

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.	HSDE700-18-5812-IBSH	Item No.	Rev. No.	[]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA				
Frame Size	5812	Rated Output	520 kW			700 HP	
Type	HNE6	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	575 V	460 V	230 V		
Number of Phases	3	Current	Full Load	616.8 A	771.0 A	1,541.9 A	
Insulation Class	F		Locked-rotor**	650 %	650 %	650 %	
Temp. Rise at full load (by resistance method)		Efficiency					
at 1.0 S.F	80 deg. C	50% Load		93.2 %			
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		95.2 %			
Altitude	Less than 1,000 meter	100% Load		96.2 %			
Relative Humidity	Less than 80 %	Power Factor(p.u)					
Ambient Temp.	40 deg. C (Max.)	50% Load		0.730			
Duty Type	Continuous (S1)	75% Load		0.830			
Service Factor	1.15	100% Load		0.880			
Mounting	B3	Speed at Full Load		1785 r.p.m			
Bearing	Type	Anti-Friction					
	DE/N-DE	NU324 / 6322C3-INS.					
	Lubricant	Grease(Polyrex-EM)					
External Thrust	Not applicable						
Coupling Method	<input type="checkbox"/> Direct <input type="checkbox"/> V-belt	Torque					
Shaft Extension	Single	Full Load		2,052.3 lb.ft			
Terminal Box	Main	Locked-rotor**		120 %			
	Aux.	Breakdown**		220 %			
Box Location	Refer to Outline Drawing	Moment of Inertia (J)					
Application		Load(Max.)		2,557.532 lb.ft2			
Area classification	Hazardous	Motor		242.400 lb.ft2			
Type of Ex-Protection	Class I, Division 2	Sound Pressure Level (No-load & mean value at 1m from motor)					
Applicable Standard	NEMA MG1, CSA C390					87 dB(A)	
ACCESSORIES *. Space Heater : 1EA/Motor		SUBMITTAL DRAWING					
		Outline Dimension Drawing		Motor Weight(Approx.)			
		B3		LM-T5812B3PE001		7174 lb.	
SPARE PARTS		REMARK					
		1. Premium efficiency according to NEMA MG1					
		2. Inverter Duty @ 1.0 Service Factor & F Temperature rise					
		- 10:1 VT					
		- 2:1 CT					
3. NDE side : Insulated bearing							
4. CSA Certification							
- Class I, Division 2, Group A, B, C & D; Temp code : T3A							
5. Shaft material : AISI4140							
		Date	DSND	CHKD	CHKD	APPD	
		2024-09-10	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.

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REV	DATE	CONTENTS	REVD BY CHKD BY CHKD BY APPD BY

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2.36

CROWN TRITON
Premium Efficiency AC 3 Phase Motor

700HP 4P 460V	Cat. No. HSDE700-18-5812-IBSH	
Model LATER	INS. Class F	Amps 771
Type HNE6	Duty CONT	Code G Amb. 40°C Hertz 60Hz
Frame 5812	Encl. TEFC	S.F. 1.15 RPM 1785 NEMA Nom. Eff. 96.2%
Bearing	Drive NU324	S.F.1.00 (2:1 C.T., 10:1 V.T., NEMA-MG1 Part31) 3/4 Eff. 95.2%
	Opp. 6322C3-INS.	NEMA Design B Torque
Usable at	50Hz 535HP 380V 718.64A 1485rpm S.F.: 1.15 Eff.: 96.1% Code: G	
	50Hz 535HP 400/415V 690.55/672.63A 1486/1487rpm S.F.: 1.15 Eff.: 96.1/96.2% Code: H/J	
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D	Temp. Code
		Frame 580FR
		Maximum Amb. 50°C T3A (180°C)
No. -	Date -	Weight 7174 lb

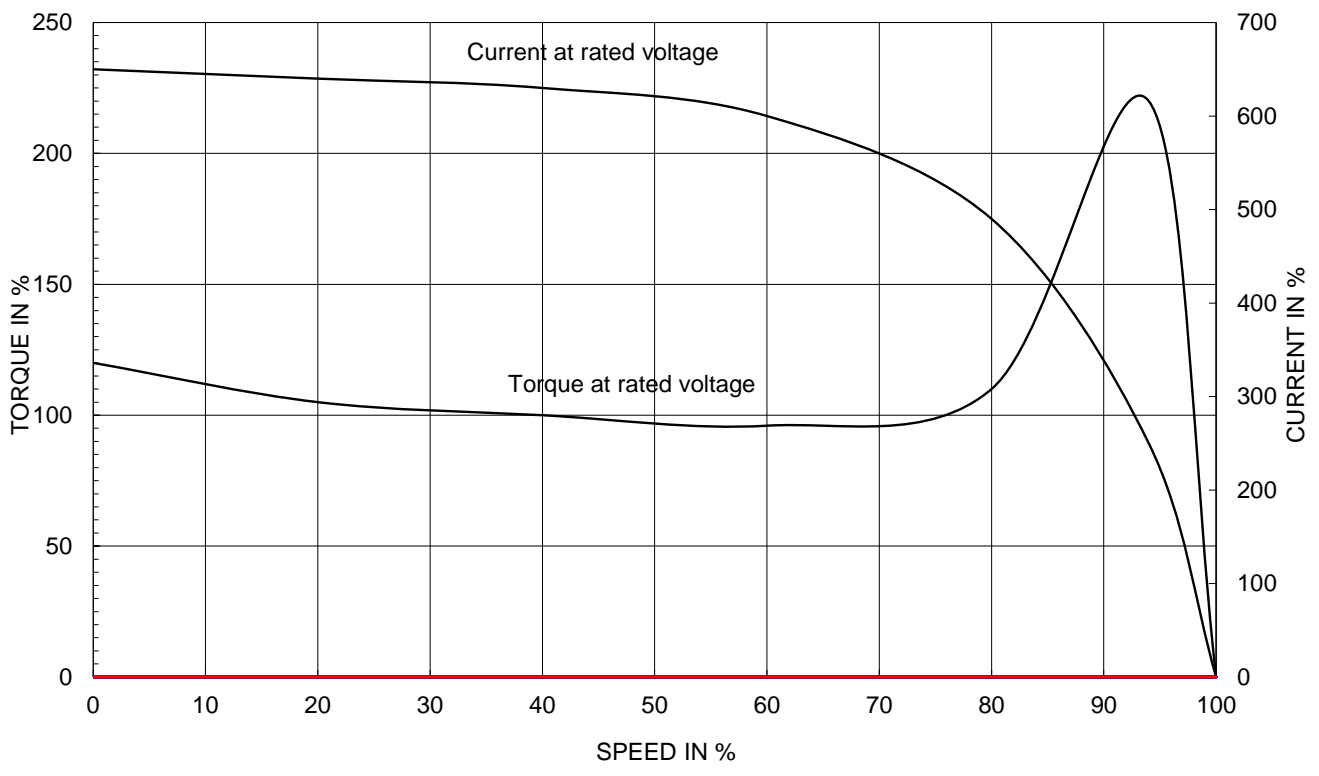
4M-136358 Made in Korea H1

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HSDE ,5812)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136358	Sheet No. of
				DWG NO	NP-HSDE700-18-5812-IBSH	Revision No. 0

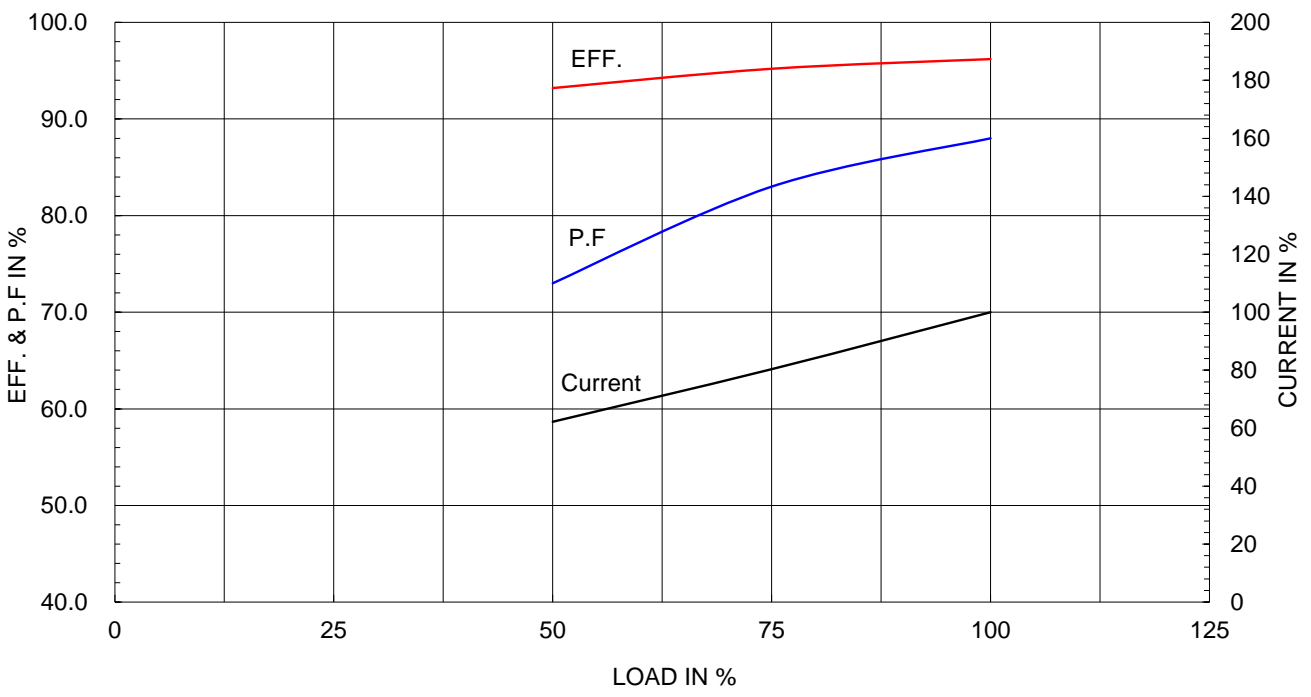
Type :	HNE6
Full Load Torque :	2052.3 lb.ft
Load moment of Inertia (J) :	2557.532 lb.ft2
Motor moment of Inertia (J) :	242.400 lb.ft2

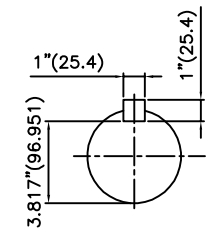
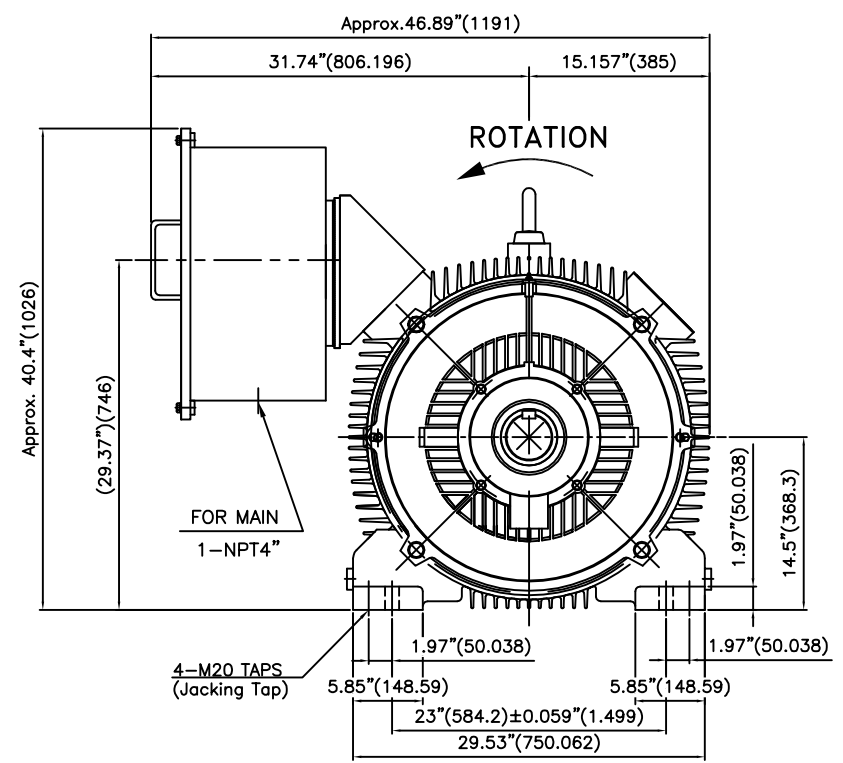
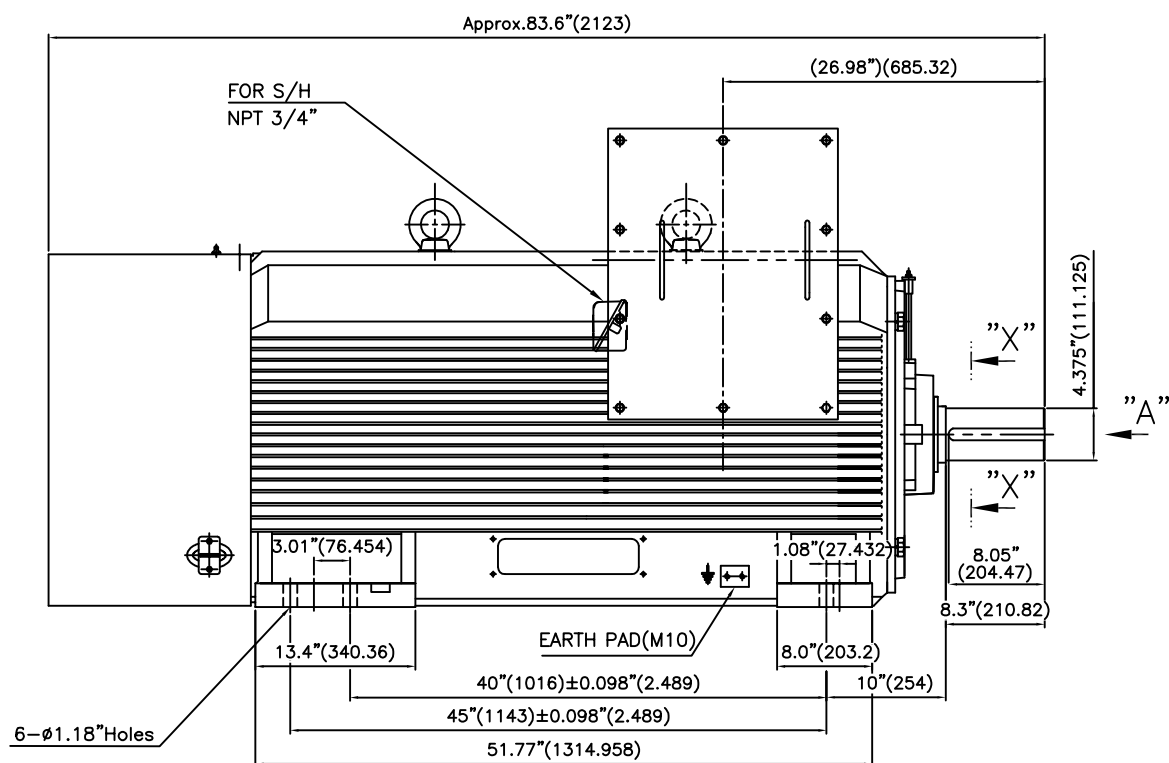
520kW 700HP	4 P	60 Hz
Speed at Full Load :		1785 RPM
Rated Voltage	575V	460V 230V
Full Load Current	616.8A	771.0A 1541.9A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





VIEW "A"

SECTION "X-X"

TECHNICAL INFORMATION

1) BEARING & LUBRICANT LIST

BEARING	Drive End	Non-Drive End
Bearing Type	6324C3	6322C3
Lubricant Type	GREASE	GREASE
Grease Type	Shell(Gadus S2 V100 2)	Shell(Gadus S2 V100 2)
Initial Charge Quantity	434 g	334 g
Mark-Up	Quantity	130 g
	Interval	6 MONTHS

2) TOLERANCE :

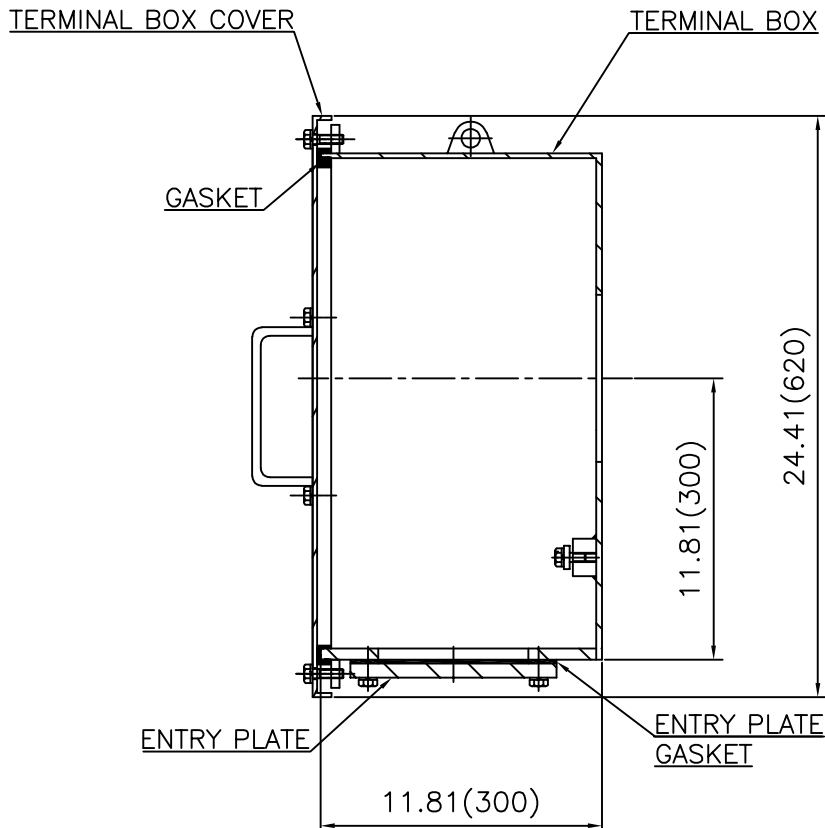
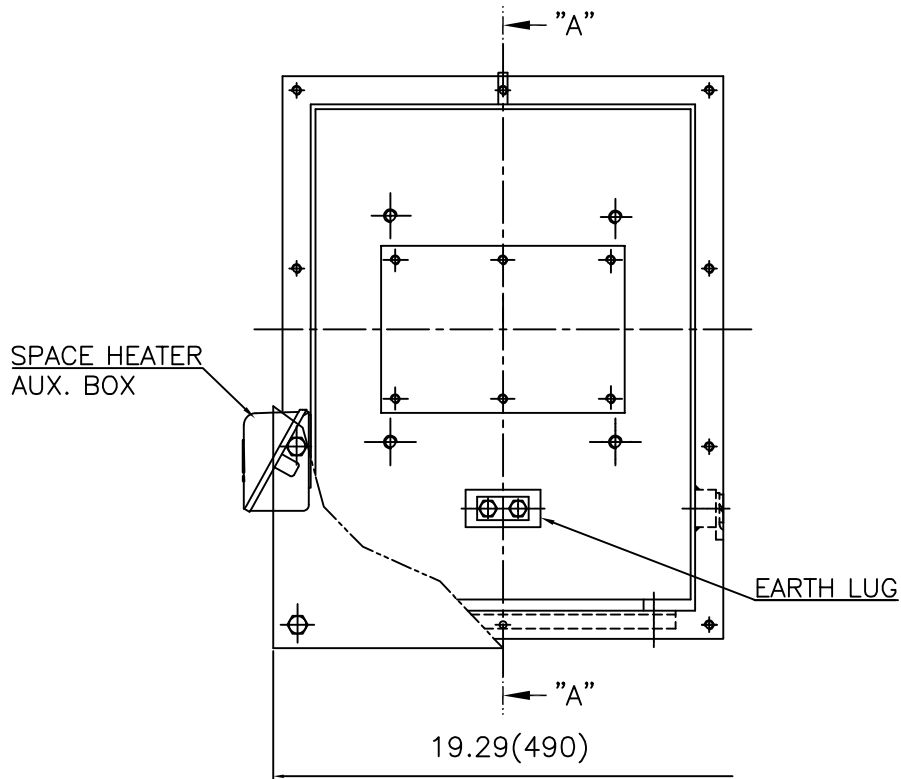
CENTER HEIGHT	14.5	+0.000	-0.060
SHAFT DIAMETER	Ø4.375	+0.000	-0.001
KEYWAY WIDTH	1	+0.003	-0.000

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.K.HAN	UNIT	INCH(MM)	SUBJECT	Fr.5812-4~20P		DWG SIZE
CHKD BY	S.Y.KIM	SCALE	1/12	TITLE	OUTLINE		A3 (1:12)
CHKD BY		PROJEC'N	3각법 (3rd Angle)	REF. NO		Sheet No.	of
DSND BY	J.H.LEE	DATE	2016.05.23	DWG NO	LM-T5812B3PE001	Revision No.	0



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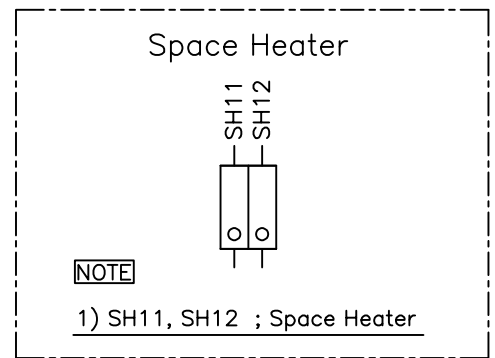
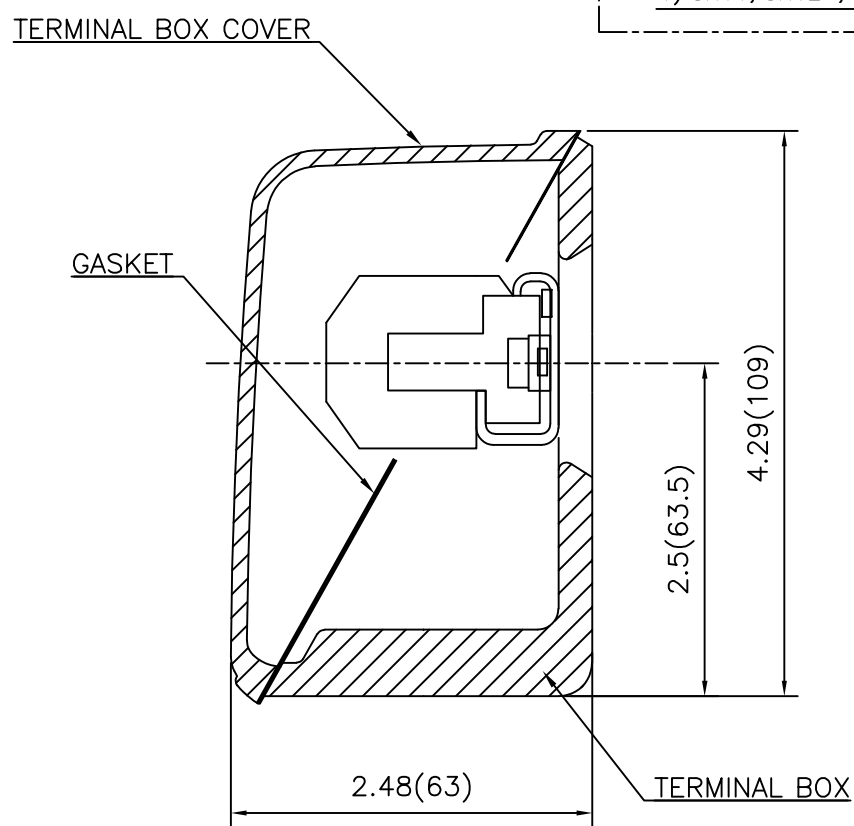
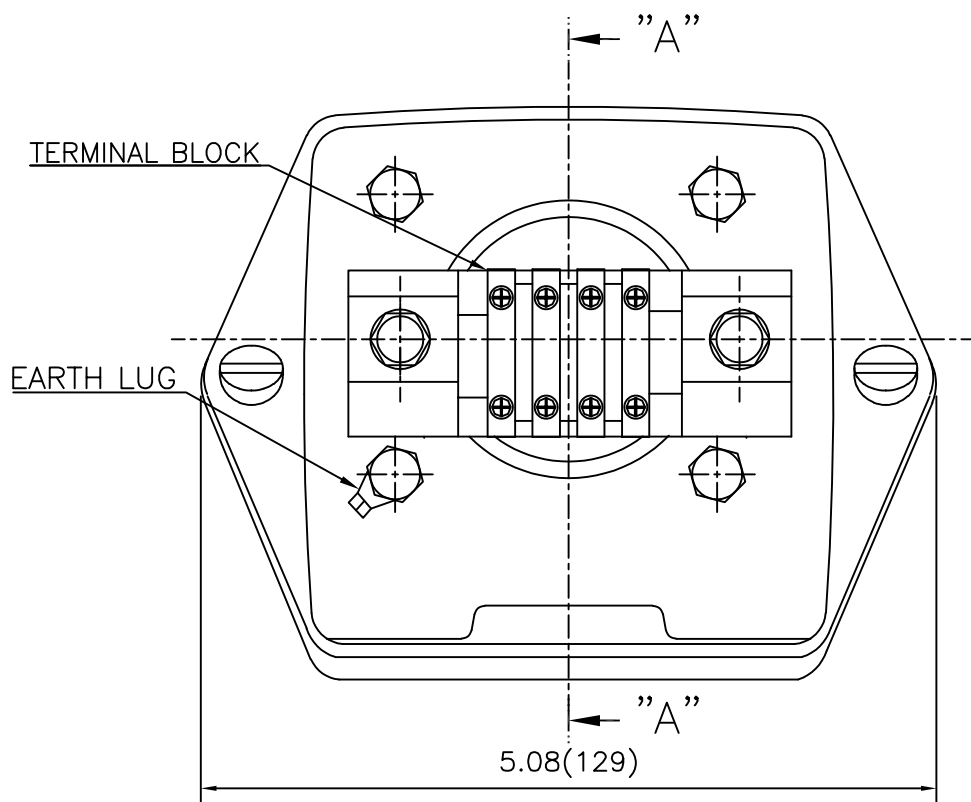
SEC. "A" - "A"

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APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.580 (STEEL)	DWG SIZE	A3 (1:6)
CHKD BY		SCALE	1/6	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	백승희	DATE	2023-10-25	DWG NO	3M-248512	Revision No.	0



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REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.180 (CAST IRON)	DWG SIZE
CHKD BY		SCALE	1/1	TITLE	SUB. TERMINAL BOX ASS'Y	A3 (1:1.1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	배승희	DATE	2024-01-18			
				REF. NO		Sheet No. of
				DWG NO	3M-165278	Revision No. 0