

AC INDUCTION MOTOR DATA SHEET

Model No.or RFQ No.		Item No.		Rev. No. [0]			
Project Name		Project No.		Quantity sets			
GENERAL SPECIFICATION			PERFORMANCE DATA				
Frame Size	200LL		Rated Output	45 kW 60 HP			
Type	HS-45/2		Number of Poles	2			
Enclosure(Protection)	Totally Enclosed (IP55)		Rotor Type	Squirrel Cage			
Method of Cooling	IC411(FC)		Starting Method*	☒ D.O.L ☐ Y- Δ			
Rated Frequency	60 Hz		Rated Voltage	440 V	380 V 220 V		
Number of Phases	3		Current	Full Load	69.8 A 80.8 A 139.5 A		
Insulation Class	☒ F ☐ B ☐ H			Locked-rotor**	650 % 650 % 650 %		
Temp. Rise at full load (by resistance method)			Efficiency				
at 1.0 S.F 80 deg. C			50% Load 92.7 %				
Motor Location	☒ Indoor ☐ Outdoor		75% Load 93.1 %				
Altitude	Less than 1000 meter		100% Load 93.0 %				
Relative Humidity	Less than 80 %		Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)		50% Load 0.895				
Duty Type	Continuous (S1)		75% Load 0.910				
Service Factor	1.15		100% Load 0.910				
Mounting	☐ B3 ☒ B5 ☐ V1 ☐ B3/B5		Speed at Full Load 3560 r.p.m				
Bearing	Type	Anti-Friction	Torque				
	DE/N-DE	6212ZC3 / 6211ZC3	Full Load 12.3 kg·m				
	Lubricant	Grease(Gadus S2 V 100 2)	Locked-rotor** 150 %				
External Thrust	Not applicable		Breakdown** 200 %				
Coupling Method	☒ Direct ☐ V-Belt		Moment of Inertia (J)				
Shaft Extension	☒ Single ☐ Double		Load(Max.) 4.750 kg·m²				
Terminal	Main	☐ Steel ☒ Cast Iron	Motor 0.208 kg·m²				
Box	Aux.	☐ Yes ☒ No	Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing	87 dB(A)				
Application			Vibration 2.2 mm/sec (r.m.s)				
Area classification	Non-Hazardous		Permissible number of				
Type of Ex-Protection	Not applicable		consecutive starts Cold 3 times				
Applicable Standard	KS,IEC,NEMA MG1 Part30(Vpeak)		Hot 2 times				
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B3		kg		
			B5		227B1941CB01 330 kg		
			V1		kg		
			B3/B5		kg		
			Main T-Box Ass'y			227B8003CB5	
SPARE PARTS			REMARK				
			High Efficiency				
			*. For use on PWM VFD 10:1VT, 3:1CT@1.0S.F&F Temp. rise				
			Date	DSND	CHKD	CHKD	APPD
			2010-05-28	R.G. KIM	O.J. KIM	J.H. KIM	K.J. KANG

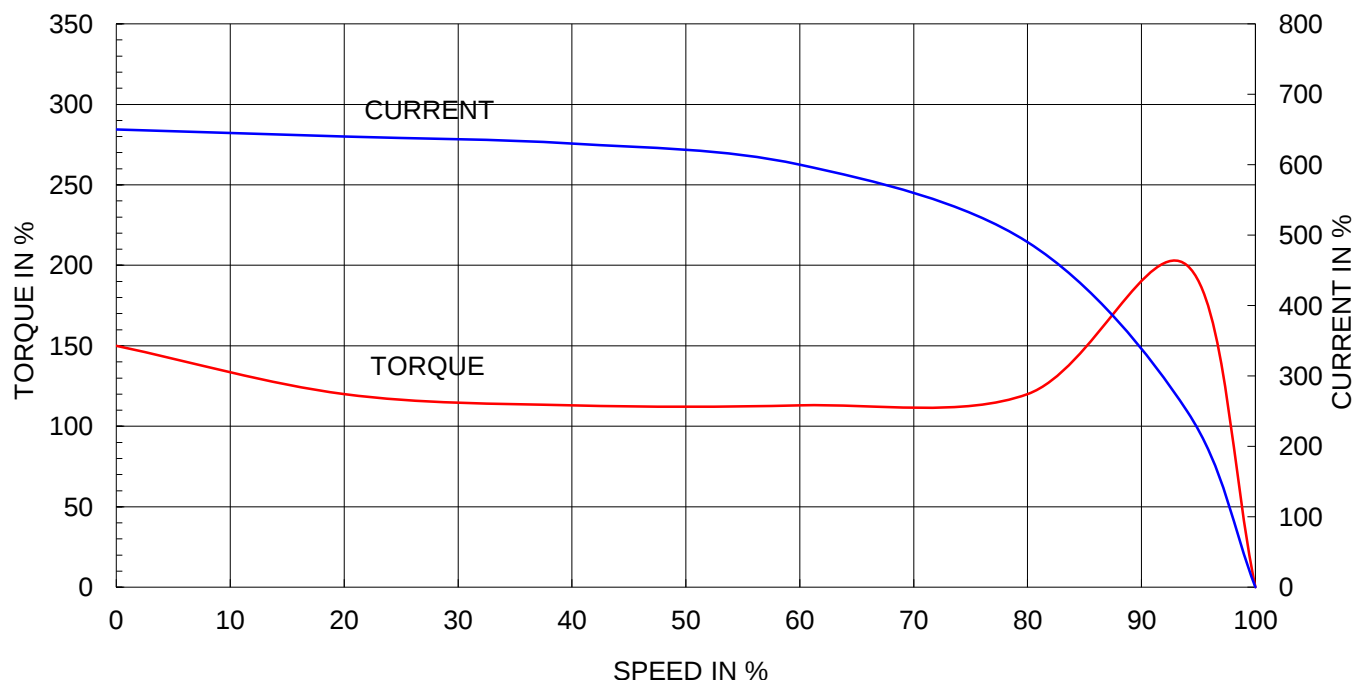
Note: Others not mentioned in this data sheet shall be in accordance with maker standard.
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.
 Inspection and performance test shall be maker standard, if not mentioned.
 * In case of Inverter-Fed Motor, performance data is based on sine wave tests.
 ** Data is based on when the motor is supplied at rated voltage & frequency, and the data is expressed as a percentage of full-load value.

HHI W230-131-1 * In case of Inverter or V.V.V.F Motor:Performance data is based on sine wave tests. A4(210mm X 297mm)

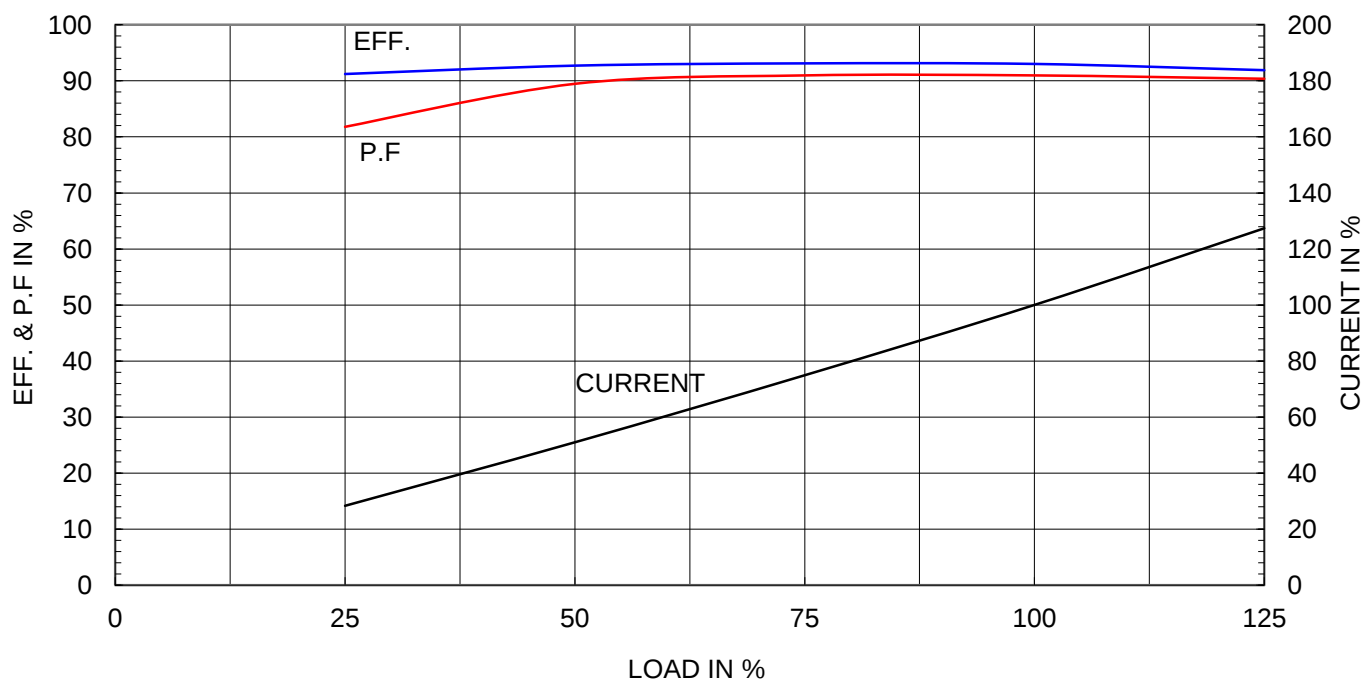
Type	:	HS
Full Load Torque	:	12.3 Kg.m
Motor moment of Inertia (J)	:	0.208 Kg.m ²
Load moment of Inertia (J)	:	4.750 Kg.m ²

45 kW		2 P		60 Hz	
Speed at Full Load :				3560 RPM	
Rated Voltage	460V	380V	220V		
Full Load Current	66.7A	80.8A	139.5A		

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





HEAVY INDUSTRIES CO., LTD.

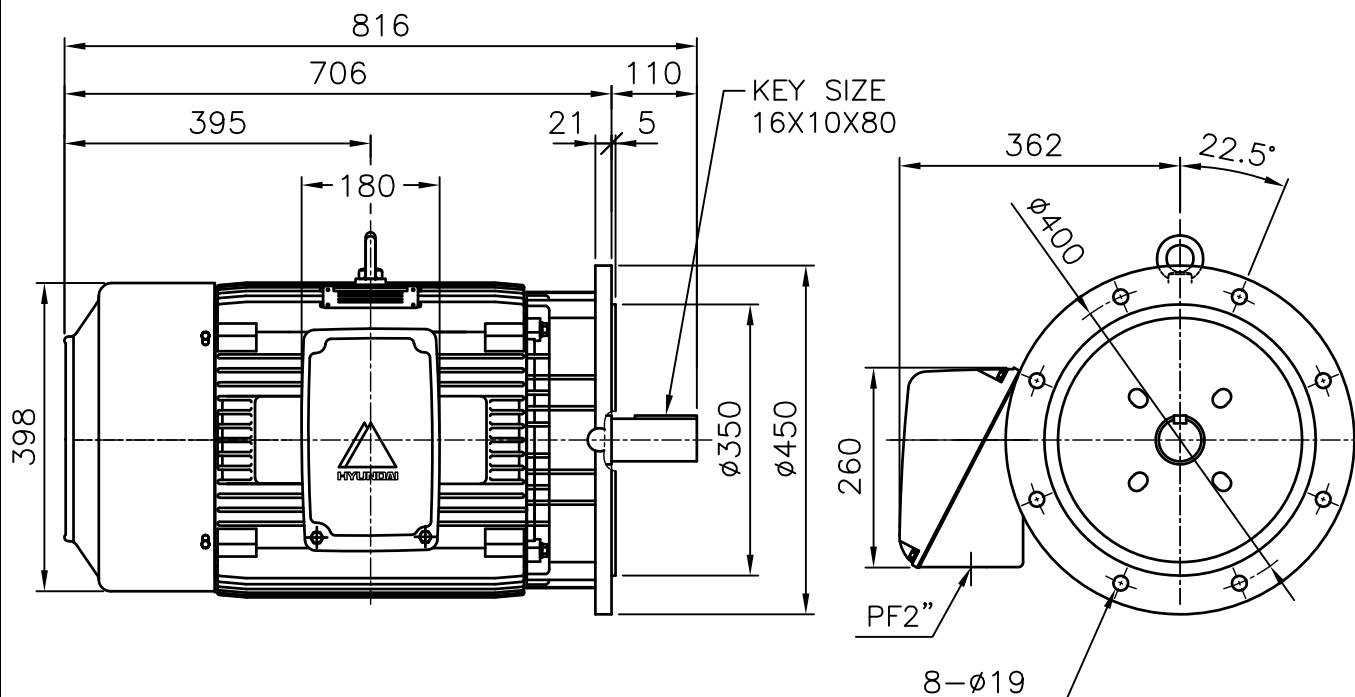
TEFC

THREE PHASE INDUCTION MOTOR

TYPE

HL, HS

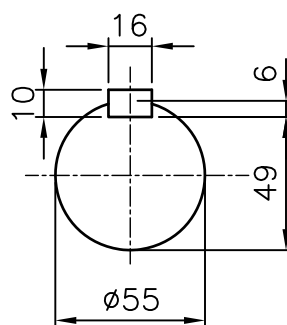
CAST IRON FRAME



NOTE

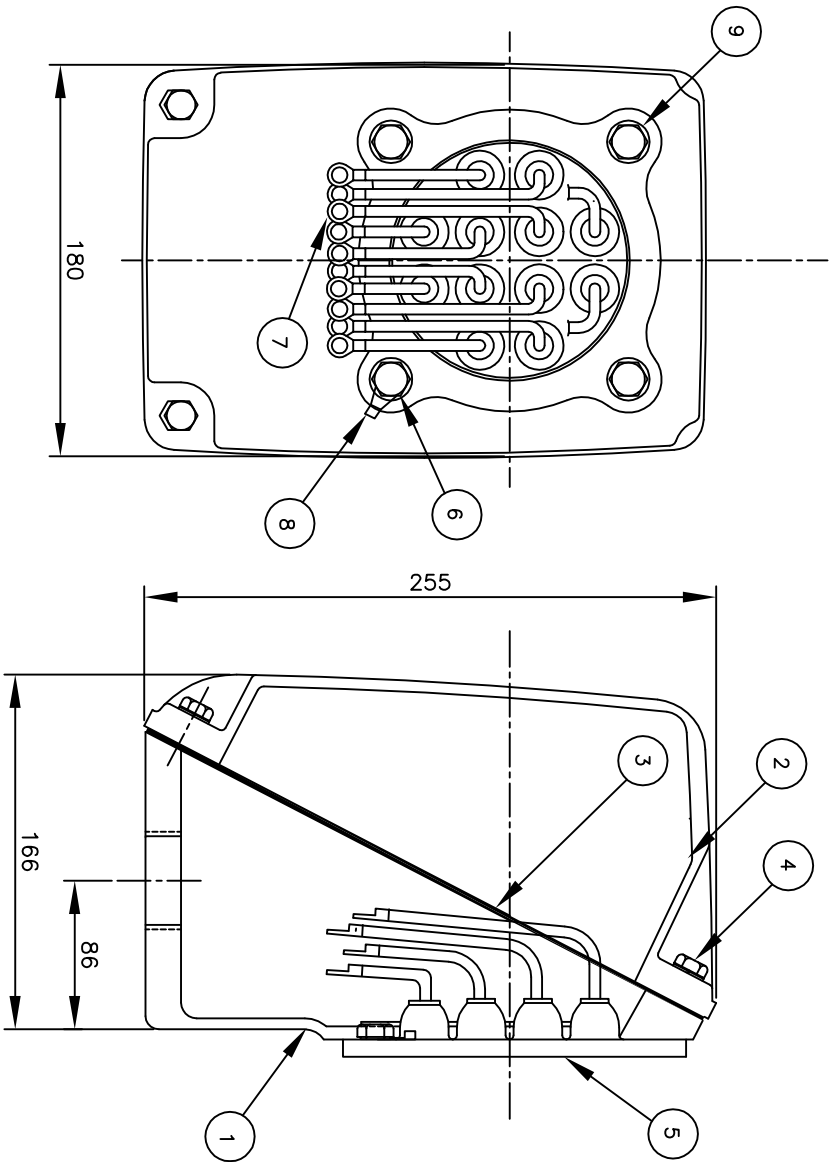
1.TOLERANCE :

FLANGE HOLES	$\phi 19^{+0.43}_{-0}$
RABBET DIAMETER	$\phi 350^{+0.016}_{-0.013}$
SHAFT DIAMETER	$\phi 55^{+0.030}_{+0.011}$
KEYWAY WIDTH	$16^{+0}_{-0.043}$
KEYWAY DEPTH	$49^{+0}_{-0.2}$



*CAST IRON CONDUIT BOX

APPD BY	J. H. KIM	UNIT	mm	SUBJECT	KS 200LL 2P	CAD PROJ \ FILE
CHKD BY	K. S. LEE	SCALE	1/10	TITLE	OUTLINE	XSDNKS\B2020AB09
CHKD BY	I. K. KIM	PROJEC'N	3rd Angle			
DSND BY	S. M. KIM	DATE	2002.11.29			
 HEAVY INDUSTRIES CO., LTD. Electro-Electric System Division				REF. NO	B2020AB11	Sheet No. of
				DWG NO	227B2020AB11	Revision No. 0



PT	DESCRIPTION	MATERIAL	DIMENSION	Q.TY
1	CONDUIT BOX	FC20		1
2	C/B COVER	FC20		1
3	GASKET(COVER)	N.B.R	T2X170X210	1
4	SCREW(COVER)	S45C	M8XL20	4
5	GASKET(C/B)	N.B.R		1
6	SCREW(C/B)	S45C	M8XL20	4
7	TERMINAL LUG	CU	T1.6	
8	TERMINAL GROUND	CU	T1.6	1
9	WASHER	S45C	M8 X L10	4

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD	BY KIM JIN HONG	UNIT	MM				
CHKD	BY KIM YU SUNG	SCALE	1/2				
CHKD	BY GO SECK HAN	PROJECT	3 [2] [1] [2] (3rd Angle)				
DSND	BY LEE KWANG SOO	DATE	94.12.20				
				REF. NO.	B8003CB5	Sheet No.	of
				DWG NO.	227B8003CB5	Revision No.	0



HYUNDAI
HEAVY INDUSTRIES CO., LTD.
& POWER SYSTEMS

CONDUIT BOX
& COVER ASS'Y