

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-IBBRSRSH	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	Torque			
	DE/N-DE	NU324 / 6322C3-INS.	Full Load	2,052.3 lb.ft		
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	120 %		
External Thrust	Not applicable		Breakdown**	220 %		
Coupling Method	<input type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)	2,557.532 lb.ft2		
Terminal Box	Main	Steel	Motor	242.400 lb.ft2		
	Aux.	Yes	Sound Pressure Level (No-load & mean value at 1m from motor)			
Location	Refer to Outline Drawing				87 dB(A)	
Application			Vibration		3.8 mm/sec (peak)	
Area classification	Hazardous		Permissible number of consecutive starts	Cold	2 times	
Type of Ex-Protection	Class I, Division 2			Hot	1 time	
Applicable Standard	NEMA MG1, CSA C390		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	

ACCESSORIES
*. B.T.D.(Pt 100 Ω at 0°C,Single) : 2EA/Motor
*. W.T.D.(Pt 100 Ω at 0°C) : 2EA/Ph.
*. Space Heater : 1EA/Motor

SPARE PARTS

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B3	LM-T5812B3P7001	7174 lb.

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

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CROWN TRITON

Premium Efficiency AC 3 Phase Motor

700HP	4P	460V	Cat. No. HSDE700-18-5812-IBBRSRSH
Model	LATER	INS. Class	F
Type	HNE6	Duty	CONT
Frame	5812	Encl.	TEFC
Bearing	Drive	NU324	S.F. 1.15
	Opp.	6322C3-INS.	RPM 1785
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
			(sine wave)
No.	-	Date	-
4M-136358		Made in Korea H1	

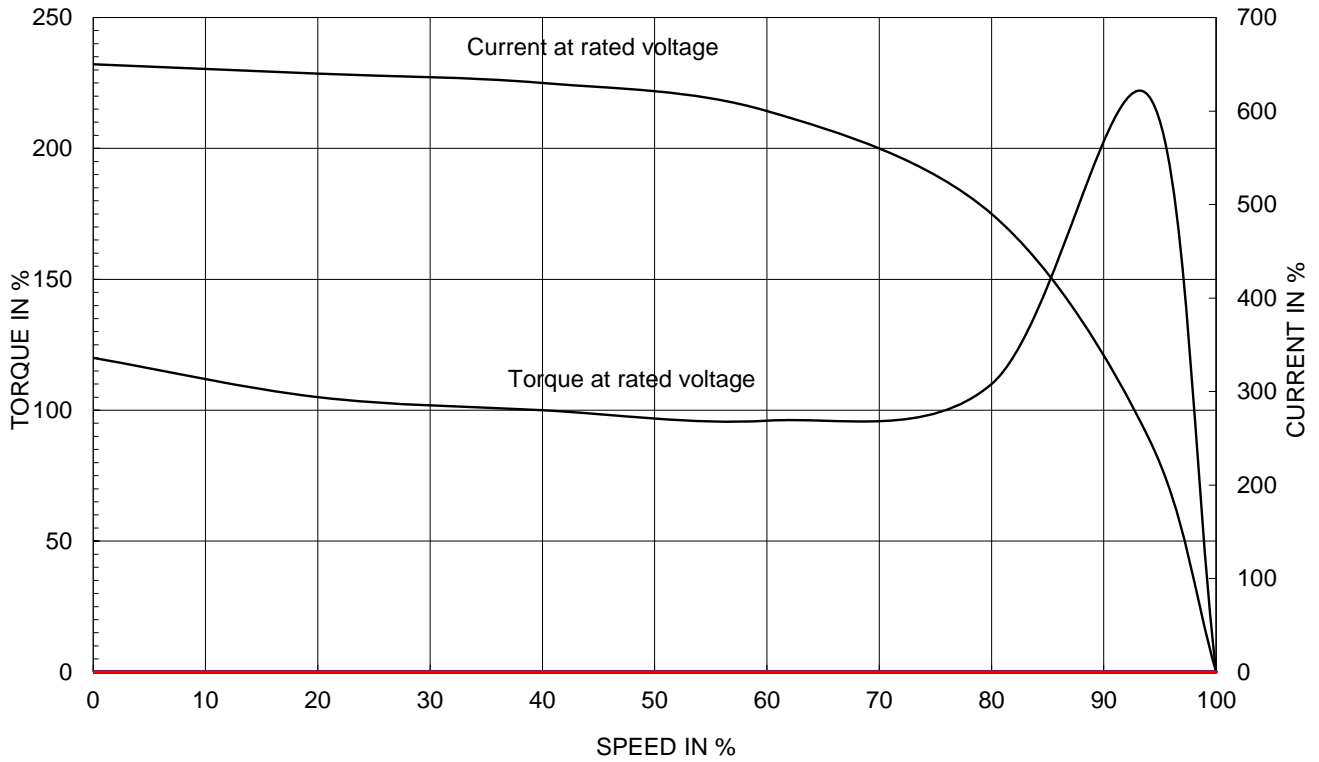
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APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HSDE ,5812)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136358	Sheet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

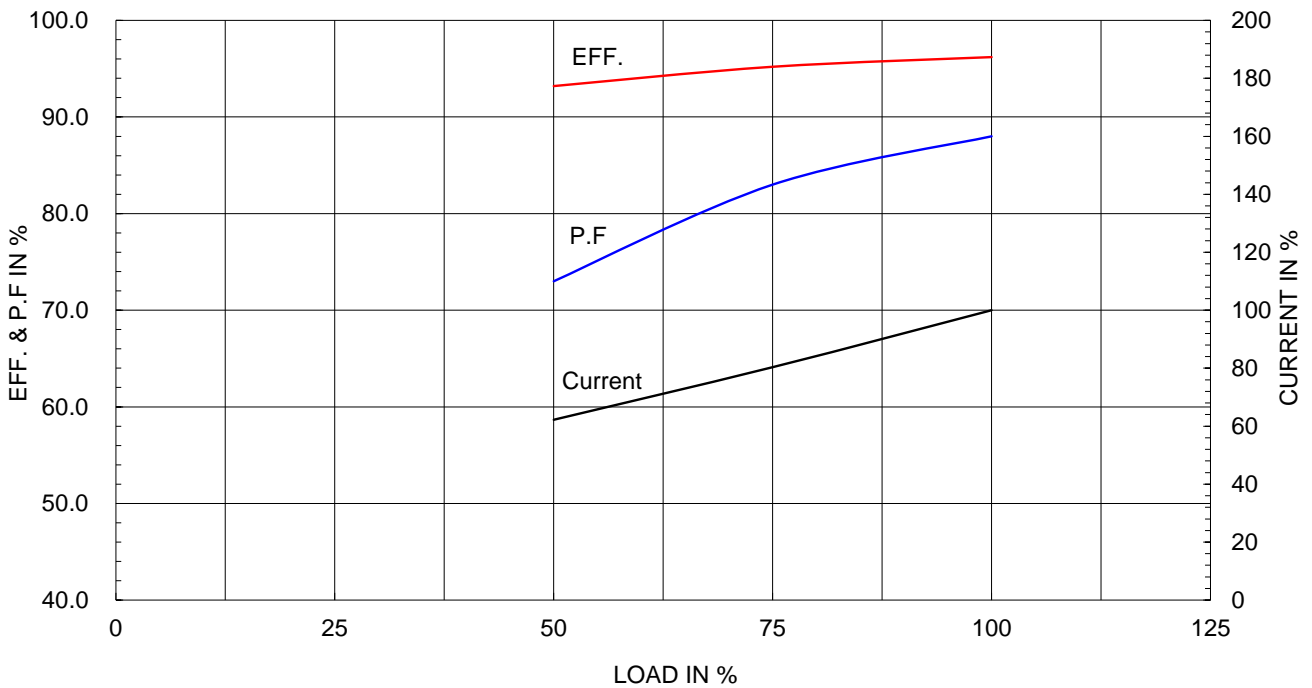
Type :	HNE6	
Full Load Torque :	2052.3	lb.ft
Load moment of Inertia (J) :	2557.532	lb.ft2
Motor moment of Inertia (J) :	242.400	lb.ft2

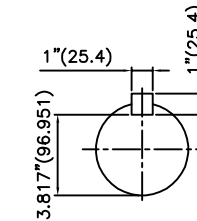
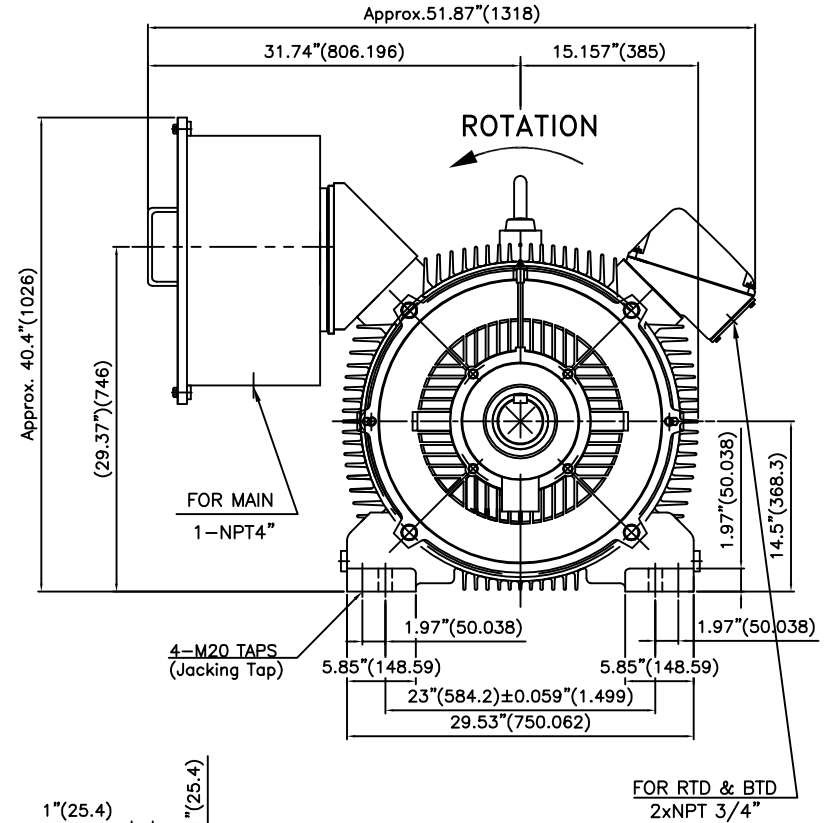
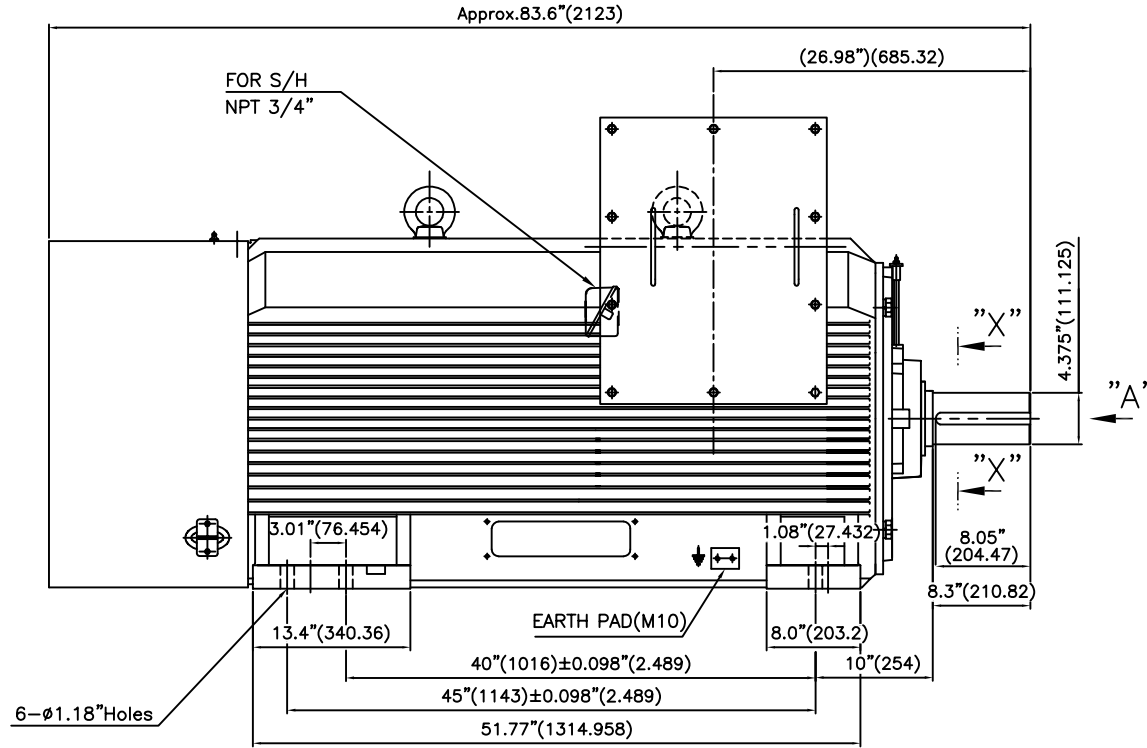
520kW	700HP	4 P	60 Hz
Speed at Full Load :			1785 RPM
Rated Voltage	575V	460V	230V
Full Load Current	616.8A	771.0A	1541.9A

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 :

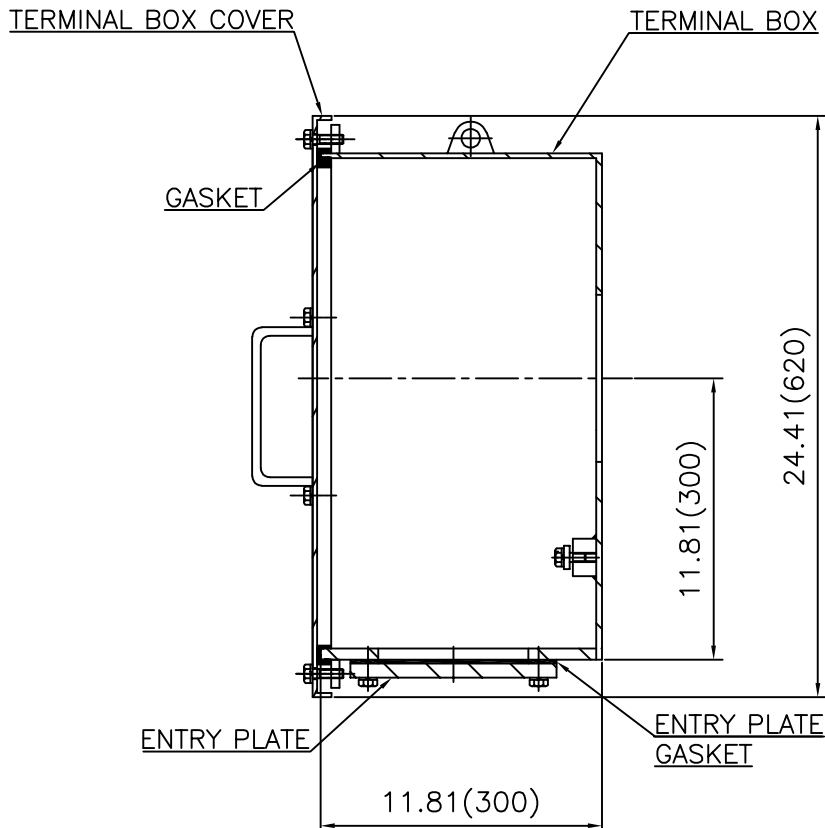
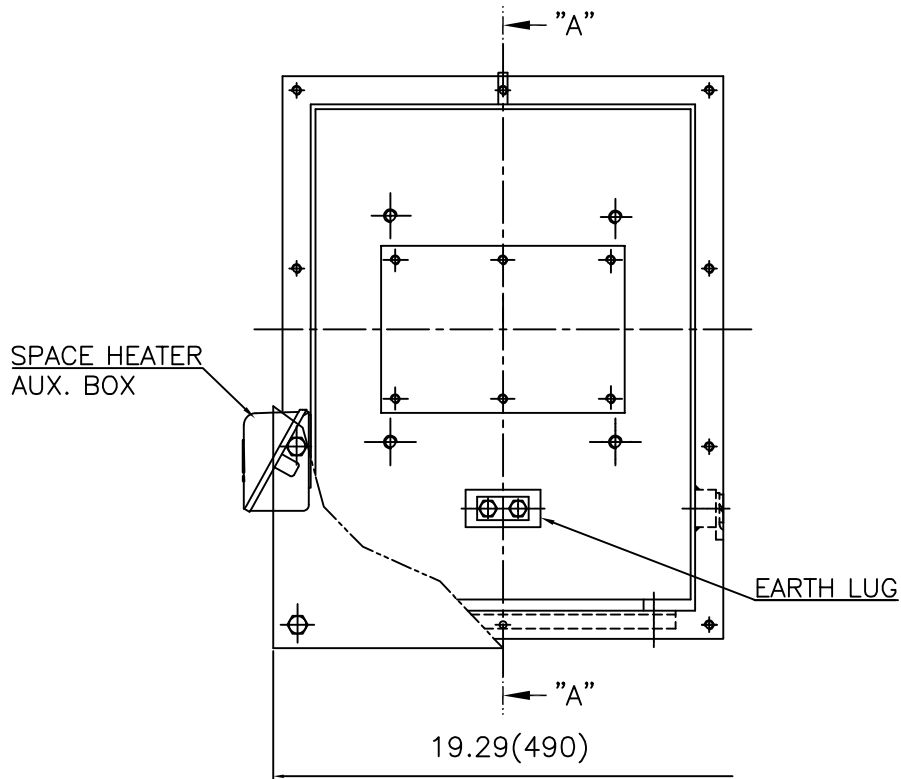
CENTER HEIGHT	14.5	+0.000 -0.060
SHAFT DIAMETER	∅4.375	+0.000 -0.001
KEYWAY WIDTH	1	+0.003 -0.000

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-T5812B3P7001	Revision No.	0



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SEC. "A" - "A"

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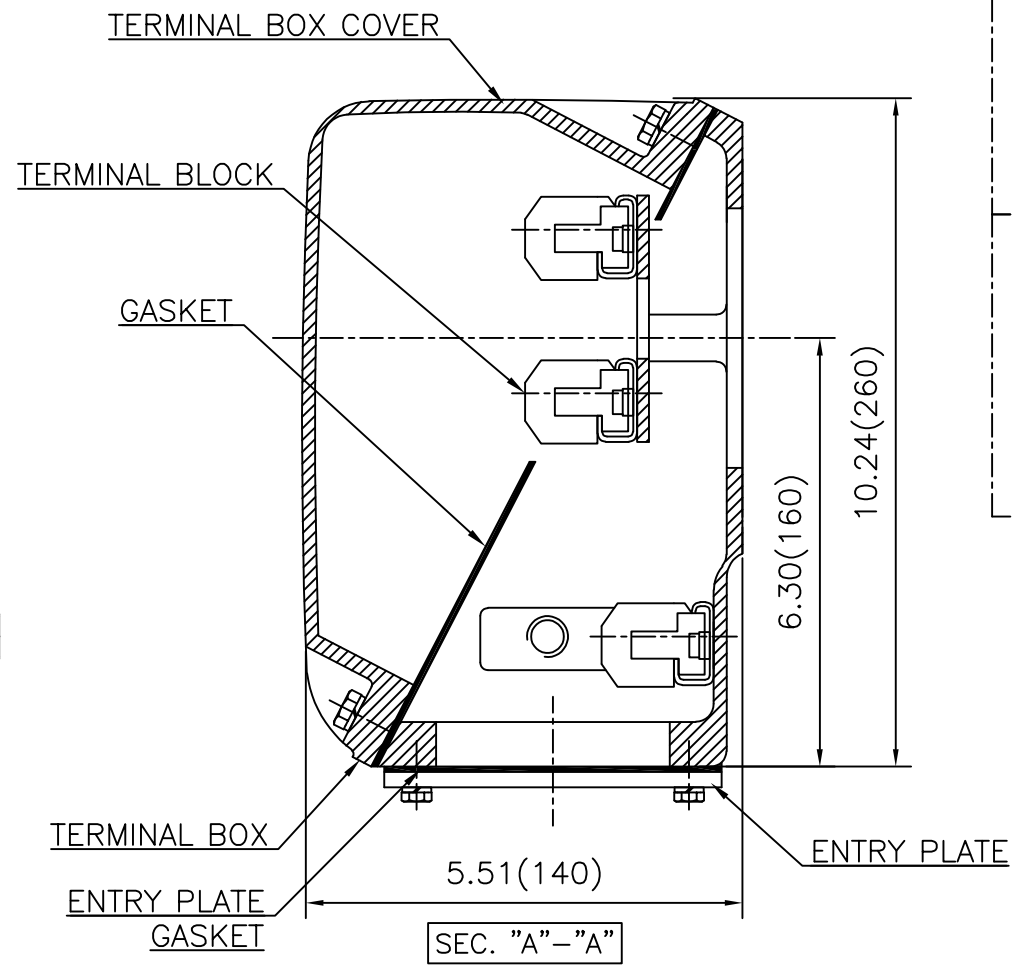
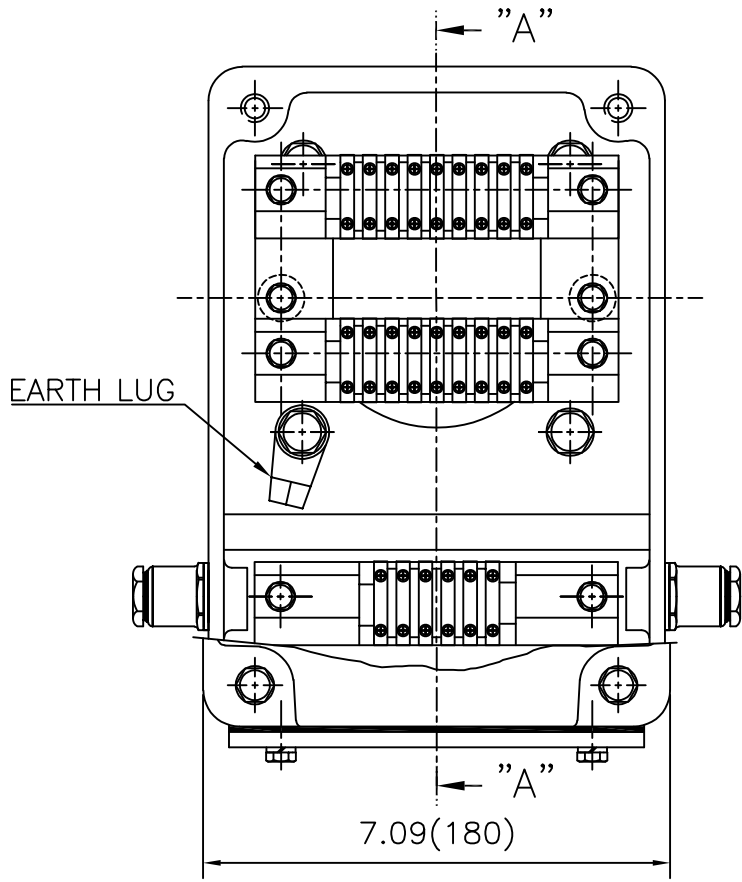
APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.580 (STEEL)	DWG SIZE	A3 (1:6)
CHKD BY		SCALE	1/6	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	백승희	DATE	2023-10-25	DWG NO	3M-248512	Revision No.	0



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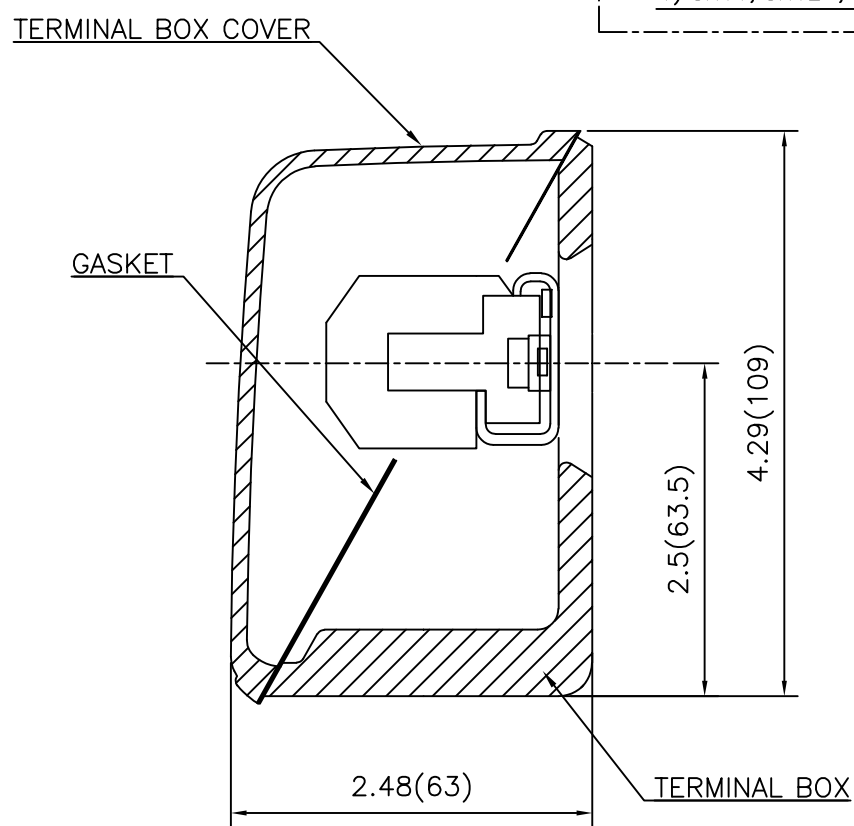
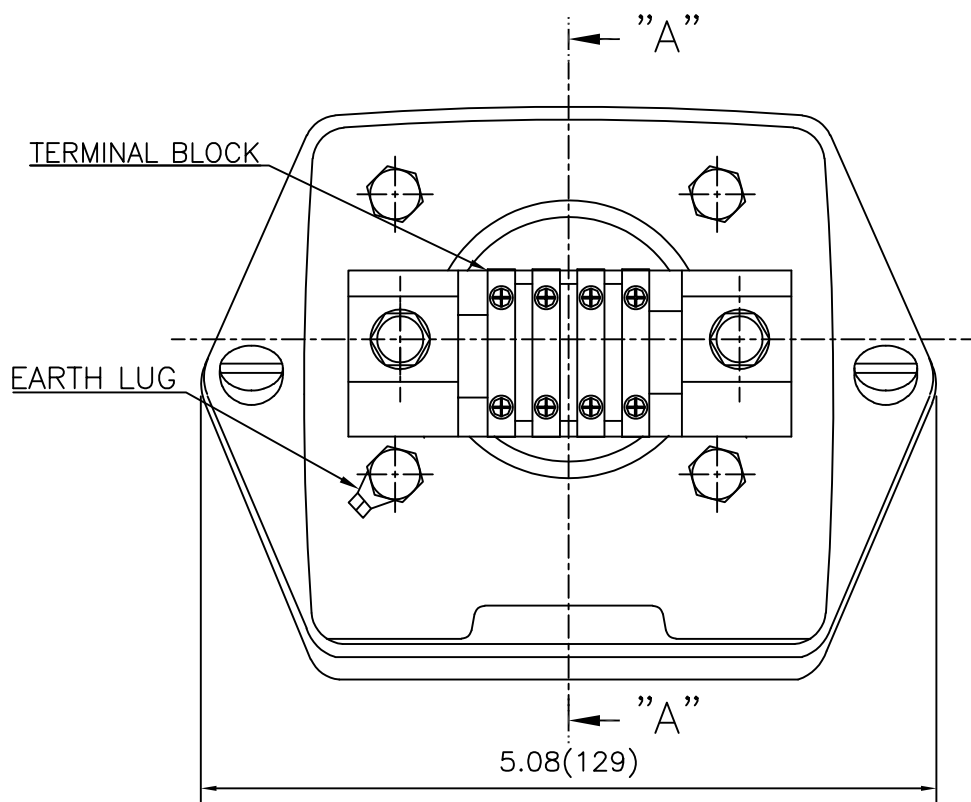


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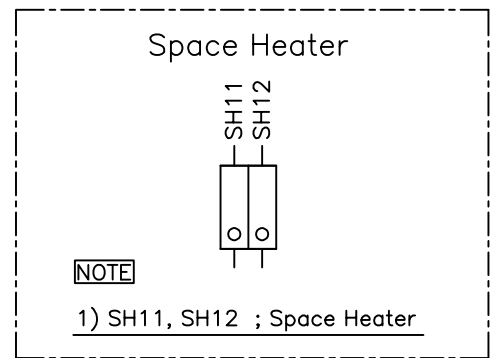
APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.360 (CAST IRON)	DWG SIZE	A3 (1:2.2)
CHKD BY		SCALE	1/1	TITLE	AUX. TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	박승희	DATE	2024-01-18	DWG NO	3M-165277	Revision No.	0



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SEC. "A" - "A"



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