

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	180M		Rated Output	22 kW 30 HP			
Type	HS		Number of Poles	4			
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	37.6 A 43.6 A 75.3 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 91.9 %				
Motor Location	☒ Indoor ☐ Outdoor		75% Load 92.6 %				
Altitude	Less than 1000 meter		100% Load 92.4 %				
Relative Humidity	Less than 80 %		Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)		50% Load 0.722				
Duty Type	Continuos (S1)		75% Load 0.790				
Service Factor	1.15		100% Load 0.830				
Mounting	☐ B3 ☐ B5 ☐ V1 ☒ B3/B5		Speed at Full Load 1775 r.p.m				
Bearing	Type	Anti-Friction	Torque				
	DE/N-DE	6310ZZC3 / 6310ZZC3	Full Load 12.1 kg·m				
	Lubricant	Grease(Polyrex-EM)	Locked-rotor** 160 %				
External Thrust	Not applicable		Breakdown** 230 %				
Coupling Method	☒ Direct ☐ V-Belt		Moment of Inertia (J)				
Shaft Extension	☒ Single ☐ Double		Load(Max.) 16.750 kg·m²				
Terminal	Main	☐ Steel ☒ Cast Iron	Motor 0.180 kg·m²				
Box	Aux.	☐ Yes ☒ No	Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing	77 dB(A)				
Application			Vibration 2.2 mm/sec (r.m.s)				
Area classification	Non-Hazardous		Permissible number of				
Type of Ex-Protection	Not applicable		Cold 3 times				
Applicable Standard	KS,IEC,NEMA MG1 Part30(Vpeak)		Hot 2 times				
ACCESSORIES			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B3		kg		
			B5		kg		
			V1		kg		
B3/B5	227B2040AB07	189	kg				
Main T-Box Ass'y			227B8008LA2				
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.

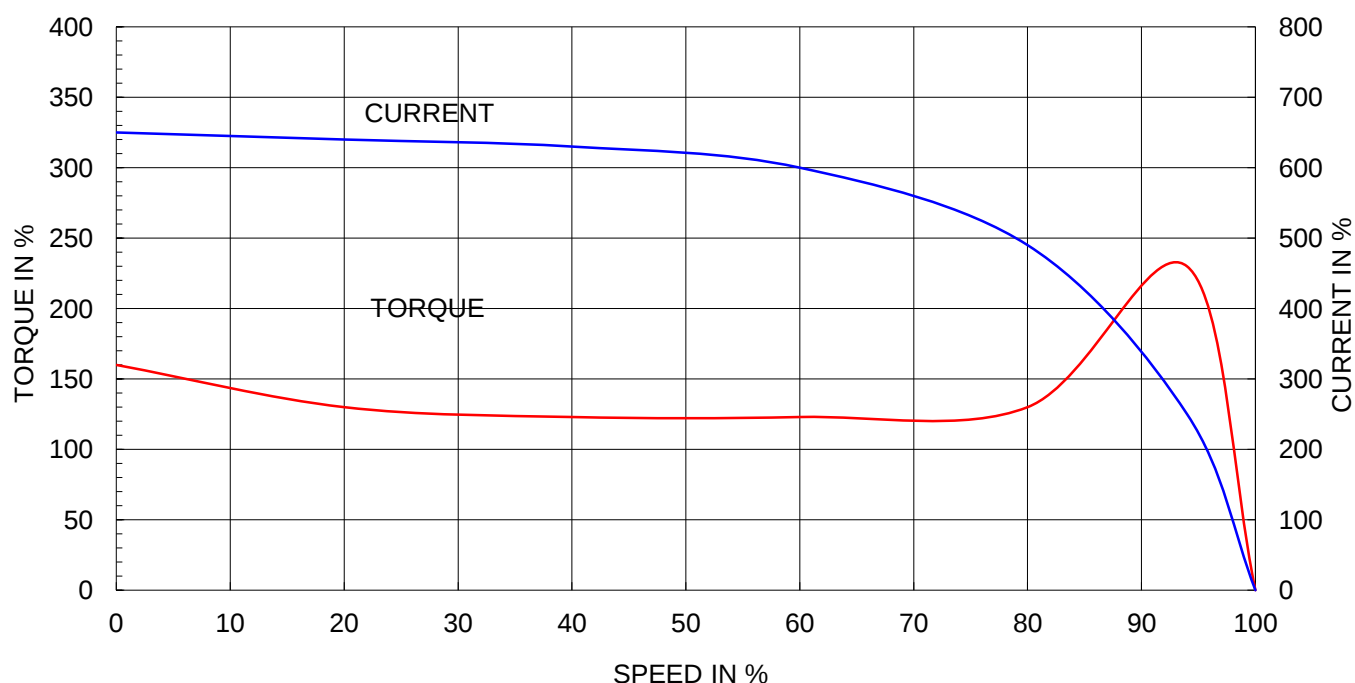
* In case of Inverter-Fed Motor, performance data is based on sine wave tests.

** 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.

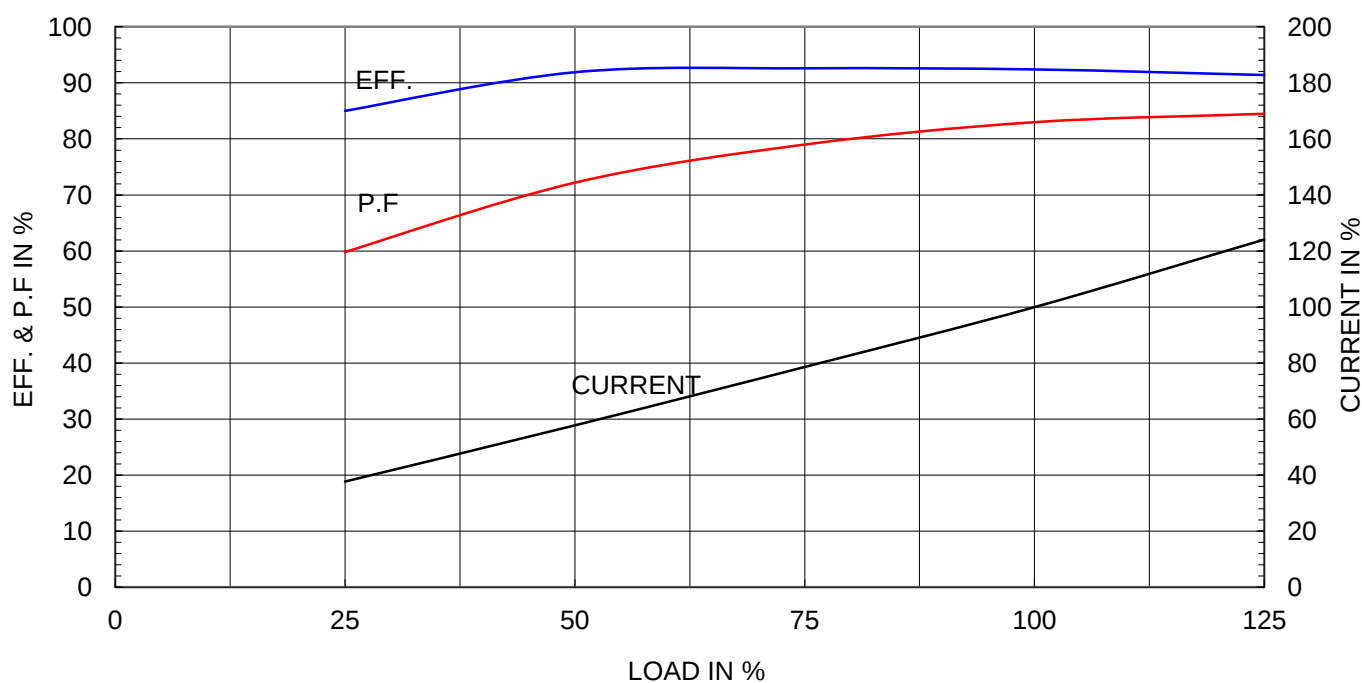
Type	:	HS
Full Load Torque	:	12.1 Kg.m
Motor moment of Inertia (J)	:	0.180 Kg.m ²
Load moment of Inertia (J)	:	16.750 Kg.m ²

22 kW		4 P		60 Hz	
Speed at Full Load :				1775 RPM	
Rated Voltage	440V	380V	220V		
Full Load Current	37.6A	43.6A	75.3A		

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





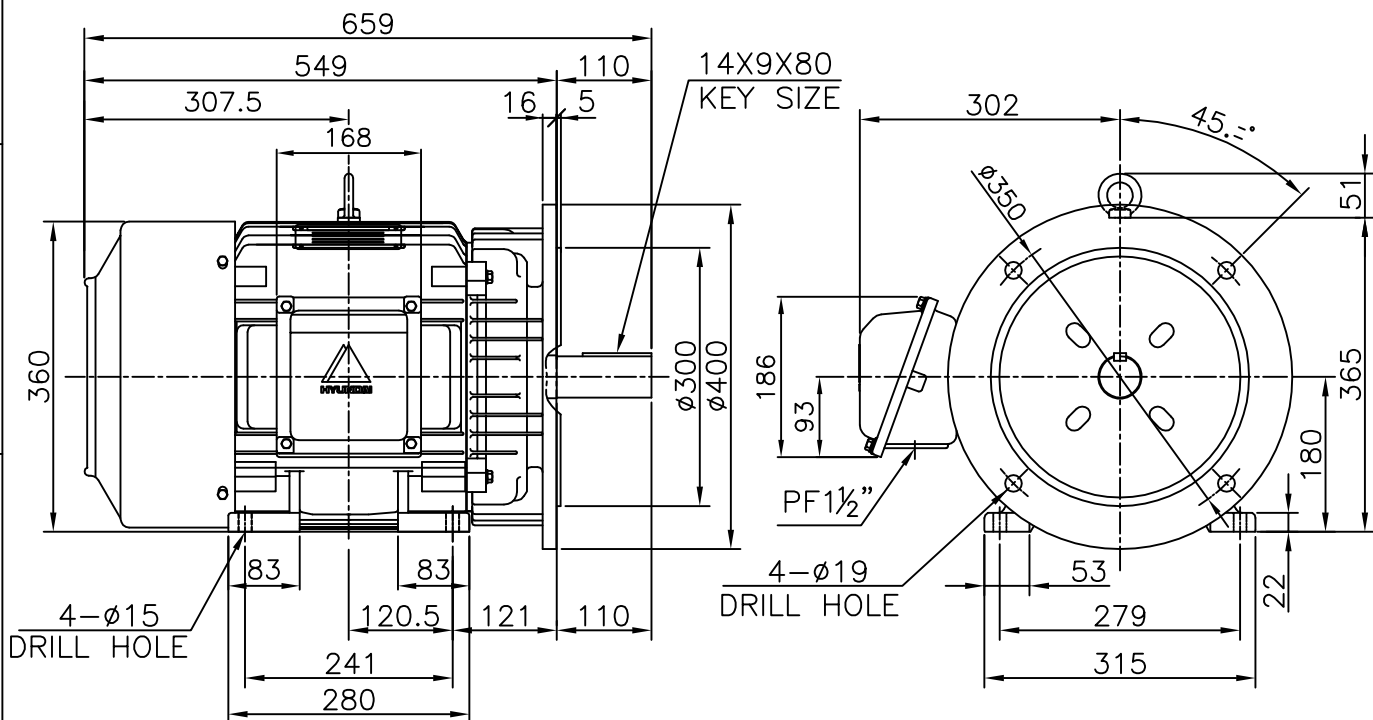
TEFC

THREE PHASE INDUCTION MOTOR

TYPE

HL, HLS

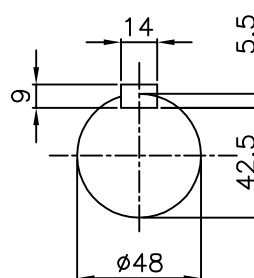
CAST IRON FRAME



NOTE

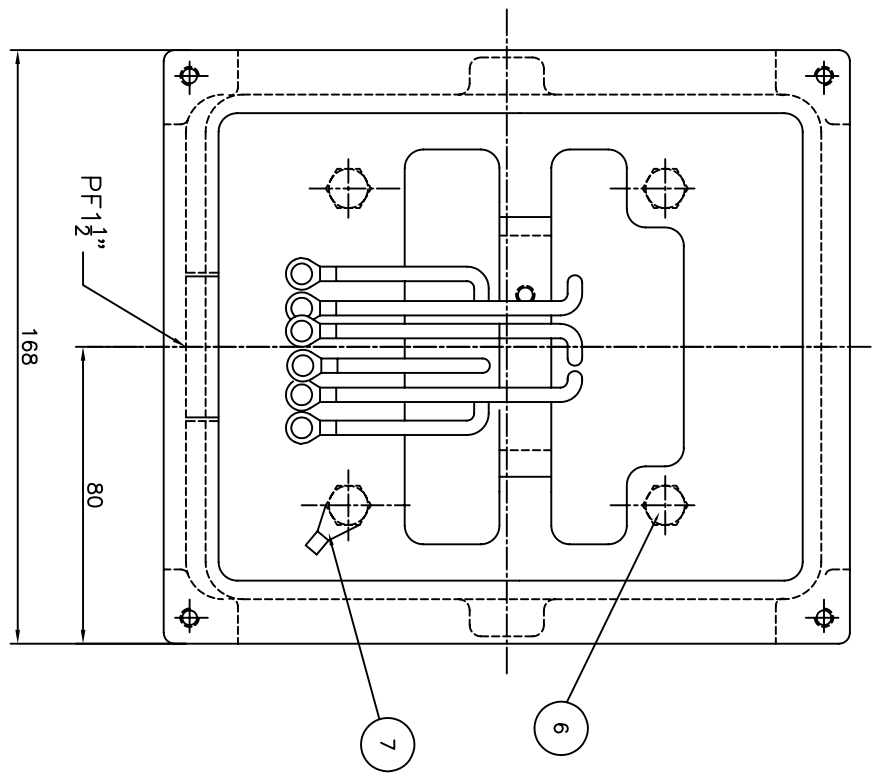
1.TOLERANCE :

CENTER HEIGHT	180	$\begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}$
BASE HOLES	Ø15	$\begin{smallmatrix} +0.43 \\ 0 \end{smallmatrix}$
FLANGE HOLES	Ø19	$\begin{smallmatrix} +0.43 \\ 0 \end{smallmatrix}$
RABBET DIAMETER	Ø300	$\begin{smallmatrix} +0.016 \\ -0.013 \end{smallmatrix}$
SHAFT DIAMETER	Ø48	$\begin{smallmatrix} +0.018 \\ +0.002 \end{smallmatrix}$
KEYWAY WIDTH	14	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$
KEYWAY DEPTH	5.5	$\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$



*CAST IRON CONDUIT BOX

APPD BY	J. H. KIM	UNIT	mm	SUBJECT	KS 180M	CAD PROJ \ FILE
CHKD BY	Y. S. KIM	SCALE	1/9			XSDNKS\B2040AB07
CHKD BY	S. H. KO	PROJEC'N	3rd Angle	TITLE	OUTLINE	
DSND BY	I. K. KIM	DATE	2002.10.29			
 HEAVY INDUSTRIES CO., LTD. Electro-Electric System Division				REF. NO	B2040AB07	Sheet No. of
				DWG NO	227B2040AB07	Revision No. 0



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	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				REF. NO.	227B8008LA2	Sheet No. of	
TERMINAL BOX ASSEMBLY				DWG NO.	227B8008LA2	Revision No. 0	