

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	160M		Rated Output	15 kW 20 HP			
Type	HS		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 25.1 A	29.0 A 50.2 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	89.7 %			
Motor Location	☒ Indoor ☐ Outdoor		75% Load	90.7 %			
Altitude	Less than 1000 meter		100% Load	90.2 %			
Relative Humidity	Less than 80 %		Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)		50% Load	0.800			
Duty Type	Continuos (S1)		75% Load	0.857			
Service Factor	1.15		100% Load	0.870			
Mounting	☒ B3 ☐ B5 ☐ V1 ☐ B3/B5		Speed at Full Load	3535 r.p.m			
Bearing	Type	Anti-Friction	Torque				
	DE/N-DE	6309ZZC3 / 6309ZZC3	Full Load	4.1 kg·m			
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	180 %			
External Thrust	Not applicable		Breakdown**	250 %			
Coupling Method	☒ Direct ☐ V-Belt		Moment of Inertia (J)				
Shaft Extension	☒ Single ☐ Double		Load(Max.)	2.300 kg·m²			
Terminal Box	Main	☐ Steel ☒ Cast Iron	Motor	0.049 kg·m²			
	Aux.	☐ Yes ☒ No	Sound Pressure Level (No-load & mean value at 1m from motor)	79 dB(A)			
	Location	Refer to Outline Drawing	Vibration	2.2 mm/sec (r.m.s)			
Application			Permissible number of consecutive starts	Cold 3 times	Hot 2 times		
Area classification	Non-Hazardous		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
Type of Ex-Protection	Not applicable		SUBMITTAL DRAWING				
Applicable Standard	KS,IEC,NEMA MG1 Part30(Vpeak)		Outline Dimension Drawing \ Motor Weight(Approx.)				
ACCESSORIES			B3	227B2000AB05	117 kg		
			B5		kg		
			V1		kg		
			B3/B5		kg		
			Main T-Box Ass'y	227B8008LA1			
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
			2011-04-14	W.H.BACK	S. J. RA	O. J. KIM	J. H. KIM

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.

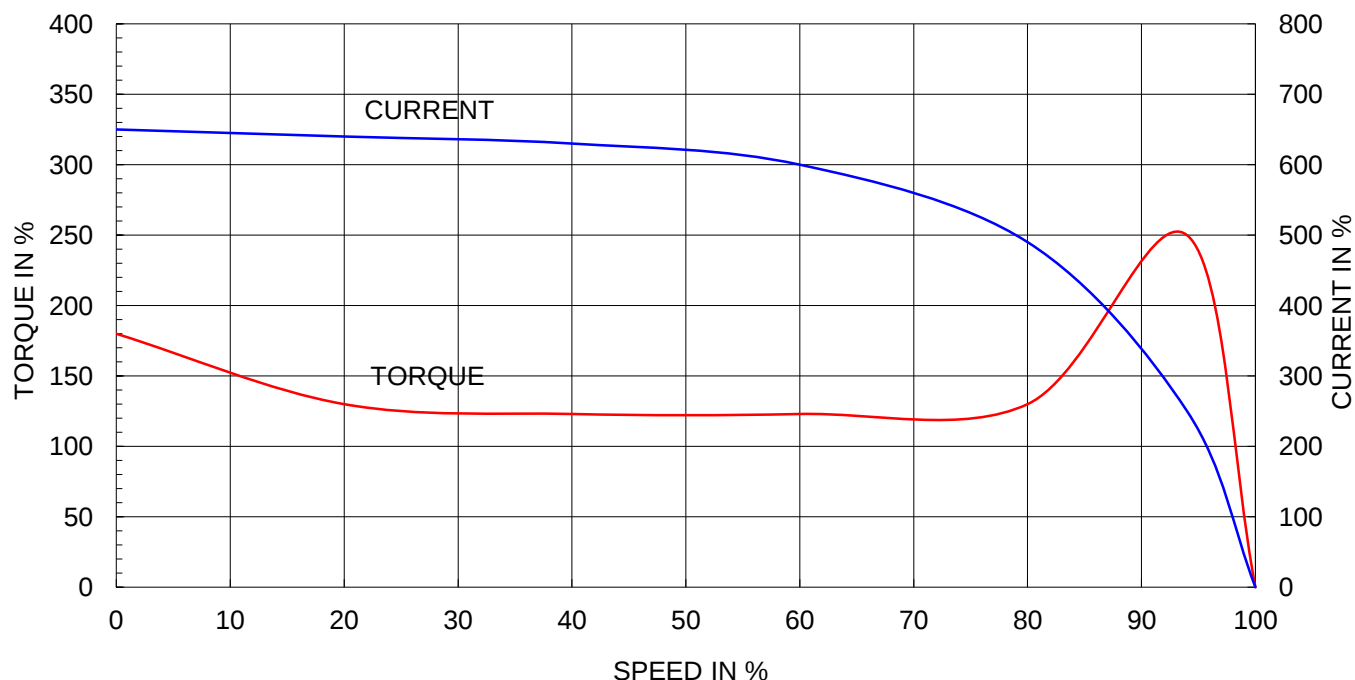
** Data is based on when the motor is supplied at rated voltage & frequency. and the data is expressed as a percentage of full-load value.

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)

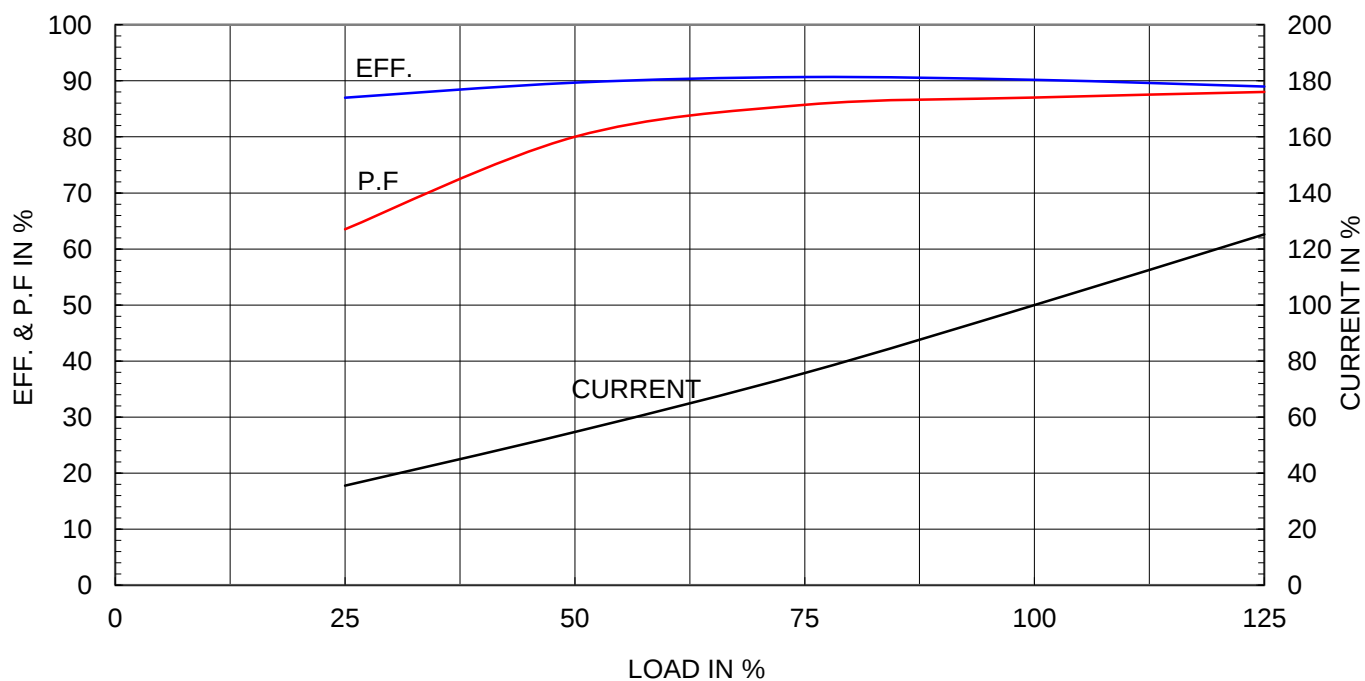
Type	:	HS
Full Load Torque	:	4.1 Kg.m
Motor moment of Inertia (J)	:	0.049 Kg.m ²
Load moment of Inertia (J)	:	2.300 Kg.m ²

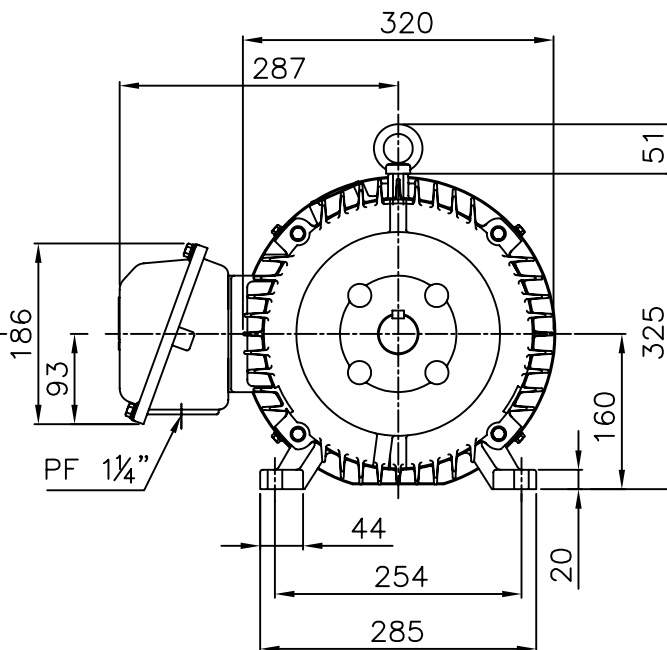
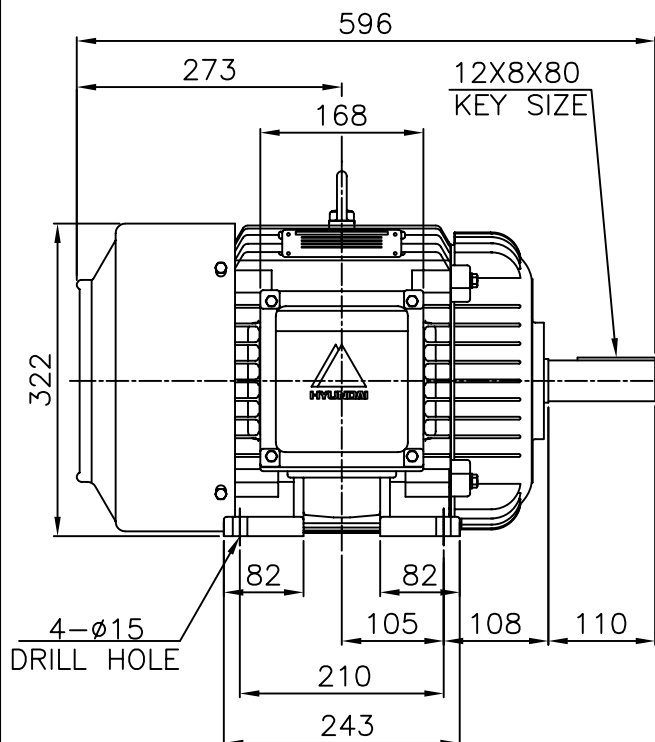
15 kW		2 P		60 Hz	
Speed at Full Load :				3535 RPM	
Rated Voltage	440V	380V	220V		
Full Load Current	25.1A	29.0A	50.2A		

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

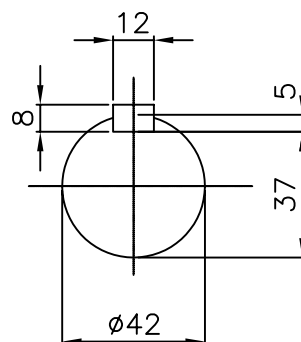




NOTE

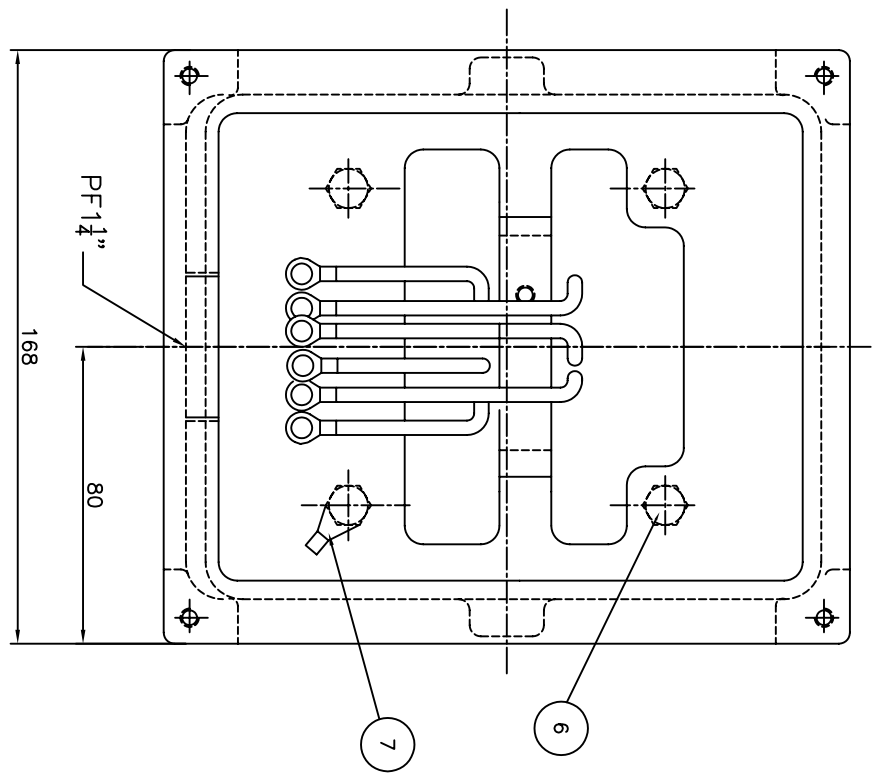
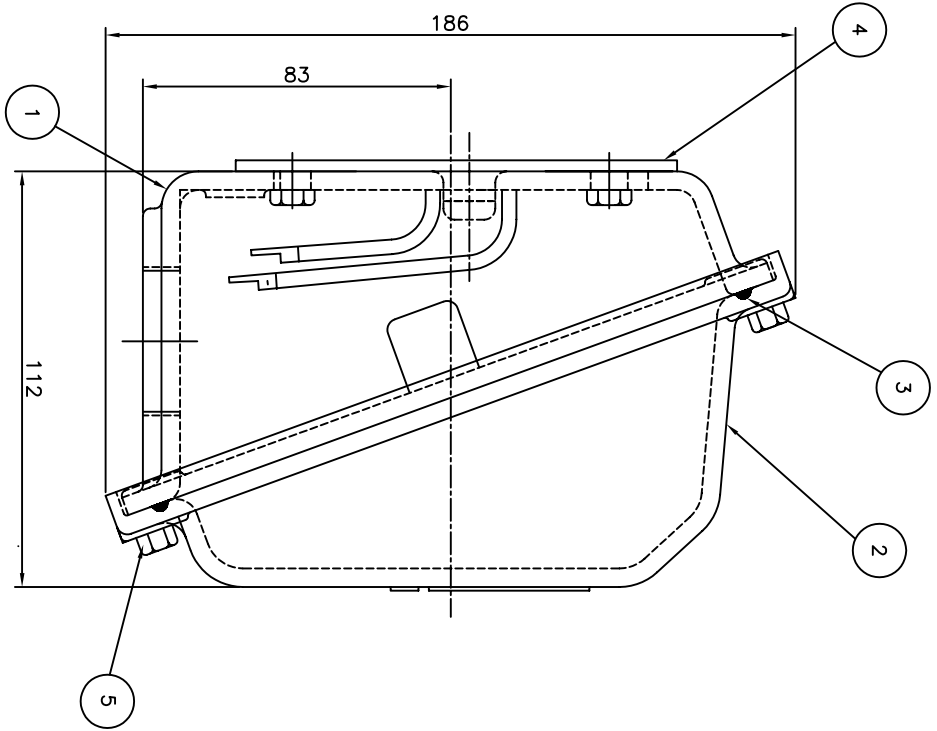
1.TOLERANCE :

CENTER HEIGHT	160	$\begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}$
BASE HOLES	$\phi 15$	$\begin{smallmatrix} +0.43 \\ 0 \end{smallmatrix}$
SHAFT DIAMETER	$\phi 42$	$\begin{smallmatrix} +0.018 \\ +0.002 \end{smallmatrix}$
KEYWAY WIDTH	12	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$
KEYWAY DEPTH	5	$\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$



CAST IRON CONDUIT BOX

APPD BY	J. H. KIM	UNIT	mm	SUBJECT	KS 160M	CAD PROJ \ FILE
CHKD BY	Y. S. KIM	SCALE	1/8			XSDNKS\B2000AB05
CHKD BY	S. H. KO	PROJEC'N	3rd Angle	TITLE OUTLINE		
DSND BY	I. K. KIM	DATE	2001.10.27			



PT	DESCRIPTION	MATERIAL	DIMENSION	Q'TY
1	CONDUIT BOX	FC15	---	1
2	CONDUIT BOX COVER	FC15	---	1
3	O-RING / COVER	EPDM	φ4	1
4	BOX GASKET	NBR	---	1
5	COVER+BOX HEX BOLT	S45C	M6 X L20	4
6	BOX+FRAME HEX BOLT	S45C	M8 X L20	4
7	GROUND TERMINAL LUG	CU	---	1

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	APP'D BY
1					
2					
3					
4					
5					
6					
7					
8					
9					

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APP'D BY	KIM Y.S	UNIT	MM				
CHK'D BY	KO.S.H	SCALE	1:1				
CHK'D BY	---	PROJEC'N	3-4# (3rd Angle)				
DSND BY	Y.J.HWANG	DATE	2005.02.16				
TITLE				TERMINAL BOX ASSEMBLY			
REF. NO.				227B8008LA1			
DWG NO.				227B8008LA1			
Revision No.				0			