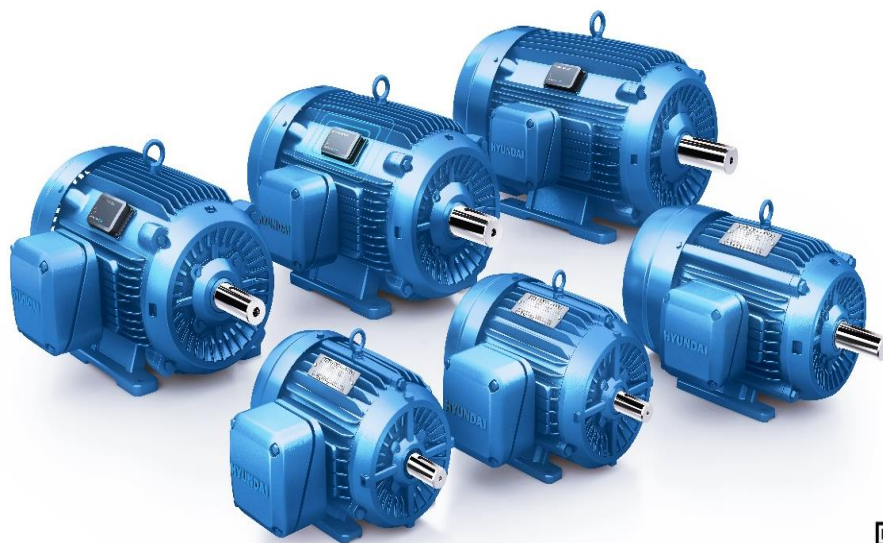


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HHI60-18-225S/M	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	225M		Rated Output	45 kW		60 HP	
Type	PJP		Number of Poles	4			
Enclosure(Protection)	Totally Enclosed / IP55		Rotor Type	Squirrel Cage			
Method of Cooling	IC411(FC)		Starting Method*	D.O.L			
Rated Frequency	60 Hz		Rated Voltage		460 V		
Number of Phases	3		Current	Full Load	69.9 A		
Insulation Class	F			Locked-rotor**	850 %		
Temp. Rise at full load (by resistance method)			Efficiency				
at 1.0 S.F			80 deg. C				
Motor Location	☐ Indoor ☐ Outdoor		50% Load		92.0 %		
Altitude	Less than 1,000 meter		75% Load		94.0 %		
Relative Humidity	Less than 80 %		100% Load		95.0 %		
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)				
Duty Type	Continuous (S1)		50% Load		0.700		
Service Factor	1.15		75% Load		0.800		
Mounting	B3		100% Load		0.850		
Bearing	Type	Anti-Friction	Speed at Full Load		1780 r.p.m		
	DE/N-DE	6314C3 / 6213C3	Torque				
	Lubricant	Grease(Polyrex-EM)	Full Load		178.10 lb.ft		
External Thrust	Not applicable		Locked-rotor**		170 %		
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		250 %		
Shaft Extension	Single		Moment of Inertia (J)				
Terminal	Main	Cast Iron	Load(Max.)		654.958 lb.ft2		
Box	Aux.	No	Motor		22.544 lb.ft2		
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)				
Application			82 dB(A)				
Area classification	Hazardous		Vibration		2.8 mm/s (r.m.s)		
Type of Ex-Protection	Class I&II, Division 2		Permissible number of consecutive starts		Cold 3 times Hot 2 times		
Applicable Standard	IEC, CSA C390		Paint	PANTONE	PANTONE279C		
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B3		LM-T122MS3PT009	775 lb.	
SPARE PARTS			REMARK				
			1. IE3 (Premium efficiency) according to IEC60034-30-1				
			2. Inverter Duty @ 1.0 Service Factor & F Temperature rise				
			-. 10:1 VT (20:1 VT at 50% load)				
			-. 10:1 CT (1 hour duty, 4:1 continuous)				
			-. CHP up to 1.5 times base speed, NEMA MG1 Part31				
			3. CSA Certification				
			-. Class I, Division 2, Group A, B, C & D				
			-. Class II, Division 2 Group E, F & G (Group E : up to 200Fr.)				
			4. Service Factor 1.15 and Temperature rise B are applicable under the condition of sine wave power.				
			5. Service Factor 1.25 is applicable to motors of 100HP or less with temperature rise F & Non-Hazardous.				
			6. Temp. code : T3B(165°C) at sine wave				
			Date	DSND	CHKD	CHKD	APPD
			2025-09-19	S.H. LEE	I.K. KIM	R.G. KIM	S.W. KIM

[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 done according to maker standard, if not mentioned.

* In case of Inverter-Fed Motor, performance data is based on sine wave tests. It may be different from test data of Inverter combined motor.

** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

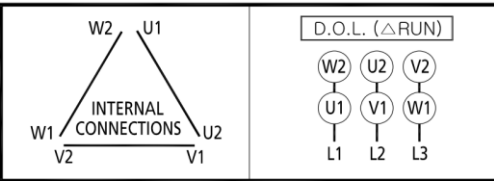
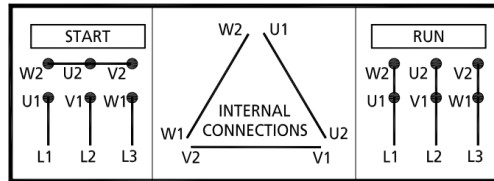
MAIN NAMEPLATE

4.72

2.36

CROWN TRITON G2 IEC    	
Premium Efficiency AC 3 Phase Motor Metric  US  CC038A	
45kW (60HP) 4P 460V	Encl. IP55(TEFC) Cat. No. HHI60-18-225S/M
UL Model HLS22MSR0408	S.F. 1.15 Amps 69.9A
Frame 225M Duty S1(CONT)	INS. Class F HD-F1 Hertz 60Hz
UL Type HLS	Code J NEMA Design B Torque Eff. 95.0% 3/4 Eff. 94.0%
Bearing Drive 6314C3	Amb. 40°C RPM 1780 P.F. 0.850
Opp. 6213C3	S.F.1.00(10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)
Usable at 50Hz 60HP 380V 86.4A 1480rpm S.F.: 1.15 Eff.: 94.2% Code: H	
50Hz 60HP 400/415V 83.1/81.0A 1480/1480rpm S.F.: 1.15 Eff.: 94.2/94.2% Code: J/K	
CSA Model - Type PJP Temp. Frame 71~200FR 225~250FR 280FR	Code Amb. 40°C T3C (160°C) T3B (165°C) T3A (180°C)
Certified for CLASS I, Div. 2, Gr. A, B, C & D CLASS I, Zone 2, Gr. IIA, IIB, & IIC (Gr. E : Up to 200FR)	Amb. 55°C T3A (180°C) T3A (180°C) T3 (200°C)
No. - Date -	Weight 355 kg (775 lb)
4M-137919 IEC60034-1 IEC 60034-30-1(IE3)  HD HYUNDAI ELECTRIC	
Made in Korea H1	

WIRING DIAGRAM

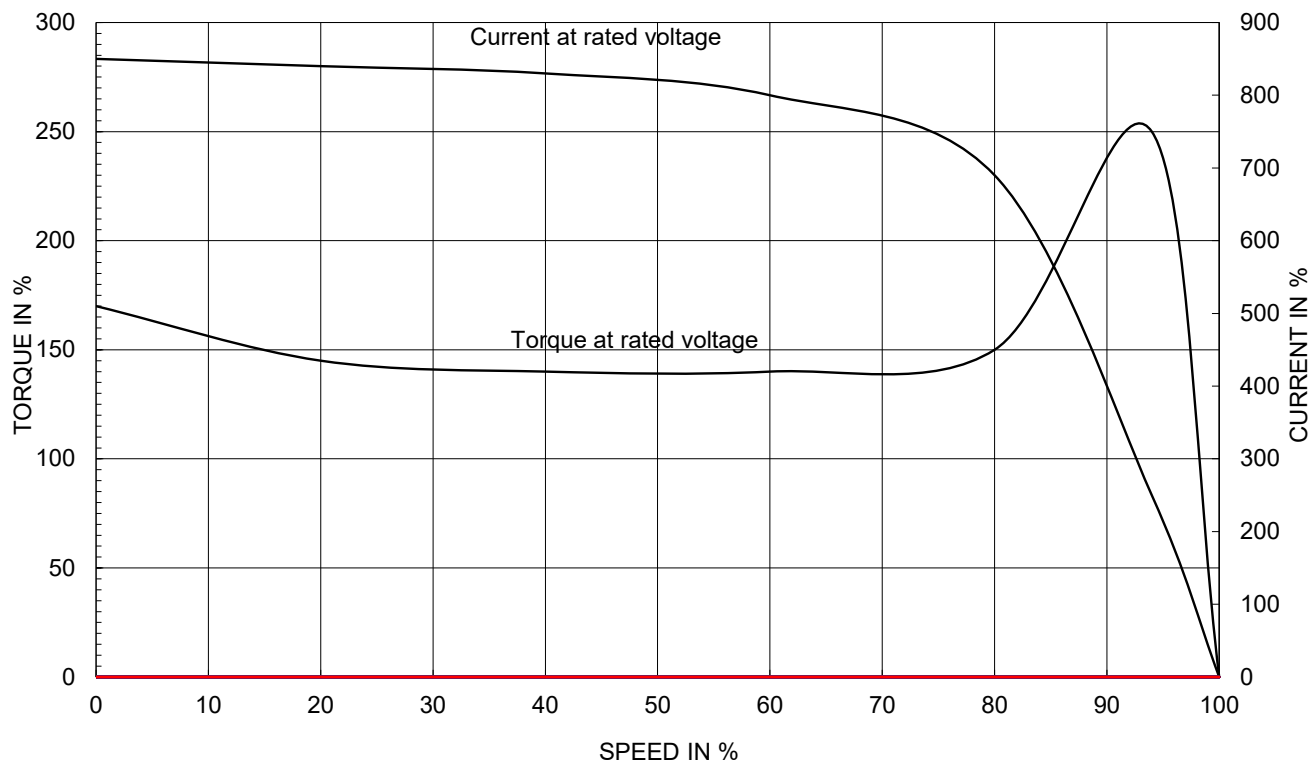
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
 WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES.  KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-137622	 WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES.  KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-130346

APPD BY S.Y.KIM	UNIT INCH	SUBJECT CSA Class I, Division2 Severe Duty (IEC, 225-280)	DWG SIZE A4 (1:1)
CHKD BY I.K.KIM	SCALE NONE	NAMEPLATE DRAWING	
CHKD BY R.G.KIM	PROJEC'N 3rd Angle		
DSND BY S.H.LEE	DATE 2024.06.07		
 HD HYUNDAI ELECTRIC		REF. NO 4M-137919 / 4M-137622	Sheet No. of
		DWG NO NP-HHI60-18-225S/M	Revision No. 0

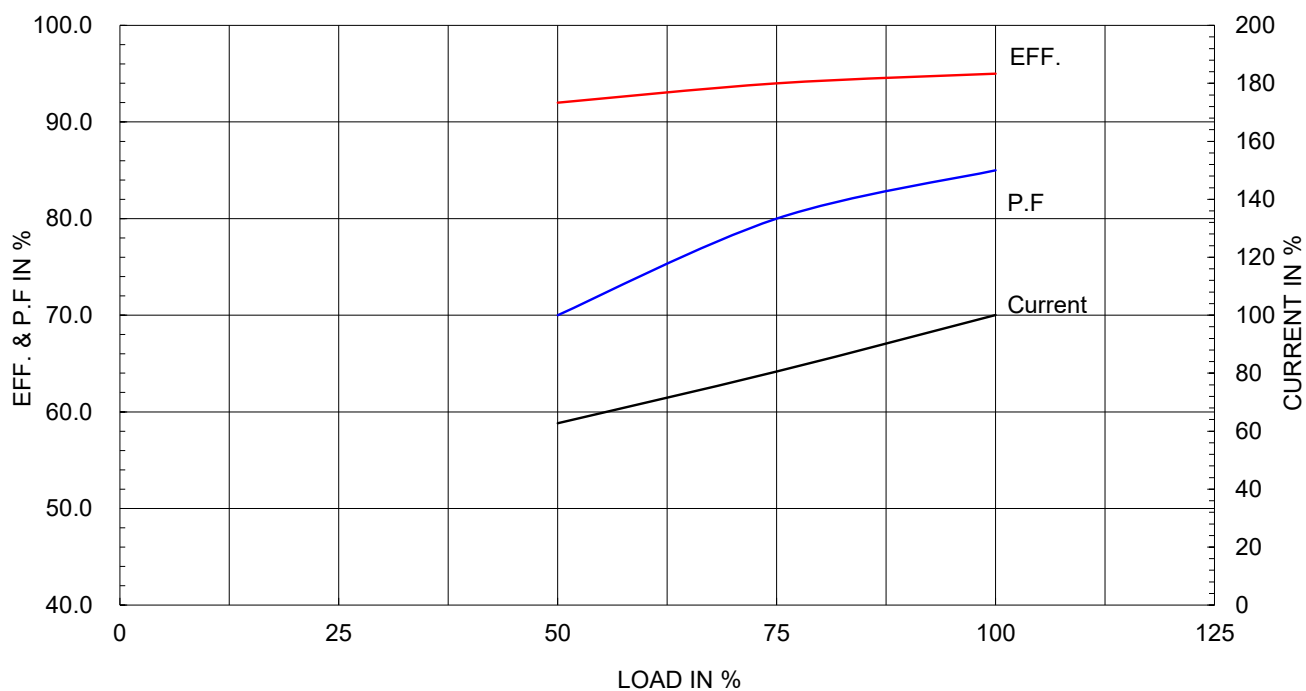
Type :	PJP	
Full Load Torque :	178.10	lb.ft
Load moment of Inertia (J) :	654.958	lb.ft2
Motor moment of Inertia (J) :	22.544	lb.ft2

45kW	60HP	4 P	60 Hz
Speed at Full Load :			1780 RPM
Rated Voltage		460V	
Full Load Current		69.9A	

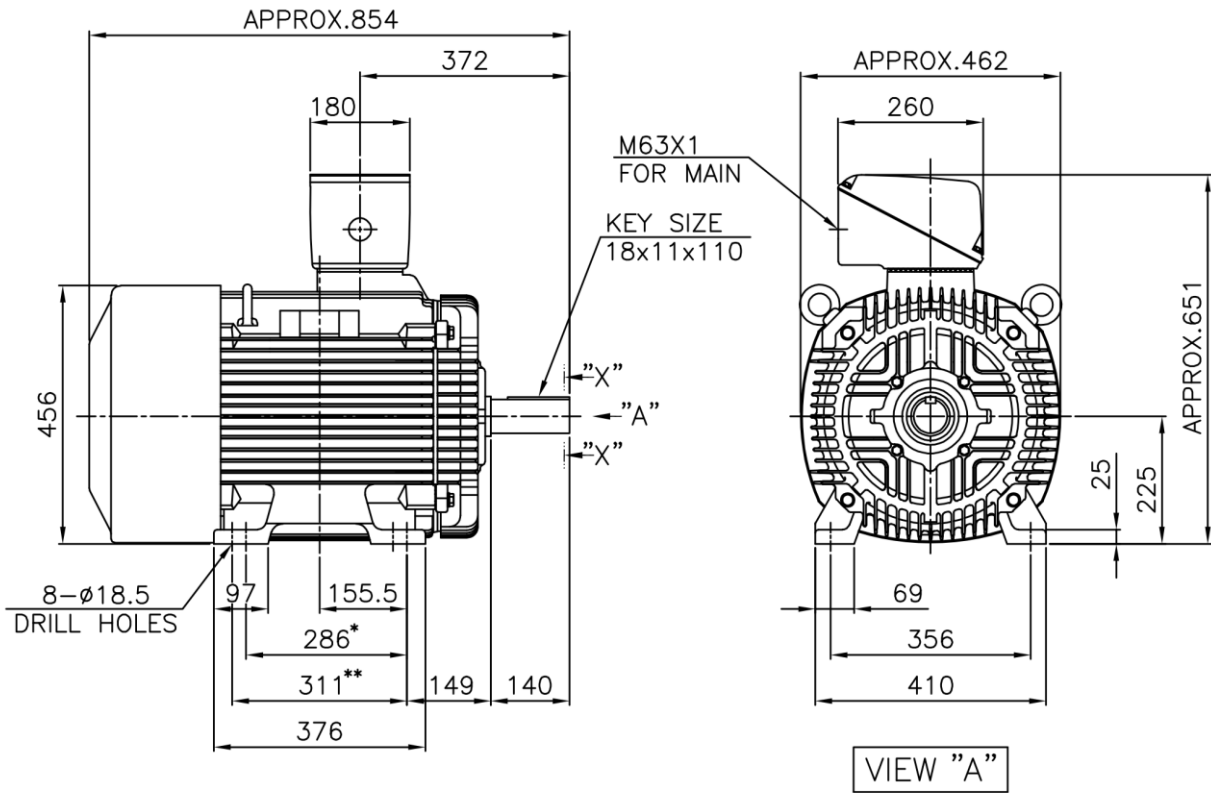
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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



NOTE

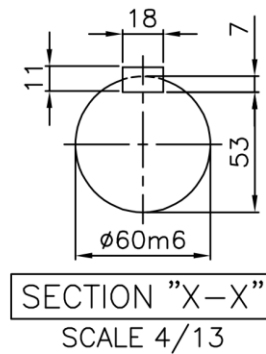
1.TOLERANCE :

CENTER HEIGHT	225	0 -0.5
BASE HOLES	ϕ 18.5	+0.52 0
SHAFT DIAMETER	ϕ 60	+0.030 +0.011
KEYWAY WIDTH	18	-0.018 -0.061
KEYWAY DEPTH	7	+0.2 0
KEY WIDTH	18	0 -0.043
KEY HEIGHT	11	0 -0.110

2. HOLE SIZE :

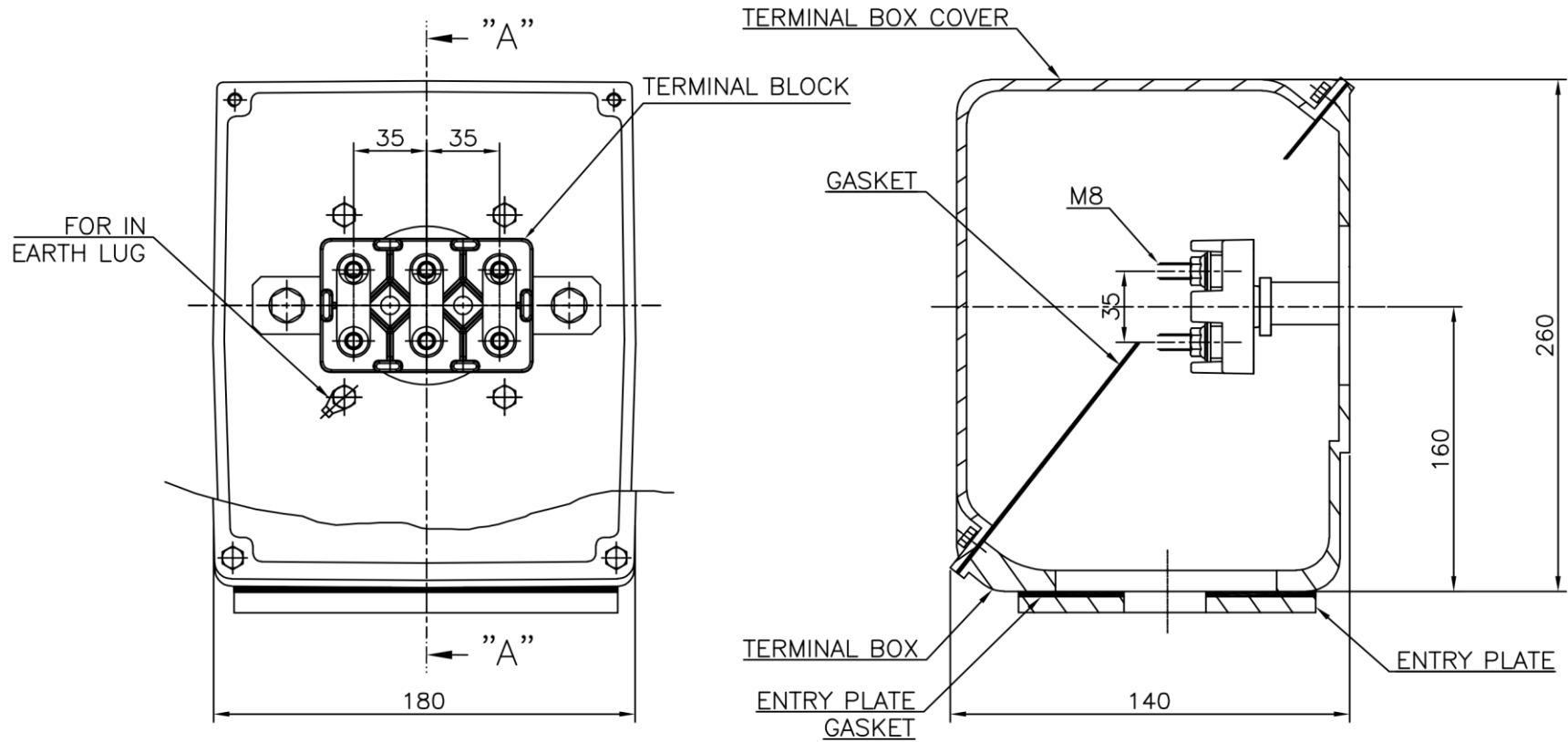
* : FOR 225S fr.

** : FOR 225M fr.



SCALE 4/13

APPD BY	S.K.HAN	UNIT	mm	SUBJECT	IEC 225S/M-4~20P	DWG SIZE
CHKD BY	S.Y.KIM	SCALE	1/13	TITLE	OUTLINE	A4 (1:13)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	S.R.KIM	DATE	2020-05-14			
				REF. NO		Sheet No. of
				DWG NO	LM-T122MS3PT009	Revision No. 0



▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	CHK'D BY	APP'D BY	일반기공표	일반계관공표
1							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

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.Y.KIM	UNIT	Mmh(mm)	SUBJECT	IEC 225FR (CAST IRON) (T-BLOCK)		
CHKD BY		SCALE	1/1.2	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	S.H.LEE	DATE	2023-10-19	DWG NO	3M-248450(T)	Revision No.	0

