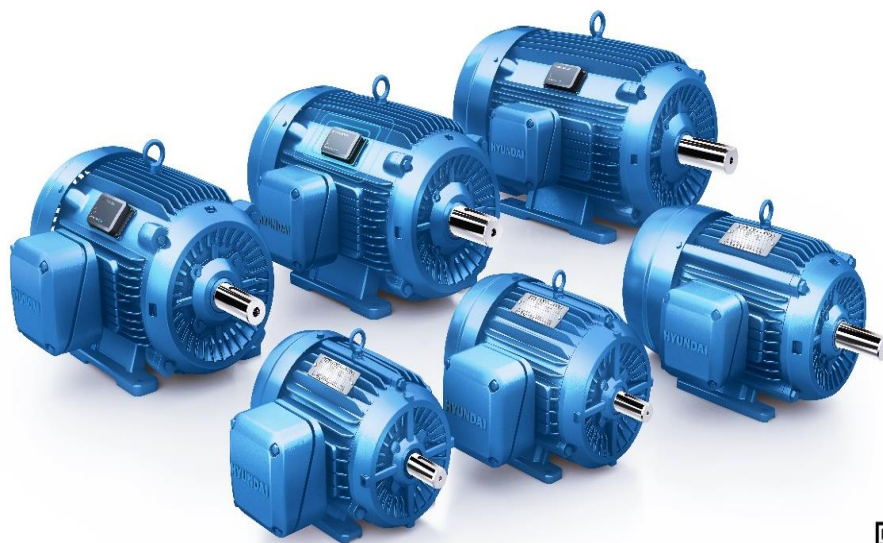


Customer :
Project Name :
Project No. :
Revision No. :

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	522 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	619.1 A	773.9 A	1547.8 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						
Motor Location	☐ Indoor ☐ Outdoor		50% Load		93.2 %				
Altitude	Less than 1,000 meter		75% Load		95.2 %				
Relative Humidity	Less than 80 %		100% Load		96.2 %				
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)						
Duty Type	Continuous (S1)		50% Load		0.730				
Service Factor	1.15		75% Load		0.830				
Mounting	B3		100% Load		0.880				
Bearing	Type	Anti-Friction	Speed at Full Load		1785 r.p.m				
	DE/N-DE	NU324 / 6322C3-INS.	Torque						
	Lubricant	Grease(Polyrex-EM)	Full Load		2060.21 lb.ft				
External Thrust	Not applicable		Locked-rotor**		120 %				
Coupling Method	☐ Direct ☐ V-belt		Breakdown**		220 %				
Shaft Extension	Single		Moment of Inertia (J)						
Terminal	Main	Steel	Load(Max.)		2,557.532 lb.ft2				
Box	Aux.	Yes	Motor		242.400 lb.ft2				
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)						
Application			87 dB(A)						
Area classification	Hazardous		Vibration		3.8 mm/sec (peak)				
Type of Ex-Protection	Class I, Division 2		Permissible number of consecutive starts		Cold		2 times		
Applicable Standard	NEMA MG1, CSA C390		Hot		1 time				
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)				
ACCESSORIES			SUBMITTAL DRAWING						
*. Space Heater : 1EA/Motor			Outline Dimension Drawing		\ Motor Weight(Approx.)				
			B3		LM-T5812B3PE001		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						
			5. Shaft material : AISI4140						
			6. Temp. code : T3A(180°C) at sine wave						
SPARE PARTS			Date	DSND	CHKD	CHKD	APPD		
			2025-07-22	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.

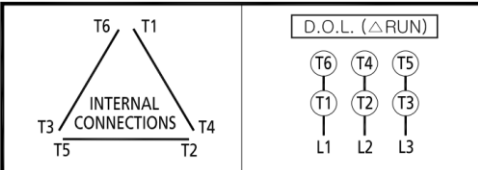
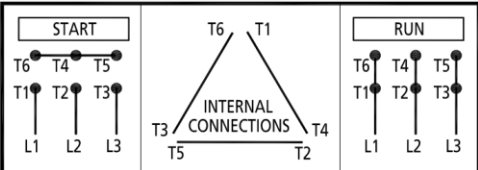
** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

MAIN NAMEPLATE

4.72

CROWN TRITON					
Premium Efficiency AC 3 Phase Motor					
700HP 4P 460V		Cat. No. HSDE700-18-5812-IBSH			
Model LATER		INS. Class F		Amps 773.9A	
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 718.6A 1485rpm S.F.: 1.15 Eff.: 96.1% Code: G			
		50Hz 535HP 400/415V 690.6/672.6A 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 -		Frame 580FR	
4M-136358		Made in Korea H1		Maximum Amb. 50°C T3A (180°C)	
				Weight 7174 lb	

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-129326	 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-128852

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			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07	REF. NO	4M-136358 / 4M-129326	Sheet No. of
				DWG NO	NP-HSDE700-18-5812-IBSH	Revision No. 0

Type : HNE6

522kW 700HP

4 P

60 Hz

Full Load Torque : 2060.21 lb.ft

Speed at Full Load : 1785 RPM

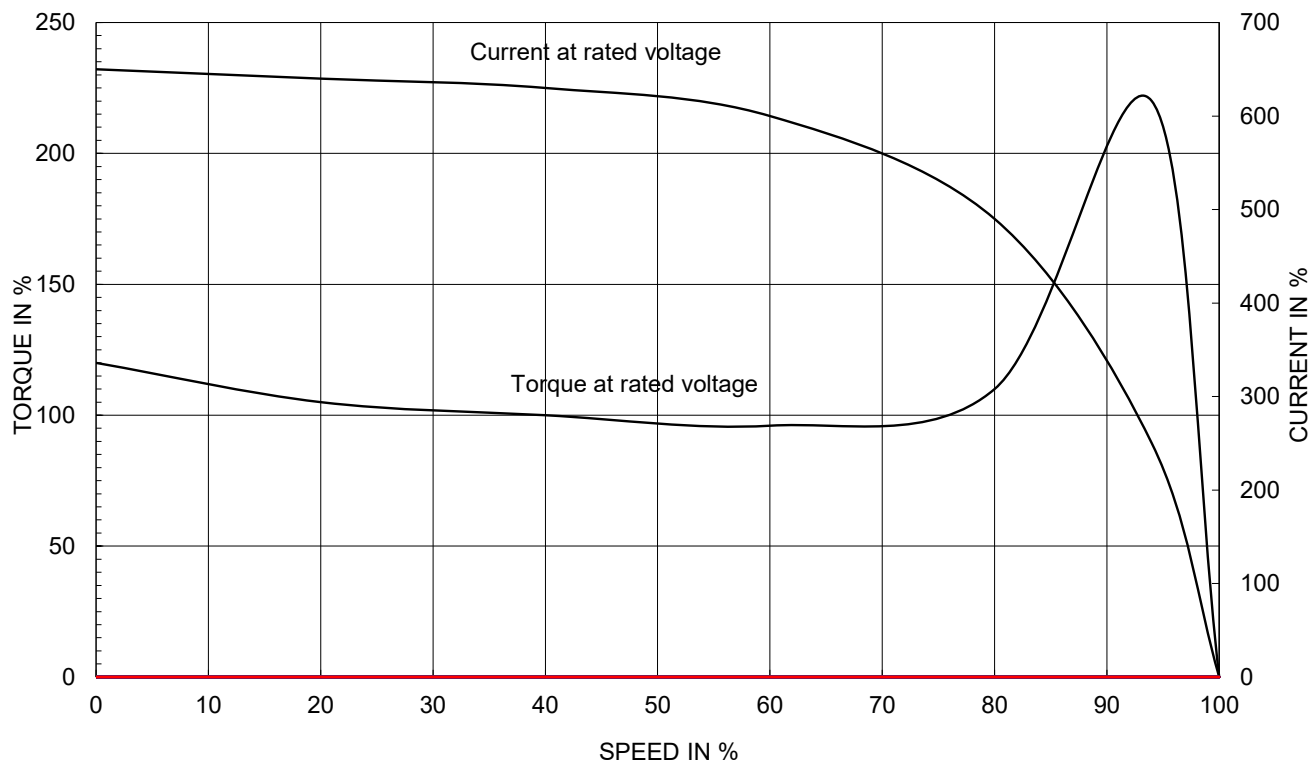
Load moment of Inertia (J) : 2557.532 lb.ft2

Rated Voltage	575V	460V	230V
---------------	------	------	------

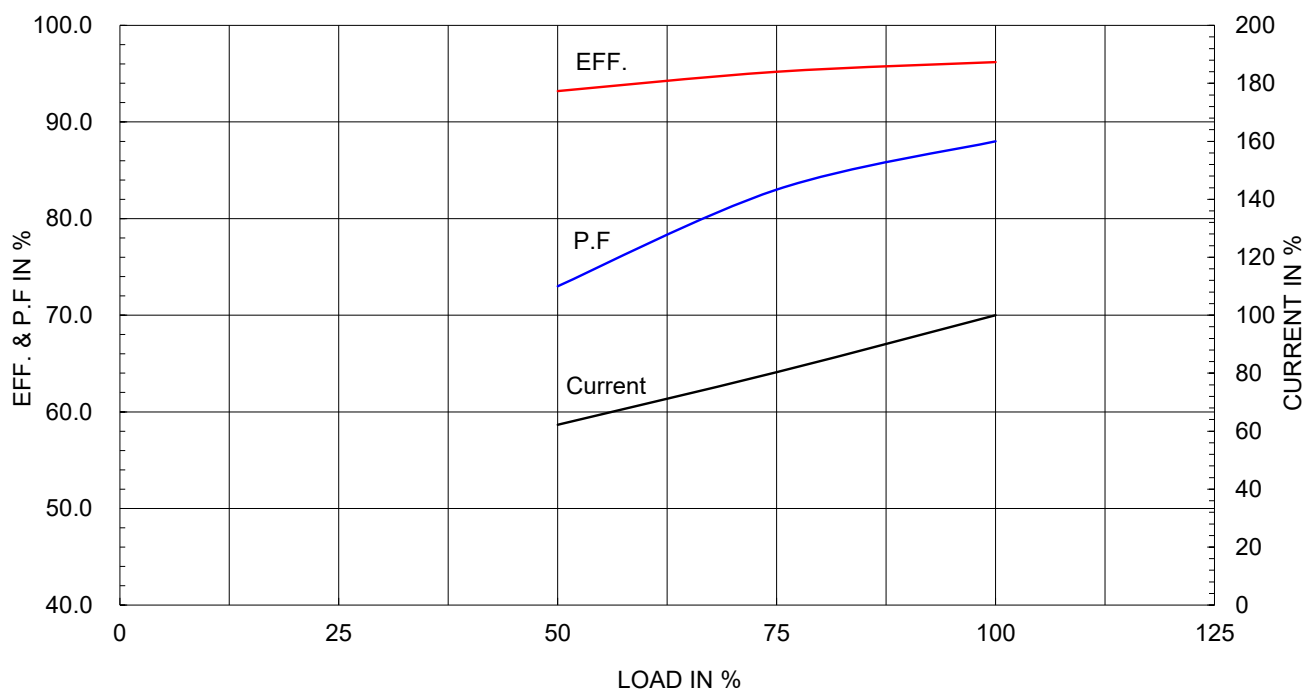
Motor moment of Inertia (J) : 242.400 lb.ft2

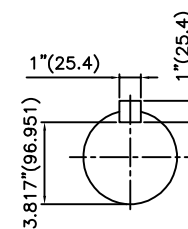
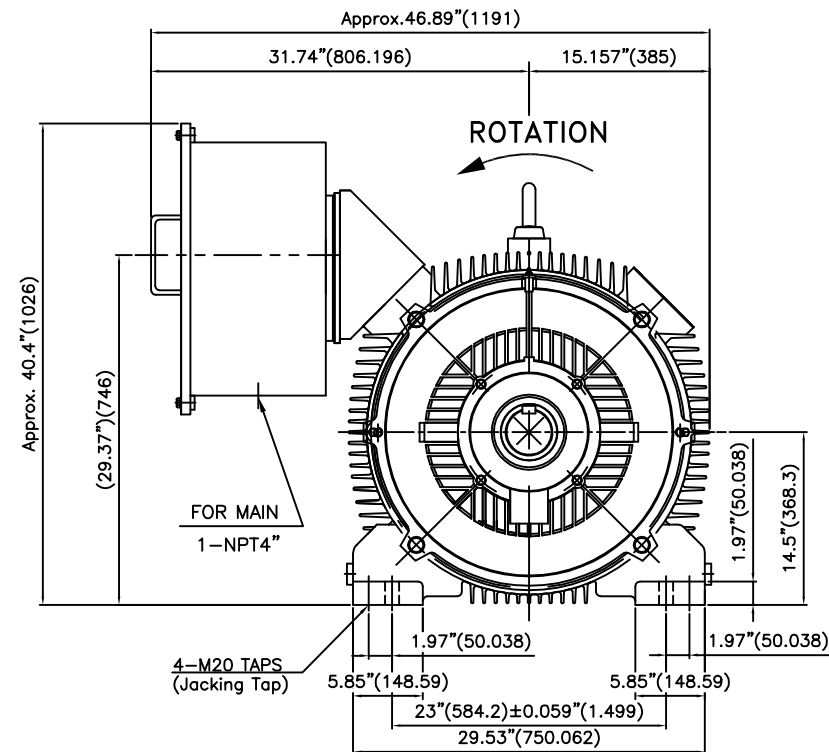
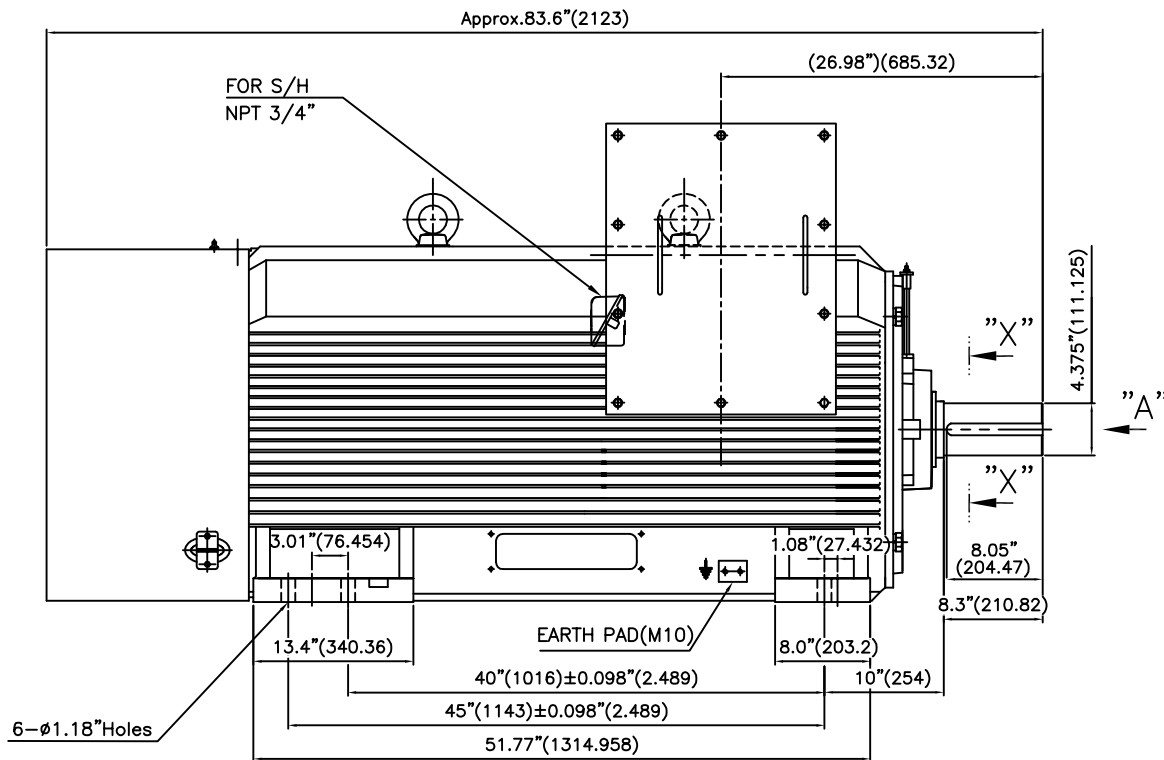
Full Load Current	619.1A	773.9A	1547.8A
-------------------	--------	--------	---------

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
		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

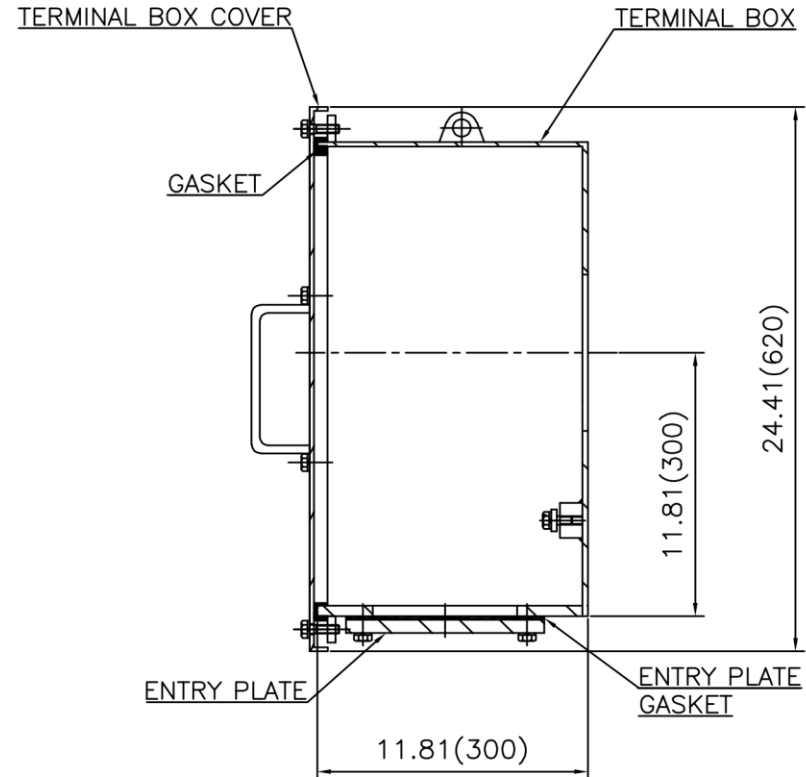
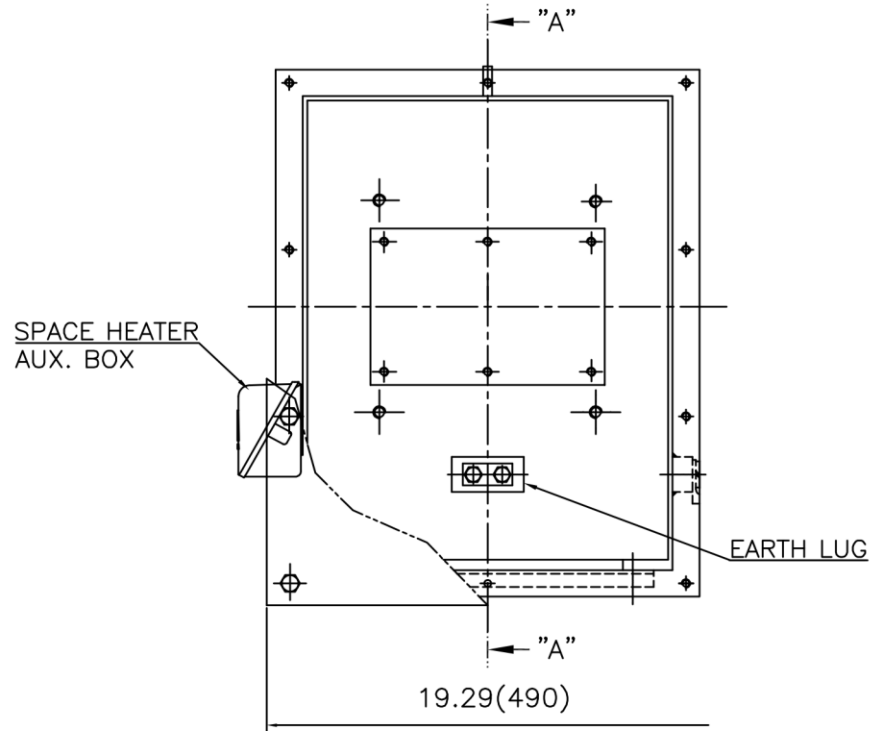
Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.K.HAN	UNIT	INCH(MM)	SUBJECT	Fr.5812-4~20P	DWG SIZE	
CHKD BY	S.Y.KIM	SCALE	1/12	TITLE	OUTLINE	A3 (1:12)	
CHKD BY		PROJEC'N	3각법 (3rd Angle)	REF. NO		Sheet No.	of
DSND BY	J.H.LEE	DATE	2016.05.23	DWG NO	LM-T5812B3PE001	Revision No.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



REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
1						
2						
3						
4						

Cls. I&II, Div. 2

IEEE 841



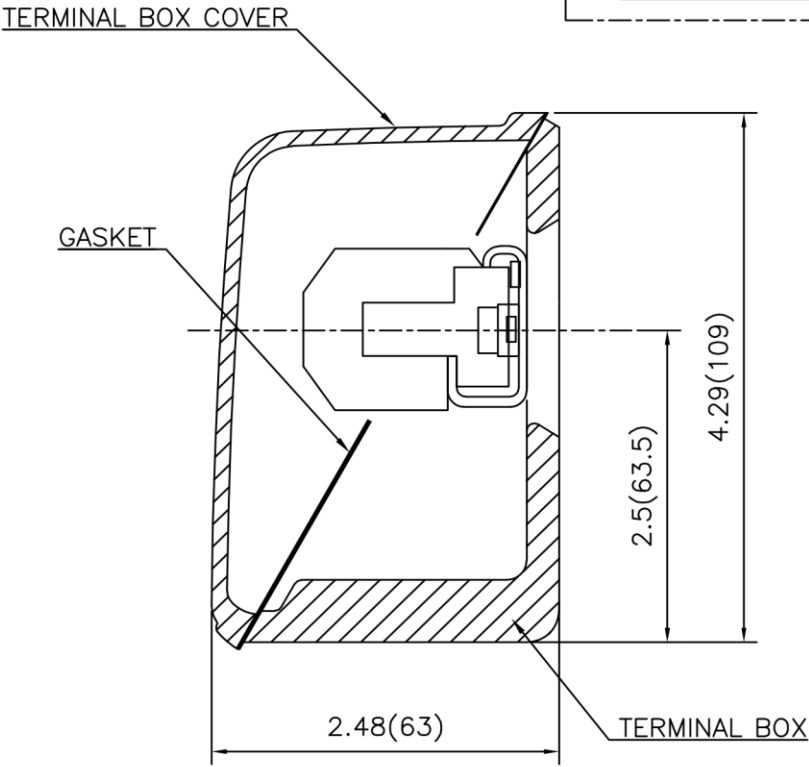
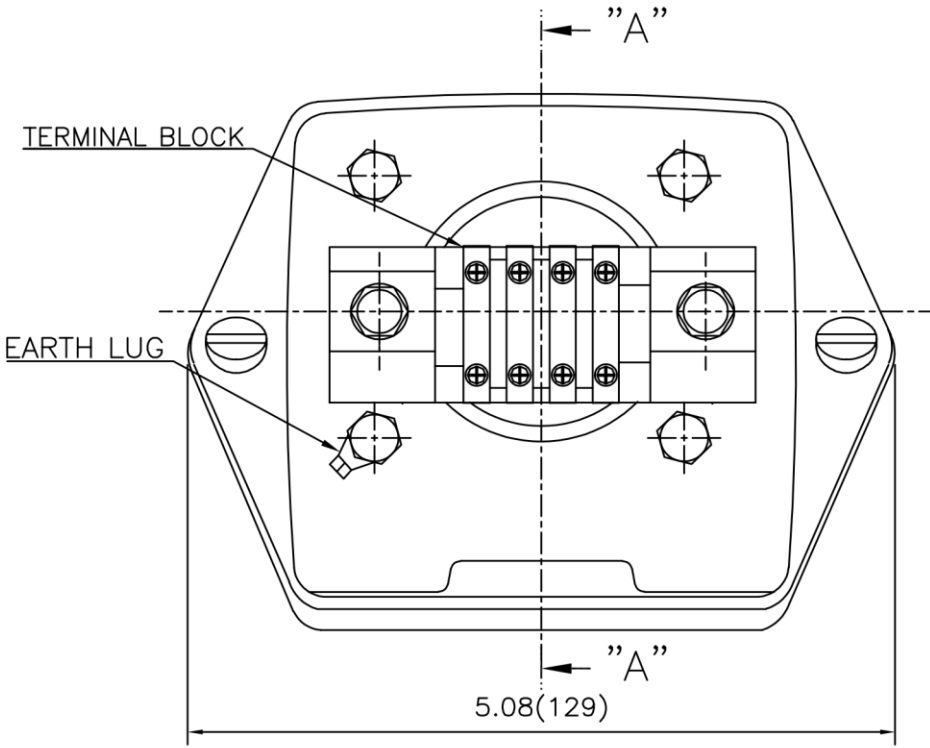
SEC. "A" - "A"

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
1						
2						
3						
4						

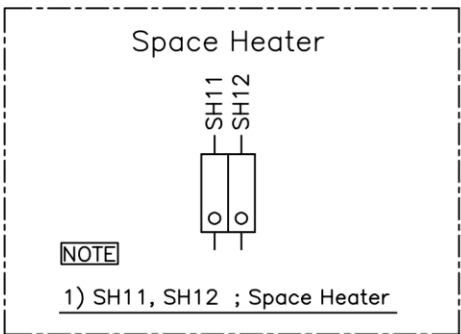
APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.580 (STEEL)	DWG SIZE
CHKD BY		SCALE	1/6	TITLE	MAIN TERMINAL BOX ASS'Y	A3 (1:6)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No. of
DSND BY	내수위	DATE	2023-10-25	DWG NO	3M-248512	Revision No. 0



Cls. I&II, Div. 2
IEEE 841



SEC. "A"-"A"



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	
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

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY