HYUNDAI ELECTRIC

Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION
for
INDUCTION MOTOR

0		For Bidding			
No.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY

HYUNDAI ELECTRIC

AC INDUCTION MOTOR DATA SHEET

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

GENERAL SPECIFICATION

Frame Size		160L
Type		HLP-15/4
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 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
Bearing	Type	Anti-Friction
	DE/N-DE	6309ZZC3 / 6309ZZC3
	Lubricant	Grease
External Thrust		Not applicable
Coupling Method		☑ Direct ☐ V-Belt
Shaft Extension		☑ Single ☐ Double
Terminal Box	Main	☑ Aluminum ☐ 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		15 kW	20.0 HP	
Number of Poles		4		
Rotor Type		Squirrel Cage		
Starting Method*		☑ D.O.L	☐ Y-△	
Rated Voltage		380 V		
Current	Full Load	30.1 A		
	Locked-rotor**	850 %		
Efficiency				
	100% Load	93.0 %		
Power Factor(p.u)				
	100% Load	0.815		
Speed at Full Load		1775 r.p.m		
Torque				
	Full Load	8.2 kg·m	80.7	
	Locked-rotor**	200 %	16.5 kg·m	
	Breakdown**	240 %	19.8 kg·m	
Moment of Inertia (J)				
	Load(Max.)	12.346 $kg \cdot m^2$		
	Motor	0.111 $kg \cdot m^2$		
Sound Pressure Level (No-load & mean value at 1m from motor)				
		70 dB(A)		
Vibration		2.2 mm/sec (peak)		
Permissible number of consecutive starts		Cold 19 times		
		Hot 13 times		
Paint	Munsell No.	PHANTONE 279C		

ACCESSORIES

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing	\ Motor Weight(Approx.)	
B3	LM-T1165B3PLV01	136 kg

REMARK

*. Premium efficiency(IE3) acc. to KS C 4202
*. SSEN Series
*. For use on PWM VFD 10:1VT,3:1CT@1.0S.F&F Temp.rise

FOR BIDDING

Date	DSND	CHKD	CHKD	APPD
2021-04-29				

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 ELECTRIC

PERFORMANCE CURVE

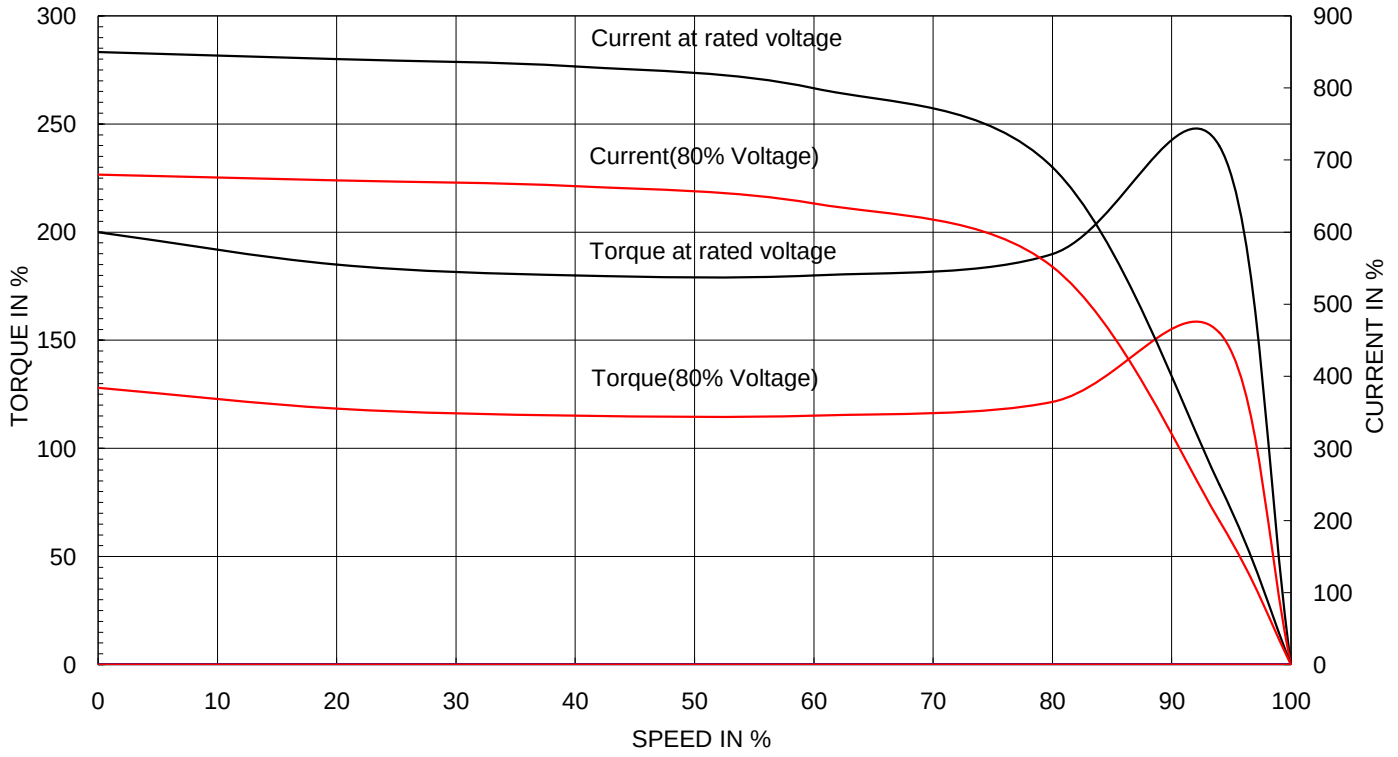
CURVE NO.

Type : HLP-15/4			
Full Load Torque :	8.2	kg.m	
Load moment of Inertia (J) :	-	$kg.m^2$	
Motor moment of Inertia (J) :	0.111	$kg.m^2$	

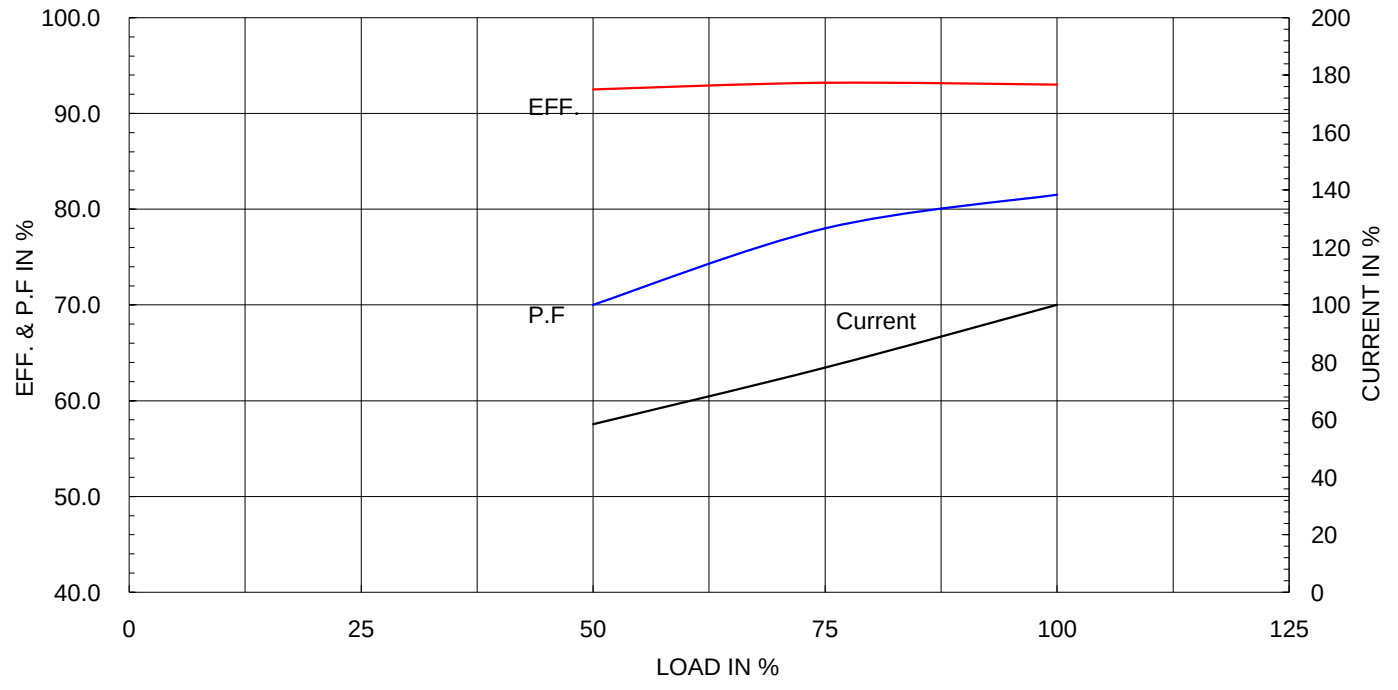
15	kW	4	P	60	Hz
Speed at Full Load :				1775	RPM

Rated Voltage	380		
Full Load Current	30.1A		

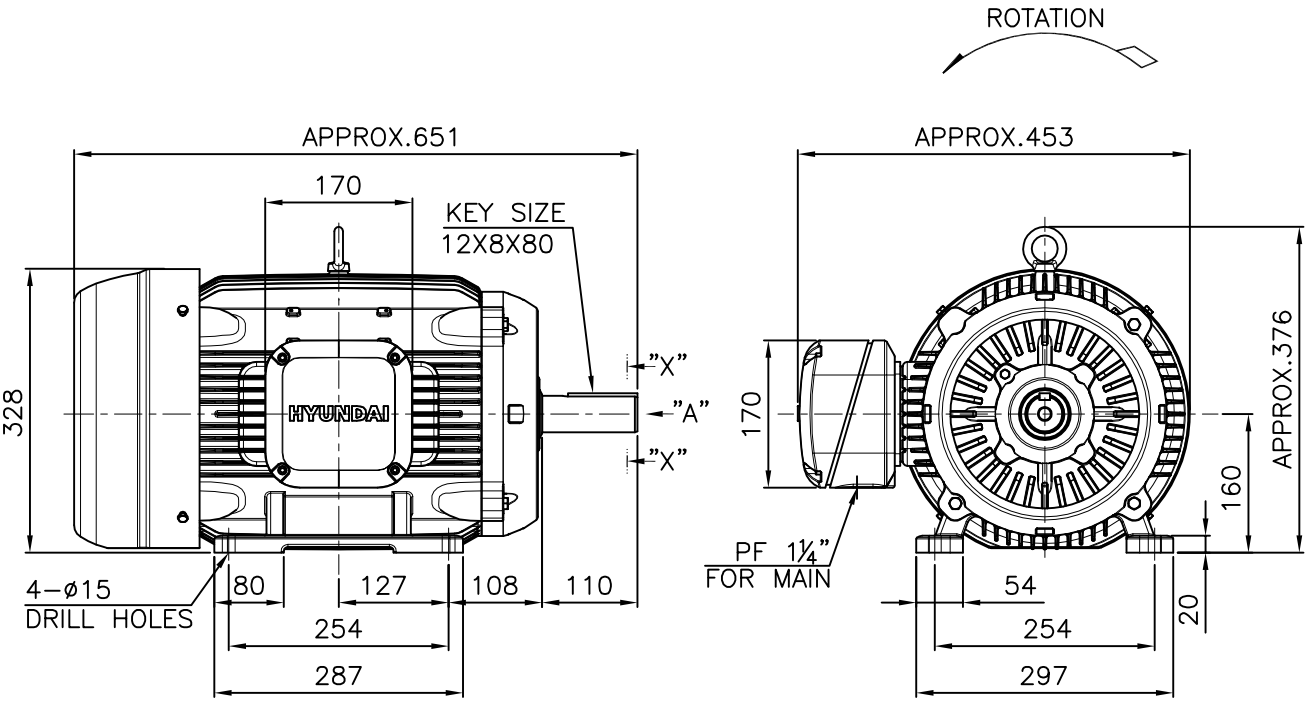
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



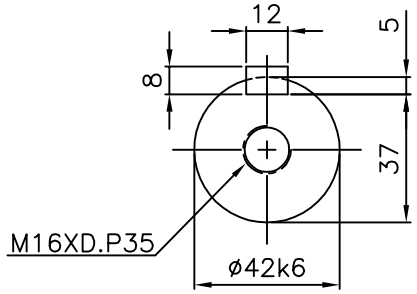
		REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽	50S							
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



NOTE

1.TOLERANCE :

CENTER HEIGHT	160	$^{0}_{-0.5}$
BASE HOLES	ø15	$^{+0.43}_{0}$
SHAFT DIAMETER	ø42	$^{+0.018}_{+0.002}$
KEYWAY WIDTH	12	$^{0}_{-0.043}$
KEYWAY DEPTH	5	$^{+0.2}_{0}$
KEY WIDTH	12	$^{0}_{-0.043}$
KEY HEIGHT	8	$^{0}_{-0.090}$



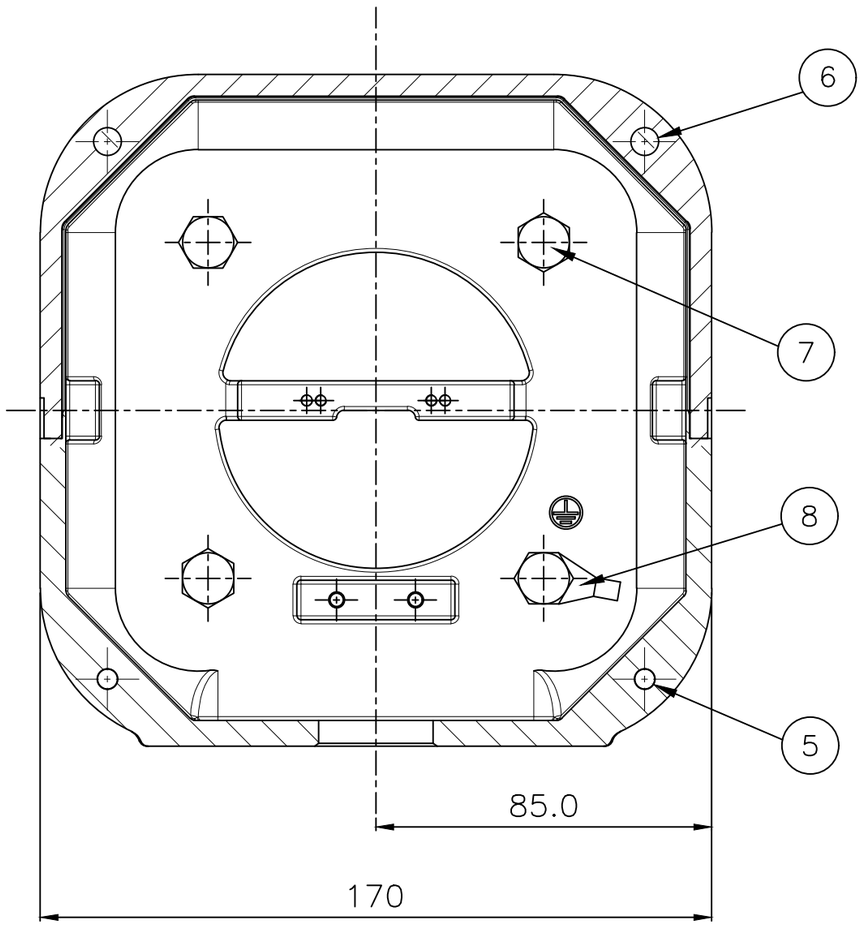
SECTION "X-X"
SCALE 4/9

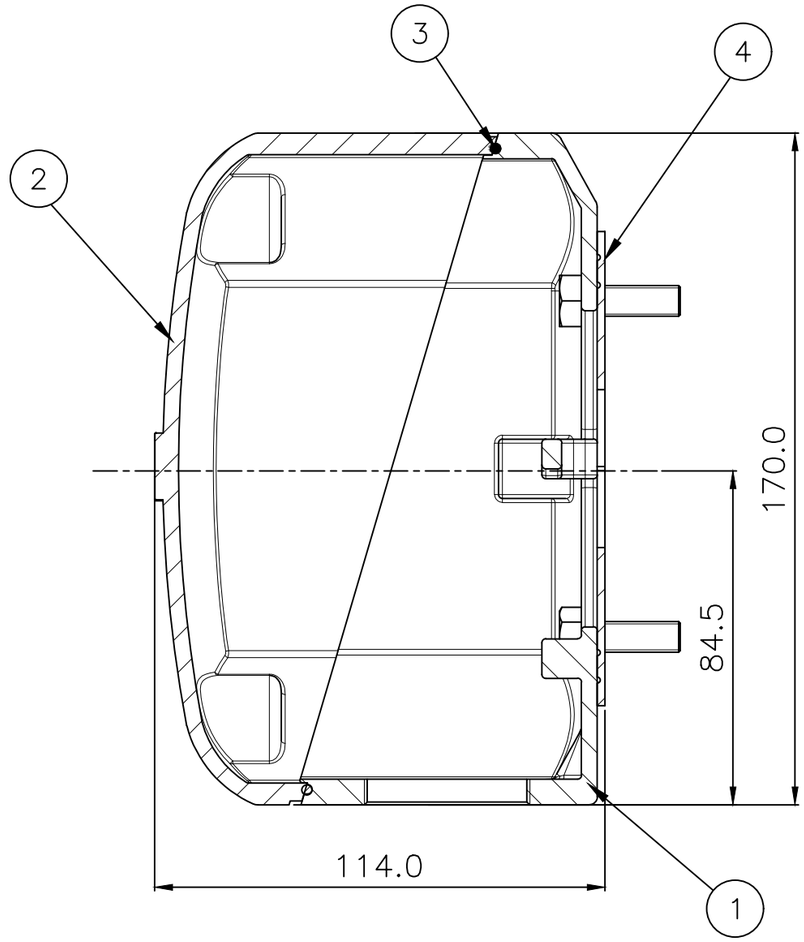
APPD BY	S.K.HAN	UNIT	mm
CHKD BY	S.Y.KIM	SCALE	1/9
CHKD BY	I.K.KIM	PROJEC'N	3각법(3rd Angle)
DSND BY	S.H.LEE	DATE	2019.06.17

HYUNDAI ELECTRIC

SUBJECT	KS, IEC Fr.160L		DWG SIZE A4 (1:9)
TITLE	OUTLINE		
REF. NO		Sheet No.	of
DWG NO	LM-T1165B3PLV01	Revision No.	0

HYUNDAI ELECTRIC





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