

AC INDUCTION MOTOR DATA SHEET

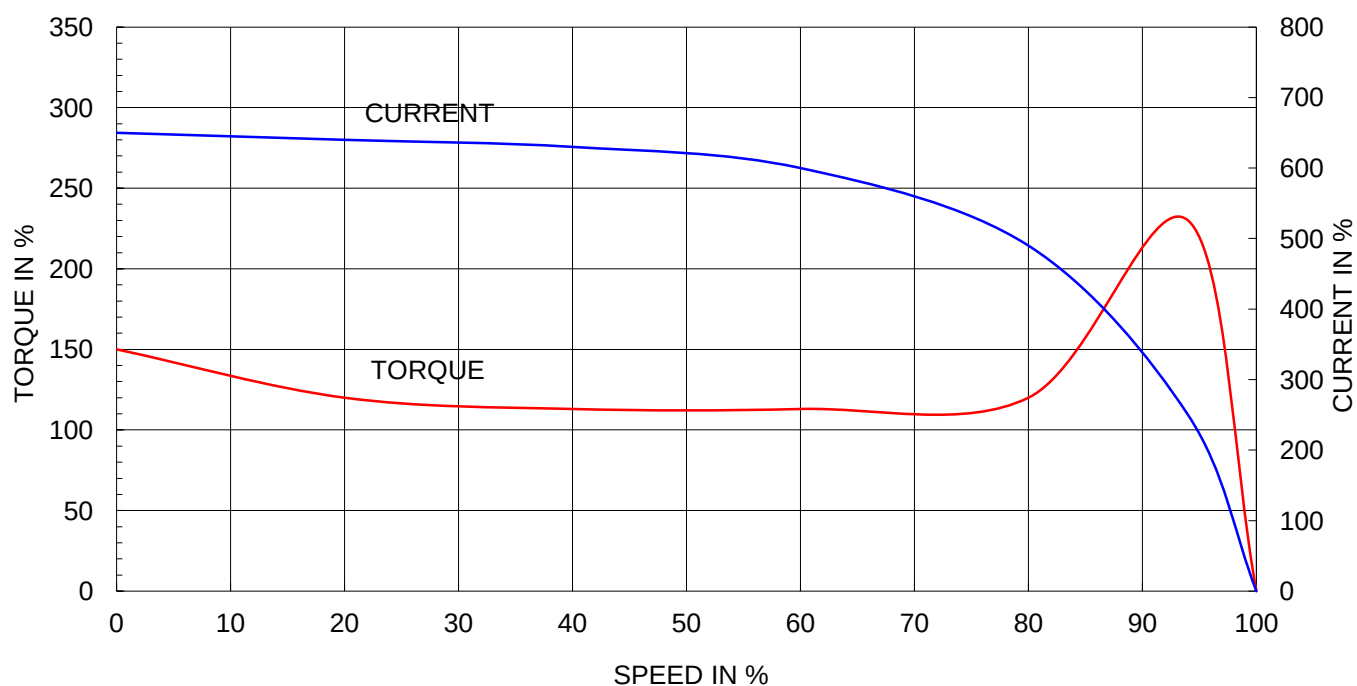
Model No.or RFQ No.		Item No.		Rev. No. [0]			
Project Name		Project No.		Quantity sets			
GENERAL SPECIFICATION			PERFORMANCE DATA				
Frame Size	280L		Rated Output	160 kW 214 HP			
Type	HS-160/2		Number of Poles	2			
Enclosure(Protection)	Totally Enclosed (IP55)		Rotor Type	Squirrel Cage			
Method 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)	at 1.0 S.F 80 deg. C		Efficiency	50% Load 93.8 % 75% Load 94.8 % 100% Load 95.0 %			
Motor Location	☒ Indoor ☐ Outdoor		Power Factor(p.u)	50% Load 0.912 75% Load 0.915 100% Load 0.915			
Altitude	Less than 1000 meter		Speed at Full Load	3570 r.p.m			
Relative Humidity	Less than 80 %		Torque	Full Load 43.7 kg·m Locked-rotor** 150 % Breakdown** 230 %			
Ambient Temp.	40 deg. C (Max.)		Moment of Inertia (J)	Load(Max.) 14.375 kg·m² Motor 2.540 kg·m²			
Duty Type	Continuous (S1)		Sound Pressure Level (No-load & mean value at 1m from motor)	92 dB(A)			
Service Factor	1.15		Vibration	2.2 mm/sec (r.m.s)			
Mounting	☐ B3 ☒ B5 ☐ V1 ☐ B3/B5		Permissible number of consecutive starts	Cold 3 times Hot 2 times			
Bearing	Type	Anti-Friction	Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
	DE/N-DE	6314C3 / 6314C3					
	Lubricant	Grease(Gadus S2 V 100 2)					
External Thrust	Not applicable						
Coupling Method	☒ Direct ☐ V-Belt						
Shaft Extension	☒ Single ☐ Double						
Terminal	Main	☐ Steel ☒ Cast Iron					
Box	Aux.	☐ Yes ☒ No					
	Location	Refer to Outline Drawing					
Application							
Area classification	Non-Hazardous						
Type of Ex-Protection	Not applicable						
Applicable Standard	KS,IEC,NEMA MG1 Part30(Vpeak)						
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B3		kg		
			B5	TJ8LBC50	930 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.

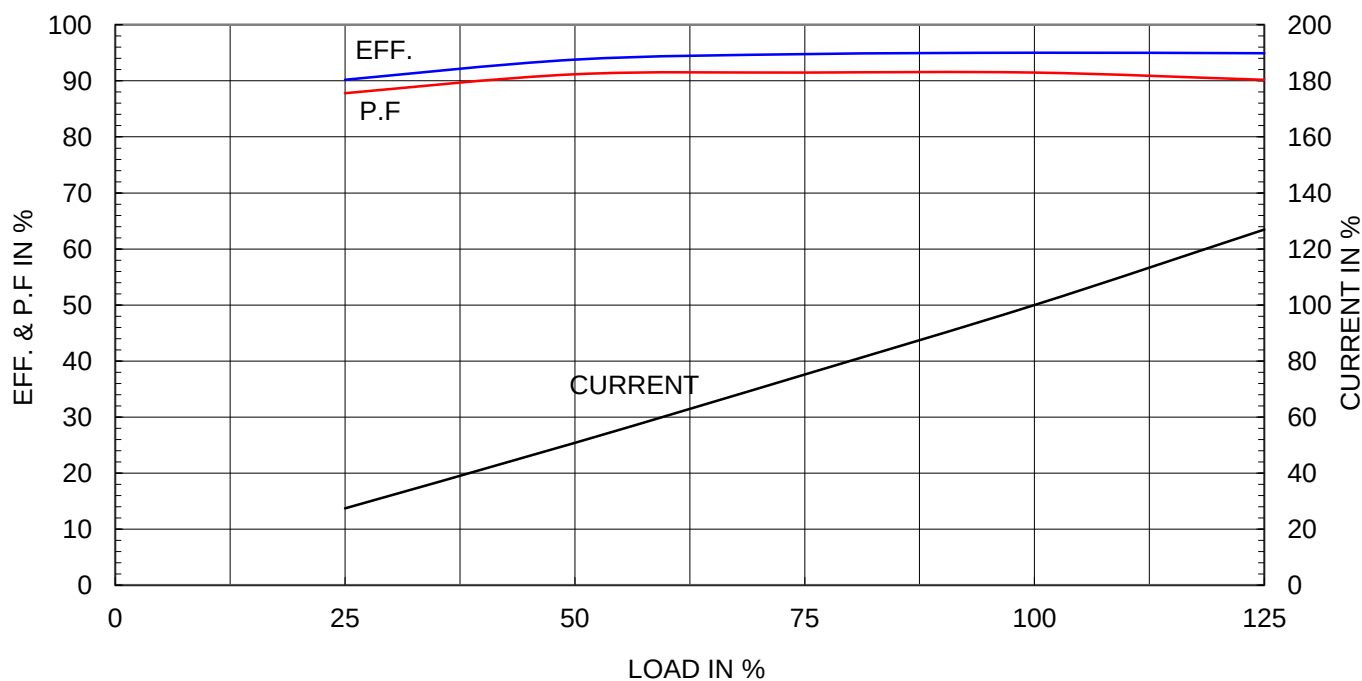
Type	:	HS
Full Load Torque	:	43.7 Kg.m
Motor moment of Inertia (J)	:	2.540 Kg.m ²
Load moment of Inertia (J)	:	14.375 Kg.m ²

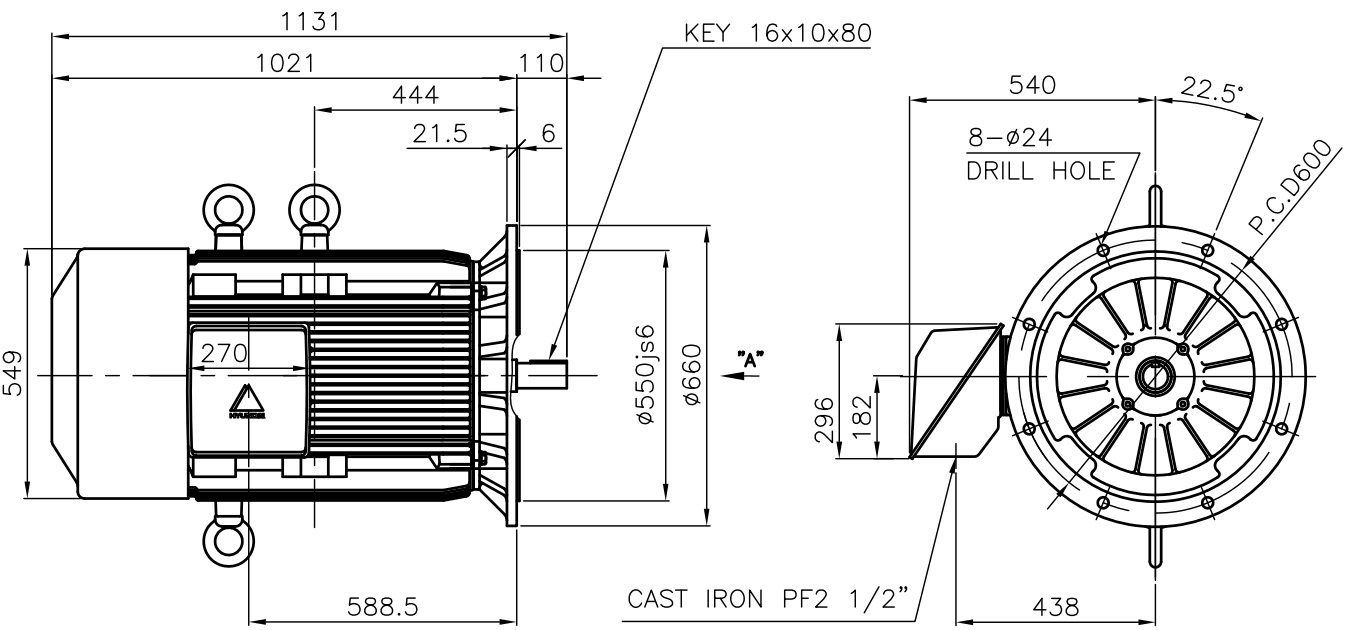
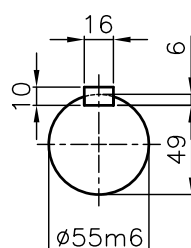
160 kW		2 P		60 Hz	
Speed at Full Load :				3570 RPM	
Rated Voltage	440V	380V	220V		
Full Load Current	241.5A	279.7A	483.1A		

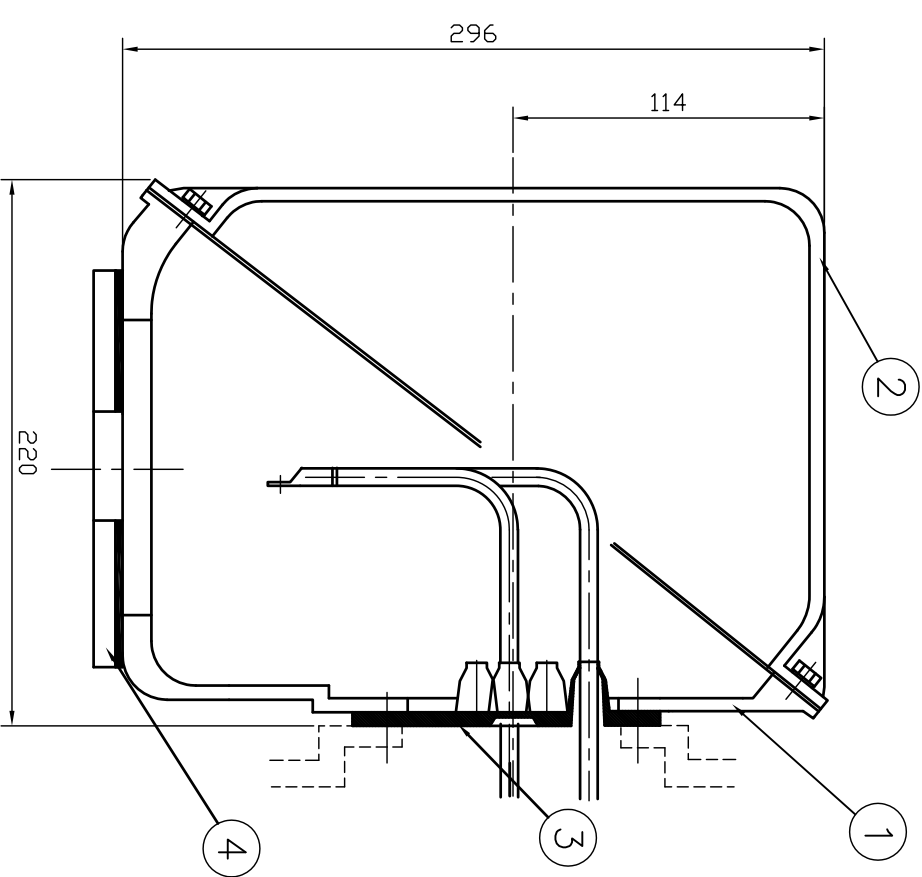
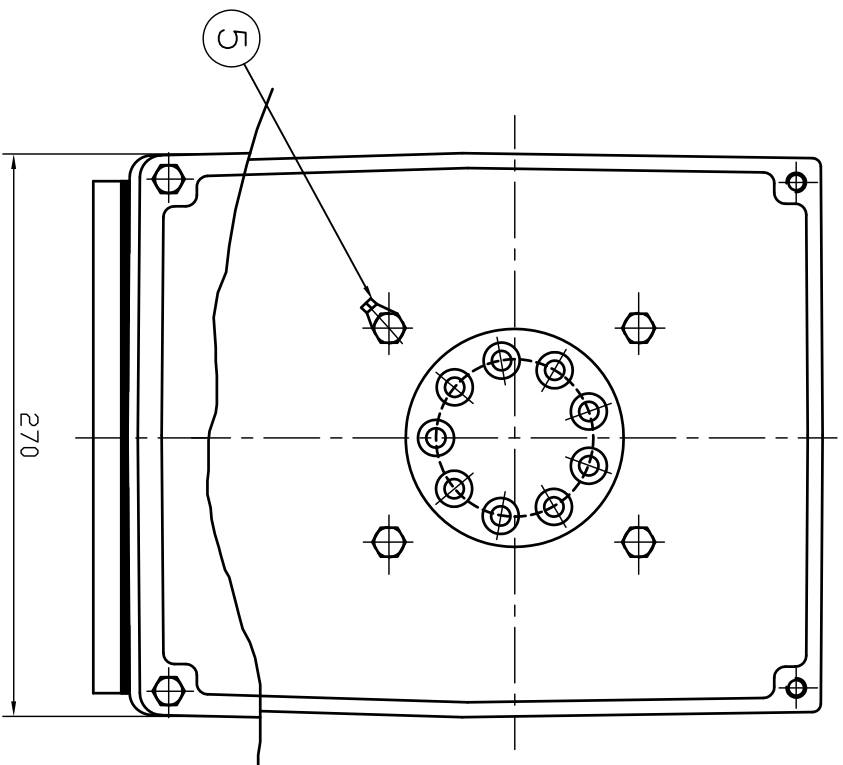
SPEED VS TORQUE & CURRENT CURVE



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 : <table border="1"><tr><td>RABBET DIAMETER</td><td>ø550js6</td><td>±0.022</td></tr><tr><td>SHAFT DIAMETER</td><td>ø55m6</td><td>+0.030 +0.011</td></tr><tr><td>KEYWAY WIDTH</td><td>16P9</td><td>-0.018 -0.061</td></tr><tr><td>KEYWAY DEPTH</td><td>6</td><td>+0.2 0</td></tr></table> 2.The type (1)—"TNB , TDB" is for HHI's standard products and it can be changed for customer's requirements or detail designing.  VIEW "A" SCALE 4/1								RABBET DIAMETER	ø550js6	±0.022	SHAFT DIAMETER	ø55m6	+0.030 +0.011	KEYWAY WIDTH	16P9	-0.018 -0.061	KEYWAY DEPTH	6	+0.2 0
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KEYWAY WIDTH	16P9	-0.018 -0.061																	
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						TEFC STANDARD													
APPD BY KANG K.J. UNIT MM				SUBJECT KS Fr.280L TEFC		CAD PROJ \ FILE													
CHKD BY KIM O.J. SCALE 1/17				TITLE OUTLINE THREE-PHASE INDUCTION MOTOR		MMSTDMTR/TJ8LBC50													
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 L3-Series		Sheet No. of													
				DWG NO TJ8LBC50		Revision No. 0													
1		2		3		4													



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 \ 38016882
				REF. NO	3M-016882	Sheet No. of
				DWG NO	3M-016882	Revision No.

