HYUNDAI ELECTRIC

AC INDUCTION MOTOR DATA SHEET

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

GENERAL SPECIFICATION

Frame Size		180M
Type		HLP-22/4
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 ℃
Motor Location		■ Indoor ☐ Outdoor
Altitude		Less than 1000m
Relative Humidity		Less than 80 %
Ambient Temp.		40 ℃ MAX.
Duty Type		Continuous(S1)
Service Factor		1.15
Mounting		☐ B3 ■ B5 ☐ V1 ☐ B3/B5
Bearing	Type	Anti-Friction
	DE/N-DE	6310ZZC3 / 6310ZZC3
	Lubricant	Grease(Polyrex-EM)
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		22 kW		30 HP
Number of Poles		4		
Rotor Type		Squirrel Cage		
Starting Method*		■ D.O.L	☐ Y-△	
Rated Voltage		440 V	380 V	220 V
Current	Full Load	37.7 A	43.7 A	75.4 A
	Locked-rotor**	865 %	865 %	865 %
Efficiency				
	50% Load	92.4 %		
	75% Load	93.4 %		
	100% Load	93.6 %		
Power Factor(p.u)				
	50% Load	0.641		
	75% Load	0.759		
	100% Load	0.818		
Speed at Full Load		1775 r.p.m		
Torque				
	Full Load	12.1 kg.m		
	Locked-rotor**	170 %		
	Breakdown**	220 %		
Moment of Inertia (J)				
	Load(Max.)	18.10816901 kg·m²		
	Motor	0.235 kg·m²		
Sound Pressure Level (No-load & mean value at 1m from motor)		66 dB(A)		
Vibration		2.2 mm/sec(r.m.s)		
Permissible number of consecutive starts	Cold	3 times		
	Hot	2 times		
Paint	Munsell No.	Panton279C		

ACCESSORIES

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing		\ Motor Weight(Approx.)
B3		kg
B5	LM-T1183B5PLV01	177 kg
V1		kg
B3/B5		kg
Main T-Box Ass'y	3M-145860	

REMARK

*.Premium Efficiency(IE3)

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

Date	DSND	CHKD	CHKD	APPD
2018-11-23	R.G. KIM	---	O.J. KIM	S.K.HAN

Note: Others not mentioned in this data sheet shall be in accordance with maker standard.

Made in Vietnam

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.

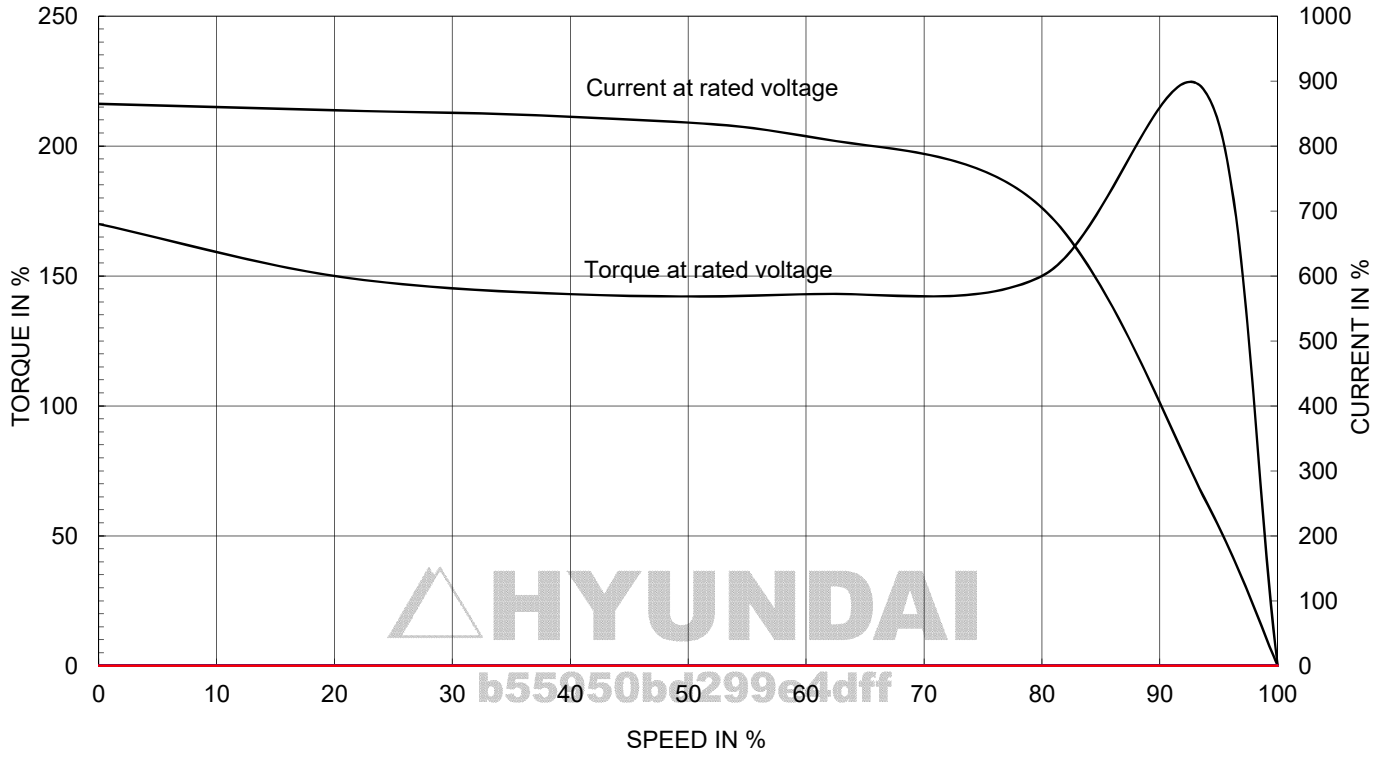
* In case of Inverter-Fed Motor, performance data is based on sine wave tests.

** The data are based on rated voltage & frequency, and data are expressed as a percentage of full load value.

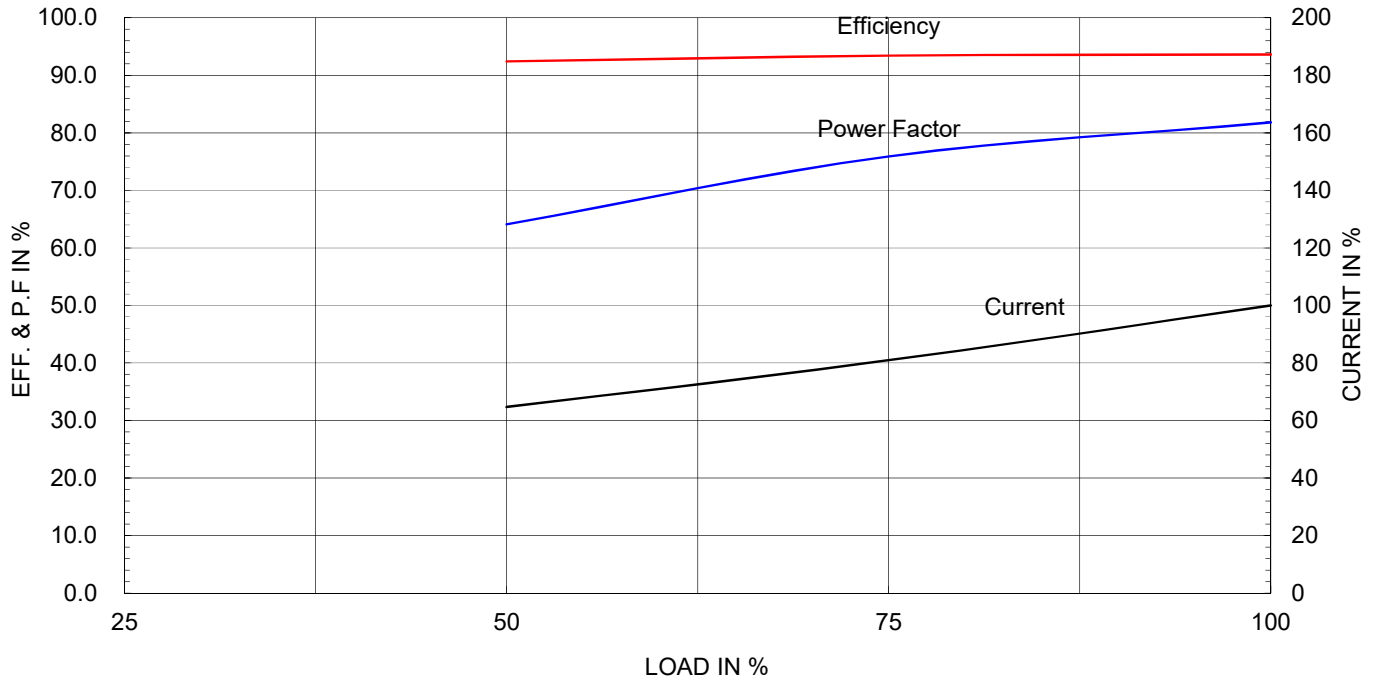
HYUNDAI ELECTRIC	PERFORMANCE CURVE	CURVE NO.
		PI-HLP-22/4

Type :	HLP-22/4	22kW	30HP	4P 60 Hz
Full Load Torque :	12.1 Kg-m	Speed at Full Load :		1775 RPM
Load moment of Inertia (J) :	18.108 Kg-m²	Rated Voltage	440V	380V 220V
Motor moment of Inertia (J) :	0.235 Kg-m²	Full Load Current	37.7A	43.7A 75.4A

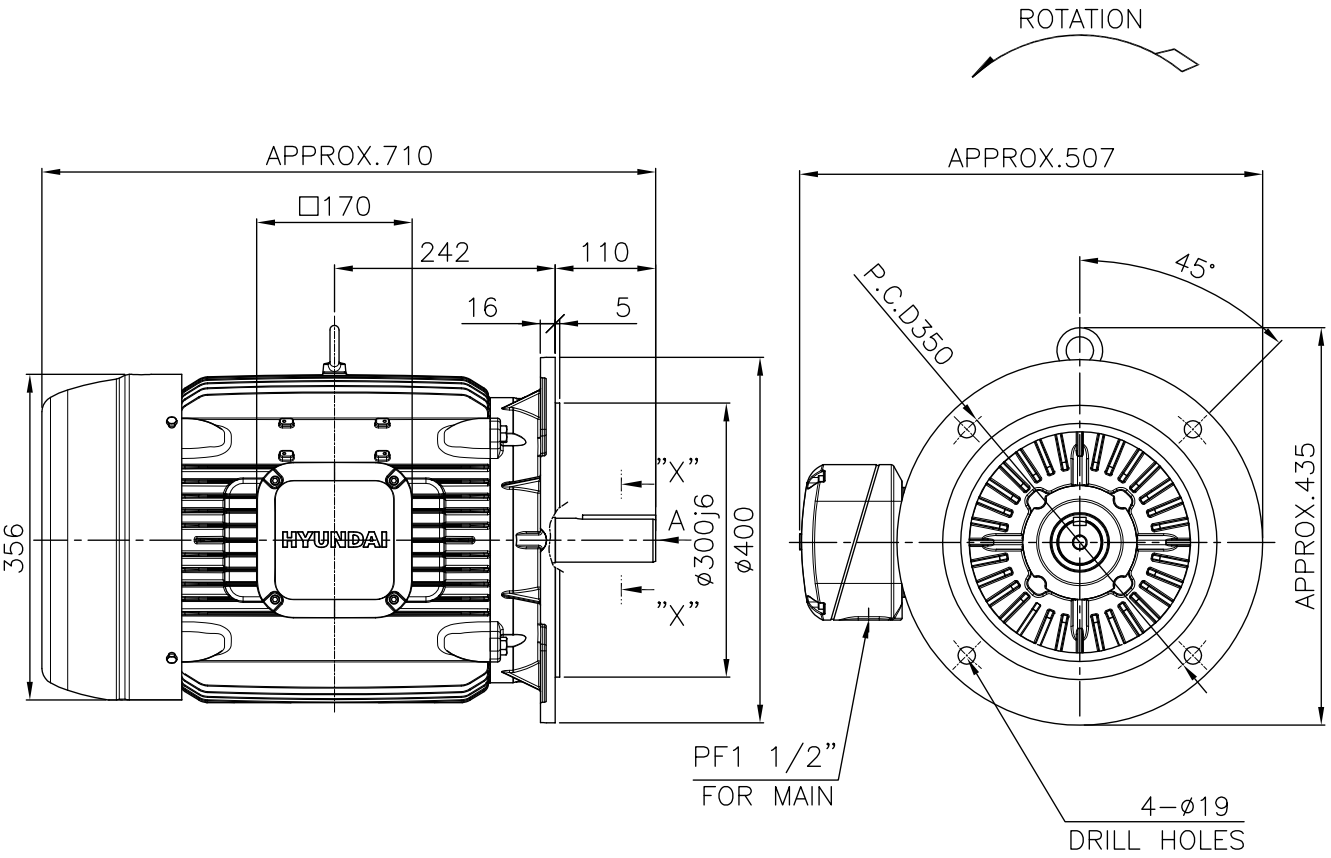
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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

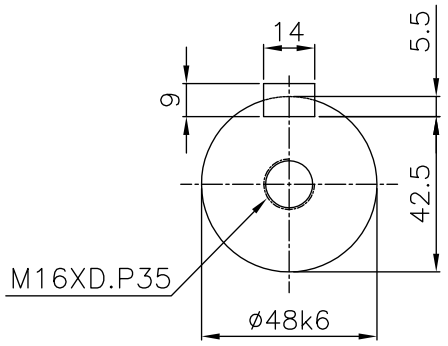


VIEW "A"

NOTE

1.TOLERANCE :

FLANGE HOLE	ø19	$^{+0.52}_{0}$
RABBET DIAMETER	ø300	±0.016
SHAFT DIAMETER	ø48	$^{+0.018}_{+0.002}$
KEYWAY WIDTH	14	$^{0}_{-0.043}$
KEYWAY DEPTH	5.5	$^{+0.2}_{0}$
KEY WIDTH	14	$^{0}_{-0.043}$
KEY HEIGHT	9	$^{0}_{-0.090}$

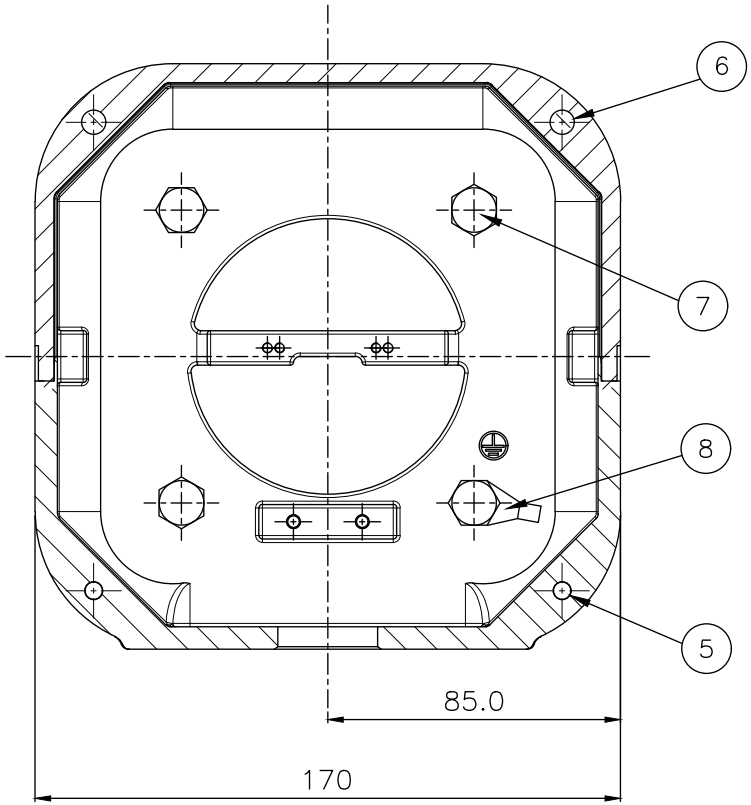


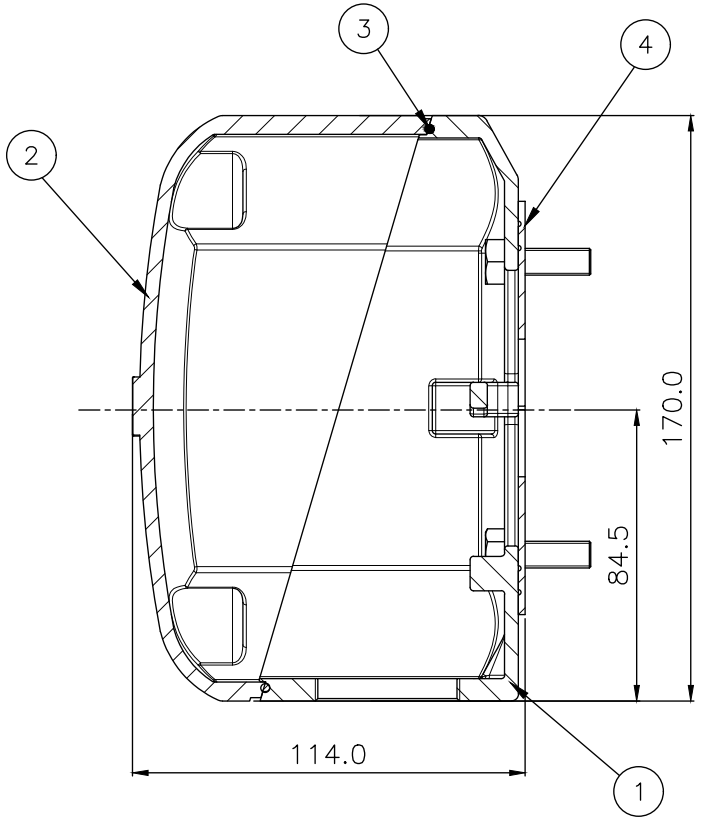
SECTION "X-X"
SCALE 4/8.5

APPD BY	S.K.HAN	UNIT	mm
CHKD BY	I.K.KIM	SCALE	1/8.5
CHKD BY	S.H.LEE	PROJEC'N	(3rd Angle)
DSND BY	S.R.KIM	DATE	2020.06.19

HYUNDAI ELECTRIC

SUBJECT	KS Fr.180M		DWG SIZE A4 1(8.5)
TITLE	Outline		
REF. NO			Sheet No. of
DWG NO	LM-T1183B5PLV01		Revision No. 0





Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
1	GROUND TERMINAL LUG	CU	--				8
4	BOX+FRAME HEX BOLT	S45C	M8 X L20				7
2	COVER+BOX HEX BOLT	S45C	M6 X L70				6
2	COVER+BOX HEX BOLT	S45C	M6 X L30				5
1	BOX GASKET	NBR	--				4
1	O-RING / COVER	EPDM	ø2.5				3
1	CONDUIT BOX COVER	AL	--				2
1	CONDUIT BOX	AL	--				1

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
	.					

일반가공공차		일반제관공차	
1-4	±0.1	6-30	±0.5
4-18	±0.2	30-120	±0.8
18-63	±0.3	120-315	±1.2
63-250	±0.5	315-1000	±2.0
250-	±0.8	1000-	±3.0

APPD BY	S.K.HAN	UNIT	mm
CHKD BY	I.K.KIM	SCALE	1/1
CHKD BY	-	PROJEC'N	3rd Angle
DSND BY	이승호	DATE	2020-06-19

HYUNDAI ELECTRIC

SUBJECT	SSEN SERIES 160-200FR	DWG SIZE	A3 (1:1.5)
TITLE	TERMINAL BOX ASS'Y		
REF. NO		Sheet No.	of
DWG NO	3M-234757	Revision No.	0