

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-L449T-IBSH	Item No.			Rev. No.	[]		
Project Name		Project No.			Quantity	sets		
GENERAL SPECIFICATION				PERFORMANCE DATA				
Frame Size	L449T	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	50% Load		93.2 %				
Motor Location	☐ Indoor ☐ 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	NU322 / 6318C3-INS.		Full Load	1184.03 lb.ft			
	Lubricant	Grease(Polyrex-EM)		Locked-rotor**	135 %			
External Thrust	Not applicable		Breakdown**	225 %				
Coupling Method	☐ Direct ☐ V-belt	Moment of Inertia (J)						
Shaft Extension	Single	Load(Max.)		1,550.000 lb.ft2				
Terminal	Main	Motor		129.342 lb.ft2				
Box	Aux.	Sound Pressure Level (No-load & mean value at 1m from motor)						
	Location	Refer to Outline Drawing						
Application		Vibration		3.8 mm/sec (peak)				
Area classification	Hazardous	Permissible number of consecutive starts		Cold	2 times			
Type of Ex-Protection	Class I&II, Division 2			Hot	1 time			
Applicable Standard	NEMA MG1, CSA C390	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-T044XB3UE001	3620 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.

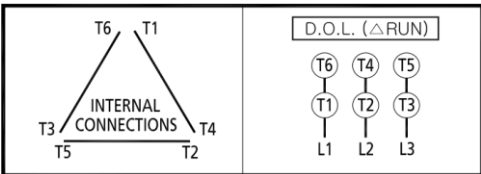
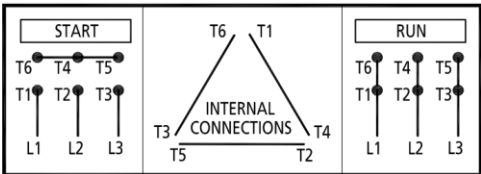
MAIN NAMEPLATE

4.72

400HP		4P	460V	Cat. No.	HSDE400-18-L449T-IBSH		
Model		LATER		INS. Class	F	Amps	444.8A
Type	PJP	Duty	CONT	Code	G	Amb.	40°C
Frame	L449T	Encl.	TEFC	S.F.	1.15	RPM	1785
Bearing	Drive	NU322		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 II, Div. 2, Gr. F & G		Temp. Code	Frame	L440FR - 500FR
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC				(sine wave)	Amb. 40°C	T3 (200°C)
						Amb. 55°C	T3 (200°C)
No.	-			Date	-		
4M-136053				Made in Korea H1			
MARINE DUTY IEEE45				HD HYUNDAI ELECTRIC			

2.36

WIRING DIAGRAM

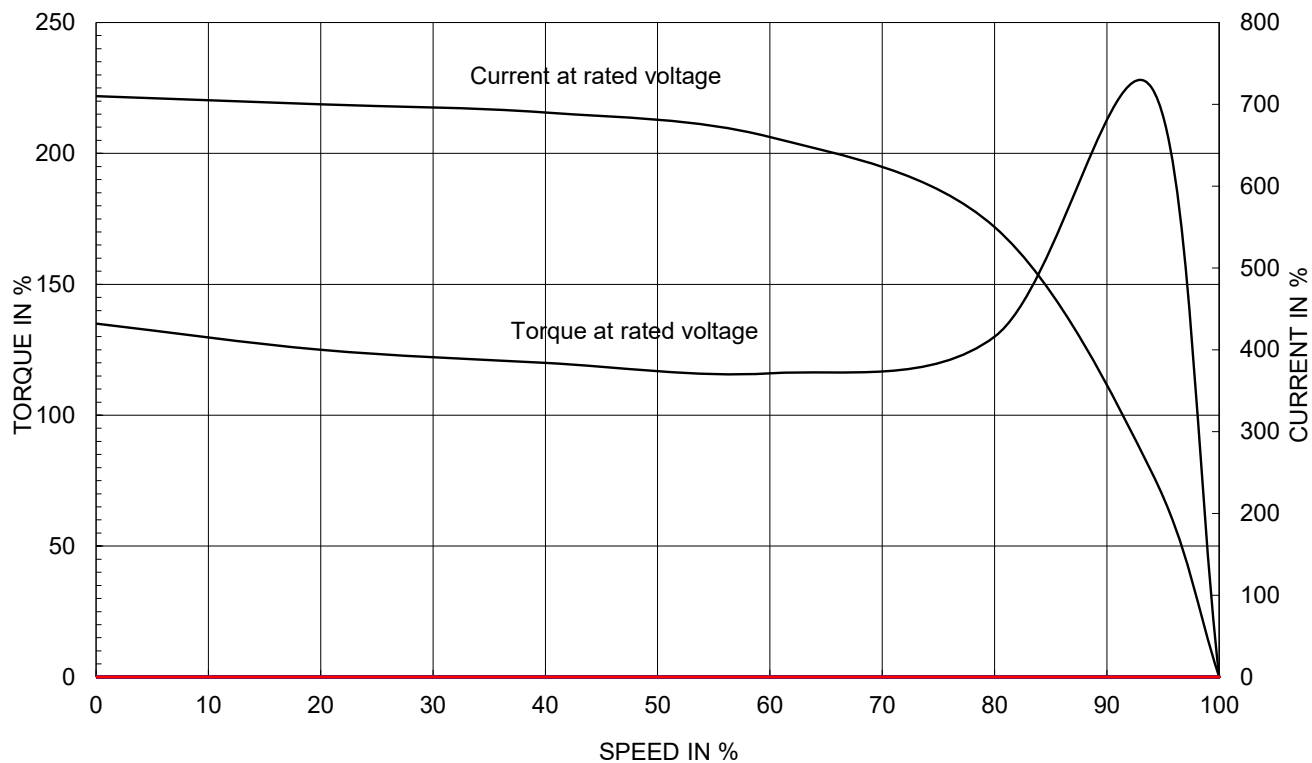
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND 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, L449-500)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136053 / 4M-129326	Sheet No. of
				DWG NO	NP-HSDE400-18-L449T-IBSH	Revision No. 0

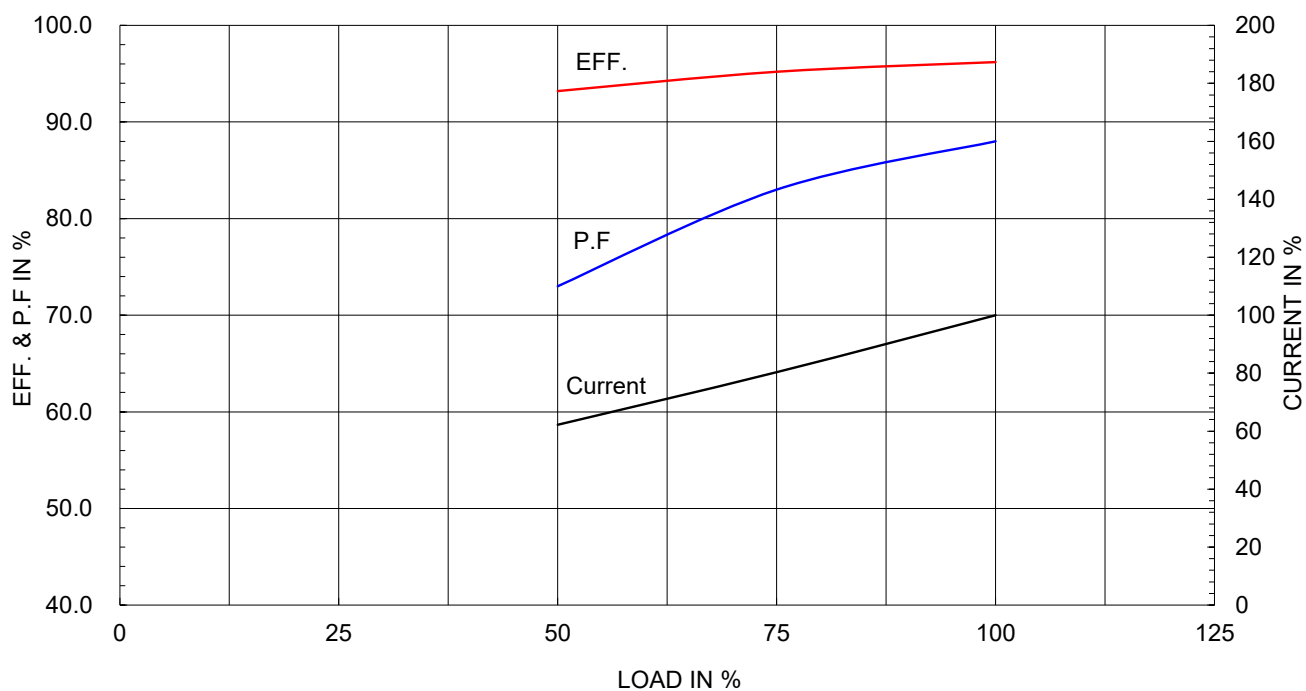
Type :	PJP	
Full Load Torque :	1184.03	lb.ft
Load moment of Inertia (J) :	1550.000	lb.ft2
Motor moment of Inertia (J) :	129.342	lb.ft2

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

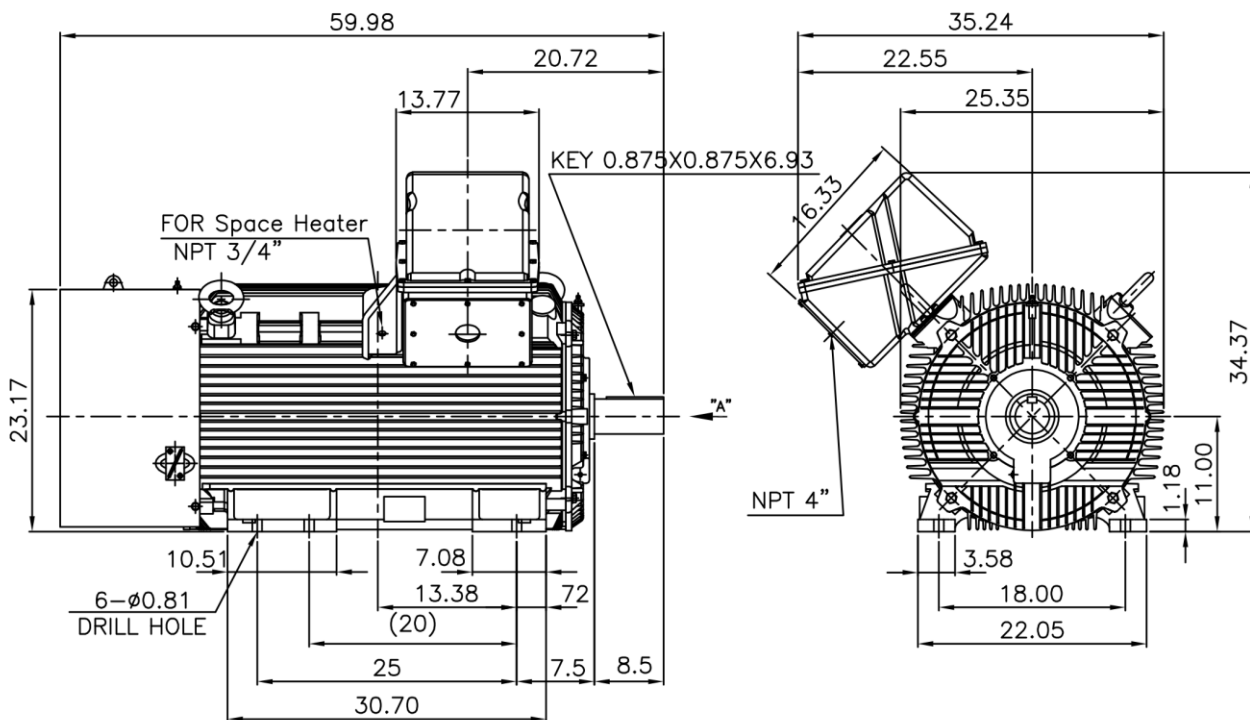
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



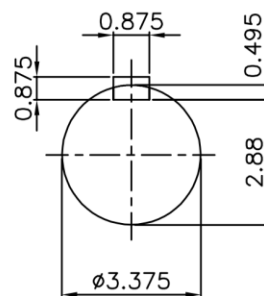
1			2		3		4		
▽	50S	REV	DATE	CONTENTS		REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S								
▽▽▽	3.2S								
▽▽▽▽	0.4S								



NOTE

1.TOLERANCE :

CENTER HEIGHT	11	+0.000 -0.060
SHAFT DIAMETER	ø3.375	+0.000 -0.001
KEYWAY WIDTH	0.875	+0.003 -0.000

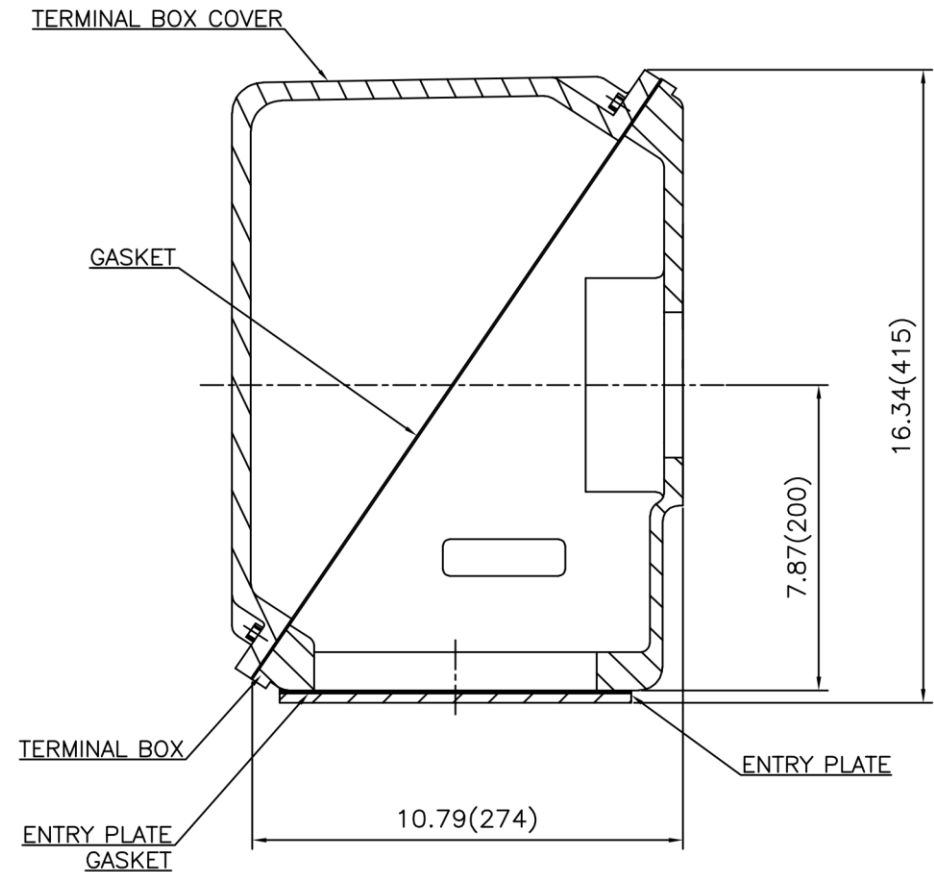
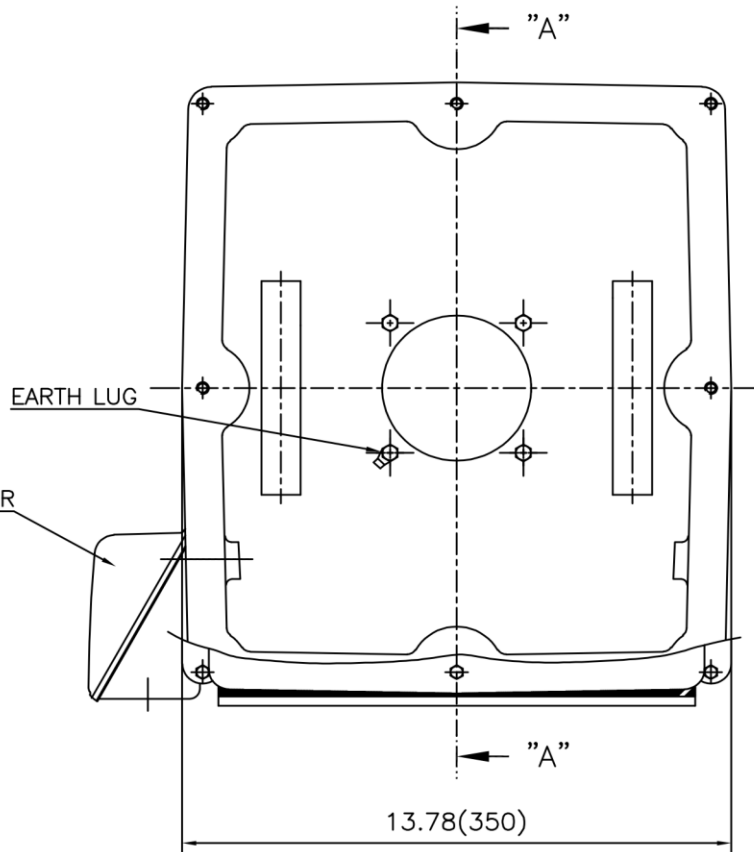


VIEW "A"

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.L449T	DWG SIZE
CHKD BY	O.J.KIM	SCALE	1/18	TITLE		A4 (1:18)
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)			
DSND BY	H.K.LEE	DATE	2021-04-27	OUTLINE		
				REF. NO	Sheet No. of	
				DWG NO	LM-T044XB3UE001	Revision No. 0

Cls. I&II, Div. 2

IEEE 841



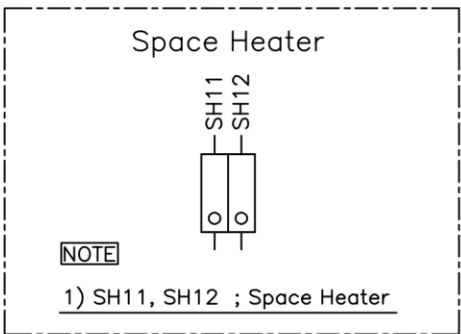
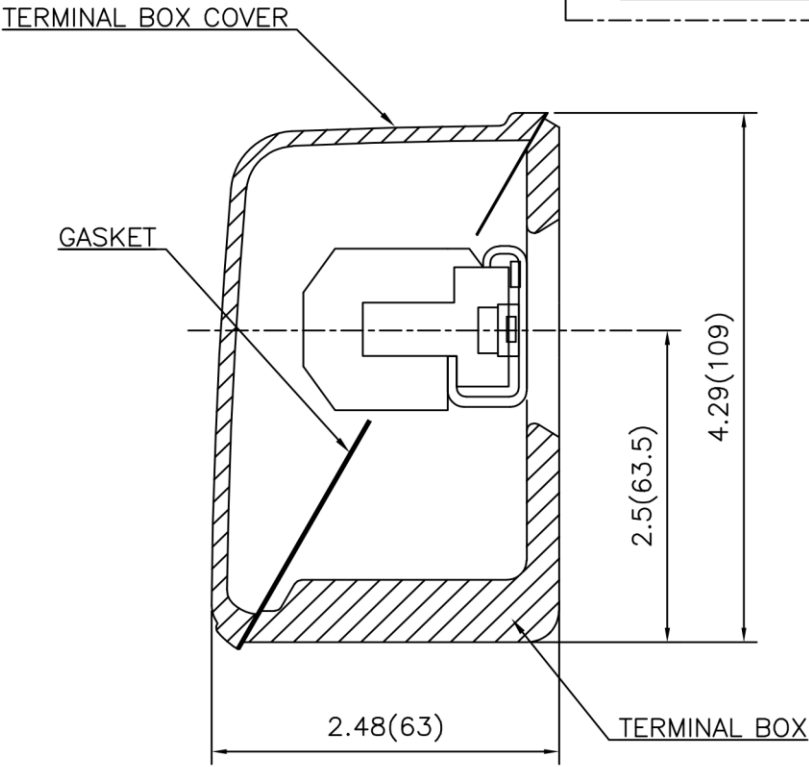
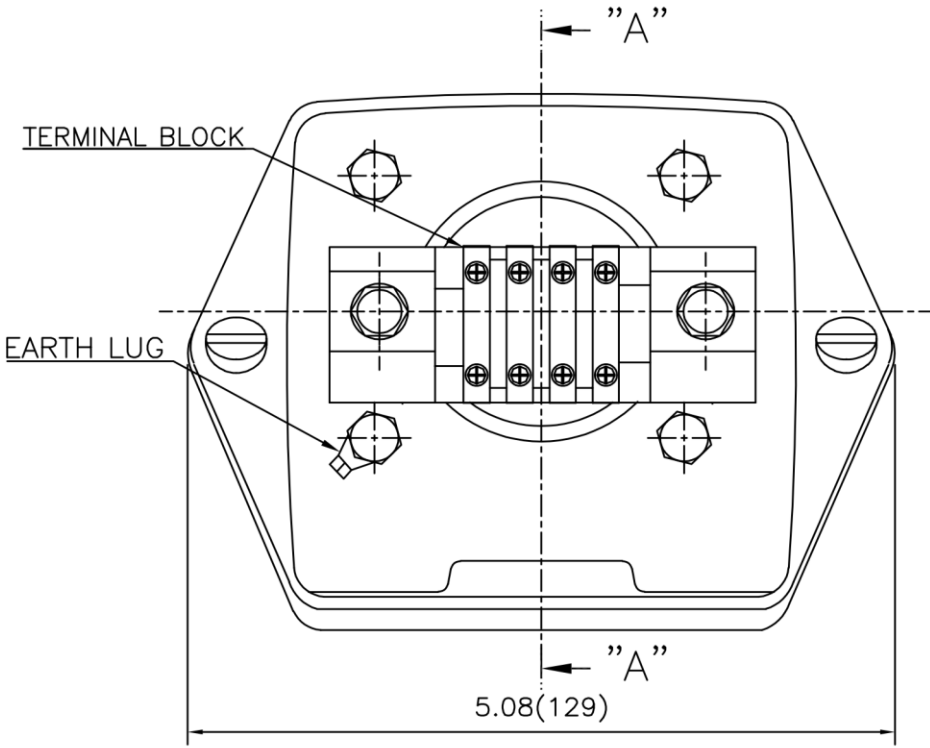
SEC. "A" - "A"

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	REF. NO		Sheet No. of
DSND BY	내수위	DATE	2023-10-19	DWG NO	3M-248452	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



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

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY