

AC INDUCTION MOTOR DATA SHEET

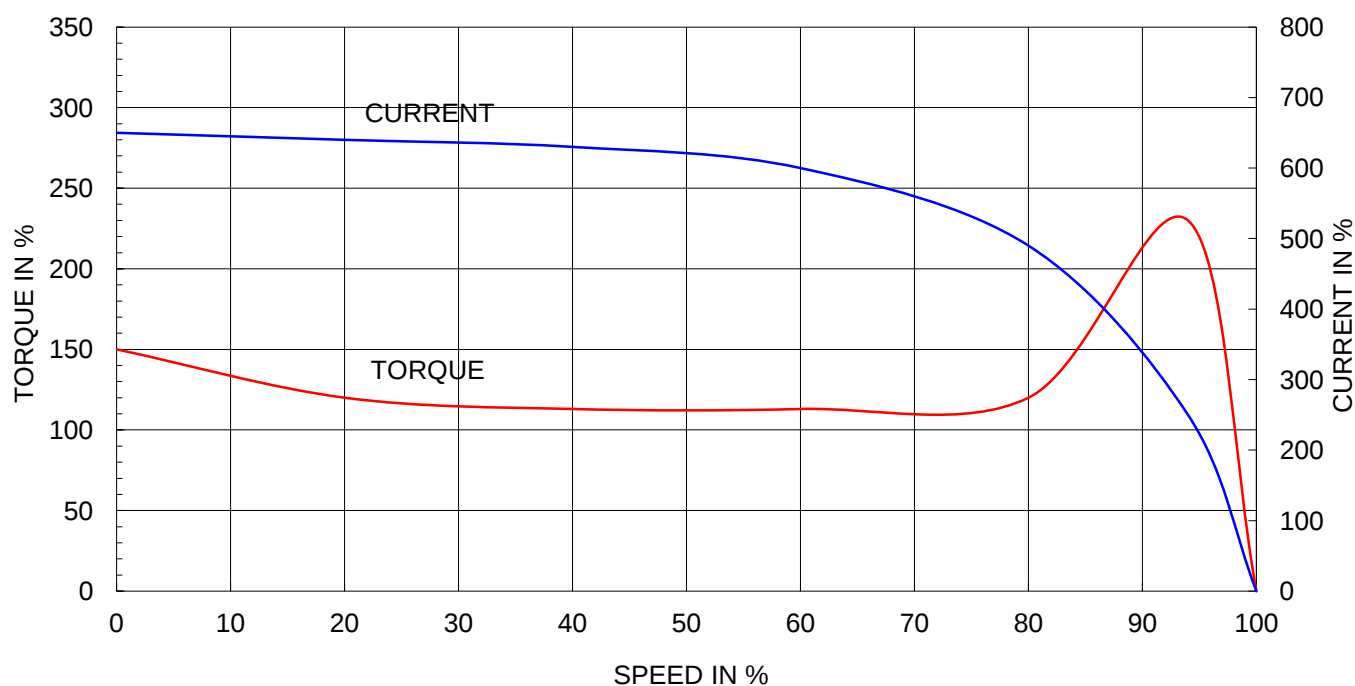
Model No.or RFQ No.		Item No.		Rev. No. [0]			
Project Name		Project No.		Quantity sets			
GENERAL SPECIFICATION			PERFORMANCE DATA				
Frame Size	280L		Rated Output	160 kW 214 HP			
Type	HS-160/2		Number of Poles	2			
Enclosure(Protection)	Totally Enclosed (IP55)		Rotor Type	Squirrel Cage			
Method 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	241.5 A 279.7 A 483.0 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 93.8 %				
Motor Location ☒ Indoor ☐ Outdoor			75% Load 94.8 %				
Altitude Less than 1000 meter			100% Load 95.0 %				
Relative Humidity Less than 80 %			Power Factor(p.u)				
Ambient Temp. 40 deg. C (Max.)			50% Load 0.912				
Duty Type Continuous (S1)			75% Load 0.915				
Service Factor 1.15			100% Load 0.915				
Mounting	☒ B3 ☐ B5 ☐ V1 ☐ B3/B5		Speed at Full Load 3570 r.p.m				
Bearing	Type	Anti-Friction		Torque			
	DE/N-DE	6314C3 / 6314C3		Full Load 43.7 kg·m			
	Lubricant	Grease(Gadus S2 V 100 2)		Locked-rotor** 150 %			
External Thrust Not applicable			Breakdown** 230 %				
Coupling Method ☒ Direct ☐ V-Belt			Moment of Inertia (J)				
Shaft Extension ☒ Single ☐ Double			Load(Max.) 14.375 kg·m²				
Terminal Box	Main	☐ Steel ☒ Cast Iron		Motor 2.540 kg·m²			
	Aux.	☐ Yes ☒ No		Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing		92 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	TJ8LAC50	860 kg		
			B5		kg		
			V1		kg		
			B3/B5		kg		
			Main T-Box Ass'y			3M-016882	
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.

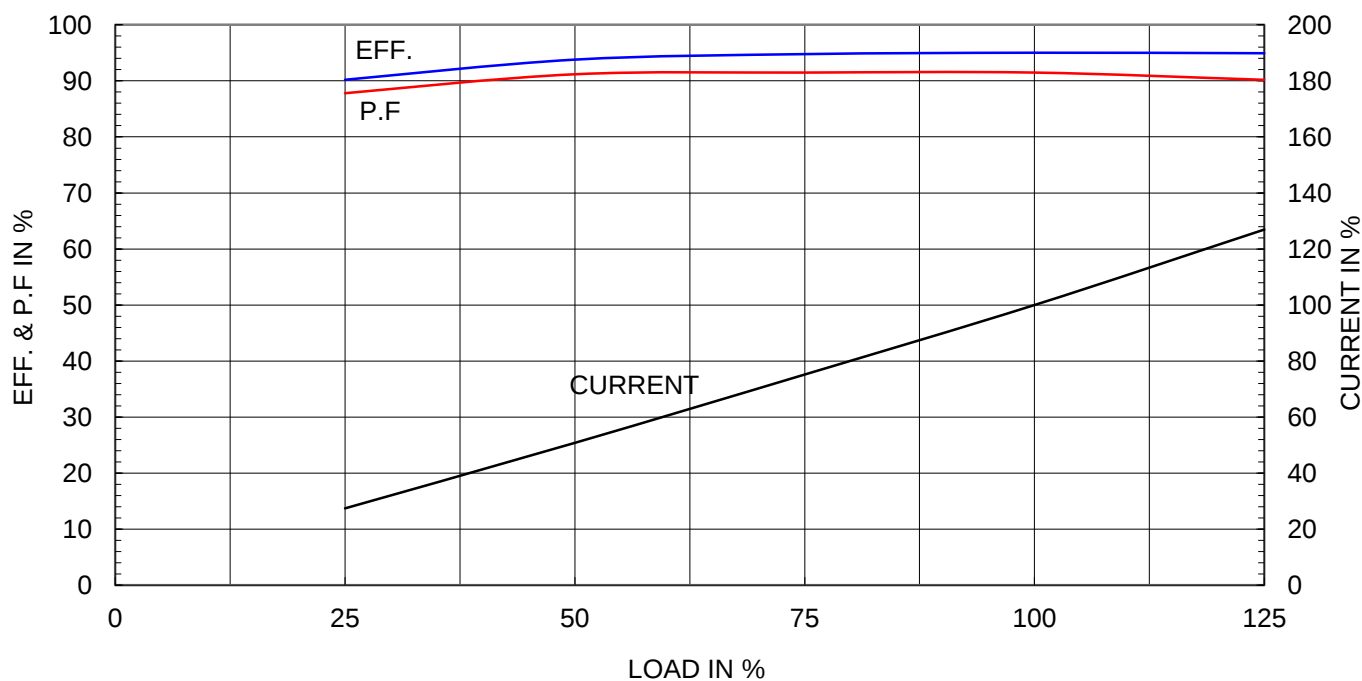
Type	:	HS
Full Load Torque	:	43.7 Kg.m
Motor moment of Inertia (J)	:	2.540 Kg.m ²
Load moment of Inertia (J)	:	14.375 Kg.m ²

160 kW		2 P		60 Hz	
Speed at Full Load :				3570 RPM	
Rated Voltage	440V	380V	220V		
Full Load Current	241.5A	279.7A	483.1A		

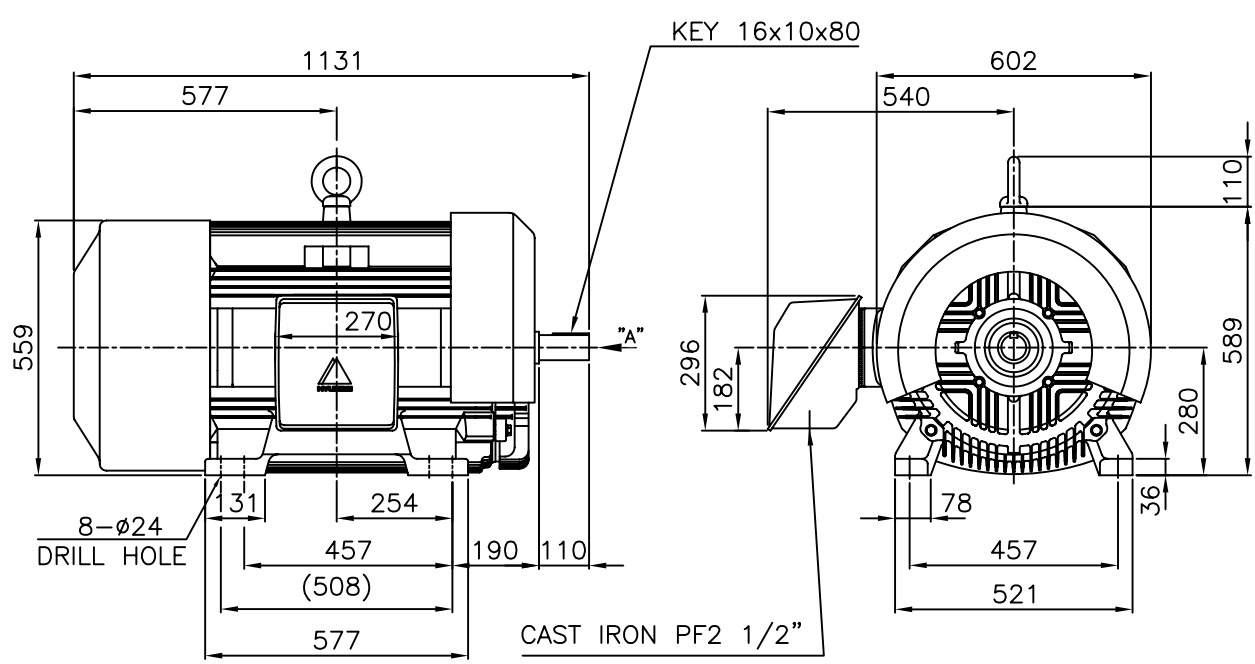
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



1		2		3		4	
 HYUNDAI HEAVY INDUSTRIES CO., LTD.		TEFC THREE PHASE INDUCTION MOTOR		TYPE		⁽¹⁾ TNB , TDB CAST IRON FRAME	

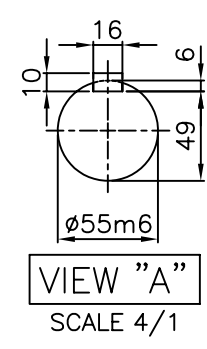


NOTE

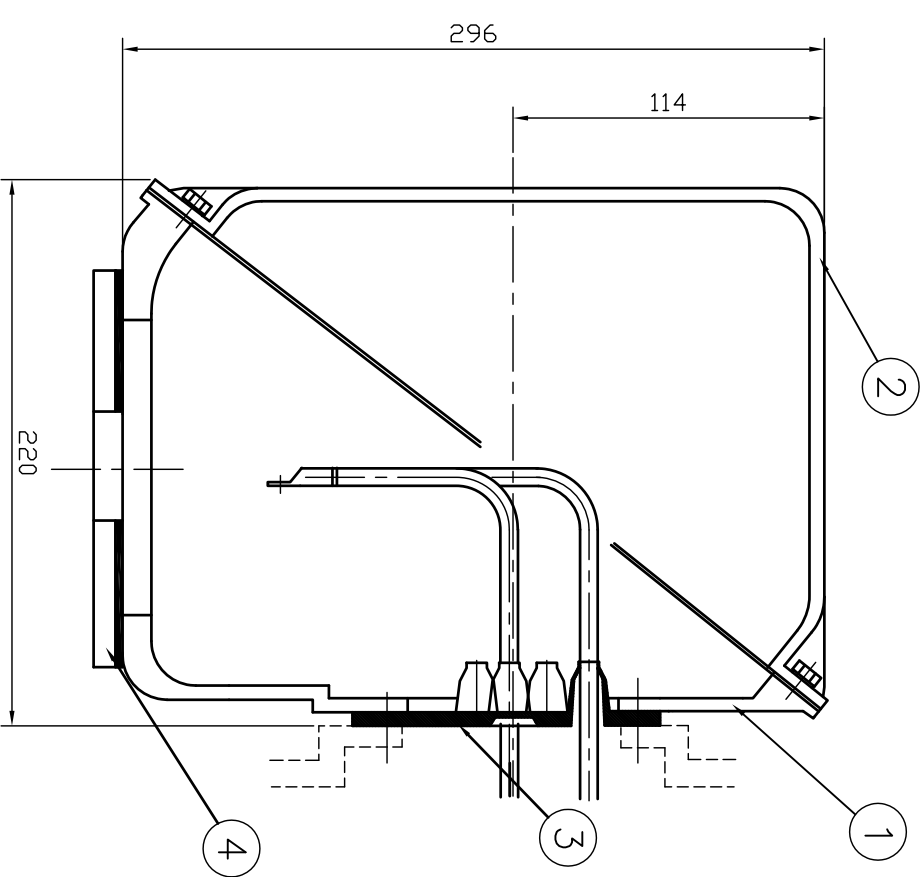
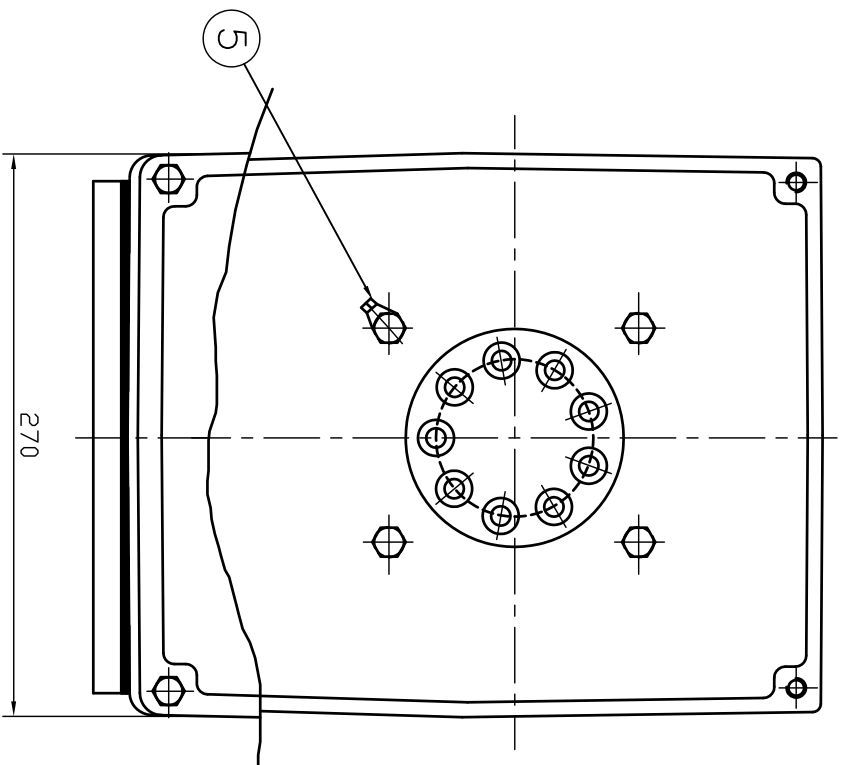
1.TOLERANCE :

CENTER HEIGHT	280 $\begin{smallmatrix} 0 \\ -1.0 \end{smallmatrix}$
BASE HOLE	$\phi 24 \begin{smallmatrix} +0.43 \\ 0 \end{smallmatrix}$
SHAFT DIAMETER	$\phi 55 \begin{smallmatrix} +0.030 \\ +0.011 \end{smallmatrix}$
KEYWAY WIDTH	$16 \begin{smallmatrix} -0.018 \\ -0.061 \end{smallmatrix}$
KEYWAY DEPTH	$6 \begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$
KEY WIDTH	$16 \begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$
KEY HEIGHT	$10 \begin{smallmatrix} 0 \\ -0.090 \end{smallmatrix}$

2.The type (1)-"TNB , TDB" is for HHI's standard products and it can be changed for customer's requirements or detail designing.



				TEFC STANDARD	
APPD BY	KANG K.J.	UNIT	MM	SUBJECT	KS Fr.280L TEFC
CHKD BY	KIM O.J.	SCALE	1/17	TITLE OUTLINE THREE-PHASE INDUCTION MOTOR	
CHKD BY	LEE N.D.	PROJEC'N	3rd Angle		
DSND BY	KIM RYANG GYU	DATE	2007.03.23		
 HYUNDAI HEAVY INDUSTRIES CO., LTD. INDUSTRIAL & POWER SYSTEMS				REF. NO	L2-Series
				DWG NO	TJ8LAC50
				Sheet No. of	
				Revision No. 0	



REV	DATE	CONTENTS	REV'D BY	CHK'D BY	Q.P. CHK	APP'D BY
1						

1	EARTH TERMINAL LUG					5
1	CABLE ENTRY PLATE					4
1	GASKET	NBR				3
1	TERMINAL BOX COVER	CAST IRON				2
1	TERMINAL BOX BODY	CAST IRON				1
Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK
APP'D BY	김진오	UNIT	MM			
Q.P. CHK	주영걸	SCALE	NONE			
CHK'D BY	권오철	PROJEC'T	3번(3rd Angle)			
DSND BY	김헌태	DATE	92.06.05			
				SUBJECT	HLA6 - 250,280Fr.	CAD PROJ. & FILE
				TITLE	(CAST IRON)	T-BOX-M \ 35016882
				REF. NO	3M-016882	Sheet No. of
				DWG NO	3M-016882	Revision No.

