5.1 Coupling and shaft extension
- 5.2 Mounting arrangement
- 5.3 Degree of protection
- 5.4 Cooling method
- 5.5 Maximum allowable speeds
- 5 6 Noise level
- 5.7 Vibrations and balancing
- 5.8 Conduit box
- 5.9 Groud terminals
- 5.10 Cross-section drawing

6. MOTOR SELECTION BASED ON RATING AND OPERATING CONDITIONS

- 6.1 Ratings
- 6.2 Supply voltage
- 6.3 Maximum loads
- 6.4 Current rate-of-rise
- 6.5 Speed regulation
- 6.6 Duty with large speed regulation
- 6.7 Excitation
- 6.8 Maximum current at locked rotor
- 6.9 Accessories

7. TESTS

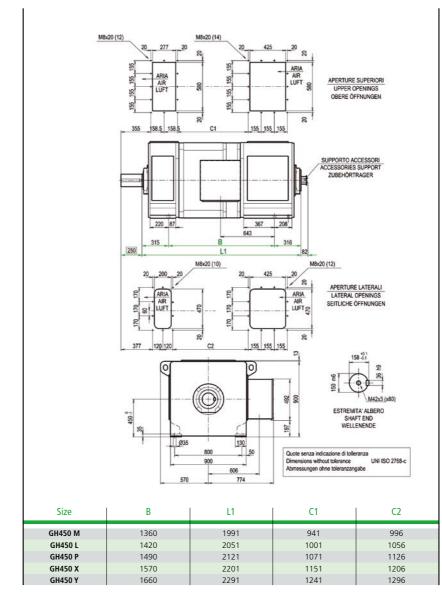
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8. OUTPUT POWER DIAGRAMS

GH450 IM1001 - IP44 - IC37

GH280

GH250



GH315

GH355

GH400

GH450

							TECHNICAL DA
Size	Motor mass (kg)	Moment of inertia (kg m²)	Excitation power (W)	Field time constant (s)	Max. mech. speed (rpm)	Ventilat Air flow (m²/min)	ion data Pressure drop (Pa)
GH450 M	4900	38.0	5300	1.50	1800	220	1250
GH450 L	5200	43.0	6000	1.95	1800	220	1250
GH450 P	5500	49.0	6500	2.00	1800	220	1250
GH450 X	5900	55.0	7000	2.05	1700	220	1250
GH450 Y	6350	62.0	7500	2.10	1600	220	1250

Bearings	Driv	Opposite drive end		
	Coupling	Pulley		
B3 – B5	NU232ECM C3	NU232ECM C3	6232 MC3	
V1 – V3	6232 C3	NU232ECM C3	7232 BCB	
Electrical blower (IC06)	Weight	Blower motor power		
	160 kg	9.2 kW (50 Hz) - 11.0 kW (60 Hz)		
Air-To-Water Heat Exchanger (IC 86W)	Weight	Heat exchanger motor power		
	650 kg	15.0 kW (50 / 60 Hz)		

GH225