2011. 05

LARGE MOTORS

(IEC)

www.tonson-motor.com.au
www.hyosungpni.com

Global Top Energy, Machinery & Plant Solution Provider

HEAD OFFICE
Factory 19/5 Lyn Parade PRESTONS NSW 2170
TEL : 02 9607 4100 FAX : 02 9600 8882
sales@samt.com.au

HYOSUNG CORPORATION
Power & Industrial Systems Performance Group

HEAD OFFICE
450, Gongdeok-dong, Mapo-gu, Seoul, Korea
TEL : 82-2-707-6181, FAX : 82-2-707-6117

About HYOSUNG

Hyosung Power & Industrial Systems PG is a division under Hyosung which consists of seven performance groups (PGs). In addition to establishing itself as a world-class manufacturer of electrical equipments, green technology and industrial machineries, Hyosung is also the largest producer of tire cords and spandex in the global market and the second largest supplier of ATMs in the USA.

01 Our Business

Brief introduction of Hyosung Power & Industrial Systems

Hyosung Power & Industrial Systems Performance Group

Hyosung Power & Industrial Systems Performance Group, a comprehensive energy solution provider, boasts world-leading technology in the global power industry and has secured a competitive capability on par with that of top competitors in transformers, switchgears, motors, decelerators, industrial pumps, and wind energy business.

With globalization as one of our top priorities, we have achieved outstanding increase in sales over the past few years thanks to the enhancement in Hyosung's quality, technology, and brand recognition among overseas clients, which include North America, Europe, the Middle East, and Asia. We expect such robust performance, marked by an increasing number of orders from the overseas market, to continue in the future.

At the heart of our capability to grow as a comprehensive energy solution provider is our global organization structure. Hyosung Power & Industrial Systems Performance Group is divided into four business areas or performance units, depending on the types of flagship products: Power Systems Performance Unit, Industrial Machinery Performance Unit, Hyosung GoodSprings Performance Unit, and the Wind Energy Business Division.

Industrial Machinery Performance Unit

The Industrial Machinery Performance Unit Plays an important role in the infrastructure industry around the globe and is specialized in manufacturing all types of motors, gear reducers, generators, green energy, and industrial machines.

With the ability to produce motors with up to 20,000kW, we possess an automated production line capable of manufacturing more than 40,000 motors every month.

Our accumulated technologies and various experiences have made it possible to develop turnkey-based engineering projects including industrial plant, ropeways, energy solutions, and alternative refueling systems.

In addition, we anticipate that our efforts in innovation among rotary machinery will make significant contributions towards creating energy profitability as well as greater efficiency. With the goal to serve as a world-leading provider of industrial machinery and plant engineering, we will continue to focus on innovative energy conservation technology, enhanced reliability of new products, and development of new technologies.

LARGE MOTORS

CONTENTS

SAMT
Specialised Air Motors and Transmission

02 Sustainability

Our sustainability principles are the backbone of the way we design and manufacture products

Quality Assurance

Hyosung strives for excellence. We believe excellence can only be achieved through absolute quality and value for customers. In order to create quality products, we believe that all of the actions of every single employee must be focused in the highest level of quality. In order to achieve such levels, we have implemented a quality assurance policy and programs that make our philosophy into a reality.
Our Quality Assurance Policy was founded based on the management policy of the president and meets the demands of ISO 9001. As a globally active company, we are committed to comprehensive and quality management through three quality strategies: quality management system, customer-focused management system, and concentration on core competencies.
The comprehensive quality management system ensures that we completely comply with all compliances and applicable legislation, codes, and standards in addition to implementing efficient operation of our management resources to eliminate unnecessary waste.
Our customer-focused management system clarifies and simplifies our first priority which is customer satisfaction. All of our work is aimed to exceed customer needs and provide exceptional value through quality standards, flexibility, and innovation.
Finally, we concentrate on our core competencies for strict quality control and continual improvement which provides quality products and cost-saving to our clients via advancement in technical capacity and technological innovation.
We implement our policy via a Quality Management Team manages research laboratories, including the Measurement Standard Laboratory, the Chemical Analysis Laboratory and the Material Analysis Laboratory to maintain a strict control over quality.

Environment Protection Policy

Hyosung understands the impact of Hyosung's activities in the environment and works to protect the environment from pollution, manages the environmental impacts of Hyosung's products and technologies, and prevents future pollution and harmful effects in the environment by investing in environmentally-friendly products and solutions.
Based on this eco-philosophy of shared responsibility, Hyosung has implemented a comprehensive environmental protection program that aims to minimize our impact on the environment and conserve resources. Our environmental policy fulfils all requirements of the ISO 14001.

03 R&D

Inspiring innovation, creation and expertise

Hyosung R&D Center identifies innovation, creation, and expertise as core value, and concentrates on world class R&D activities in the 21st century with a philosophy aspiring after customer satisfaction, quality priority, and performance orientation. Hyosung pursues to be the world's best company in the field of heavy electrical machinery, industrial & electrical electronics engineering, and energy system. Ever since establishment in 1978, R&D Center had led the development of domestic technology. Along with the Anyang and Changwon labs, the group has endeavored to produce core technology and world-class products in the areas of heavy electrical machinery, energy system, electrical electronics engineering, and industrial automation system.

Research Areas

Hyosung R&D Center engages in the activities in the field of energy system, solution & service, applied electrical and electronic technology, basic core technology, technology of improved reliability, core components, and new materials.

Energy System
- Renewable energy (wind system, wind turbine, wind PCS, solar system, PV PCS, fuel cell, co-generation)
- Electric Vehicle (EV charger, EV motor)

Solution & Service
- Power facility diagnosis algorithm and system
- Power facility lifecycle evaluation system
- Service solution for remote diagnosis for prevention

Applied Electrical & Electronic Technology
- Power conversion system
- Flexible AC transmission system and high voltage direct current
- Power quality solution

Basic Core Technology
- Fortified technology in structural dynamics, electromagnetics, heat transfer analysis, etc.
- Skills for system simulation, analysis and evaluation
- Business support technology

Technology with Improved Reliability
- Test data analysis and testing facility
- Analysis of lifecycle and cause of error
- Reliability assessment (environment-friendliness, durability, long-term degradation, and more)

Core Components and New Materials
- Organic and inorganic insulation materials
- Silicon forming technology
- Intelligent sensor (facility diagnosis, CT, PT, VT, LA, and more)

LARGE MOTORS



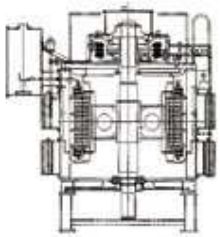
Overview

Strength Power

Core Technology	• Quality Proof Design • High Reliability Insulation System
Low Vibration & Noise Level	• Realization of low vibration and noise through magnetic analysis & structural analysis
Full Compliance with IEC, IEEE std.	• Plentiful experience & Environmental experience • Various certificate from other countries, which meet international std.
Quick Delivery	• Enough Manufacturing Capacity • Optimization in Engineering and Manufacturing
Technical Scope	• A.C InductionType - Range : 0.5~20,000kW - Frequency : 50/60Hz - Voltage : 220~13,200V - Premium/Standard Efficiency
Production Capacity	• 40,000 sets/month
Accumulative Supply	• ~199 kW : 6,200,000 sets • 200 ~ 1,999 kW : 51,000 sets • 2,000 kW~ : 1,600 sets


Specifications

- Power : Up to 20,000 kW
- Frequency : 50 Hz, 60 Hz
- Voltage : Up to 13.2 kV
- Enclosure : TEFC, TEAAC, TEAO,ODP, WPI, WPII, Water-Cooled or Pipe-Ventilated, and Explosion-Proof
- Frame : IEC & NEMA
- Insulation : Class F or H



Applications

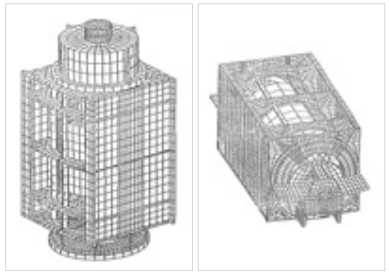
- POWER PLANTS
- WATER TREATMENT & SUPPLY
- SEWAGE TREATMENT
- PULP & PAPER
- PETRO-CHEMICAL
- HVAC
- MINING
- OTHER INDUSTRIES

SAMT
Specialised Air Motors and Transmission

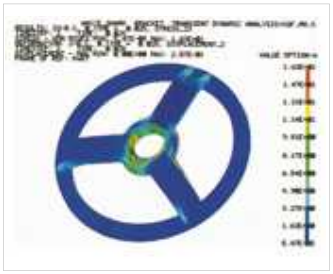
Optimized Motor through Magnetic field and Structure Analysis Program

Advanced Products Designs with Innovative materials as well as next generation designs and manufacturing technologies are being constantly introduced throughout the entire Hyosung Motor Product Line.
Continuous Analysis of Flux distribution, torque-speed and Flux distribution in air gap through Magnetic Field Analysis Program enable to meet the optimize electric design.

Magnetic Flux Density in core by Flux2D



Finite Element Models



Stress Analysis in bracket by NASTRAN

Also structual analysis with ANSYS of NASTRAN enable to calculate the displacement, stress of structure, inertia and other factors.

These motors are available for constant or adjustable speed operation with the right combination of materials, enclosures, bearing systems and accessories to withstand these application demands.

Features & Advantages

01 STATOR

The stator core is produced from laminated and insulated, high grade, low loss silicon steel. The coils are tightly fitted into the slots and the coil ends are effectively supported. The complete stator, including coil ends and bracing, is vacuum pressure impregnated, which extracts air from and forces resin into the windings, completely sealing them.

This produces reliable, void-free, degradation resistant windings with a long, trouble-free life expectancy. The stator windings consists of form wound copper coils. Insulation material is made primarily from mica and coated with a heat resistant film.

- ANTI - FRICTION BEARING
  Standard motor construction includes two endshield supported anti-friction bearings that are conservatively rated, of heavy-duty design, and complete with oversized grease reservoirs, extra-long close-running seals, and suitable grease fittings for regreating without disassembly.
- TERMINAL BOX
  As a standard feature, each terminal box is sized to allow stress cones on incoming cable connections. Cast iron is used on smaller ratings, while fabricated steel is used on larger designs or where protective equipment will be mounted within the box itself.

01 STATOR

02 SPLIT BRACKET

Split bearing brackets on direct-connect motors allow easy removal of the top bracket-half, permitting quick access to the inside of the motor for routine inspection and maintenance.

02 SPLIT BRACKET

03 SQUIRREL CAGE

Designs ensure that critical mechanical speeds are in excess of 125% of the full load speed.

Rotor cores are press-fit onto the shaft, maintaining their alignment through the use of a key and keyway.

The rotor coils are fitted tightly within the slots to minimize vibration. This type of construction provides excellent protection against centrifugal forces, making it suitable for low slip and high efficiency applications.

Dynamic rotor balancing, which is carried out with a half-key fitted, is followed by a complete balancing of the entire machine to ensure that vibration does not exceed the limits specified in IEC 34-14.

03 SQUIRREL CAGE

04 HOUSING

Computer-designed to minimize vibration, each housing is constructed either from cast iron or fabricated steel for strength, and coated for resistance to corrosion.

04 HOUSING

05 WOUND ROTOR

For the purpose of reduced maintenance, this type of rotor design provides smooth contact with carbon brushes. Corrosion-resistant bronze or stainless steel materials are used for slip ring construction.

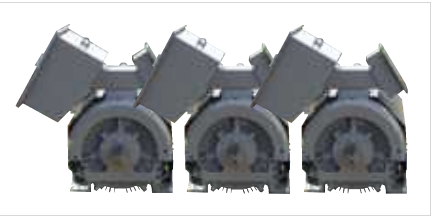
05 WOUND ROTOR

SAMT Specialised Air Motors and Transmission

Enclosures & Cooling

TOTALLY ENCLOSED FAN COOLED

A cast iron, finned housing in this design cools by conduction of the internal heat to the external fins. It uses an external, shaft-mounted cooling fan, which blows ambient air over the motor surface.



01 OPEN DRIP-PROOF

Suitable for most indoor installations, these motors are best suited for clean and dry industrial environments.

01

02 TOTALLY ENCLOSED PIPE COOLED

Motors with this type of enclosure are designed so that air circulating through the motor is provided by means external to the motor.

03 VERTICAL WEATHER PROTECTED TYPE I

02

04 WEATHER PROTECTED TYPE II

Rather than taking the air directly inside the motor's housing, the WPII design uses a top bonnet air duct. This top bonnet routes the air through three 90 turns, and through a low velocity chamber as pre-scribed by NEMA.

- EXPLOSION-PROOF
  This enclosure is a specially designed TEFC motor, constructed to withstand an internal explosion of a specified has, vapor or material.
- WATER COOLED
  This design uses water as the cooling medium. Water flows through a Water-to-Air heat exchanger, effectively cooling the air passing over its surface. This construction provides a design that is much quieter than a Totally Enclosed Air-to Air cooled motor.

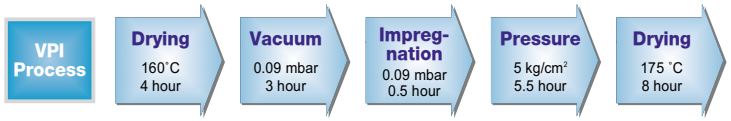
03

04

SUPACT Insulation System

A unique mica/glass insulation system, vacuum pressure impregnated with 100% solids epoxy Resin, and high-build epoxy varnish for finish treatment ensures the strongest resistance to chemical attack or contamination.

Hyosung SUPACT Insulation system has demonstrated its durability under the most arduous industrial and climatic conditions in high voltage drives.

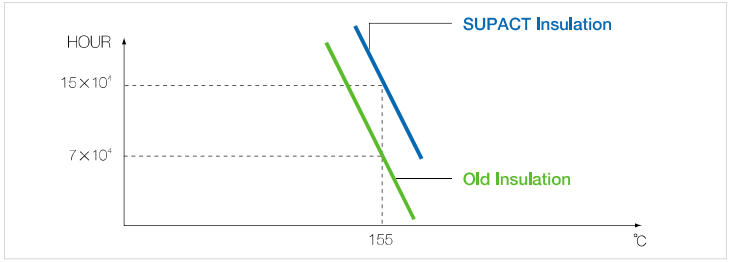


Impregnation of core and coil assemblies

VPI facility

Control System for VP

Average Life



Allowable temperature by insulation class

CLASS	Temp.Rise
A	105 ℃
E	120 ℃
B	130 ℃
F	155 ℃
H	180 ℃

Testing

Routine Test Scope

Our factories use state of art test facilities and equipments to verify design data in accordance with design standards, including noise testing to IEC 34-9, NEMA MG-3, and IEEE standard 85. Routine test reports are furnished without charge, and include the following standard tests:

- Inspection of Material Construction
- Measurement of Vibration
- Measurement of Winding Resistance
- Check of Rotation
- Measurement of Insulation Resistance
- No Load Test
- High Voltage Test
- Locked Rotor Test
- Temperature Test
- Measurement of Locked Rotor Current
- Measurement of Performance
- Over Speed Test
- Shaft Current Test
- Momentary Excess Torque Test

SAMT Specialised Air Motors and Transmission

HYOSUNG

Specifications

- Enclosure : TE (Totally Enclosed)
- Rotor type : Squirrel cage
- Number of Pole : 2 ~ 8 Poles
- Voltage : 2.3 ~ 6.9 kV
- Output Range : 132 ~ 710 kW
- Frame Size : 315 ~ 450 Frame
- Protection Grade : IP54 (IEC60 034-5)
- Method of Cooling : IC411 (IEC60 034-6)
- Insulation / Temp. rise : F / F
- Output Range : 1
- Type of Construction : IM B3 / IM V1

Frame Assignment

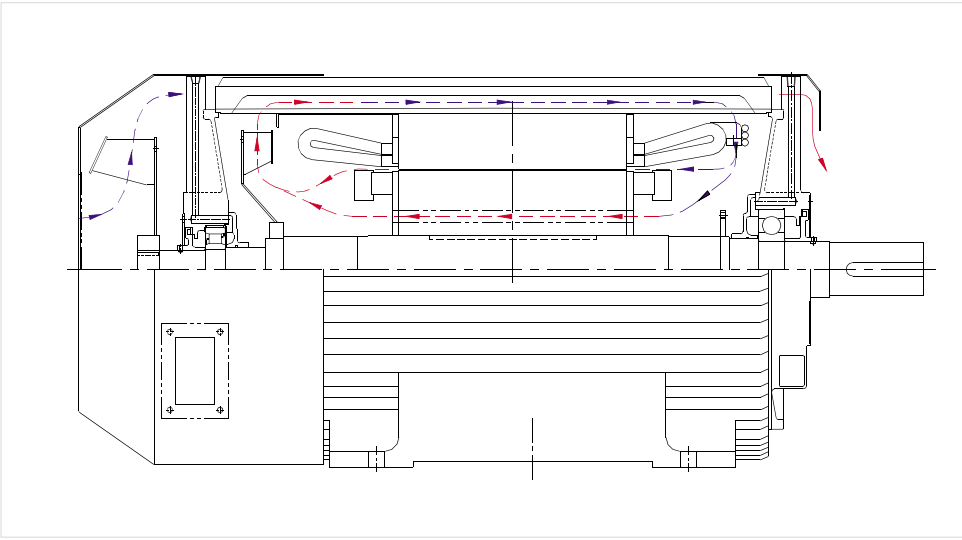
50Hz , 3.0 / 6.0 kV

HSFC					
POWER (kW)	VOLT (kV)	POLES 2	4	6	8
132	3.0	-	-	315M	315M
	6.0	315M	-		
160	3.0		315M		355M
	6.0				
180	3.0				
	6.0	355M			
200	3.0			355M	
	6.0				
250	3.0		355M		400M
	6.0				
280	3.0	400M		400M	
	6.0				
315	3.0				
	6.0				
355	3.0		400M		
	6.0				
400	3.0				450M
	6.0			450M	
450	3.0	-			
	6.0	-			
500	3.0	-			
	6.0	-			
560	3.0	-	450M		-
	6.0	-			-
630	3.0	-			-
	6.0	-		-	-
710	3.0	-		-	-
	6.0	-		-	-

60Hz , 3.3 / 6.6 kV

HSFC					
POWER (kW)	VOLT (kV)	POLES 2	4	6	8
132	3.3	-	-	315M	315M
	6.6	-	-		
160	3.3	315M	315M		
	6.6				355M
180	3.3				
	6.6				
200	3.3				
	6.6			355M	
250	3.3	355M			
	6.6		355M		
280	3.3				400M
	6.6				
315	3.3			400M	
	6.6	400M			
355	3.3				
	6.6				
400	3.3				
	6.6		400M		
450	3.3				450M
	6.6	-		450M	
500	3.3	-			
	6.6	-			
560	3.3	-			-
	6.6	-	450M		-
630	3.3	-			-
	6.6	-		-	-
710	3.3	-		-	-
	6.6	-		-	-

Sectional Drawing For Ventilation



DIRECT COUPLED

UNIT : mm

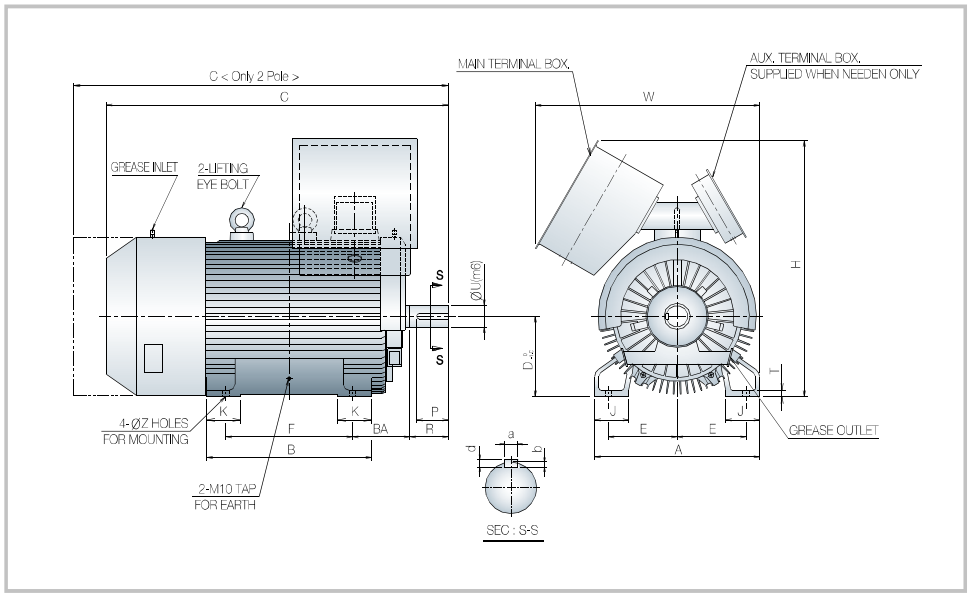
FR.NO	POLE	A	B	C	D	E	F	H	J	K	P
315M	2P	640	590	1570	315	254	457	1050	120	120	90
	4P~	640	590	1400	315	254	457	1050	120	120	140
355M	2P	730	730	1720	355	305	560	1140	150	150	110
	4P~	730	730	1520	355	305	560	1140	150	150	140
400M	2P	812	825	1860	400	343	630	1230	150	170	110
	4P~	812	825	1660	400	343	630	1230	150	170	140
450M	2P	906	900	2050	450	375	710	1350	170	200	110
	4P~	906	900	1850	450	375	710	1350	170	200	180

BELT TYPE

UNIT : mm

FR.NO	POLE	A	B	C	D	E	F	H	J	K	P
315M	4P~	640	590	1440	315	254	457	1050	120	120	180
355M	4P~	730	730	1560	355	305	560	1140	150	150	180
400M	4P~	812	825	1700	400	343	630	1230	150	170	180

Dimensions | HSFC (Horizontal Squirrel cage Fan Cooled)



DIRECT COUPLED

UNIT : mm

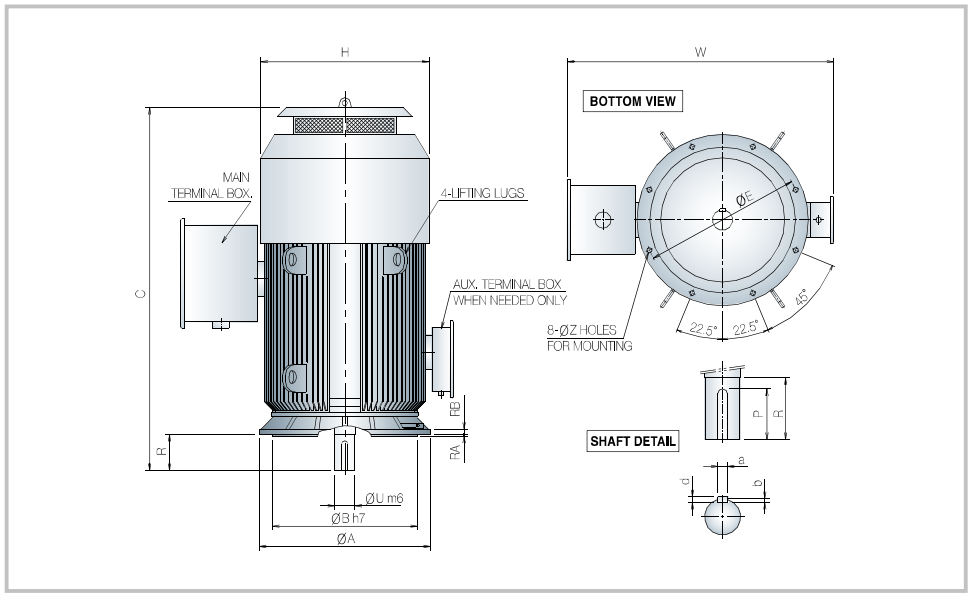
FR.NO	POLE	A	B	C	D	E	F	KEY SIZE			Approx. WT.(Kg)
								a	b	d	
315M	2P	110	25	55	950	28	216	16	6	10	1050
	4P~	170	25	85	950	28	216	22	9	14	1150
355M	2P	140	28	65	1000	28	254	18	7	11	1450
	4P~	170	28	95	1000	28	254	25	9	14	1650
400M	2P	140	37	65	1080	35	280	18	7	11	2300
	4P~	170	37	95	1080	35	280	25	9	14	2350
450M	2P	140	37	75	1130	42	315	20	7.5	12	3450
	4P~	210	37	110	1130	42	315	28	10	16	3500

BELT TYPE

UNIT : mm

FR.NO	POLE	A	B	C	D	E	F	KEY SIZE			Approx. WT.(Kg)
								a	b	d	
315M	4P~	210	25	110	950	28	216	28	10	16	1150
355M	4P~	210	28	110	1000	28	254	28	10	16	1650
400M	4P~	210	37	110	1080	35	280	28	10	16	2350

Dimensions | VSFC (Vertical Squirrel cage Fan Cooled)



DIRECT COUPLED

UNIT : mm

FR.NO	POLE	ØA	ØB	C	ØE	H	P	R	RA	RB	W	ØU	ØZ	KEY SIZE			Approx. WT.(Kg)
														a	b	d	
315M	4P~	660	550	1660	600	700	140	170	6	24	1250	85	24	22	9	14	1300
355M	4P~	800	680	1790	740	780	140	170	6	24	1350	95	24	25	9	14	1900
400M	4P~	910	710	1960	800	880	140	170	6	31	1450	95	28	25	9	14	2650
450M	4P~	1000	880	2130	940	1000	180	210	6	31	1560	110	28	28	10	16	3800

DIRECT COUPLED

UNIT : mm

FR.NO	POLE	ØA	ØB	C	ØE	H	P	R	RA	RB	W	ØU	ØZ	KEY SIZE			Approx. WT.(Kg)
														a	b	d	
315M	4P~	660	550	1660	600	700	140	170	6	24	1250	85	24	22	9	14	1300
355M	4P~	800	680	1790	740	780	140	170	6	24	1350	95	24	25	9	14	1900
400M	4P~	910	710	1960	800	880	140	170	6	31	1450	95	28	25	9	14	2650

HSDP/VSDP

Specifications

- Enclosure : DP (Drip Proof)
- Rotor type : Squirrel cage
- Number of Pole : 2 ~ 8 Poles
- Voltage : 2.3 ~ 6.9 kV
- Output Range : 160 ~ 900 kW
- Frame Size : 315 ~ 450 Frame
- Protection Grade : IP22 (IEC60 034-5)
- Method of Cooling : IC01 (IEC60 034-6)
- Insulation / Temp. rise : F / F
- Type of Construction : IM B3 / IM V1

Frame Assignment

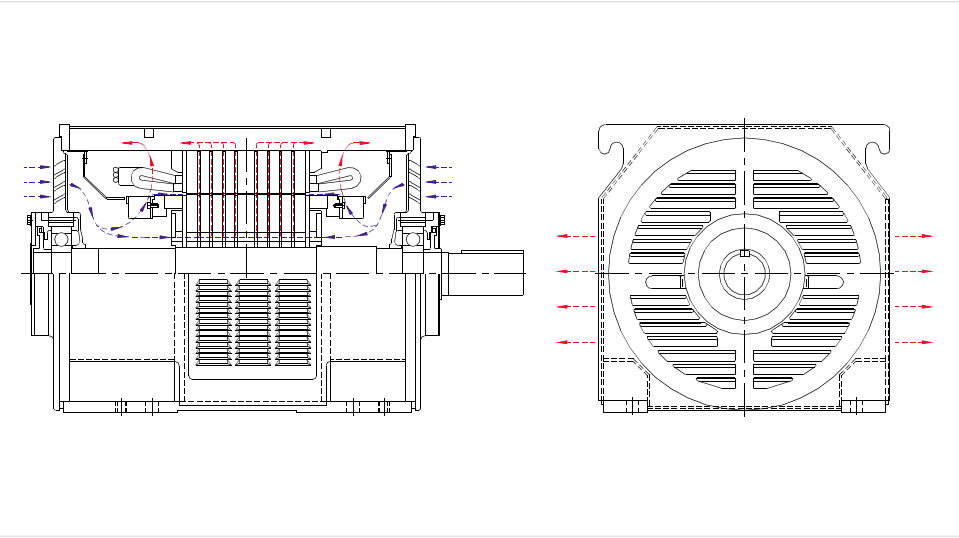
50Hz , 3.0 / 6.0 kV

HSDP					
POWER (kW)	VOLT (kV)	POLES 2	4	6	8
132	3.0	-	-	-	-
	6.0	-	-	-	315L
180	3.0	-	-	315L	
	6.0	-	-		
200	3.0	315L	315L		
	6.0				
250	3.0				
	6.0				
280	3.0				355L
	6.0				
315	3.0			355L	
	6.0	355L			
355	3.0		355L		
	6.0				
400	3.0				
	6.0				400L
450	3.0			400L	
	6.0	400L			
500	3.0				
	6.0				
560	3.0		400L		
	6.0				450L
630	3.0				
	6.0			450L	
710	3.0	-			
	6.0	-	450L		
800	3.0	-			-
	6.0	-			-
900	3.0	-		-	-
	6.0	-		-	-

60Hz , 3.3 / 6.6 kV

HSDP					
POWER (kW)	VOLT (kV)	POLES 2	4	6	8
132	3.3	-	-	-	-
	6.6	-	-	-	-
180	3.3	-	-	-	315L
	6.6	-	-	315L	
200	3.3	-	-		
	6.6	-	-		
250	3.3	315L	315L		
	6.6				
280	3.3				355L
	6.6				
315	3.3			355L	
	6.6				
355	3.3	355L	355L		
	6.6				
400	3.3				
	6.6				
450	3.3				400L
	6.6	400L			
500	3.3			400L	
	6.6				
560	3.3				
	6.6		400L		
630	3.3				450L
	6.6				
710	3.3	-		450L	
	6.6	-			
800	3.3	-	450L		
	6.6	-			-
900	3.3	-			-
	6.6	-		-	-

Sectional Drawing For Ventilation



DIRECT COUPLED

UNIT : mm

FR.NO	POLE	A	B	C	D	E	F	H	J	K	P
315M	2P	642	940	1238	315	254	508	1045	100	380	110
	4P~	642	940	1268	315	254	508	1045	100	380	140
355L	2P	732	1050	1372	355	305	630	1130	120	360	110
	4P~	732	1050	1402	355	305	630	1130	120	360	140
400L	2P	820	1170	1533	400	343	710	1230	140	400	140
	4P~	820	1170	1573	400	343	710	1230	140	400	180
450L	2P	910	1300	1723	450	375	800	1330	160	400	140
	4P~	910	1300	1723	450	375	800	1330	160	400	180

BELT TYPE

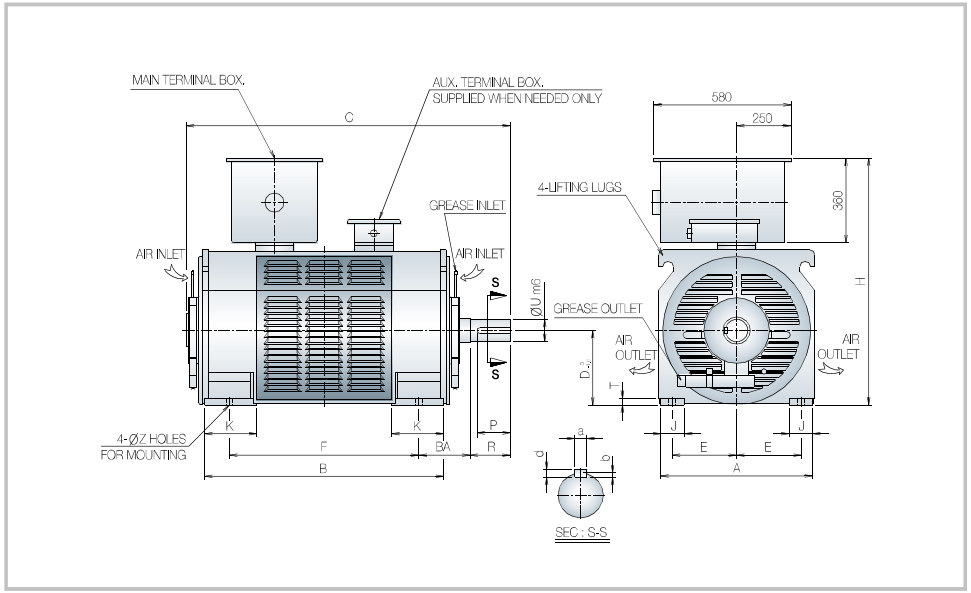
UNIT : mm

FR.NO	POLE	A	B	C	D	E	F	H	J	K	P
315L	4P	642	940	1268	315	254	508	1045	100	380	140
	6P~	642	940	1308	315	254	508	1045	100	380	180
355L	4P	732	1050	1442	355	305	630	1130	120	360	180
	6P~	732	1050	1442	355	305	630	1130	120	360	180

SAMT Specialised Air Motors and Transmission

HYOSUNG

Dimensions | HSDP (Horizontal Squirrel cage Drip Proof)



DIRECT COUPLED

UNIT : mm

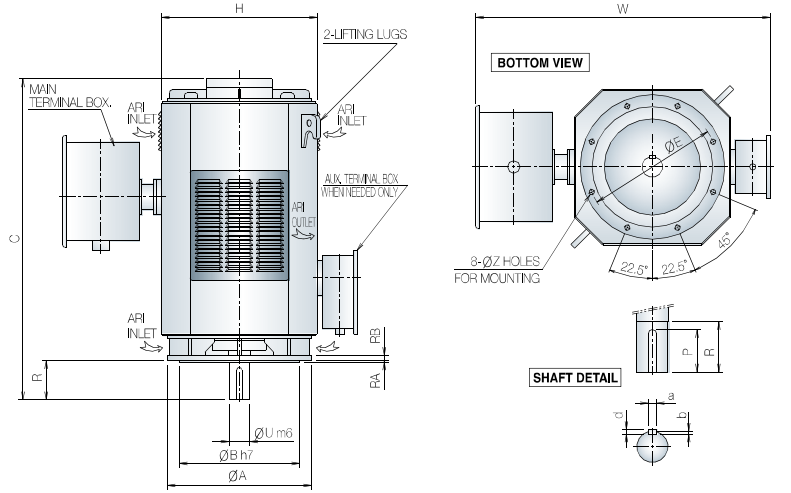
FR.NO	POLE	R	T	ØU	ØZ	BA	KEY SIZE			Approx.
							a	b	d	WT.(Kg)
315M	2P	140	28	65	28	216	18	7	11	1050
	4P~	170	28	95	28	216	25	9	14	1100
355L	2P	140	28	65	28	254	18	7	11	1550
	4P~	170	28	95	28	254	25	9	14	1600
400L	2P	170	35	75	35	280	20	7.5	11	2400
	4P~	210	35	110	35	280	28	10	16	2400
450L	2P	170	37	75	35	315	20	7.5	11	3200
	4P~	210	37	125	35	315	32	11	18	3200

BELT TYPE

UNIT : mm

FR.NO	POLE	R	T	ØU	ØZ	BA	KEY SIZE			Approx.
							a	b	d	WT.(Kg)
315M	4P	170	28	95	28	216	25	9	14	1100
	6P~	210	28	110	28	216	28	10	16	1150
355L	4P	210	28	110	28	254	28	10	16	1650
	6P~	210	28	125	28	254	32	11	18	1700

Dimensions | VSDP (Vertical Squirrel cage Drip Proof)



DIRECT COUPLED

UNIT : mm

FR.NO	POLE	ØA	ØB	C	ØE	H	P	R	RA	RB	W	ØU	ØZ	KEY SIZE			Approx.
														a	b	d	WT.(Kg)
315L	4P~	660	550	1520	600	720	140	170	6	24	1300	95	24	25	9	14	1200
355L	4P~	800	680	1700	740	800	140	170	6	24	1430	95	24	25	9	14	1750
400L	4P~	910	710	1880	800	880	180	210	6	31	1450	110	28	28	10	16	2600
450L	4P~	1000	880	2080	940	1010	180	210	6	31	1650	125	28	32	11	18	3650

BELT TYPE

UNIT : mm

FR.NO	POLE	ØA	ØB	C	ØE	H	P	R	RA	RB	W	ØU	ØZ	KEY SIZE			Approx.
														a	b	d	WT.(Kg)
315L	4P	660	550	1560	600	720	180	210	6	24	1300	95	24	28	10	16	1200
	6P~	660	550	1560	600	720	180	210	6	24	1300	110	24	28	10	16	1250
355L	4P	800	680	1920	740	800	180	210	6	24	1430	110	24	28	10	16	1750
	6P~	800	680	1920	740	800	180	210	6	24	1430	125	24	32	11	18	1800

SAMT Specialised Air Motors and Transmission

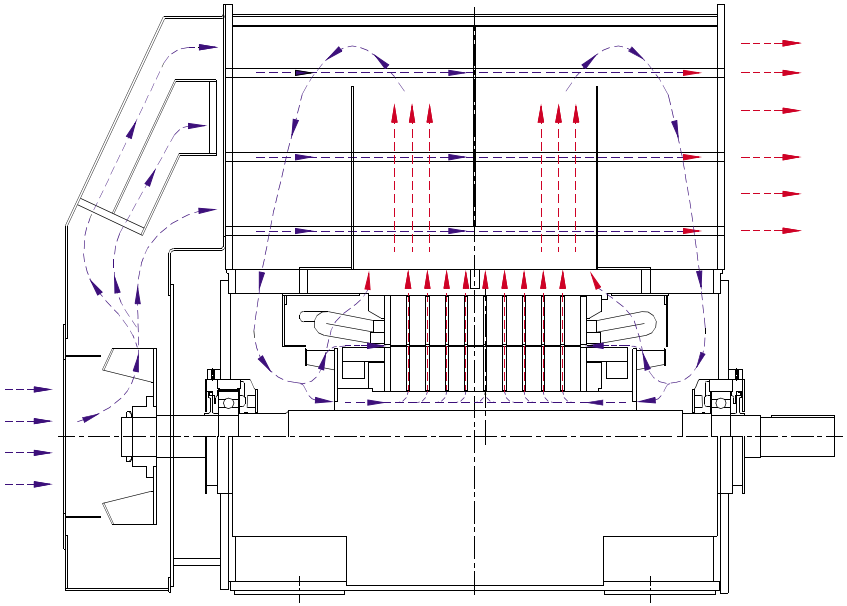
HYOSUNG

HSTC/VSTC

Specifications

- Enclosure : TE (Totally Enclosed)
- Rotor type : Squirrel cage
- Number of Pole : 2 ~ 12 Poles
- Voltage : 2.3 ~ 13.8 kV
- Output Range : 450 ~ 5000 kW
- Frame Size : 400 ~ 710 Frame
- Protection Grade : IP54 (IEC60 034-5)
- Method of Cooling : IC611 (IEC60 034-6)
- Insulation / Temp. rise : F / F
- Type of Construction : IM B3 (IM V1 as optional)

Sectional Drawing For Ventilation



Frame Assignment

50Hz , 3.0 / 6.0 kV

HSTC							
POWER (kW)	VOLT (kV)	POLES 2	4	6	8	10	12
450	3.0	400D	400D	400F	400F	450E	450E
	6.0	400F	400F	400F	450E	450E	450G
500	3.0	400F	400F	400F	450E	450E	450G
	6.0	400F	400F	450E	450E	450G	500D
560	3.0	400F	400F	450E	450E	450G	500D
	6.0	450E	450E	450E	450G	450G	500D
630	3.0	450E	450E	450E	450G	450G	500D
	6.0	450E	450E	450E	450G	500D	500F
710	3.0	450E	450E	450E	450G	500D	500F
	6.0	450G	450E	450G	500D	500D	500F
800	3.0	450G	450E	450G	500D	500D	500F
	6.0	450G	450G	450G	500D	500F	560B
900	3.0	450G	450G	450G	500D	500F	560B
	6.0	500D	450G	500D	500D	560B	560E
1000	3.0	500D	450G	500D	500D	560B	560E
	6.0	500F	500D	500D	500F	560E	560F
1120	3.0	500F	500D	500D	500F	560E	560F
	6.0	500F	500D	500F	500F	560F	630B
1250	3.0	500F	500D	500F	500F	560F	630B
	6.0	560E	500F	500F	560E	630B	630D
1400	3.0	560E	500F	500F	560E	630B	630D
	6.0	560E	500F	560E	560E	630D	630E
1600	3.0	560E	500F	560E	560E	630D	630E
	6.0	560F	560E	560F	630D	630E	630F
1800	3.0	560F	560E	560F	630D	630E	630F
	6.0	560F	560E	560F	630E	630E	630F
2000	3.0	560F	560E	560F	630E	630E	630F
	6.0	630E	560F	630D	630E	630F	710E
2240	3.0	630E	560F	630D	630E	630F	710E
	6.0	630F	560F	630E	630F	630F	710E
2500	3.0	630F	560F	630E	630F	630F	710E
	6.0	630F	630E	630F	630F	710E	710F
2800	3.0	630F	630E	630F	630F	710E	710F
	6.0	630F	630F	630F	710E	710F	710F
3150	3.0	630F	630F	630F	710E	710F	710F
	6.0	-	630F	710E	710F	710F	-
3550	3.0	-	630F	710E	710F	710F	-
	6.0	-	710E	710E	710F	-	-
4000	3.0	-	710E	710E	710F	-	-
	6.0	-	710E	710F	-	-	-
4500	3.0	-	710E	710F	-	-	-
	6.0	-	710F	-	-	-	-
5000	3.0	-	710F	-	-	-	-
	6.0	-	710F	-	-	-	-

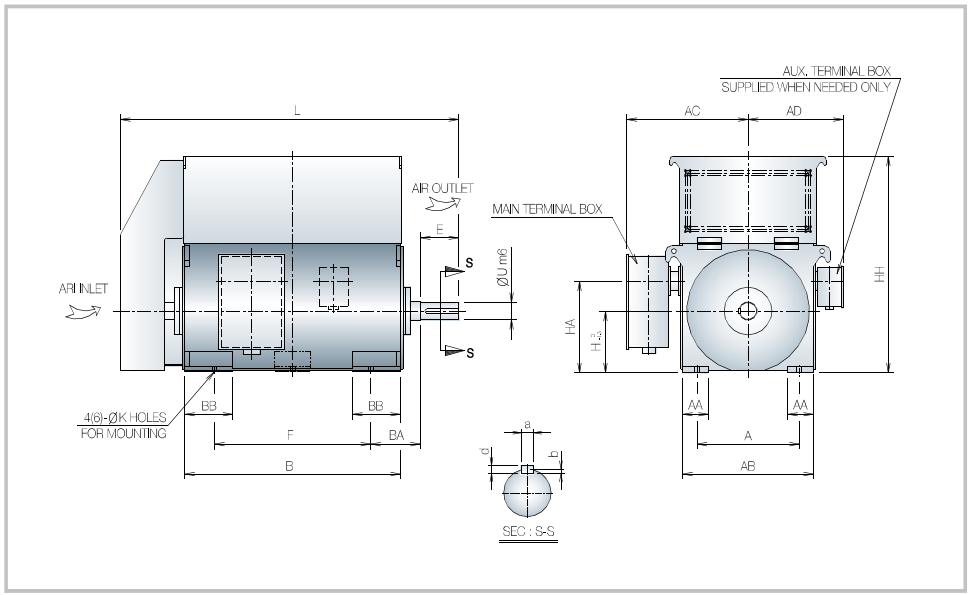
60Hz , 3.3 / 6.6 kV

HSTC							
POWER (kW)	VOLT (kV)	POLES 2	4	6	8	10	12
450	3.3	400D	400D	400F	400F	450E	450E
	6.6	400F	400D	400F	400F	450E	450G
500	3.3	400F	400D	400F	400F	450E	450G
	6.6	400F	400F	400F	450E	450E	450G
560	3.3	400F	400F	400F	450E	450G	500D
	6.6	400F	400F	400F	450E	450G	500D
630	3.3	400F	400F	450E	450E	450G	500D
	6.6	450E	400F	450E	450E	450G	500F
710	3.3	450E	400F	450E	450G	500D	500F
	6.6	450E	450E	450E	450G	500D	500F
800	3.3	450E	450E	450E	450G	500D	500F
	6.6	450G	450E	450G	450G	500F	500F
900	3.3	450G	450E	450G	500D	500F	560E
	6.6	450G	450E	450G	500D	500F	560E
1000	3.3	500D	450G	450G	500D	560E	560E
	6.6	500D	450G	500D	500F	560E	560F
1120	3.3	500F	450G	500D	500F	560E	560F
	6.6	500F	500D	500D	500F	560F	560F
1250	3.3	500F	500D	500F	500F	560F	630D
	6.6	500F	500D	500F	500F	560F	630D
1400	3.3	500F	500F	500F	560E	630D	630D
	6.6	560E	500F	500F	560E	630D	630E
1600	3.3	560E	500F	560E	560E	630D	630E
	6.6	560E	500F	560E	560F	630E	630F
1800	3.3	560F	560E	560E	560F	630E	630F
	6.6	560F	560E	560F	560F	630E	630F
2000	3.3	560F	560E	560F	560F	630E	630F
	6.6	560F	560E	560F	630E	630F	710E
2240	3.3	630E	560F	630D	630E	630F	710E
	6.6	630E	560F	630D	630E	630F	710E
2500	3.3	630F	560F	630E	630F	630F	710E
	6.6	630F	560F	630E	630F	710E	710F
2800	3.3	630F	630E	630F	630F	710E	710F
	6.6	630F	630E	630F	630F	710F	710F
3150	3.3	630F	630F	630F	710E	710F	710F
	6.6	630F	630F	630F	710E	710F	-
3550	3.3	-	630F	710E	710F	710F	-
	6.6	-	630F	710E	710F	-	-
4000	3.3	-	710E	710E	710F	-	-
	6.6	-	710E	710F	-	-	-
4500	3.3	-	710E	710F	-	-	-
	6.6	-	710E	-	-	-	-
5000	3.3	-	710F	-	-	-	-
	6.6	-	710F	-	-	-	-

SAMT Specialised Air Motors and Transmission

HYOSUNG

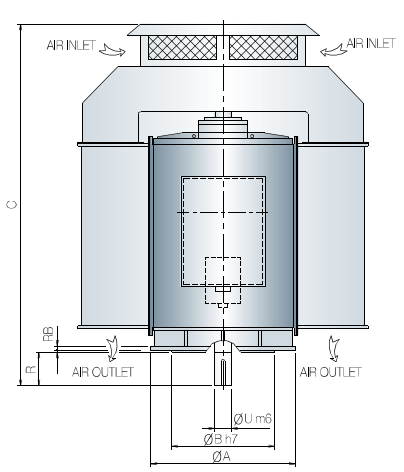
Dimensions | HSTC (Horizontal Squirrel cage Tube Cooled)

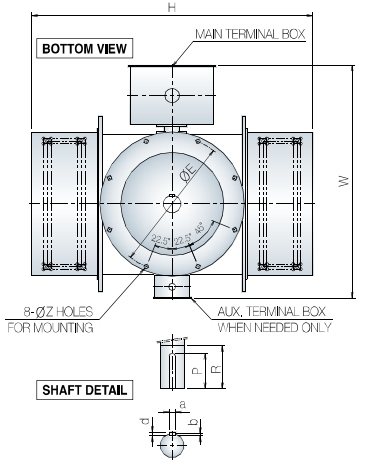


UNIT : mm

FR.NO	A	B	E	F	L	AA	AB	AC	AD	BA	BB	H	HH	HA	ØU	ØK	KEY SIZ a	KEY SIZ b	KEY SIZ d	Approx. WT.(Kg)
400D	686	1180	210	800	1930	140	812	890	600	280	280	400	1640	600	110	35	28	10	16	3600
400F	↓	1400	↓	1000	2140	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4000
450C	750	1180	210	800	2005	160	906	940	650	315	315	450	1705	680	110	42	28	10	16	4100
450E	↓	1400	↓	1000	2215	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4600
450G	↓	1600	↓	1250	2440	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5600
500B	850	1180	250	800	2085	200	1076	990	730	335	315	500	1790	750	140	42	36	12	20	5400
500D	↓	1400	↓	1000	2295	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6200
500F	↓	1600	↓	1250	2520	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6800
560A	950	1180	300	800	2105	200	1120	1150	760	355	315	560	1955	840	160	42	40	13	22	6100
560C	↓	1400	↓	1000	2315	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7200
560E	↓	1600	↓	1250	2540	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	8200
560F	↓	1800	↓	1400	2715	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	9200
630B	1060	1400	300	1000	2425	220	1250	1210	820	375	315	630	2135	930	160	42	40	13	22	9000
630D	↓	1600	↓	1250	2650	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	42	↓	↓	↓	10000
630E	↓	1800	↓	1400	2825	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	11000
630F	↓	2000	↓	1600	3025	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	12000
710D	1180	1600	300	1250	3015	250	1400	1330	920	375	315	710	2530	1065	180	6-42	45	15	25	12800
710E	↓	1800	↓	1400	3190	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	13800
710F	↓	2000	↓	1600	3390	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	14800
710G	↓	2120	↓	1700	3500	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	15800

Dimensions | VSTC (Vertical Squirrel cage Tube Cooled)





UNIT : mm

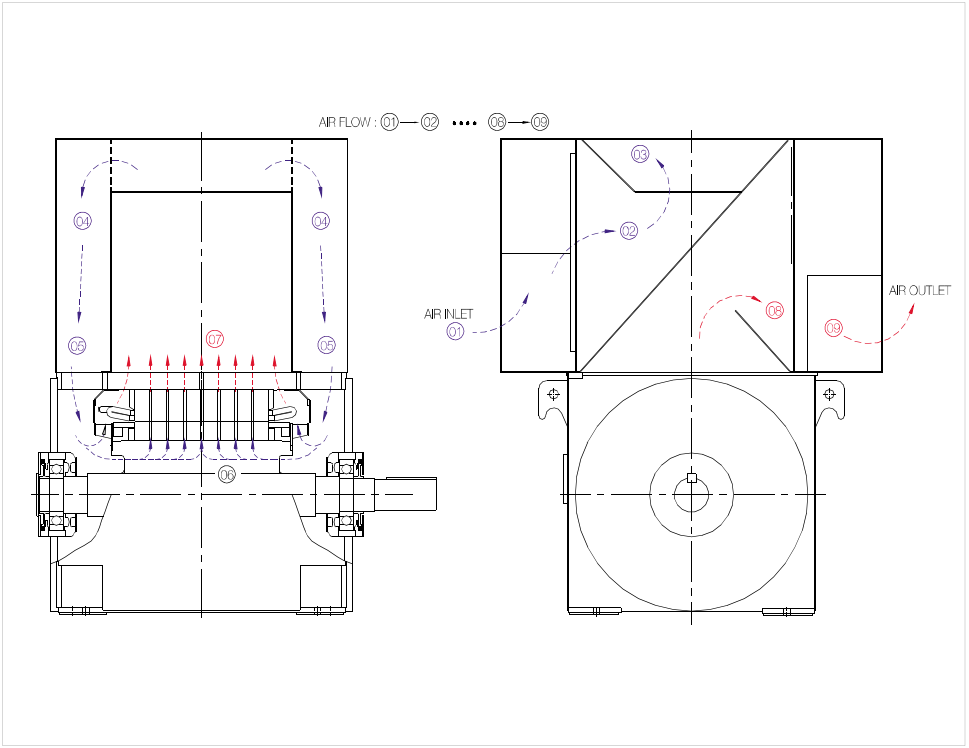
FR.NO	ØA	ØB	C	ØE	H	P	R	RA	RB	W	ØU	ØZ	KEY SIZ a	KEY SIZ b	KEY SIZ d	Approx. WT.(Kg)
400D	910	710	2580	800	2100	180	210	6	31	1430	110	28	28	10	16	4500
400F	↓	↓	2790	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5000
450C	1000	880	2655	940	2200	180	210	6	31	1580	110	28	28	10	16	5700
450E	↓	↓	2865	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6200
450G	↓	↓	3090	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6700
500B	1150	1000	2815	1080	2240	220	250	6	31	1730	140	28	36	12	20	6100
500D	↓	↓	3025	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6800
500F	↓	↓	3250	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7400
560A	1240	1040	2855	1140	2650	250	300	6	34	1800	160	35	40	13	22	7800
560C	↓	↓	3065	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	8600
560E	↓	↓	3290	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	9200
560F	↓	↓	3465	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	9500
630B	1320	1120	3225	1220	2950	250	300	6	34	1960	160	35	40	13	22	10200
630D	↓	↓	3450	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	11600
630E	↓	↓	3625	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	13200
630F	↓	↓	3825	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	14700
710D	1500	1300	3815	1400	3200	250	300	6	34	2200	180	35	45	15	25	15500
710E	↓	↓	3990	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	17000
710F	↓	↓	4190	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18100
710G	↓	↓	4300	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	19200

HSWP I, II/VSWP I, II

Specifications

- Enclosure : WPI, II (Weather Protected I, II)
- Rotor type : Squirrel cage
- Number of Pole : 2 ~ 12 Poles
- Voltage : 2.3 ~ 13.8 kV
- Output Range : 630 ~ 6300 kW
- Frame Size : 400 ~ 710 Frame
- Protection Grade : IP23, IP24 (IEC60 034-5)
- Method of Cooling : IC01 (IEC60 034-6)
- Insulation / Temp. rise : F / F
- Type of Construction : IM B3 (IM V1 as optional)

Sectional Drawing For Ventilation



Frame Assignment

50Hz , 3.0 / 6.0 kV

HSWPI, HSWPII							
POWER (kW)	VOLT (kV)	POLES 2	4	6	8	10	12
630	3.0	400D	400D	400F	400F	450E	500D
	6.0	400F	400F	400F	450E	450E	500D
710	3.0	400F	400F	400F	450E	450E	500D
	6.0	400F	400F	400F	450E	500D	500F
800	3.0	400F	400F	400F	450E	500D	500F
	6.0	450E	400F	450E	450E	500D	500F
900	3.0	450E	400F	450E	450E	500D	500F
	6.0	450E	450E	450E	500D	500F	500F
1000	3.0	450E	450E	450E	500D	500F	500F
	6.0	450G	450E	450E	500D	500F	560E
1120	3.0	450G	450E	450E	500D	500F	560E
	6.0	450G	450G	500D	500F	500F	560E
1250	3.0	450G	450G	500D	500F	500F	560E
	6.0	500F	450G	500D	500F	560E	560F
1400	3.0	500F	450G	500D	500F	560E	560F
	6.0	500F	500D	500F	500F	560E	560F
1600	3.0	500F	500D	500F	500F	560E	560F
	6.0	500F	500D	500F	560E	560F	630E
1800	3.0	500F	500D	500F	560E	560F	630E
	6.0	560E	500F	500F	560E	560F	630E
2000	3.0	560E	500F	500F	560E	560F	630E
	6.0	560E	500F	560E	560F	630E	630E
2240	3.0	560E	500F	560E	560F	630E	630F
	6.0	560F	560E	560E	560F	630E	630F
2500	3.0	560F	560E	560E	560F	630F	630F
	6.0	560F	560E	560F	630E	630F	630F
2800	3.0	560F	560E	560F	630E	630F	710F
	6.0	560F	560F	560F	630F	630F	710F
3150	3.0	560F	560F	560F	630F	710E	710F
	6.0	630E	560F	630E	630F	710E	710F
3550	3.0	630E	560F	630E	630F	710F	-
	6.0	630E	630E	630E	710E	710F	-
4000	3.0	630E	630E	630F	710E	-	-
	6.0	630F	630E	630F	710F	-	-
4500	3.0	630F	630E	630F	710F	-	-
	6.0	630F	630F	710E	-	-	-
5000	3.0	630F	630F	710E	-	-	-
	6.0	630F	630F	710E	-	-	-
5600	3.0	-	630F	-	-	-	-
	6.0	-	710E	-	-	-	-
6300	3.0	-	710E	-	-	-	-
	6.0	-	710E	-	-	-	-

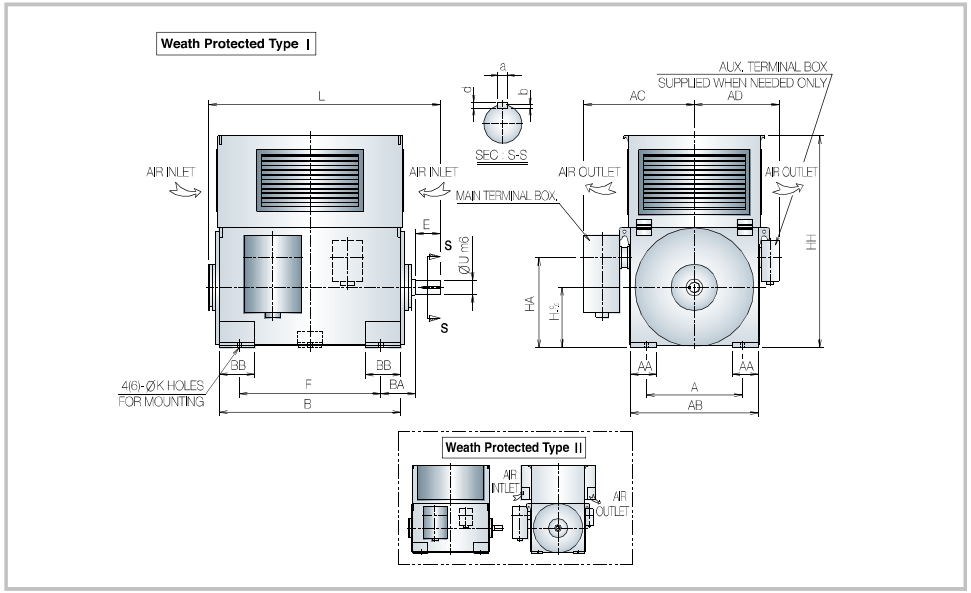
60Hz , 3.3 / 6.6 kV

HSWPI, HSWPII							
POWER (kW)	VOLT (kV)	POLES 2	4	6	8	10	12
630	3.3	400D	400D	400D	400F	450E	450E
	6.6	400D	400D	400F	400F	450E	450E
710	3.3	400F	400F	400F	450E	450E	450G
	6.6	400F	400F	400F	450E	450E	450G
800	3.3	400F	400F	400F	450E	450G	500D
	6.6	400F	400F	400F	450E	450G	500D
900	3.3	400F	400F	400F	450E	450G	500D
	6.6	450E	400F	450E	560G	500D	500F
1000	3.3	450E	400F	450E	560G	500D	500F
	6.6	450E	450E	450E	560G	500D	500F
1120	3.3	450E	450E	450E	500D	500F	560E
	6.6	450G	450E	450G	500D	500F	560E
1250	3.3	450G	450E	450G	500D	500F	560E
	6.6	450G	450G	450G	500F	500F	560F
1400	3.3	450G	450G	500D	500F	560E	560F
	6.6	500F	450G	500D	500F	560E	560F
1600	3.3	500F	450G	500D	500F	560E	560F
	6.6	500F	500D	500F	560E	560E	560F
1800	3.3	500F	500D	500F	560E	560F	630E
	6.6	500F	500D	500F	560E	560F	630E
2000	3.3	500F	500F	500F	560E	560F	630E
	6.6	560E	500F	560E	560E	630E	630E
2240	3.3	560E	500F	560E	560F	630E	630F
	6.6	560E	500F	560E	560F	630E	630F
2500	3.3	560E	560E	560E	560F	630F	630F
	6.6	560F	560E	560E	560F	630F	630F
2800	3.3	560F	560E	560F	630E	630F	710E
	6.6	560F	560E	560F	630E	630F	710E
3150	3.3	560F	560F	560F	630E	710E	710E
	6.6	560F	560F	560F	630F	710E	710F
3550	3.3	560F	560F	630E	630F	710E	710F
	6.6	630E	560F	630E	630F	710F	710F
4000	3.3	630E	560F	630E	710E	710F	-
	6.6	630E	630E	630F	710E	710F	-
4500	3.3	630E	630E	630F	710F	-	-
	6.6	630F	630E	630F	710F	-	-
5000	3.3	630F	630F	710E	710F	-	-
	6.6	630F	630F	710E	-	-	-
5600	3.3	630F	630F	710E	-	-	-
	6.6	-	630F	710E	-	-	-
6300	3.3	-	710E	-	-	-	-
	6.6	-	710E	-	-	-	-

SAMT Specialised Air Motors and Transmission

HYOSUNG

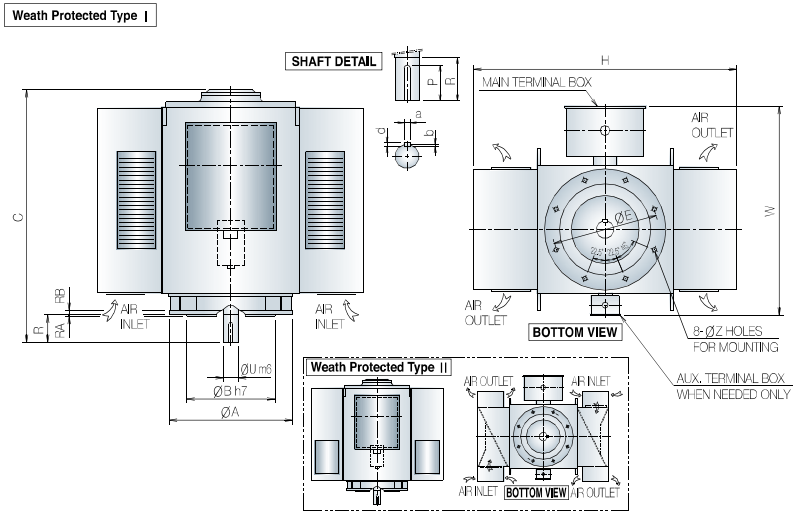
Dimensions | HSWPI, II (Horizontal Squirrel Weather Protected I, II)



UNIT : mm

FR.NO	A	B	E	F	L	AA	AB	AC	AD	BA	BB	H	HH	HA	ØU	ØK	KEY SIZ a	KEY SIZ b	KEY SIZ d	Approx. WT.(Kg)
400D	686	1180	210	800	1560	140	812	890	600	280	280	400	1325	600	110	35	28	10	16	3100
400F	↓	1400	↓	1000	1770	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	3500
450C	750	1180	210	800	1635	160	906	940	650	315	315	450	1425	680	125	42	32	11	18	3900
450E	↓	1400	↓	1000	1845	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4200
450G	↓	1600	↓	1250	2070	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4600
500B	850	1180	250	800	1655	200	1076	990	730	335	315	500	1790	750	140	42	36	12	20	4500
500D	↓	1400	↓	1000	1865	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5100
500F	↓	1600	↓	1250	2090	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5700
560A	950	1180	300	800	1730	200	1120	1050	760	355	315	560	2000	840	160	42	40	13	22	5100
560C	↓	1400	↓	1000	1940	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6200
560E	↓	1600	↓	1250	2180	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7200
560F	↓	1800	↓	1400	2340	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	8200
630B	1060	1400	300	1000	1955	200	1250	1210	820	375	315	630	2190	930	160	42	40	13	22	8000
630D	↓	1600	↓	1250	2180	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	42	↓	↓	↓	9000
630E	↓	1800	↓	1400	2355	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	10000
630F	↓	2000	↓	1600	2530	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	11000
710D	1180	1600	300	1250	2200	250	1250	1330	920	375	315	710	2385	1065	180	42	45	15	25	11300
710E	↓	1800	↓	1400	2375	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	12200
710F	↓	2000	↓	1600	2550	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	13000
710G	↓	2120	↓	1700	2670	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	13800

Dimensions | VSWPI, II (Vertical Squirrel Weather Protected I, II)



UNIT : mm

FR.NO	ØA	ØB	C	ØE	H	P	R	RA	RB	W	ØU	ØZ	KEY SIZ a	KEY SIZ b	KEY SIZ d	Approx. WT.(Kg)
400D	910	710	2160	800	1900	180	210	6	31	1700	110	28	28	10	16	3500
400F	↓	↓	2370	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4000
450C	1000	880	2235	940	2090	180	210	6	31	1860	125	28	32	11	18	4000
450E	↓	↓	2445	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5000
450G	↓	↓	2670	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5500
500B	1150	1000	2285	1080	2600	220	250	6	31	2080	140	28	36	12	20	5800
500D	↓	↓	2495	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6400
500F	↓	↓	2720	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7000
560A	1240	1040	2380	1140	2900	250	300	6	34	2500	160	35	40	13	22	6700
560C	↓	↓	2590	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7500
560E	↓	↓	2830	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	8200
560F	↓	↓	2990	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	9000
630B	1320	1120	2705	1220	3300	250	300	6	34	2700	160	35	40	13	22	10200
630D	↓	↓	2930	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	11600
630E	↓	↓	3105	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	12000
630F	↓	↓	3280	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	13200
710D	1500	1300	2950	1400	3400	250	300	6	34	2750	180	35	45	15	25	14000
710E	↓	↓	3125	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	15200
710F	↓	↓	3300	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	16500
710G	↓	↓	3420	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	18000

Specifications

- Enclosure : TE (Totally Enclosed)
- Rotor type : Wound rotor
- Type of Construction : IM B3
- Protection Grade : IP54 (IEC60 034-5)
- Method of Cooling : IC411 (IEC60 034-6)
- Insulation / Temp. rise : F / F

Frame Assignment

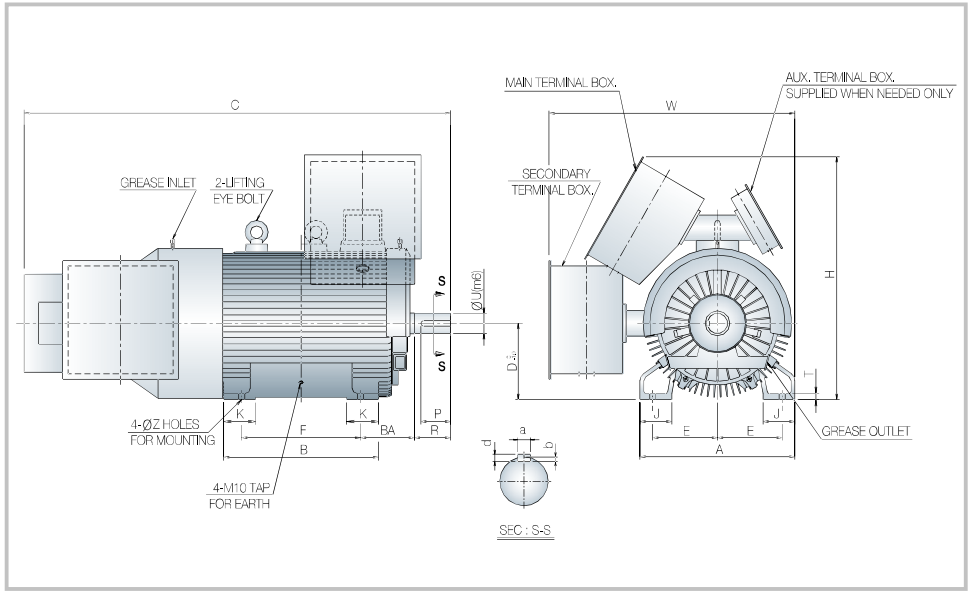
50Hz , 3.0 / 6.0 kV

HWFC				
POWER (kW)	VOLT (kV)	POLES 4	6	8
132	3.0	315M	315M	355M
	6.0			
160	3.0		355M	
	6.0			
180	3.0	355M		400M
	6.0			
200	3.0			
	6.0		400M	
250	3.0			
	6.0			
280	3.0	400M		450M
	6.0			
315	3.0			
	6.0		450M	
355	3.0			
	6.0			
400	3.0	450M		
	6.0			-
450	3.0			-
	6.0		-	-
500	3.0		-	-
	6.0		-	-

60Hz , 3.3 / 6.6 kV

HWFC				
POWER (kW)	VOLT (kV)	POLES 4	6	8
132	3.3	315M	315M	315M
	6.6			355M
160	3.3			
	6.6		355M	
180	3.3			
	6.6	355M		
200	3.3			400M
	6.6			
250	3.3		400M	
	6.6			
280	3.3			
	6.6			
315	3.3	400M		450M
	6.6			
355	3.3		450M	
	6.6			
400	3.3			
	6.6			
450	3.3	450M		-
	6.6			-
500	3.3		-	-
	6.6		-	-

Dimensions | HWFC (Horizontal Wound rotor Fan Cooled)



DIRECT COUPLED

UNIT : mm

FR.NO	POLE	A	B	C	D	E	F	H	J	K	P	R	T	ØU	W	ØZ	BA	KEY SIZE a	b	d	Approx. WT.(Kg)
315M	4P~	640	590	1850	315	254	457	1050	120	120	140	170	25	85	1120	28	216	22	9	14	1300
355M	4P~	730	730	2000	355	305	560	1140	150	150	140	170	28	95	1170	28	254	25	9	14	1800
400M	4P~	812	825	2200	400	343	630	1230	150	170	140	170	37	95	1250	35	280	25	9	14	2550
450M	4P~	906	900	2400	450	375	710	1350	170	200	180	210	37	110	1300	42	315	28	10	16	3800

BELT TYPE

UNIT : mm

FR.NO	POLE	A	B	C	D	E	F	H	J	K	P	R	T	ØU	W	ØZ	BA	KEY SIZE a	b	d	Approx. WT.(Kg)
315M	4P~	640	590	1890	315	254	457	1050	120	120	180	210	25	110	1120	28	216	28	10	16	1300
355M	4P~	730	730	2040	355	305	560	1140	150	150	180	210	28	110	1170	28	254	28	10	16	1800

SAMT Specialised Air Motors and Transmission

HYOSUNG

Specifications

- Enclosure : DP (Drip Proof)
- Rotor type : Wound rotor
- Type of Construction : IM B3
- Protection Grade : IP22 (IEC60 034-5)
- Method of Cooling : IC01 (IEC60 034-6)
- Insulation / Temp. rise : F / F

Frame Assignment

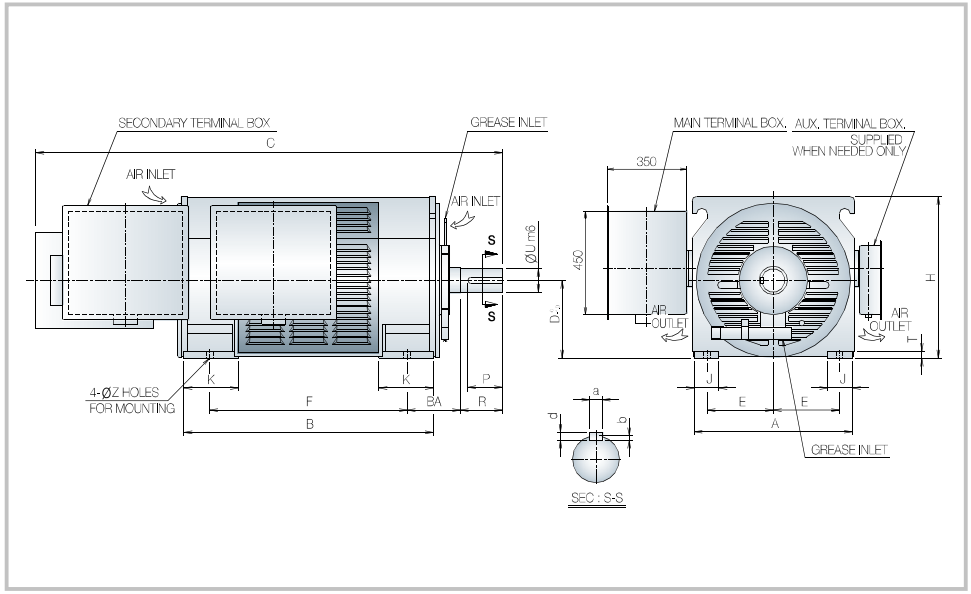
50Hz , 3.0 / 6.0 kV

HWDP				
POWER (kW)	VOLT (kV)	POLES 4	6	8
160	3.0	315L	315L	315L
	6.0			
180	3.0			
	6.0			355L
200	3.0			
	6.0		355L	
250	3.0			
	6.0	355L		
280	3.0			
	6.0			
315	3.0			400L
	6.0		400L	
355	3.0			
	6.0	400L		
400	3.0			
	6.0			
450	3.0			450L
	6.0		450L	
500	3.0	450L		
	6.0			
560	3.0			-
	6.0			-
630	3.0		-	-
	6.0		-	-

60Hz , 3.3 / 6.6 kV

HWDP				
POWER (kW)	VOLT (kV)	POLES 4	6	8
132	3.3	315L	315L	315L
	6.6			
180	3.3			
	6.6			
200	3.3			355L
	6.6			
250	3.3		355L	
	6.6	355L		
280	3.3			
	6.6			
315	3.3			400L
	6.6			
355	3.3		400L	
	6.6			
400	3.3	400L		
	6.6			
450	3.3			450L
	6.6			
500	3.3		450L	
	6.6	450L		
560	3.3			
	6.6			-
630	3.3			-
	6.6			-

Dimensions | HWDP (Horizontal Wound rotor Drip Proof)



DIRECT COUPLED

UNIT : mm

FR.NO	POLE	A	B	C	D	E	F	H	J	K	P	R	T	ØU	ØZ	BA	KEY SIZ a	b	d	Approx. WT.(Kg)
315L	4P~	642	940	1750	315	254	508	655	100	380	140	170	28	95	28	216	25	9	14	1250
355L	4P~	732	1050	1920	355	305	630	740	120	360	140	170	28	95	28	254	25	9	14	1800
400L	4P~	820	1170	2150	400	343	710	840	140	400	180	210	35	110	35	280	28	10	16	2600
450L	4P~	910	1300	2300	450	375	800	950	160	400	180	210	37	125	35	315	32	11	18	3500

BELT TYPE

UNIT : mm

FR.NO	POLE	A	B	C	D	E	F	H	J	K	P	R	T	ØU	ØZ	BA	KEY SIZ a	b	d	Approx. WT.(Kg)
315L	4P	642	940	1750	315	254	508	655	100	380	140	170	28	95	28	216	25	9	14	1250
	6P~	642	940	1790	315	254	508	655	100	380	180	210	28	110	28	216	28	10	16	1300
355L	4P	732	1050	1960	355	305	630	740	120	360	180	210	28	110	28	254	28	10	16	1800
	6P~	732	1050	1960	355	305	630	740	120	360	180	210	28	125	28	254	32	11	18	1850

Specifications

- Enclosure : TE (Totally Enclosed)
- Rotor type : Wound rotor
- Type of Construction : IM B3
- Protection Grade : IP54 (IEC60 034-5)
- Method of Cooling : IC611 (IEC60 034-6)
- Insulation / Temp. rise : F / F

Frame Assignment

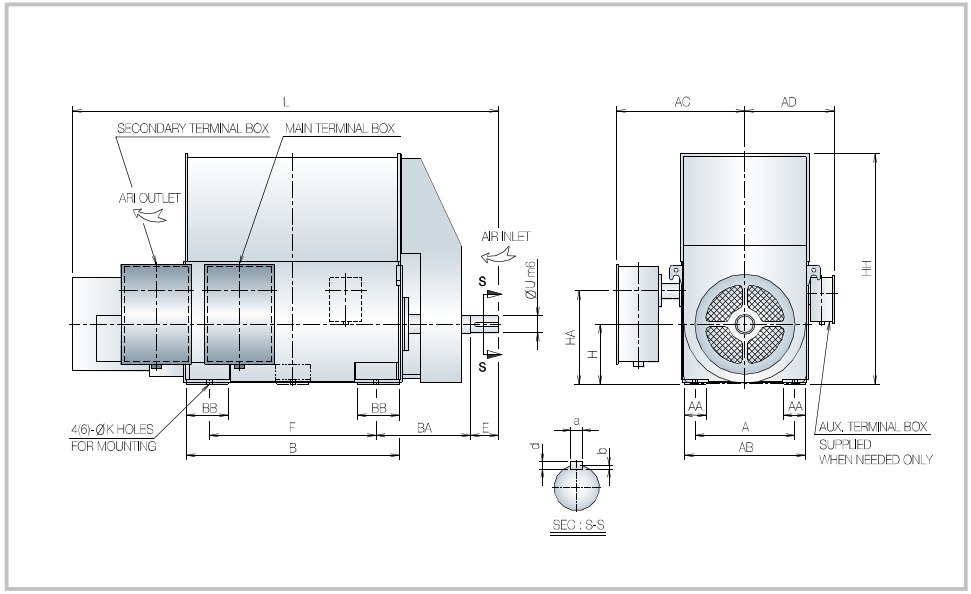
50Hz , 3.0 / 6.0 kV

POWER (kW)	VOLT (kV)	HWTC POLES 4	6	8	10	12
450	3.0	400F	450E	450E	450G	500D
	6.0	450E	450E	450G	450G	500D
500	3.0	450E	450E	450G	500D	500F
	6.0	450E	450E	450G	500D	500F
560	3.0	450E	450G	450G	500D	500F
	6.0	450E	450G	500D	500F	560E
630	3.0	450G	450G	500D	500F	560E
	6.0	450G	450G	500D	500F	560E
710	3.0	450G	500D	500D	560E	560F
	6.0	450G	500D	500D	560E	560F
800	3.0	500D	500D	500F	560E	560F
	6.0	500D	500D	500F	560F	560F
900	3.0	500D	500F	500F	560F	630D
	6.0	500D	500F	560E	560F	630D
1000	3.0	500F	500F	560E	630B	630D
	6.0	500F	500F	560E	630B	630E
1120	3.0	500F	560E	560F	630D	630E
	6.0	500F	560E	560F	630D	630E
1250	3.0	560E	560E	560F	630E	630F
	6.0	560E	560F	630D	630E	630F
1400	3.0	560E	560F	630D	630E	630F
	6.0	560E	560F	630E	630F	630F
1600	3.0	560F	630D	630E	630F	710E
	6.0	560F	630D	630E	630F	710E
1800	3.0	560F	630E	630F	630F	710E
	6.0	560F	630E	630F	630F	710F
2000	3.0	630E	630F	630F	710E	710F
	6.0	630E	630F	630F	710E	710F
2240	3.0	630F	630F	710E	710F	710F
	6.0	630F	630F	710E	710F	710F
2500	3.0	630F	710E	710F	710F	-
	6.0	630F	710E	710F	710F	-
2800	3.0	710E	710E	710F	-	-
	6.0	710E	710E	710F	-	-
3150	3.0	710E	710F	-	-	-
	6.0	710E	710F	-	-	-
3550	3.0	710F	710F	-	-	-
	6.0	710F	-	-	-	-
4000	3.0	710F	-	-	-	-
	6.0	710F	-	-	-	-

60Hz , 3.3 / 6.6 kV

POWER (kW)	VOLT (kV)	HWTC POLES 4	6	8	10	12
450	3.3	400F	400F	450E	450G	500D
	6.6	400F	400F	450E	450G	500D
500	3.3	400F	450E	450G	450G	500D
	6.6	400F	450E	450G	500D	500F
560	3.3	450E	450E	450G	500D	500F
	6.6	450E	450E	450G	500F	500F
630	3.3	450E	450G	500D	500F	560E
	6.6	450E	450G	500D	500F	560E
710	3.3	450G	450G	500D	560E	560E
	6.6	450G	450G	500D	560E	560F
800	3.3	450G	500D	500F	560E	560F
	6.6	450G	500D	500F	560F	560F
900	3.3	500D	500D	500F	560F	630D
	6.6	500D	500F	500F	560F	630D
1000	3.3	500D	500F	560E	560F	630D
	6.6	500F	500F	560E	560F	630D
1120	3.3	500F	560E	560E	630D	630E
	6.6	500F	560E	560F	630D	630E
1250	3.3	560E	560E	560F	630E	630F
	6.6	560E	560E	560F	630E	630F
1400	3.3	560E	560F	630D	630E	630F
	6.6	560E	560F	630D	630F	630F
1600	3.3	560F	630D	630E	630F	710E
	6.6	560F	630D	630E	630F	710E
1800	3.3	560F	630E	630F	630F	710E
	6.6	560F	630E	630F	630F	710F
2000	3.3	630E	630F	630F	710E	710F
	6.6	630E	630F	630F	710E	710F
2240	3.3	630F	630F	710E	710E	710F
	6.6	630F	630F	710E	710F	710F
2500	3.3	630F	710E	710E	710F	710F
	6.6	630F	710E	710F	710F	710F
2800	3.3	710E	710E	710F	710F	-
	6.6	710E	710E	710F	710F	-
3150	3.3	710E	710F	710F	-	-
	6.6	710E	710F	710F	-	-
3550	3.3	710F	710F	-	-	-
	6.6	710F	710F	-	-	-
4000	3.3	710F	710F	-	-	-
	6.6	710F	710F	-	-	-

Dimensions | HWTC (Horizontal Wound rotor Tube Cooled)



UNIT : mm

FR.NO	A	B	E	F	L	AA	AB	AC	AD	BA	BB	H	HH	HA	ØU	ØK	KEY SIZ a	b	d	Approx. WT.(Kg)
400D	686	1180	210	800	2700	140	812	890	600	650	280	400	1640	600	110	35	28	10	16	3900
400F	↓	1400	↓	1000	2910	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4300
450C	750	1180	210	800	2770	160	906	940	650	680	315	450	1705	680	110	42	28	10	16	4400
450E	↓	1400	↓	1000	2980	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4900
450G	↓	1600	↓	1250	3205	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5900
500B	850	1180	250	800	2950	200	1076	990	730	700	315	500	1790	750	140	42	36	12	20	5800
500D	↓	1400	↓	1000	3160	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6600
500F	↓	1600	↓	1250	3385	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7200
560A	950	1180	300	800	3000	200	1120	1150	760	750	315	560	1955	840	160	42	40	13	22	6550
560C	↓	1400	↓	1000	3210	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7650
560E	↓	1600	↓	1250	3435	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	8650
560F	↓	1800	↓	1400	3610	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	9650
630B	1060	1400	300	1000	3350	220	1250	1210	820	800	315	630	2135	930	160	42	40	13	22	9450
630D	↓	1600	↓	1250	3575	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	42	↓	↓	↓	10450
630E	↓	1800	↓	1400	3750	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	11450
630F	↓	2000	↓	1600	3950	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	12450
710D	1180	1600	300	1250	4070	250	1400	1330	920	830	315	710	2530	1065	180	6-42	45	15	25	13300
710E	↓	1800	↓	1400	4245	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	14300
710F	↓	2000	↓	1600	4445	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	15300
710G	↓	2120	↓	1700	4555	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	16300

HWWP I, II

Specifications

- Enclosure : WP I, II
- Rotor type : Wound rotor
- Type of Construction : IM B3
- Protection Grade : IP23,24 (IEC60 034-5)
- Method of Cooling : IC01 (IEC60 034-6)
- Insulation / Temp. rise : F / F

Frame Assignment

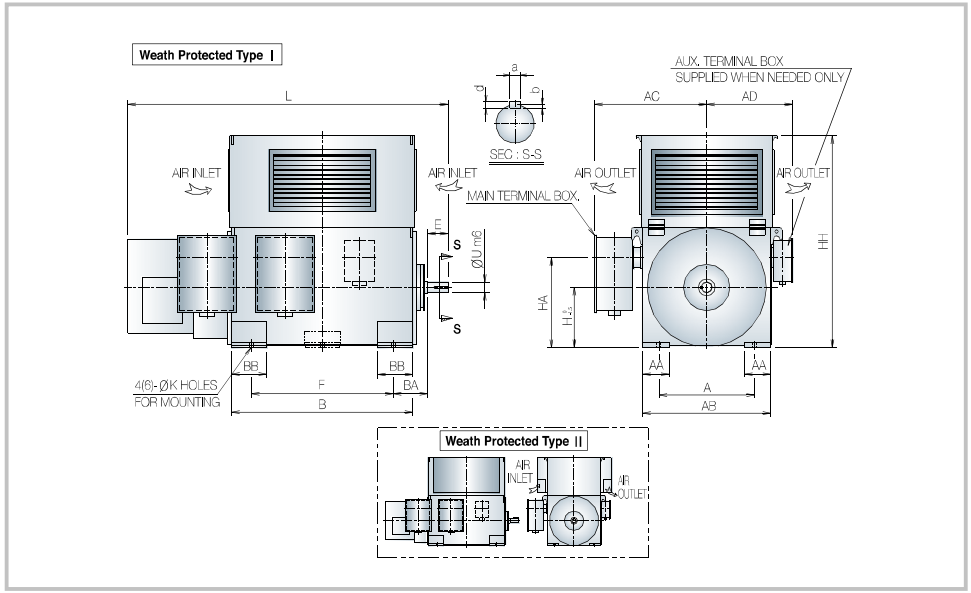
50Hz , 3.0 / 6.0 kV

HWTC						
POWER (kW)	VOLT (kV)	POLES				
		4	6	8	10	12
630	3.0	400F	450E	450G	450G	500F
	6.0	400F	450E	450G	450G	500F
710	3.0	450E	450E	450G	500D	500F
	6.0	450E	450E	450G	500D	500F
800	3.0	450E	450G	500D	500F	560E
	6.0	450G	450G	500D	500F	560E
900	3.0	450G	450G	500F	500F	560E
	6.0	450G	500D	500F	500F	560F
1000	3.0	450G	500D	500F	560E	560F
	6.0	450G	500D	500F	560E	560F
1120	3.0	500D	500F	500F	560E	560F
	6.0	500D	500F	500F	560E	560F
1250	3.0	500D	500F	560E	560F	630E
	6.0	500F	500F	560E	560F	630E
1400	3.0	500F	500F	560E	560F	630E
	6.0	500F	500F	560E	560F	630E
1600	3.0	500F	560E	560F	630E	630F
	6.0	500F	560E	560F	630E	630F
1800	3.0	560E	560E	560F	630F	630F
	6.0	560E	560F	560F	630F	630F
2000	3.0	560E	560F	630E	630F	710E
	6.0	560F	560F	630E	630F	710E
2240	3.0	560F	560F	630F	710E	710F
	6.0	560F	560F	630F	710E	710F
2500	3.0	560F	630E	630F	710F	710F
	6.0	560F	630E	630F	710F	710F
2800	3.0	630E	630F	710E	710F	-
	6.0	630E	630F	710E	710F	-
3150	3.0	630E	630F	710F	710F	-
	6.0	630F	630F	710F	-	-
3550	3.0	630F	710E	710F	-	-
	6.0	630F	710E	710F	-	-
4000	3.0	630F	710E	-	-	-
	6.0	630F	710E	-	-	-
4500	3.0	710E	710F	-	-	-
	6.0	710E	710F	-	-	-
5000	3.0	710E	710F	-	-	-
	6.0	710F	710F	-	-	-

60Hz , 3.3 / 6.6 kV

HWTC						
POWER (kW)	VOLT (kV)	POLES				
		4	6	8	10	12
450	3.3	400F	400F	450E	450G	500D
	6.6	400F	400F	450E	450G	500D
710	3.3	400F	450E	450G	450G	500F
	6.6	400F	450E	450G	500D	500F
800	3.3	450E	450E	450G	500D	500F
	6.6	450E	450G	450G	500F	560E
900	3.3	450G	450G	500D	500F	560E
	6.6	450G	450G	500D	500F	560F
1000	3.3	450G	500D	500D	500F	560F
	6.6	450G	500D	500F	560E	560F
1120	3.3	450G	500D	500F	560E	560F
	6.6	450G	500F	500F	560E	560F
1250	3.3	500D	500F	500F	560F	630E
	6.6	500D	500F	560E	560F	630E
1400	3.3	500D	500F	560E	560F	630E
	6.6	500F	500F	560E	560F	630E
1600	3.3	500F	560E	560E	630E	630F
	6.6	500F	560E	560F	630E	630F
1800	3.3	500F	560E	560F	630E	630F
	6.6	500F	560E	560F	630F	630F
2000	3.3	560E	560F	560F	630F	630F
	6.6	560E	560F	560F	630F	710E
2240	3.3	560E	560F	630E	630F	710E
	6.6	560F	560F	630E	630F	710E
2500	3.3	560F	630E	630E	710E	710F
	6.6	560F	630E	630F	710E	710F
2800	3.3	560F	630E	630F	710E	710F
	6.6	560F	630E	630F	710F	710F
3150	3.3	630E	630F	710E	710F	-
	6.6	630E	630F	710E	710F	-
3550	3.3	630E	630F	710E	-	-
	6.6	630F	710E	710F	-	-
4000	3.3	630F	710E	710F	-	-
	6.6	630F	710E	710F	-	-
4500	3.3	710E	710F	710F	-	-
	6.6	710E	710F	-	-	-
5000	3.3	710E	710F	-	-	-
	6.6	710E	710F	-	-	-

Dimensions | HWWP I, II (Horizontal Wound rotor Weather Protected I, II)



UNIT : mm

FR.NO	A	B	E	F	L	AA	AB	AC	AD	BA	BB	H	HH	HA	ØU	ØK	KEY SIZ			Approx. WT.(Kg)
																	a	b	d	
400D	686	1180	210	800	2260	140	812	890	600	280	280	400	1325	600	100	35	28	10	16	3400
400F	↓	1400	↓	1000	2470	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	3800
450C	750	1180	210	800	2385	160	906	940	650	315	315	450	1425	680	125	42	32	11	18	4200
450E	↓	1400	↓	1000	2595	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4500
450G	↓	1600	↓	1250	2820	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	4900
500B	850	1180	250	800	2505	200	1076	990	730	335	315	500	1790	750	140	42	36	12	20	4900
500D	↓	1400	↓	1000	2715	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	5500
500F	↓	1600	↓	1250	2940	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6100
560A	950	1180	300	800	2630	200	1120	1050	760	355	315	560	2000	840	160	42	40	13	22	5550
560C	↓	1400	↓	1000	2840	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6650
560E	↓	1600	↓	1250	3080	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7650
560F	↓	1800	↓	1400	3240	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	8650
630B	1060	1400	300	1000	2905	200	1250	1210	820	375	315	630	2190	930	160	42	40	13	22	8450
630D	↓	1600	↓	1250	3130	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	42	↓	↓	↓	9450
630E	↓	1800	↓	1400	3305	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	10450
630F	↓	2000	↓	1600	3480	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	11450
710D	1180	1600	300	1250	3300	250	1250	1330	920	375	315	710	2385	1065	180	42	45	15	25	11800
710E	↓	1800	↓	1400	3475	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	12700
710F	↓	2000	↓	1600	3650	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	13500
710G	↓	2120	↓	1700	3770	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	6-42	↓	↓	↓	14300

SAMT Specialised Air Motors and Transmission

HYOSUNG

Performance Data

Tolerance

SPEC. DATA (IEC 34-1)

FACTOR		RANGE
EFFICIENCY	UP TO 75HP	-15%(1 - eff.)
	ABOVE 75HP	-10%(1 - eff.)
POWER FACTOR (cos Ø)		-1/6(1-cos Ø)
		MIN 0.02 ~ MAX 0.07
STARTING TORQUE (kg · m)		-15% , +25%
MAX. TORQUE (kg · m)		-10%
STARTING CURRENT (A)		+20%
NO LOAD CURRENT (A)		+30%
MOMENT INERTIA (kg · m²)		±10%
SLIP		±20%
NOISE		+3dB(A)

DIMENSIONS

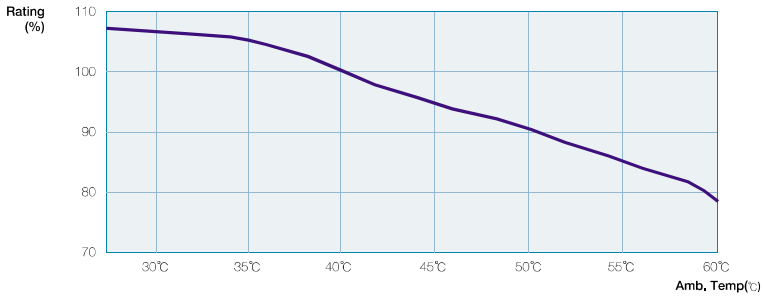
FACTOR		RANGE
CENTER HEIGHT	315Fr. ~ 450Fr.	0 ~ -1.0
	ABOVE 500Fr.	0 ~ -1.5
SHAFT DIA.	ABOVE Ø55	m6
SHAFT END PLAY	Ball & Roller BRG.	±0.25mm
	Sleeve BRG.	±4.5mm
CONCENTRICITY (FLANGE TYPE)	ALL KINDS	max. 0.127mm
WIDTH OF KEY		h9
WIDTH OF KEY WAY (LOAD SIDE)		N9

Permissible Load GD²

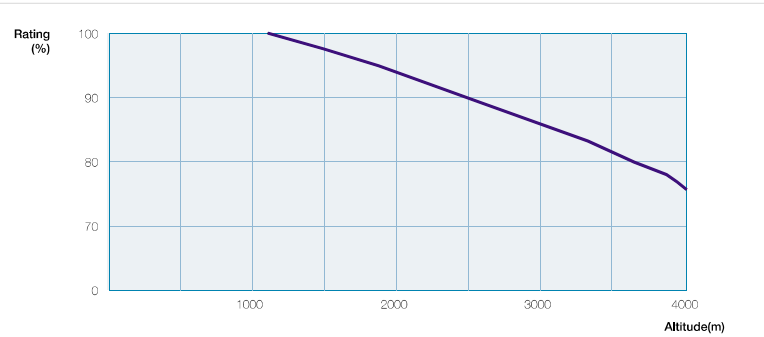
UNIT : kg · m²

P / kW	2P	4P	6P	8P	10P	12P
75	18	84	225	452	775	1,205
93	21	102	275	552	947	1,473
112	25	122	327	658	1,131	1,759
149	33	158	424	855	1,470	2,310
187	40	194	523	1,054	1,830	2,850
224	47	228	617	1,250	2,160	3,370
261	54	262	709	1,440	2,490	3,880
298	60	294	800	1,630	2,810	4,390
336	66	327	890	1,810	3,130	4,890
373	73	358	980	1,990	3,450	5,390
448	85	420	1,150	2,350	4,070	6,360
522	95	480	1,320	2,700	4,670	7,310
597	105	540	1,490	3,040	5,270	8,250
671	115	595	1,650	3,370	5,850	9,170
746	125	650	1,800	3,700	6,430	10,080
933	150	700	2,180	4,490	7,820	12,290
1,119	170	900	2,540	5,250	9,170	14,430
1,306	190	1,020	2,890	5,990	10,470	16,500
1,492	210	1,130	3,220	6,690	11,740	18,540
1,679	225	1,230	3,540	7,380	12,990	20,520
1,865	240	1,330	3,840	8,050	14,180	22,440
2,238	265	1,510	4,420	9,320	16,480	26,170
2,611	285	1,670	4,960	10,530	18,690	29,740
2,984	300	1,810	5,460	11,660	20,790	33,160

Modification of Output



Derating Factor by Cooling Ambient Air Inlet TemperatureImpregnation of core and coil assemblies



Derating Factor by Site Altitude

Vibration Level

RPM	PEAK, inch/sec	AMPLITUDE, mils
3600	0.15(3.8mm/s)	1.0(25㎛)
1800	0.15(3.8mm/s)	1.5(38㎛)
1200	0.15(3.8mm/s)	2.0(51㎛)
900	0.12(3.0mm/s)	2.5(64㎛)
720	0.09(2.3mm/s)	2.5(64㎛)
600	0.08(2.0mm/s)	2.5(64㎛)

SAMT Specialised Air Motors and Transmission

HYOSUNG

Information Required for Inquiry & Purchase Order

TYPE	KW	POLES	PHASE	VOLTAGE	FREQUENCY	FR. NO.	OTHERS

Type of Driven machine			STANDARDS	■ IEC ■ NEMA ■ KS ■ OTHERS	
			DRIVE TYPE	DIRECT	
				BELT	
				OTHERS	
INSULATION CLASS	■ CLASS F ■ CLASS B ■ OTHERS		MOUNTING	■ HORIZONTAL (B3)	
TEMP. RISE	■ CLASS F ■ CLASS B ■ OTHERS			■ VERTICAL TYPE (V1)	
STARTING METHOD	■ DOL ■ Y-△ ■ REACTOR ■ OTHERS			■ FLANGE TYPE (B5)	
				■ B3 / B5	
STARTING DUTY	■ (/Date) ■ (/Hour)			■ OTHERS	
LOAD INERTIA	Kg-㎡		OUTLINE DIMENSIONS	■ MFR STD	
				■ SPECIAL	
SPEC Tst	■ MFR STD ■ OTHERS (%)		T/B LOCATION	■ TOP	
SPEC Tmax	■ MFR STD ■ OTHERS (%)			■ OTHERS	
SPEC Ist	■ MFR STD ■ OTHERS (%)		T/B SPECIAL		
SPEC SLIP	■ MFR STD ■ OTHERS (%)				
ROTATION (Facing Drive End)	■ CW ■ BI-DIRECTIONAL ■ CCW		VIBRATION	■ MFR STD ■ SPECIAL( )	
			NOISE	■ MFR STD ■ SPECIAL( )	
				ACCESSORIES	
ENVIR-ONMENT AMB TEMP.	■ 40℃ ■ 50℃ ■ OTHERS ( )℃		SPACE HEATER	■ NO ■ YES Ø V	
ENVIR-ONMENT INSTALL. ROOM	■ INDOOR ■ OUTDOOR ■ OTHERS		WINDING TEMPERATURE DETECTORS	■ NO ■ YES	
ENVIR-ONMENT HUMIDITY	■ 80% ↓ ■ OTHERS ( ) %				
ENVIR-ONMENT ALTITUDE	■ 1000m ↓ ■ OTHERS ( ) m				
EXPLO-SION PROOF EXPLO. GAS	■ NO ■ YES ( )		BEARING TEMPERATURE DETECTORS	■ NO ■ YES	
EXPLO-SION PROOF PLACE	■ CLASS 1 ■ CLASS 2				
EXPLO-SION PROOF TEMP. (surface)	■ T1, T2 ■ T3 ■ 기 타				
EXPLO-SION PROOF EXPLO. GRADE	■ CLASS 1 ■ CLASS 2 ■ CLASS 3		TESTING METHOD		
PAINT COLOR	■ MUNSELL NO. : 7.5BG 5/2				
	■ OTHERS				
OTHERS			SPECIAL (SPECIFY)		
COMPANY					
NAME AND NATURE OF PJT					

※ For further information, please contact our representative or International sales department.

Product Development History

Year	Milestones
2007	Supplied 4,900kW 6P 6.0kV motor for Europe
2006	Supplied 3,900kW 12P 11kV motor for Middle East
2004	Developed 10MVA MG-SET
2003	Manufactured 2,800kW 18P 6,600V motor
2002	Developed 6,000rpm vector inverter motor (560HP 2P) Developed 9,000kW 6P wound rotor motor
2001	Developed Q-Class motor (ESWP, CCWP)
2000	Manufactured 2,150kW, 22P, 13.2kV motor

Year	Milestones
1999	Developed 4,400kW 10P wound rotor motor
1988	Developed heavy weight torpedo propulsion motor (C.R.M)
1987	Manufactured A.C 250kW traction motor (C class) Developed 8,500kW 4P motor for BFP
1996	Fabricated the 3 millionth motor
1995	13.2kV motor for nuclear power plant (1,600HP, 24P, 13.2kV)
1994	Developed Vector Inverter Motor
1993	Developed wound rotor pole change motor (1,500kW / 750kW, 6/12P)

Global Network

SAMT Specialised Air Motors and Transmission

HYOSUNG