

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		250M		Rated Output		90 kW 120 HP	
Type		HS-90/2		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 138.1 A 159.9 A 276.2 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		92.8 %	
Motor Location		☒ Indoor ☐ Outdoor		75% Load		94.1 %	
Altitude		Less than 1000 meter		100% Load		94.5 %	
Relative Humidity		Less than 80 %		Power Factor(p.u)			
Ambient Temp.		40 deg. C (Max.)		50% Load		0.869	
Duty Type		Continuous (S1)		75% Load		0.898	
Service Factor		1.15		100% Load		0.905	
Mounting		☐ B3 ☐ B5 ☐ V1 ☒ B3/B5		Speed at Full Load		3570 r.p.m	
Bearing	Type	Anti-Friction		Torque			
	DE/N-DE	6313C3 / 6313C3		Full Load		24.6 kg·m	
	Lubricant	Grease(Gadus S2 V 100 2)		Locked-rotor**		130 %	
External Thrust		Not applicable		Breakdown**		230 %	
Coupling Method		☒ Direct ☐ V-Belt		Moment of Inertia (J)			
Shaft Extension		☒ Single ☐ Double		Load(Max.)		10.050 kg·m²	
Terminal	Main	☐ Steel ☒ Cast Iron		Motor		1.143 kg·m²	
Box	Aux.	☐ Yes ☒ No		Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing				88 dB(A)	
Application				Vibration		2.2 mm/sec (r.m.s)	
Area classification		Non-Hazardous		Permissible number of consecutive starts		Cold 3 times Hot 2 times	
Type of Ex-Protection		Not applicable		Paint		Munsell No. 4.0PB5.4/5.5(VL-451)	
Applicable Standard		KS,IEC,NEMA MG1 Part30(Vpeak)					
ACCESSORIES				SUBMITTAL DRAWING			
				Outline Dimension Drawing \ Motor Weight(Approx.)			
				B3			kg
				B5			kg
				V1			kg
				B3/B5		TJ5MCC50	550 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.

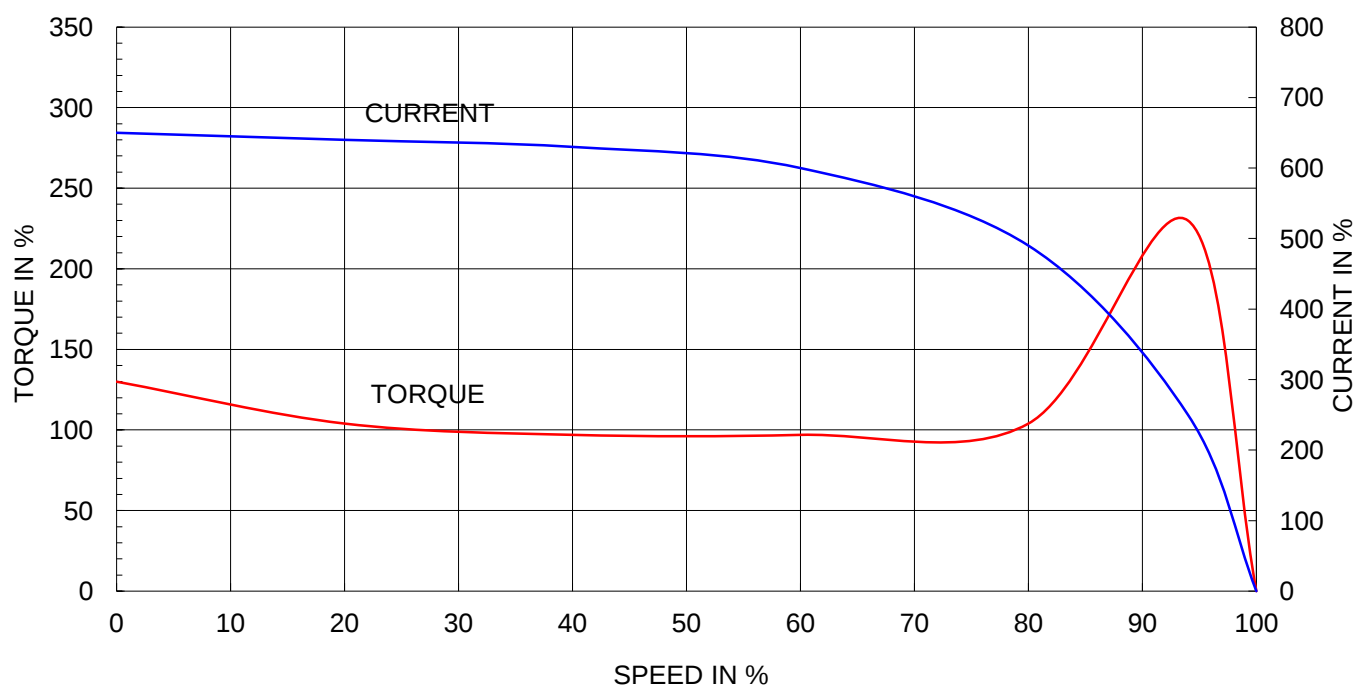
** Data is based on when the motor is supplied at rated voltage & frequency, and the data is expressed as a percentage of full-load value.

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)

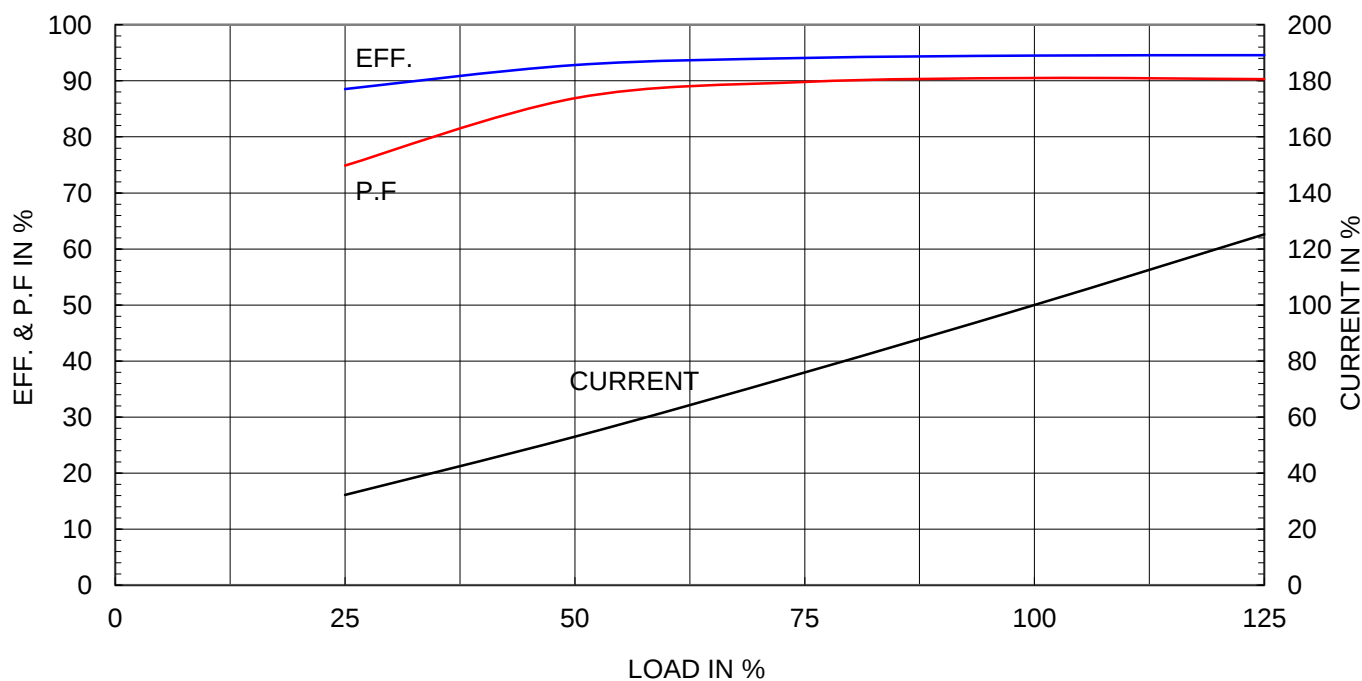
Type	:	HS
Full Load Torque	:	24.6 Kg.m
Motor moment of Inertia (J)	:	1.143 Kg.m ²
Load moment of Inertia (J)	:	10.050 Kg.m ²

90 kW		2 P		60 Hz	
Speed at Full Load :				3570 RPM	
Rated Voltage	440V	380V	220V		
Full Load Current	138.1A	159.9A	276.2A		

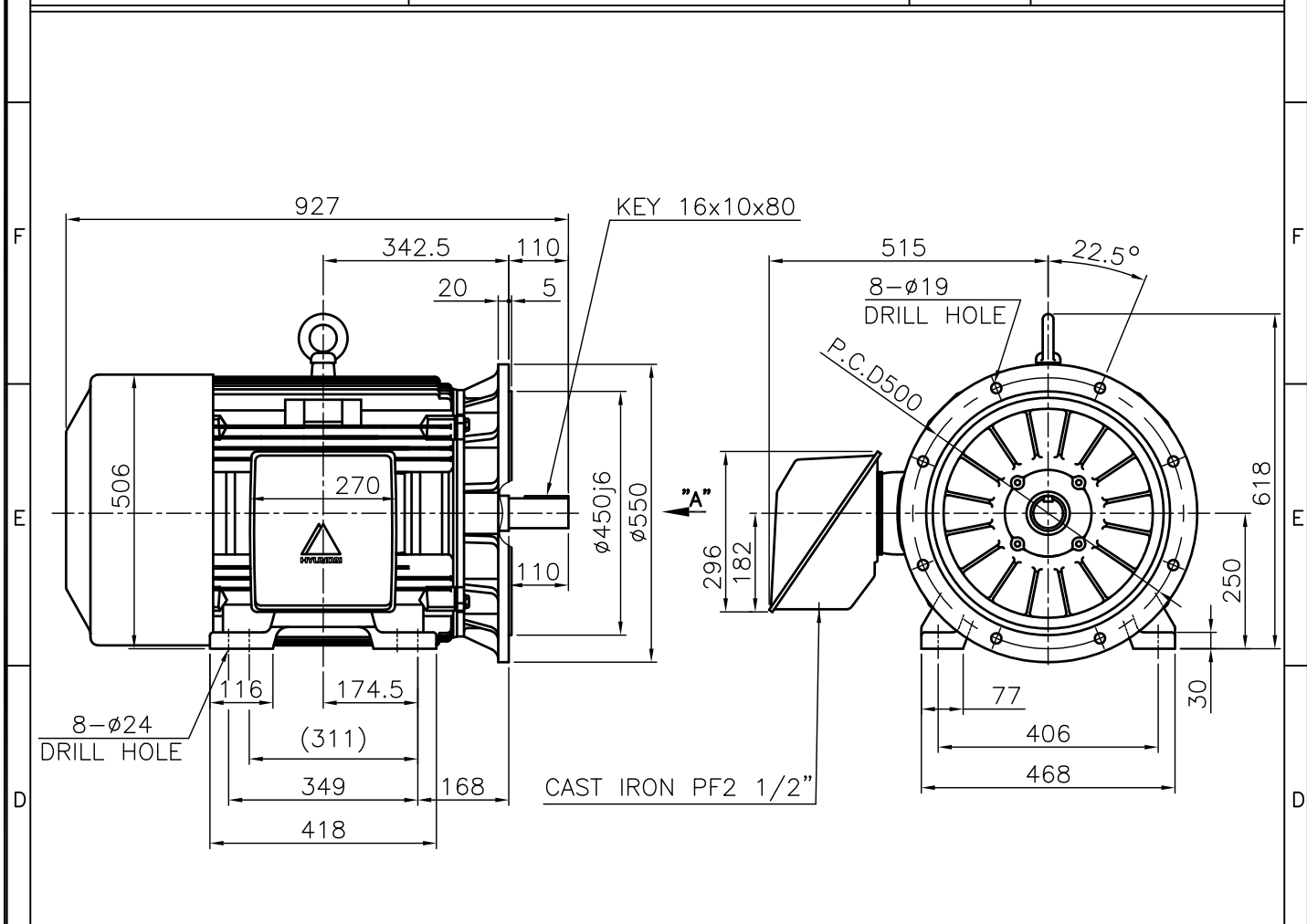
SPEED VS TORQUE & CURRENT CURVE



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

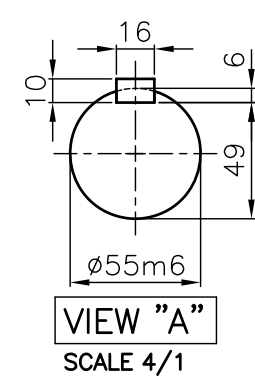


NOTE

1.TOLERANCE :

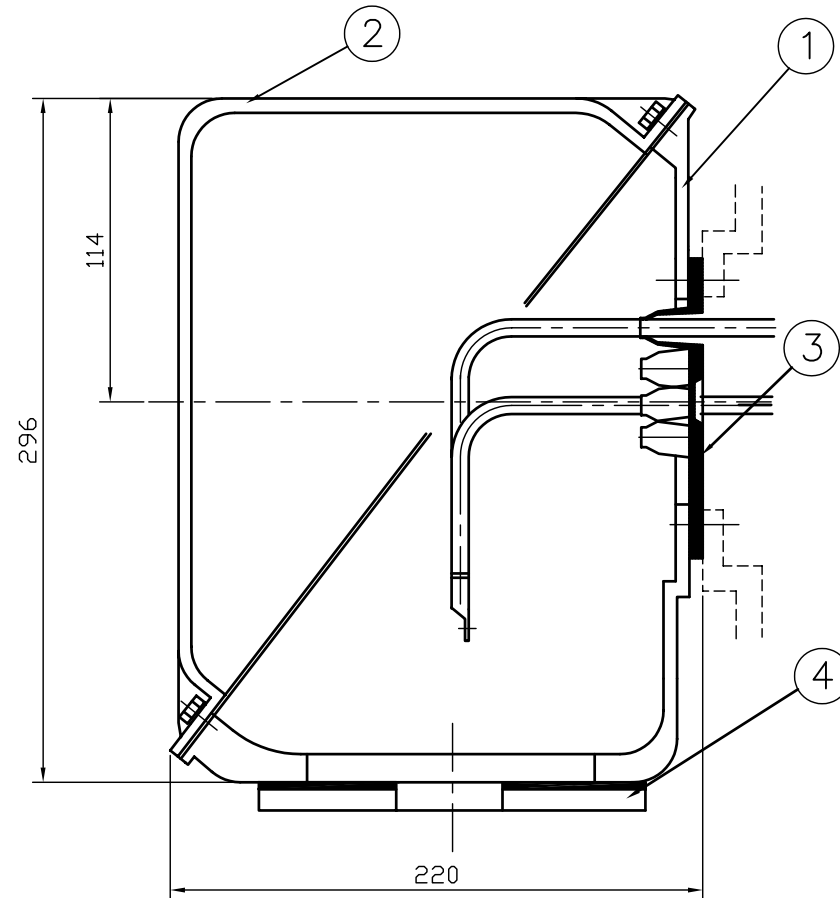
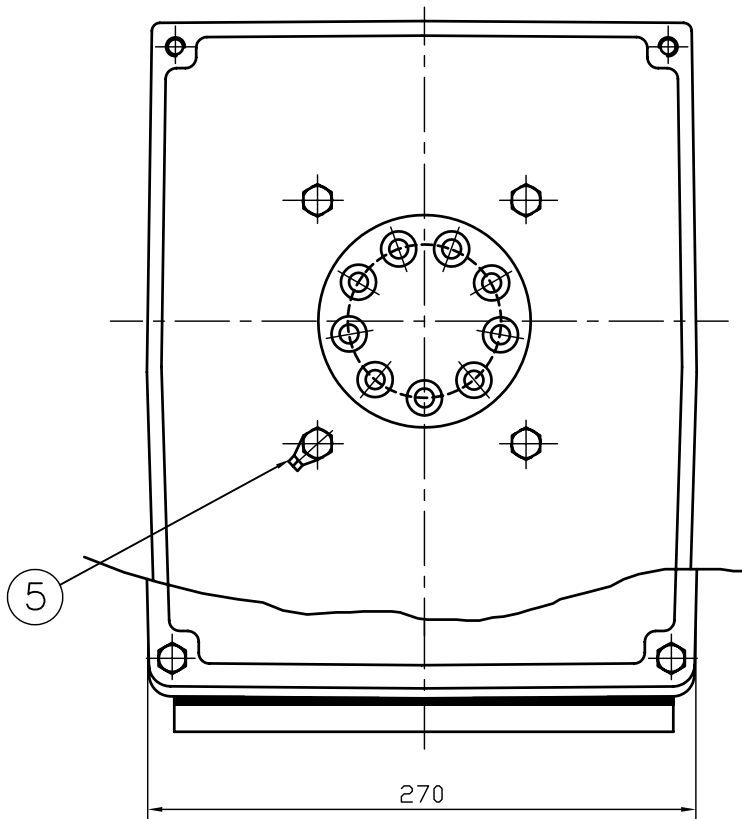
CENTER HEIGHT	250	0 -0.5
RABBET DIAMETER	ø450±0.020	
SHAFT DIAMETER	ø55	+0.030 +0.011
KEYWAY WIDTH	16	-0.018 -0.061
KEYWAY DEPTH	6	+0.2 0

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.250M TEFC
CHKD BY	KIM O.J.	SCALE	1/13	TITLE	CAD PROJ \ FILE
CHKD BY	LEE N.D.	PROJEC'N	3rd Angle		MMSTDMTR/TJ5MCC50
DSND BY	KIM RYANG GYU	DATE	2007.03.23		
 HYUNDAI HEAVY INDUSTRIES CO., LTD. INDUSTRIAL & POWER SYSTEMS				OUTLINE	
				THREE-PHASE INDUCTION MOTOR	
				REF. NO	L2-Series
				DWG NO	TJ5MCC50
				Sheet No.	of
				Revision No.	0

본 도면은 현대중공업(주) 재산이므로 허가없이
복사할 수 없음 (도면제출 시 유의하시기 바랍니다.)



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	NO.
APPD BY	김 진 오	UNIT	MM	SUBJECT	HLA6 - 250,280Fr.	CAD PROJ ㉠ \ FILE ㉠	
Q.P. CHK	주 영 겅	SCALE	NONE			T-BOX-M \ 3R016882	
CHKD BY	권 오 철	PROJEC'N	3 각법 (3rd Angle)	TITLE (CAST IRON) TERMINAL BOX ASS'Y			
DSND BY	김 현 태	DATE	92.06.05				
				REF. NO		Sheet No. of	
				DWG NO	3M-016882	Revision No.	

REV	DATE	CONTENTS	REVD BY	CHKD BY	Q.P. CHK	APPD BY
1						
2						
3						
4						