

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

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Model No.or RFQ No.		Item No.		Rev. No. []			
Project Name		Project No.		Quantity sets			
GENERAL SPECIFICATION			PERFORMANCE DATA				
Frame Size	160M		Rated Output	15 kW 20.0 HP			
Type	HLP-15/2		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	380 V			
Number of Phases	3		Current	Full Load	28.1 A		
Insulation Class	☒ F ☐ B ☐ H		Locked-rotor**	880 %			
Temp. Rise at full load (by resistance method)			Efficiency				
at 1.0 S.F 80 deg. C							
Motor Location	☒ Indoor ☐ Outdoor						
Altitude	Less than 1000 meter		100% Load 91.0 %				
Relative Humidity	Less than 80 %		Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)						
Duty Type	Continuous (S1)		100% Load 0.890				
Service Factor	1.15		Speed at Full Load 3535 r.p.m				
Mounting	B3		Torque				
Bearing	Type	Anti-Friction					
	DE/N-DE	6309ZZC3 / 6309ZZC3	Full Load	4.1 kg·m 40.5			
	Lubricant	Grease	Locked-rotor**	180 % 7.4 kg·m			
External Thrust	Not applicable		Breakdown**	250 % 10.3 kg·m			
Coupling Method	☒ Direct ☐ V-Belt		Moment of Inertia (J)				
Shaft Extension	☒ Single ☐ Double		Load(Max.) 4.960 kg·m ²				
Terminal	Main	☒ Aluminum ☐ Cast Iron	Motor 0.049 kg·m ²				
Box	Aux.	☐ Yes ☐ No	Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing	77 dB(A)				
Application			Vibration 2.2 mm/sec (peak)				
Area classification	Non-Hazardous		Permissible number of consecutive starts				
Type of Ex-Protection	Not applicable		Cold 6 times				
Applicable Standard	KS, IEC, NEMA MG1 Part30(Vpeak)		Hot 5 times				
			Paint	Munsell No.	PHANTONE 279C		
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B3 LM-T1163B3PLV01 118 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				
SPARE PARTS			FOR BIDDING				
			Date	DSND	CHKD	CHKD	APPD
			2021-04-29				

Type : HLP-15/2

15 kW 2 P 60 Hz

Full Load Torque : 4.1 kg.m

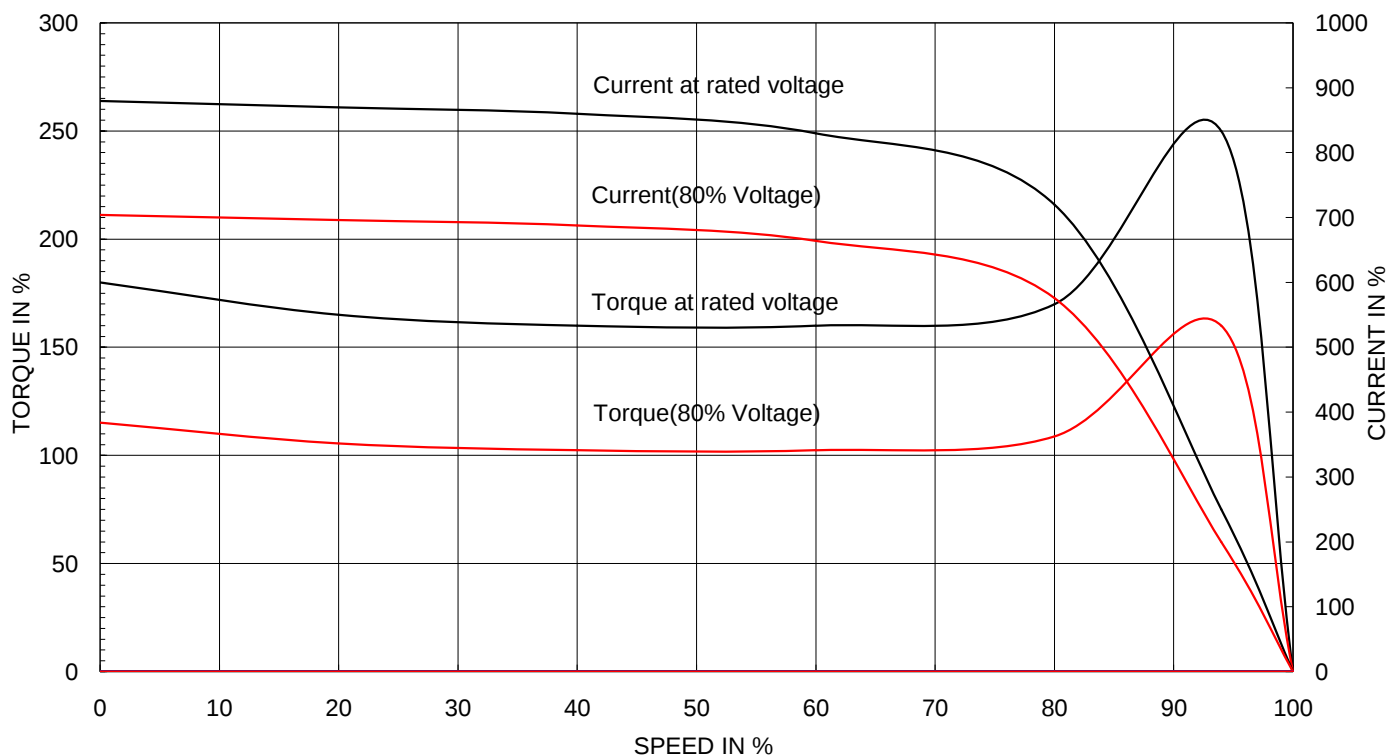
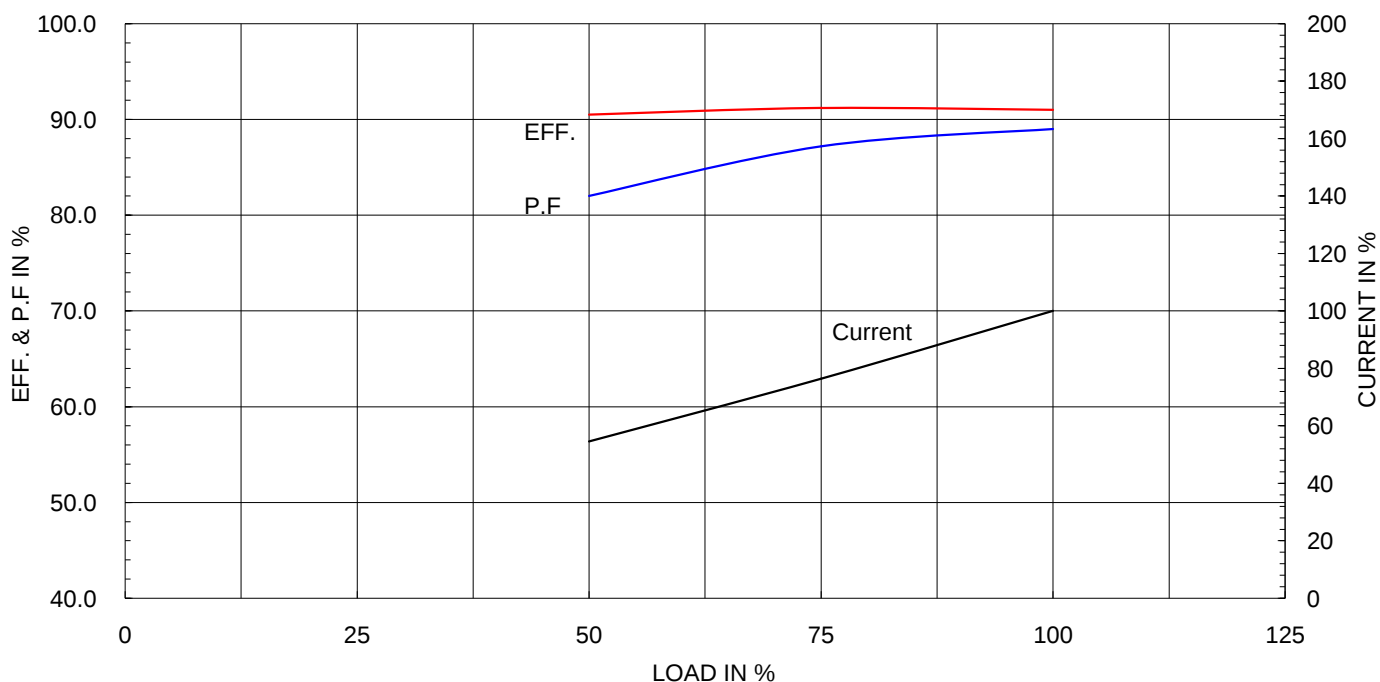
Speed at Full Load : 3535 RPM

Load moment of Inertia (J) : - kg.m²

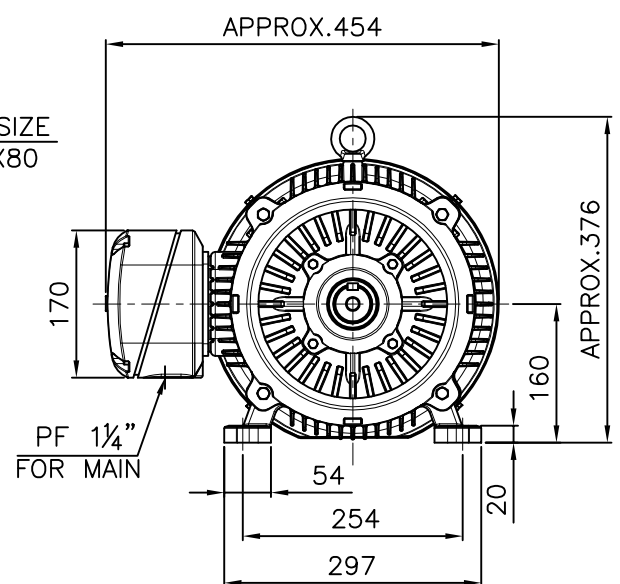
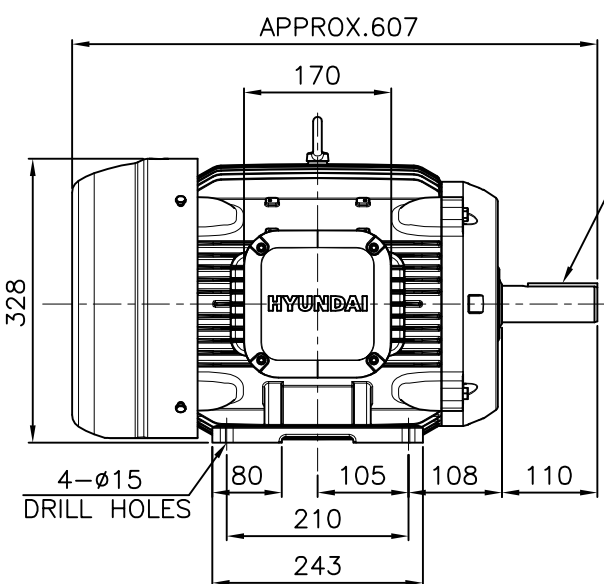
Rated Voltage 380

Motor moment of Inertia (J) : 0.049 kg.m²

Full Load Current 28.1A

SPEED VS TORQUE & CURRENT CURVE

OUTPUT VS EFF., P.F & CURRENT CURVE


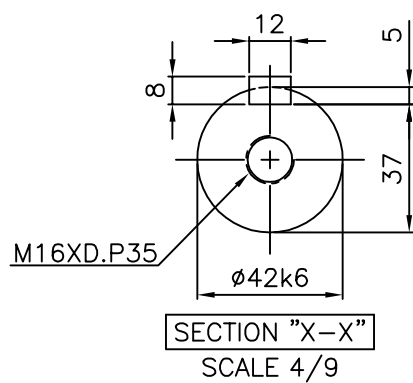
1			2		3		4		
▽	50S	REV	DATE	CONTENTS		REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S								
▽▽▽	3.2S								
▽▽▽▽	0.4S								



NOTE

1.TOLERANCE :

CENTER HEIGHT	160	$\begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}$
BASE HOLES	$\phi 15$	$\begin{smallmatrix} +0.43 \\ 0 \end{smallmatrix}$
SHAFT DIAMETER	$\phi 42$	$\begin{smallmatrix} +0.018 \\ +0.002 \end{smallmatrix}$
KEYWAY WIDTH	12	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$
KEYWAY DEPTH	5	$\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$
KEY WIDTH	12	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$
KEY HEIGHT	8	$\begin{smallmatrix} 0 \\ -0.090 \end{smallmatrix}$

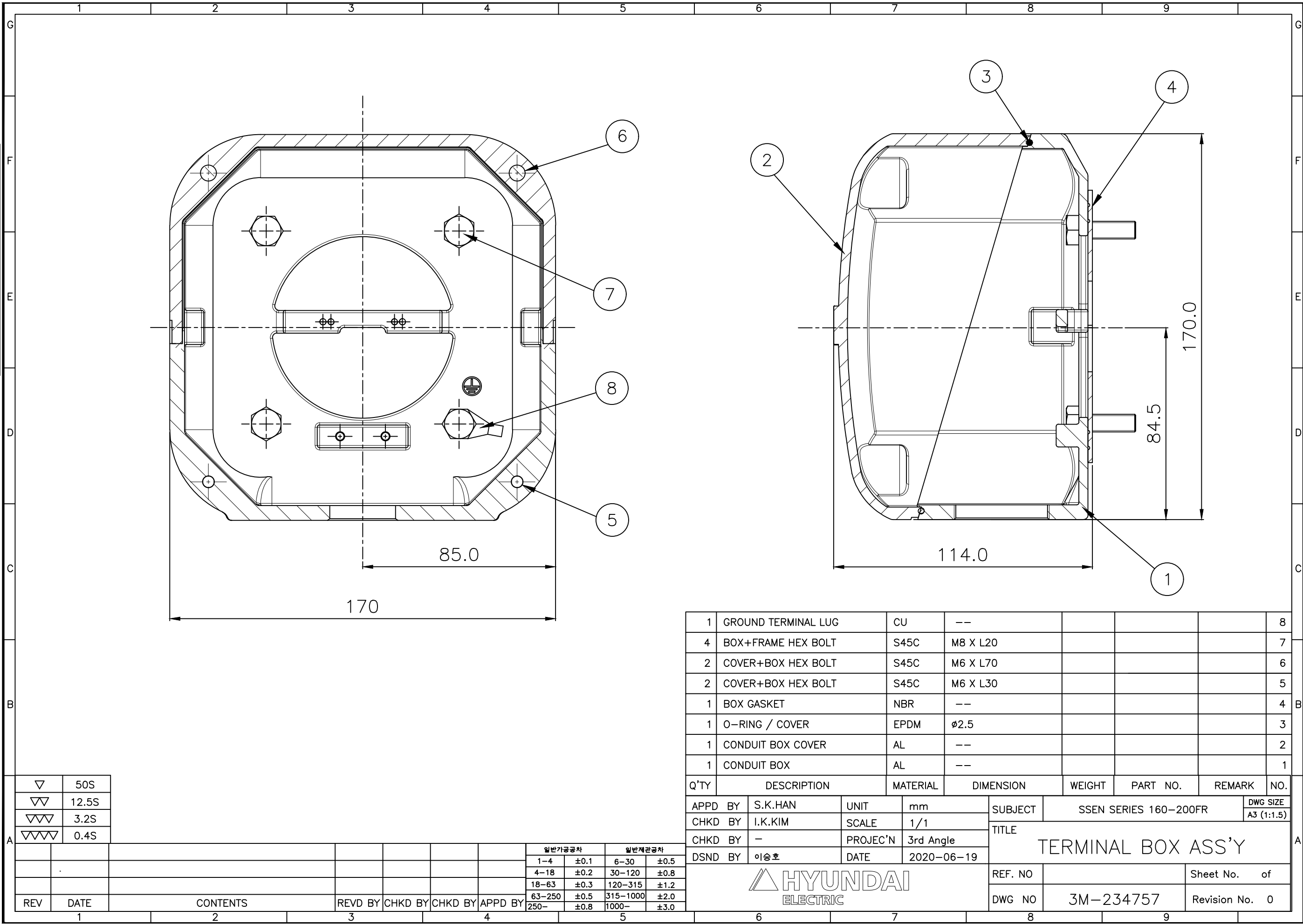


APPD BY	S.K.HAN	UNIT	mm	SUBJECT	KS, IEC Fr.160M	DWG SIZE
CHKD BY	S.Y.KIM	SCALE	1/9	TITLE		A4 (1:9)
CHKD BY	I.K.KIM	PROJEC'N	3각법 (3rd Angle)			
DSND BY	S.H.LEE	DATE	2019.06.17			
				REF. NO		Sheet No. of
				DWG NO	LM-T1163B3PLV01	Revision No. 0

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본 도면은 현대일렉트릭(주) 재산이므로
허가없이 복사할 수 없음 (취급유의)

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▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY	일반기공차	일반재관공차
							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

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
Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.K.HAN	UNIT	mm	SUBJECT	SSEN SERIES 160-200FR		DWG SIZE
CHKD BY	I.K.KIM	SCALE	1/1	TITLE	TERMINAL BOX ASS'Y		A3 (1:1.5)
CHKD BY	—	PROJEC'N	3rd Angle				
DSND BY	이승호	DATE	2020-06-19				
				REF. NO			Sheet No. of
				DWG NO	3M-234757		Revision No. 0
6		7		8		9	

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