HYUNDAI HEAVY INDUSTRIES CO.,LTD.

AC INDUCTION MOTOR DATA SHEET

Model No.or RFQ No.		Item No.		Rev. No.	[0]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION

Frame Size		250M
Type		HLP-90/2
Enclosure(Protection)		Totally Enclosed (IP55)
Method of Cooling		IC411(FC)
Rated Frequency		60 Hz
Number of Phases		3
Insulation Class		■ F ☐ B ☐ H
Temp. Rise at full load (by resistance method)		
	at 1.0 S.F	80 deg. C
Motor Location		■ Indoor ☐ Outdoor
Altitude		Less than 1000 meter
Relative Humidity		Less than 80 %
Ambient Temp.		40 deg. C (Max.)
Duty Type		Continuous (S1)
Service Factor		1.15
Mounting		☐ B3 ☐ B5 ☐ V1 ■ B3/B5
Bearing	Type	Anti-Friction
	DE/N-DE	6313C3 / 6313C3
	Lubricant	Grease(Gadus S2 V 100 2)
External Thrust		Not applicable
Coupling Method		■ Direct ☐ V-Belt
Shaft Extension		■ Single ☐ Double
Terminal Box	Main	☐ Steel ■ Cast Iron
	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)

PERFORMANCE DATA

Rated Output		90 kW	120 HP	
Number of Poles		2		
Rotor Type		Squirrel Cage		
Starting Method*		■ D.O.L	☐ Y- △	
Rated Voltage		440 V	380 V	220 V
Current	Full Load	137.4 A	159.0 A	274.7 A
	Locked-rotor**	770 %	770 %	770 %
Efficiency				
	50% Load	93.5 %		
	75% Load	95.0 %		
	100% Load	95.0 %		
Power Factor(p.u)				
	50% Load	0.875		
	75% Load	0.895		
	100% Load	0.905		
Speed at Full Load		3570 r.p.m		
Torque				
	Full Load	24.6 kg·m		
	Locked-rotor**	130 %		
	Breakdown**	230 %		
Moment of Inertia (J)				
	Load(Max.)	10.050 kg·m²		
	Motor	1.143 kg·m²		
Sound Pressure Level (No-load & mean value at 1m from motor)				
		88 dB(A)		
Vibration		2.2 mm/sec (r.m.s)		
Permissible number of consecutive starts		Cold 3 times		
		Hot 2 times		
Paint	Munsell No.	4.4PB5.5/5.6(VL-451)		

ACCESSORIES

SUBMITTAL DRAWING

Outline Dimension Drawing \ Motor Weight(Approx.)			
B3	LM-T1253B3CL001	530	kg
B5	LM-T1250B5CL001	570	kg
V1	LM-T1250V1CL001	570	kg
B3/B5	LM-T1253B4CL001	550	kg
Main T-Box Ass'y	3M-016882		

SPARE PARTS

REMARK

Premium Efficiency

*. For use on PWM VFD 10:1VT, 3:1CT@1.0S.F&F Temp. rise

Date	DSND	CHKD	CHKD	APPD
2015-09-05	R.G. KIM	-	O.J. KIM	S.H. GO

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.

HYUNDAI HEAVY INDUSTRIES CO.,LTD.

PERFORMANCE CURVE

CURVE NO.

P-HLP-90/2

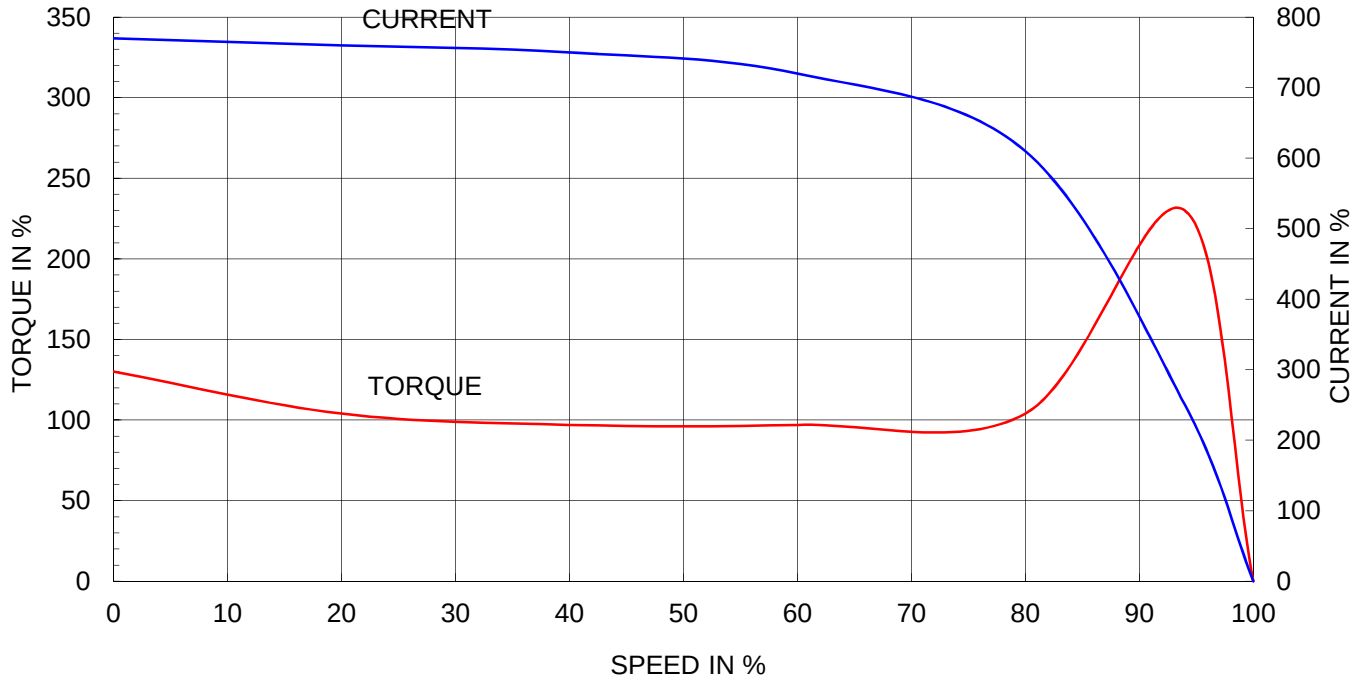
Type :	HLP-90/2	
Full Load Torque :	24.6	Kg.m
Motor moment of Inertia (J) :	1.143	$Kg.m^2$
Load moment of Inertia (J) :	10.050	$Kg.m^2$

90 kW 2 P 60 Hz

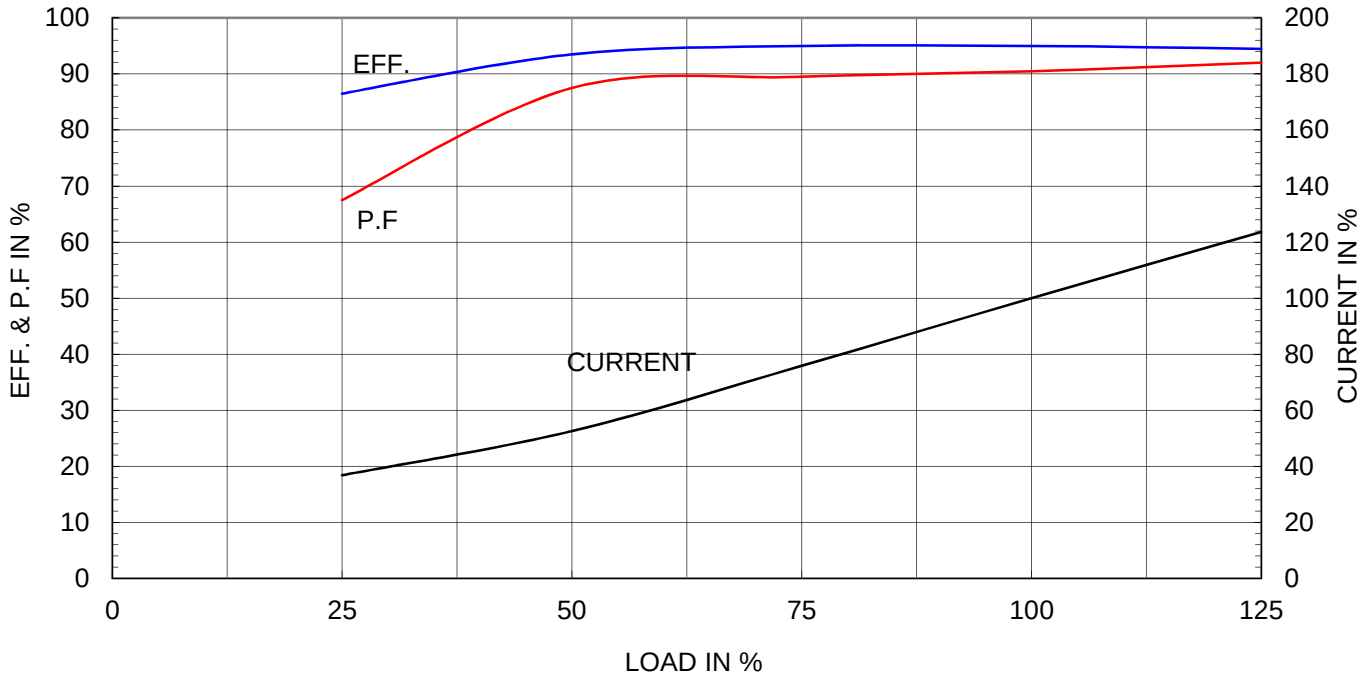
Speed at Full Load : 3570 RPM

Rated Voltage	440V	380V	220V	
Full Load Current	137.4A	159.0A	274.7A	

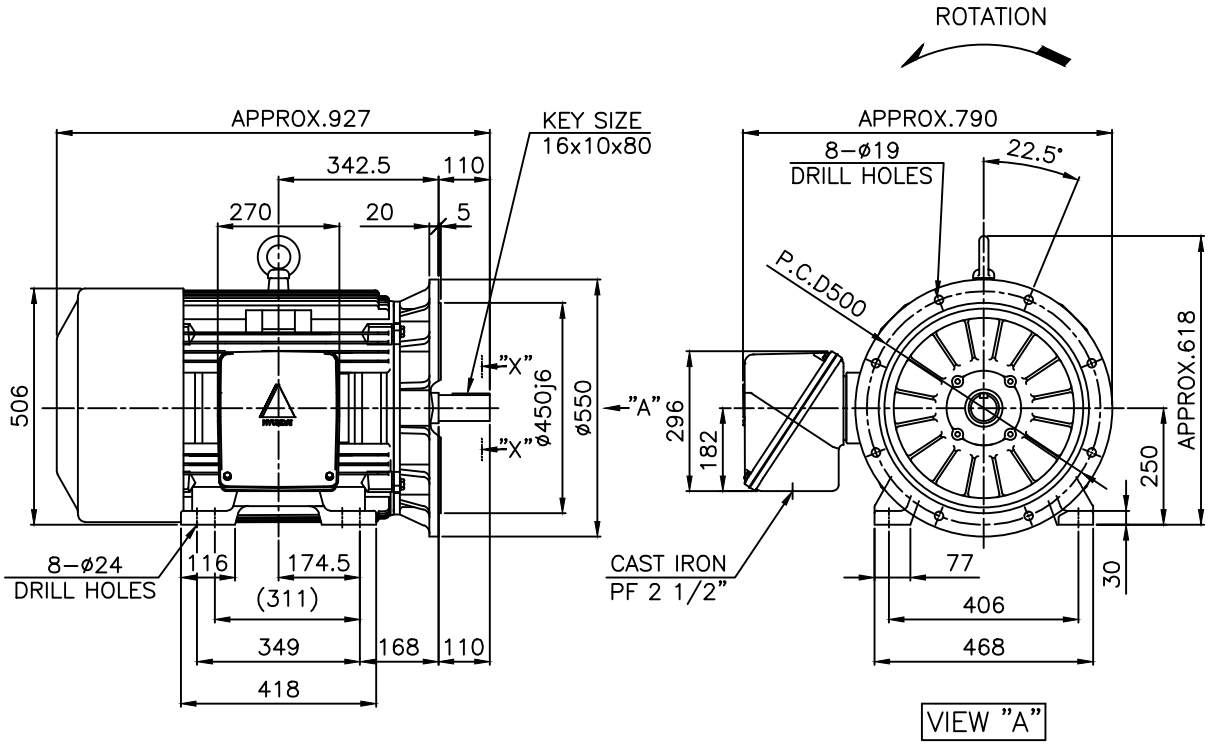
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



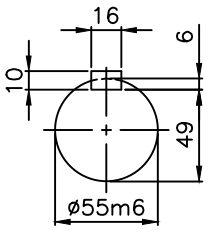
▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



NOTE

1.TOLERANCE :

CENTER HEIGHT	250	$^{0}_{-0.5}$
BASE HOLES	ø24	$^{+0.52}_{0}$
FLANGE HOLES	ø19	$^{+0.52}_{0}$
RABBET DIAMETER	ø450	±0.020
SHAFT DIAMETER	ø55	$^{+0.030}_{+0.011}$
KEYWAY WIDTH	16	$^{-0.018}_{-0.061}$
KEYWAY DEPTH	6	$^{+0.2}_{0}$
KEY WIDTH	16	$^{0}_{-0.043}$
KEY HEIGHT	10	$^{0}_{-0.090}$

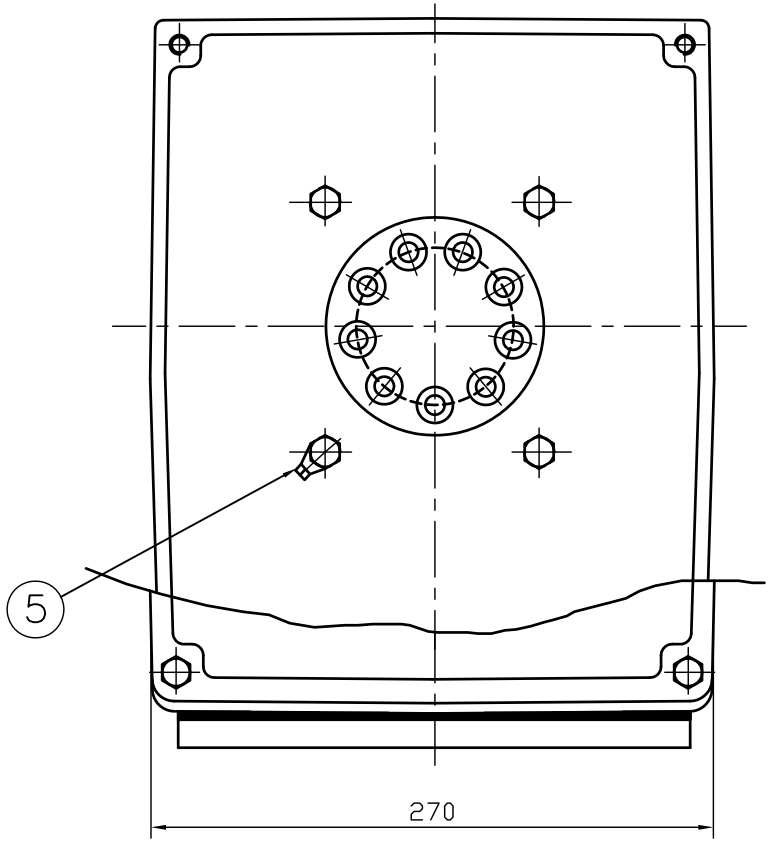


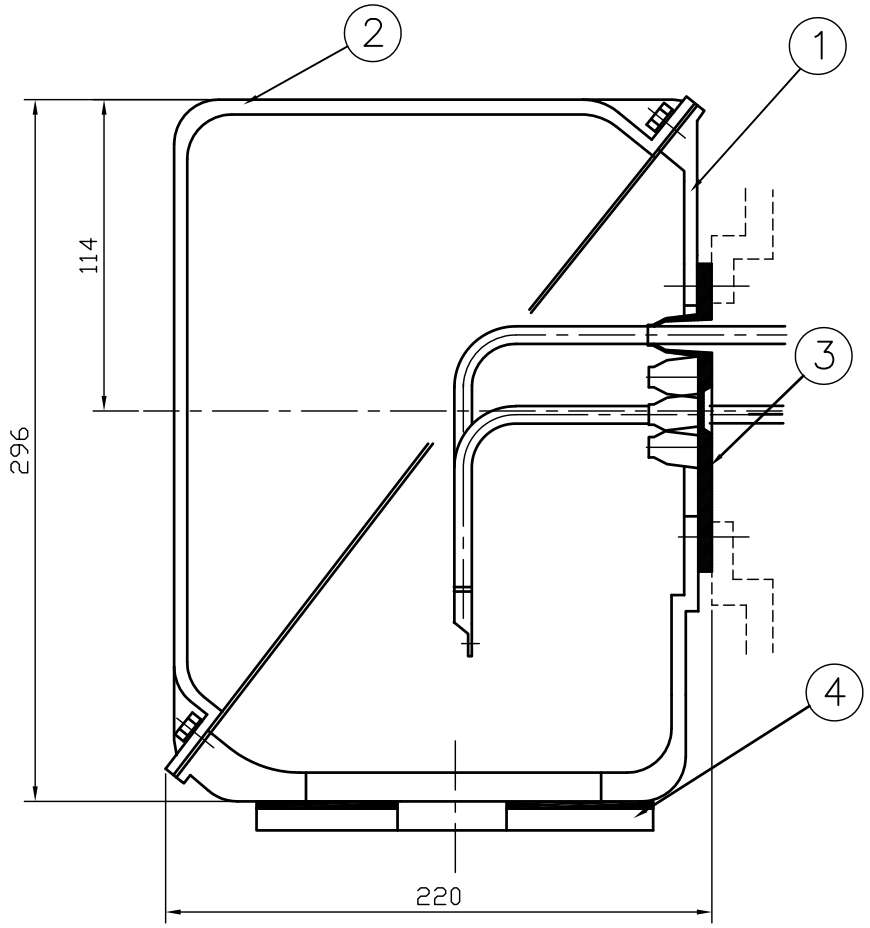
SECTION "X–X"
SCALE 4/15

APPD BY	S.K.HAN	UNIT	mm
CHKD BY	S.Y.KIM	SCALE	1/15
CHKD BY	R.G.KIM	PROJEC'N	3각법(3rd Angle)
DSND BY	S.H.YUN	DATE	2018-08-28

HYUNDAI ELECTRIC

SUBJECT	KS, IEC Fr.250M-2P		DWG SIZE A4 (1:15)
TITLE	OUTLINE		
REF. NO		Sheet No.	of
DWG NO	LM-T1253B4CL001	Revision No.	1





NO.	REMARK	PART NO.	WEIGHT	DIMENSION	MATERIAL	DESCRIPTION	Q'TY
5						EARTH TERMINAL LUG	1
4						CABLE ENTRY PLATE	1
3					NBR	GASKET	1
2					CAST IRON	TERMINAL BOX COVER	1
1					CAST IRON	TERMINAL BOX BODY	1

APPD BY	김 진 오	UNIT	MM
Q.P CHK	주 영 걸	SCALE	NONE
CHKD BY	권 오 철	PROJEC'N	3 각법(3rd Angle)
DSND BY	김 현 태	DATE	92.06.05

SUBJECT: HLA6 – 250,280Fr.

CAD PROJ 명 \ FILE 명: T–BOX–M \ 3R016882

TITLE: (CAST IRON) TERMINAL BOX ASS'Y

HYUNDAI ELECTRICAL ENGINEERING CO., LTD.

REF. NO

Sheet No. of

DWG NO: 3M–016882

Revision No.

REV	DATE	CONTENTS	REVD BY	CHKD BY	Q.P CHK	APPD BY