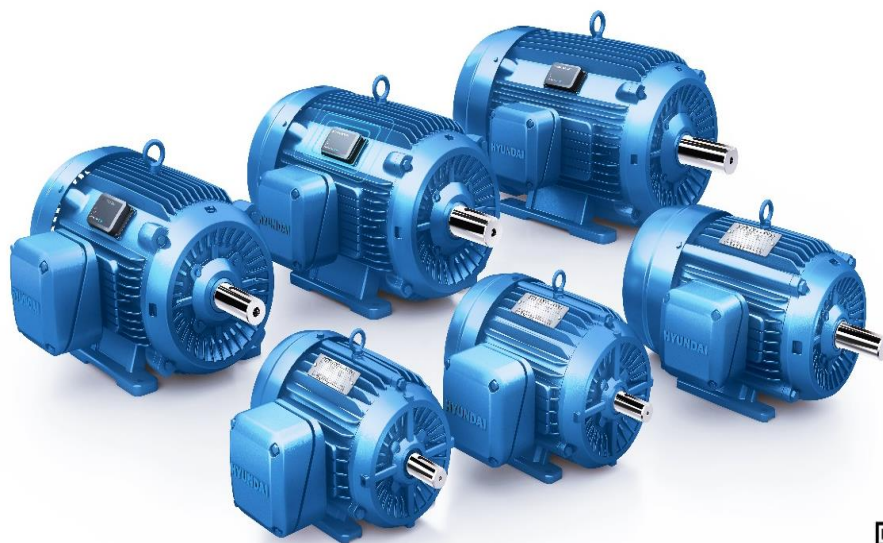


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HSDE400-18-L449TC-IBSH	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	L449TC		Rated Output	300 kW		400 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	575 V	460 V	230 V	
Number of Phases	3		Current	Full Load	355.8 A	444.8 A	889.6 A
Insulation Class	F			Locked-rotor**	710 %	710 %	710 %
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	B35		100% Load		0.880		
Bearing	Type	Anti-Friction	Speed at Full Load		1785 r.p.m		
	DE/N-DE	6322C3 / 6318C3-INS.	Torque				
	Lubricant	Grease(Polyrex-EM)	Full Load		1184.03 lb.ft		
External Thrust	Not applicable		Locked-rotor**		135 %		
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		225 %		
Shaft Extension	Single		Moment of Inertia (J)				
Terminal	Main	Cast Iron	Load(Max.)		1,550.000 lb.ft2		
Box	Aux.	Yes	Motor		129.342 lb.ft2		
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)				
Application			85 dB(A)				
Area classification	Hazardous		Vibration		3.8 mm/sec (peak)		
Type of Ex-Protection	Class I&II, 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.)				
			B35	LM-T044XC4UE001	3720 lb.		
			REMARK				
			1. Premium efficiency according to NEMA MG1				
			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. NDE side : Insulated bearing				
			4. CSA Certification				
			-. Class I, Division 2, Group A, B, C & D				
			-. Class II, Division 2 Group F & G				
			5. Shaft material : AISI4140				
			6. Temp. code : T3(200°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

400HP		4P	460V	Cat. No.	HSDE400-18-L449TC-IBSH			
Model	LATER			INS. Class	F	Amps	444.8A	
Type	PJP	Duty	CONT	Code	G	Amb.	40°C	
Frame	L449TC	Encl.	TEFC	S.F.	1.15	RPM	1785	
Bearing	Drive	6322C3	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff.		95.2%	
	Opp.	6318C3-INS.			NEMA Design		B Torque	
Usable at	50Hz 335HP 380V 449.6A 1485rpm S.F.: 1.0 Eff.: 96.0% Code: G							
	50Hz 335HP 400/415V 437.1/430.9A 1486/1487rpm S.F.: 1.0 Eff.: 96.0/96.1% Code: H/J							
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D CLASS I, Zone 2, Gr. IIA, IIB, & IIC		CLASS II, Div. 2, Gr. F & G		Temp. Code	Frame	L440FR - 500FR	
					(sine wave)	Amb. 40°C	T3 (200°C)	
						Amb. 55°C	T3 (200°C)	
No.	-			Date	-			
	4M-136053			Made in Korea H1		Weight	3720 lb	
	MARINE DUTY IEEE45							

WIRING DIAGRAM

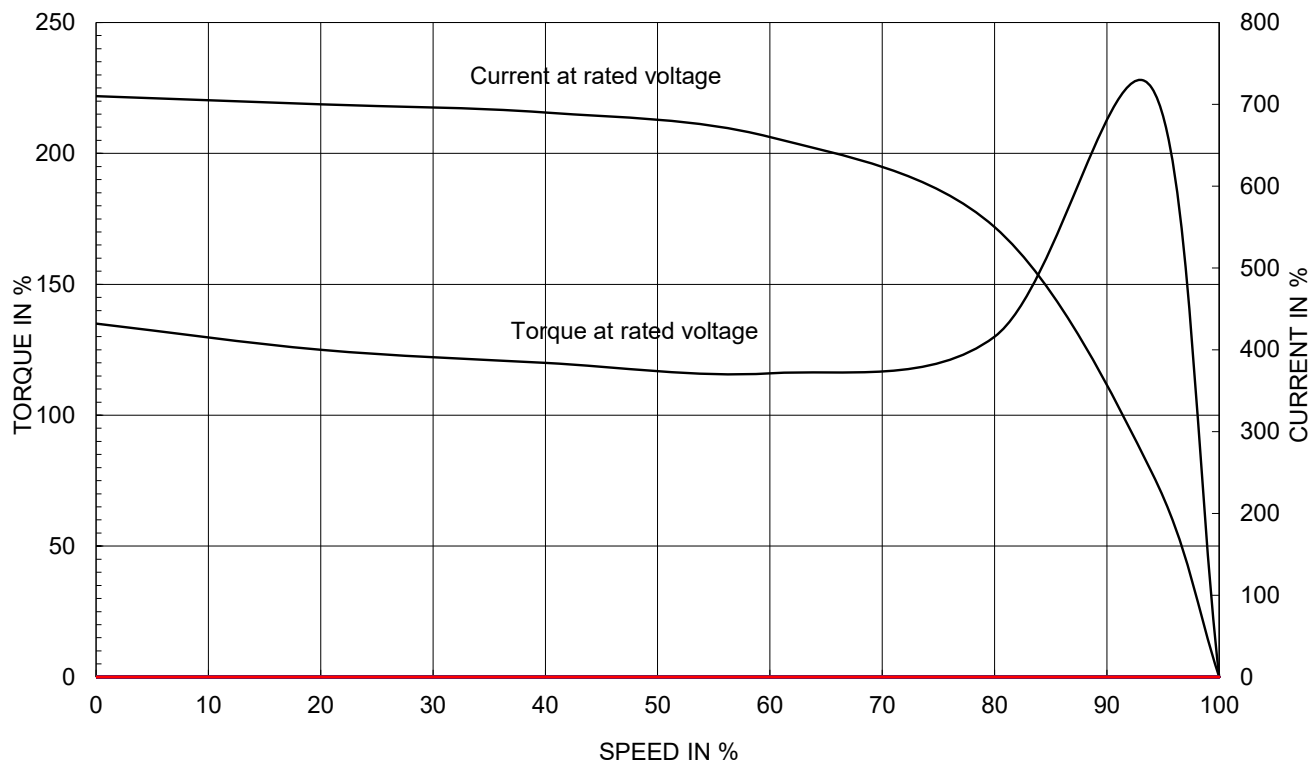
D.O.L (INVERTER & SOFT STARTER) WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES. INTERNAL CONNECTIONS D.O.L. (ΔRUN) 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	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. START INTERNAL CONNECTIONS RUN 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
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APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HSDE, L449-500)		DWG SIZE	
CHKD BY	I.K.KIM	SCALE	NONE					A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE				
DSND BY	S.H.LEE	DATE	2024.06.07	NAMEPLATE DRAWING				
				REF. NO	4M-136053 / 4M-129326	Sheet No.	of	
				DWG NO	NP-HSDE400-18-L449TC-IBSH	Revision No.	0	

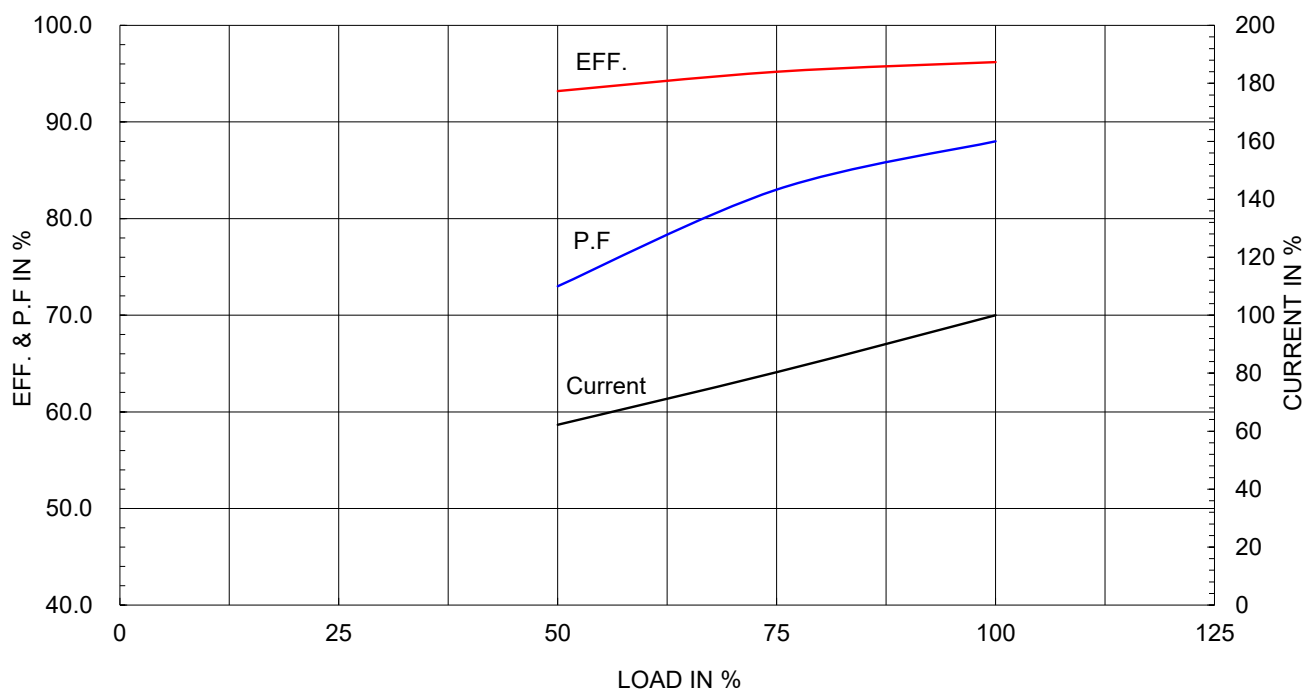
Type :	PJP	
Full Load Torque :	1184.03	lb.ft
Load moment of Inertia (J) :	1550.000	lb.ft2
Motor moment of Inertia (J) :	129.342	lb.ft2

300kW	400HP	4 P	60 Hz
Speed at Full Load :			1785 RPM
Rated Voltage	575V	460V	230V
Full Load Current	355.8A	444.8A	889.6A

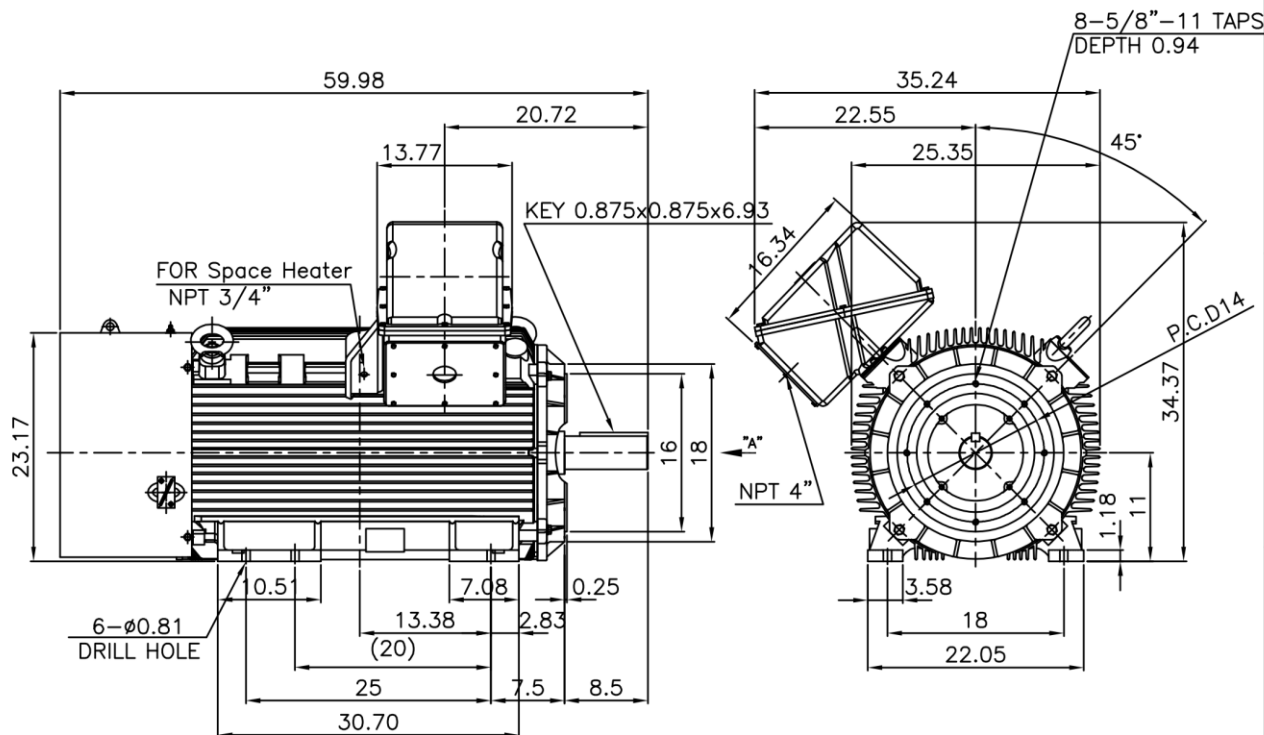
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



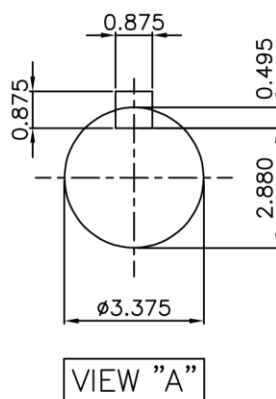
1	2	3	4
▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		



NOTE

1.TOLERANCE :

CENTER HEIGHT	11	+0.000 -0.060
RABBET DIAMETER	Ø16	0 -0.005
SHAFT DIAMETER	Ø3.375	+0.000 -0.001
KEYWAY WIDTH	0.875	+0.003 -0.000

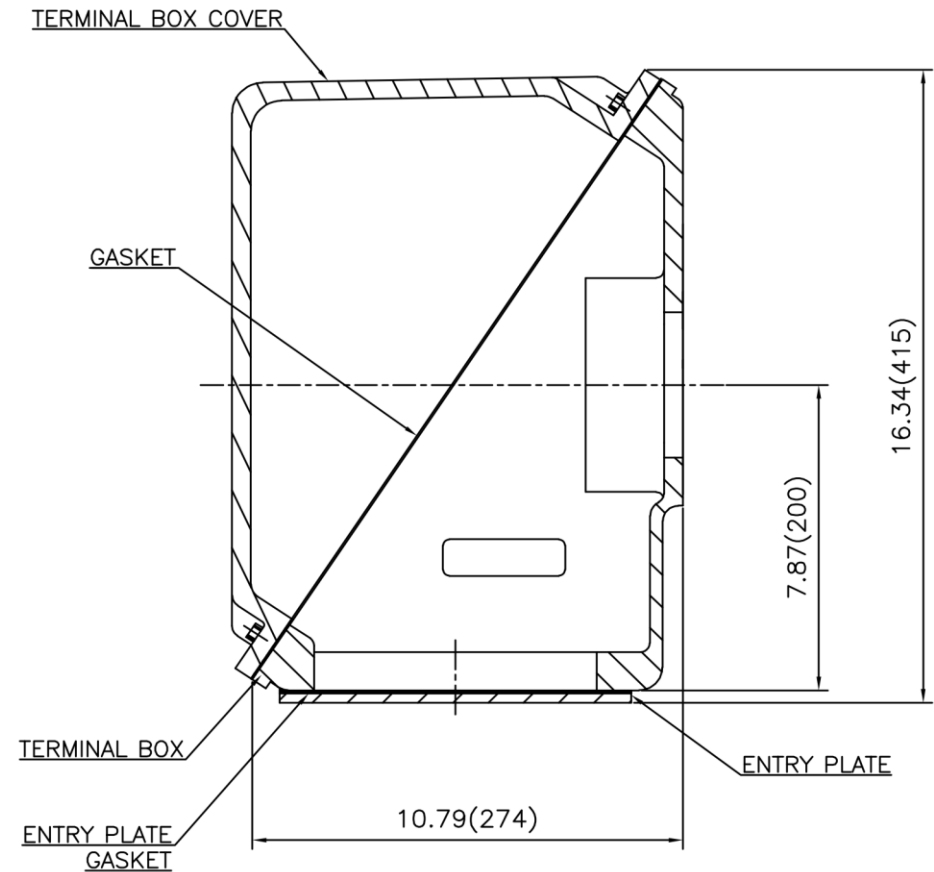
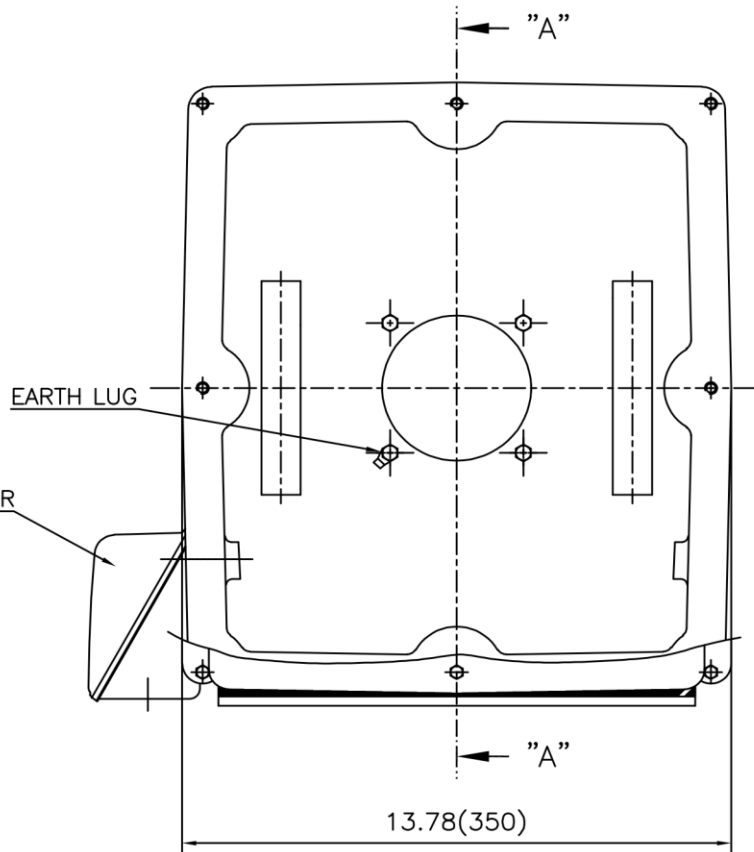


VIEW "A"

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.L449TC	DWG SIZE
CHKD BY	O.J.KIM	SCALE	1/18			A4 (1:18)
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)	TITLE	OUTLINE	
DSND BY	H.K.LEE	DATE	2021-04-27	REF. NO		Sheet No. of
				DWG NO	LM-T044XC4UE001	Revision No. 0

Cls. I&II, Div. 2

IEEE 841

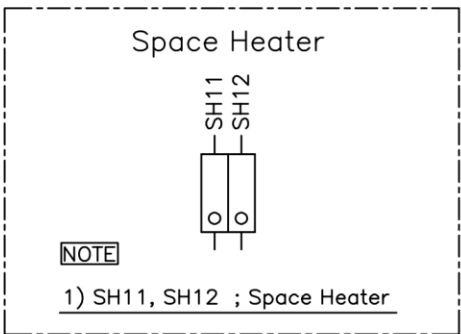
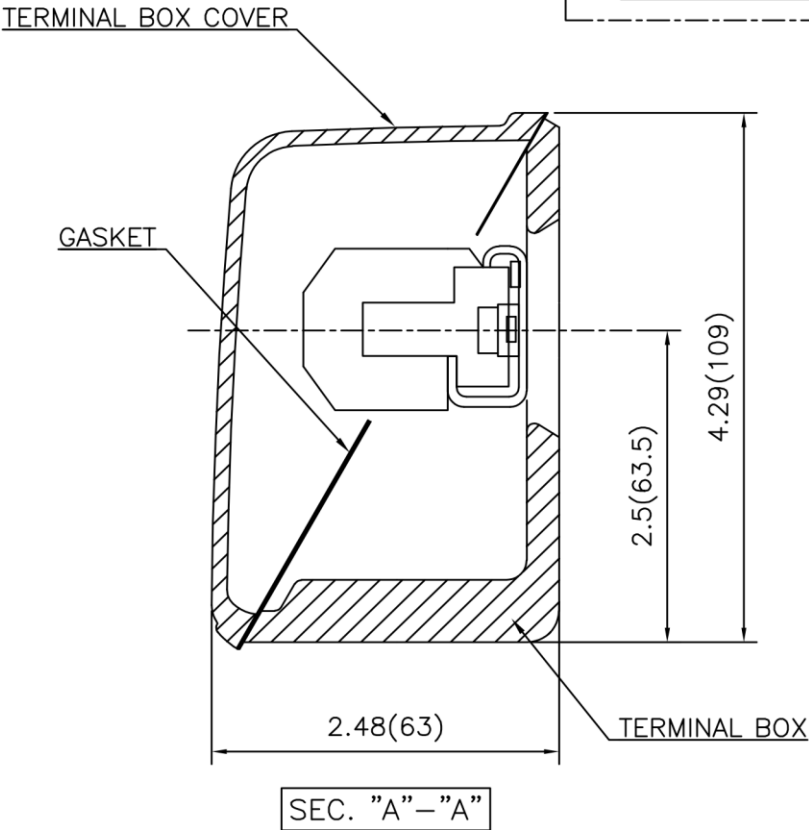
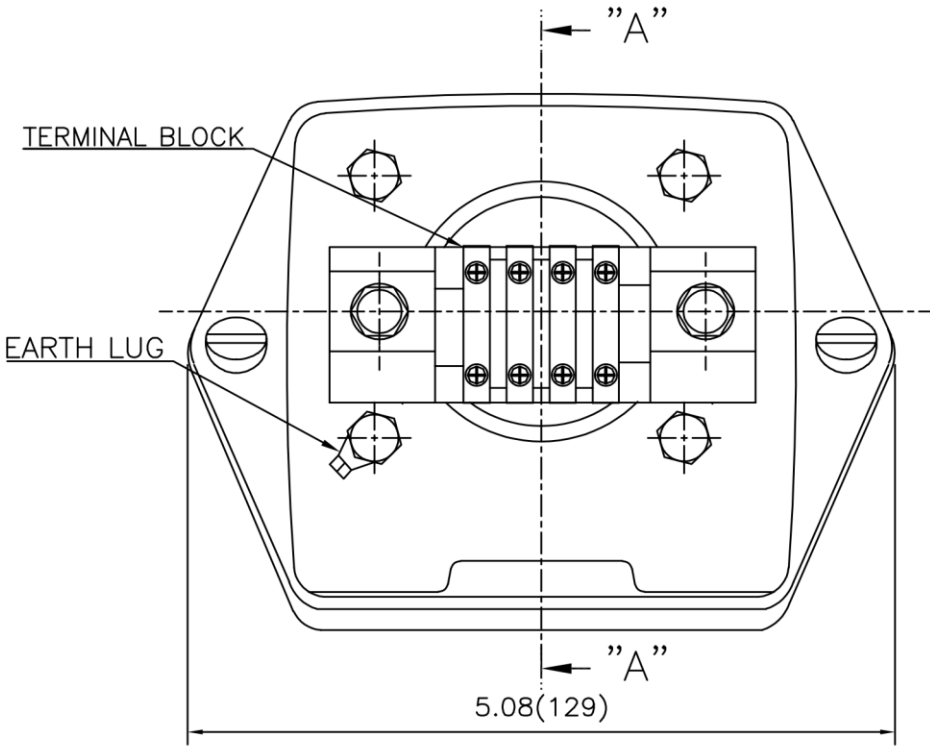


SEC. "A" - "A"

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. L440 (CAST IRON)	DWG SIZE
CHKD BY		SCALE	1/3.5	TITLE	MAIN TERMINAL BOX ASS'Y	
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	내수위	DATE	2023-10-19	REF. NO		Sheet No. of
				DWG NO	3M-248452	Revision No. 0

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

Cls. I&II, Div. 2
IEEE 841



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	네슬의	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