

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.	HSDE300-12-L449TC-IBSH	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION			PERFORMANCE DATA				
Frame Size	L449TC		Rated Output	225 kW		300 HP	
Type	PJP		Number of Poles	6			
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	280.7 A	350.9 A	701.9 A
Insulation Class	F			Locked-rotor**	675 %	675 %	675 %
Temp. Rise at full load (by resistance method)			Efficiency				
	at 1.0 S.F	80 deg. C	50% Load 92.8 %				
Motor Location	☐ Indoor ☐ Outdoor		75% Load 94.8 %				
Altitude	Less than 1,000 meter		100% Load 95.8 %				
Relative Humidity	Less than 80 %		Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)		50% Load 0.690				
Duty Type	Continuous (S1)		75% Load 0.790				
Service Factor	1.15		100% Load 0.840				
Mounting	B35		Speed at Full Load	1185 r.p.m			
Bearing	Type	Anti-Friction	Torque				
	DE/N-DE	6322C3 / 6318C3-INS.	Full Load 1337.65 lb.ft				
	Lubricant	Grease(Polyrex-EM)	Locked-rotor** 135 %				
External Thrust	Not applicable		Breakdown** 220 %				
Coupling Method	☒ Direct ☐ V-belt		Moment of Inertia (J)				
Shaft Extension	Single		Load(Max.) 3,240.000 lb.ft2				
Terminal	Main	Cast Iron	Motor 172.297 lb.ft2				
Box	Aux.	Yes	Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing	80 dB(A)				
Application			Vibration 3.8 mm/sec (peak)				
Area classification	Hazardous		Permissible number of Cold 2 times				
Type of Ex-Protection	Class I&II, Division 2		consecutive starts 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.)				
			B35	LM-T044XC4UE001	3420 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

300HP		6P	460V	Cat. No.	HSDE300-12-L449TC-IBSH				
Model	LATER			INS. Class	F		Amps	350.9A	
Type	PJP	Duty	CONT	Code	G	Amb.	40°C	Hertz	60Hz
Frame	L449TC	Encl.	TEFC	S.F.	1.15	RPM	1185	NEMA Nom. Eff.	95.8%
Bearing	Drive	6322C3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				3/4 Eff.	94.8%
	Opp.	6318C3-INS.						NEMA Design	B Torque
Usable at	50Hz 250HP 380V 358.7A 985rpm S.F.: 1.0 Eff.: 95.8% Code: G								
	50Hz 250HP 400/415V 353.4/353.7A 986/987rpm S.F.: 1.0 Eff.: 95.8/95.8% 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 (sine wave)		Frame	L440FR - 500FR	
							Amb. 40°C	T3 (200°C)	
							Amb. 55°C	T3 (200°C)	
No.	-			Date	-			Weight	3420 lb
4M-136053				Made in Korea H1				HD HYUNDAI ELECTRIC	
MARINE DUTY IEEE45									

2.36

WIRING DIAGRAM

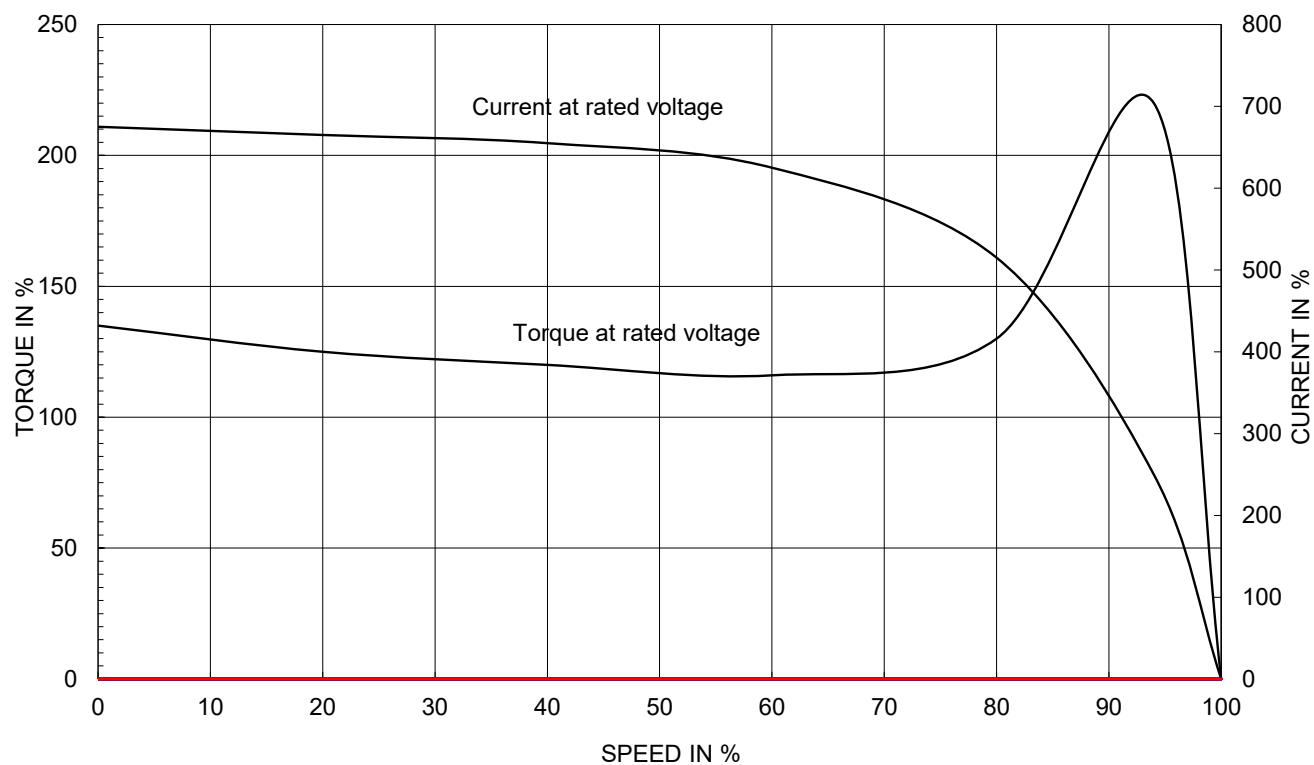
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND 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	TITLE				
DSND BY	S.H.LEE	DATE	2024.06.07	NAMEPLATE DRAWING				
HD HYUNDAI ELECTRIC				REF. NO	4M-136053 / 4M-129326	Sheet No.	of	
				DWG NO	NP-HSDE300-12-L449TC-IBSH	Revision No.	0	

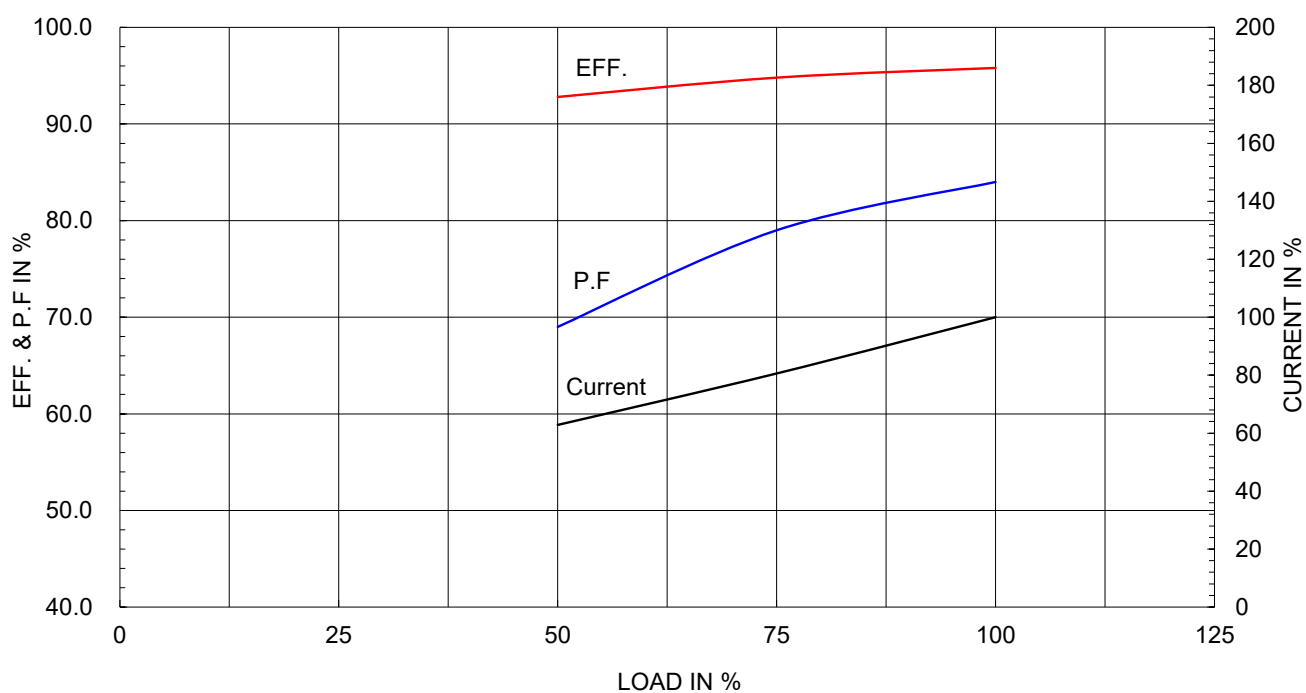
Type :	PJP	
Full Load Torque :	1337.65	lb.ft
Load moment of Inertia (J) :	3240.000	lb.ft2
Motor moment of Inertia (J) :	172.297	lb.ft2

225kW	300HP	6 P	60 Hz
Speed at Full Load :			1185 RPM
Rated Voltage	575V	460V	230V
Full Load Current	280.7A	350.9A	701.9A

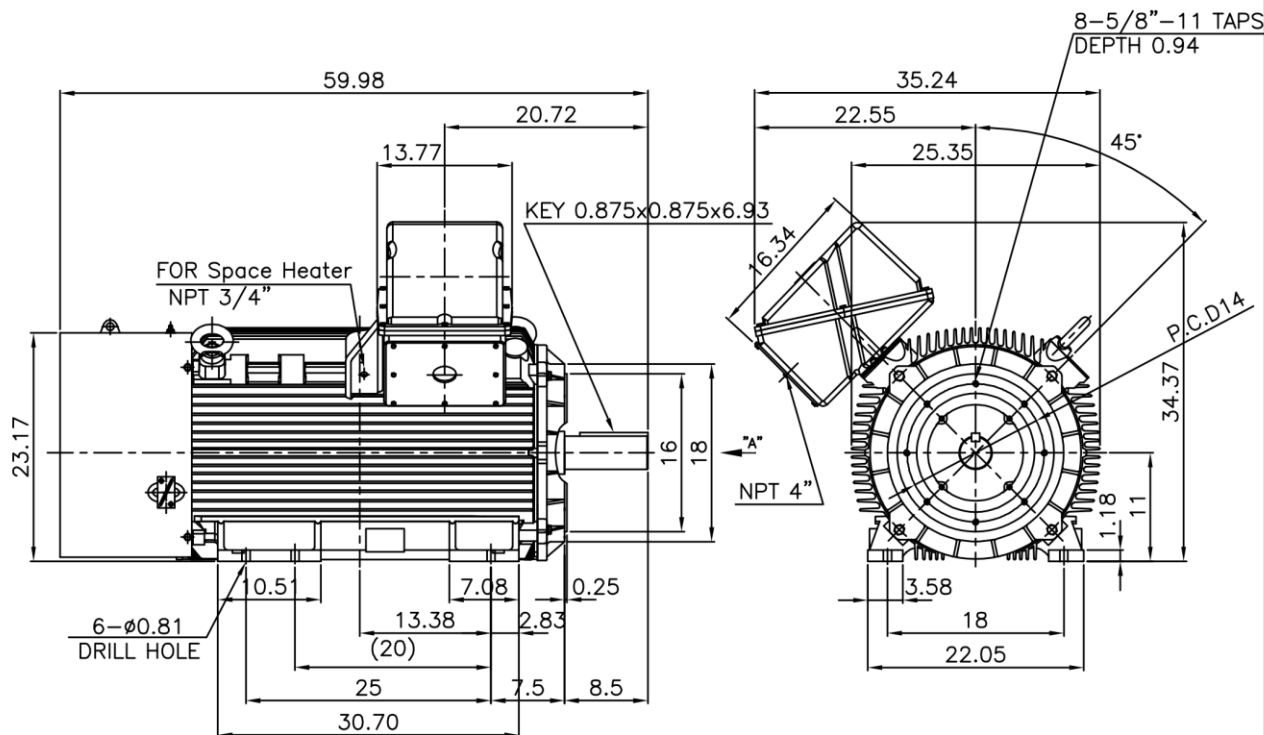
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



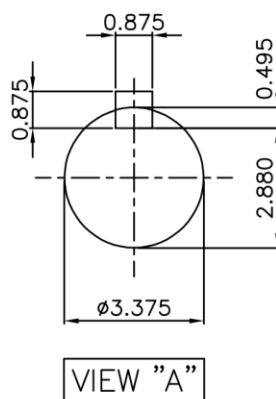
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▽	50S	REV	DATE
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▽▽▽	3.2S		
▽▽▽▽	0.4S		



NOTE

1.TOLERANCE :

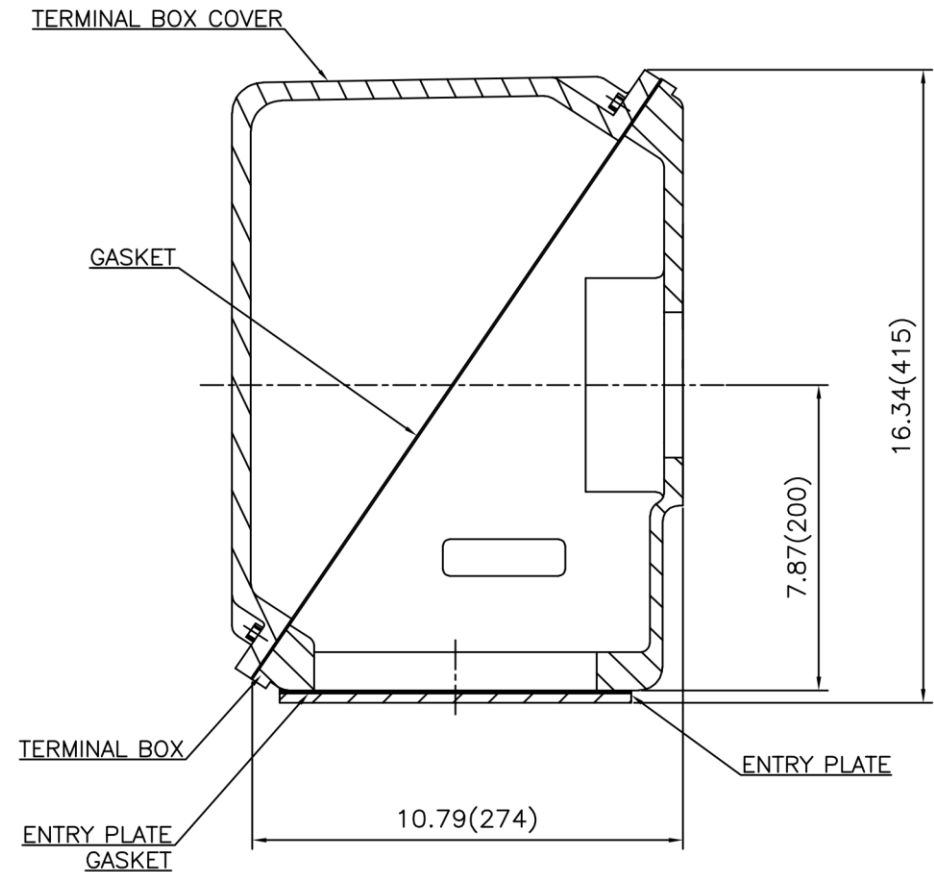
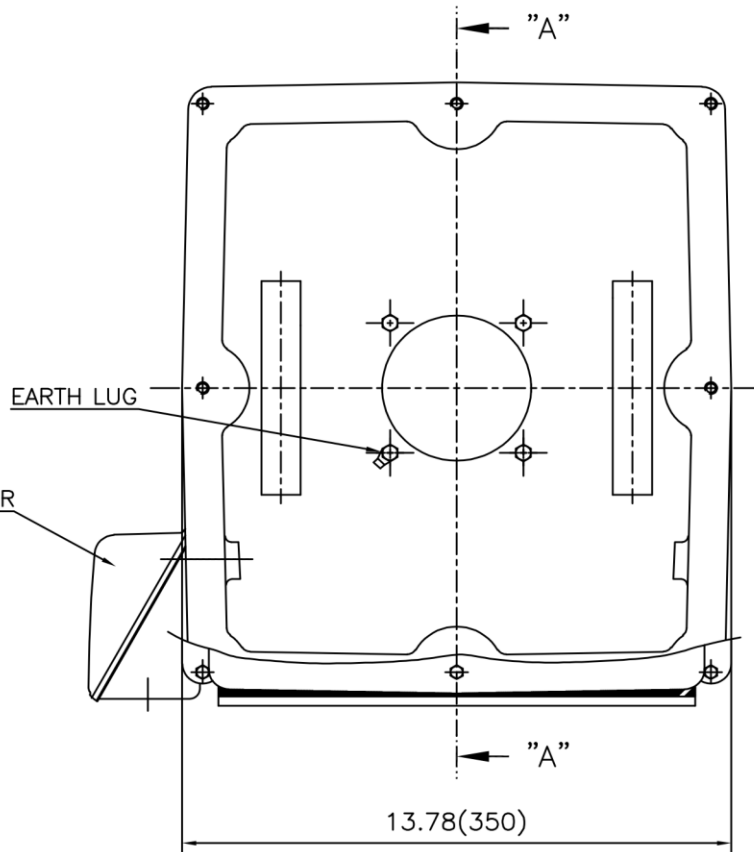
CENTER HEIGHT	11	+0.000 -0.060
RABBET DIAMETER	Ø16	0 -0.005
SHAFT DIAMETER	Ø3.375	+0.000 -0.001
KEYWAY WIDTH	0.875	+0.003 -0.000



APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.L449TC	DWG SIZE
CHKD BY	O.J.KIM	SCALE	1/18	TITLE	OUTLINE	A4 (1:18)
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)			
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

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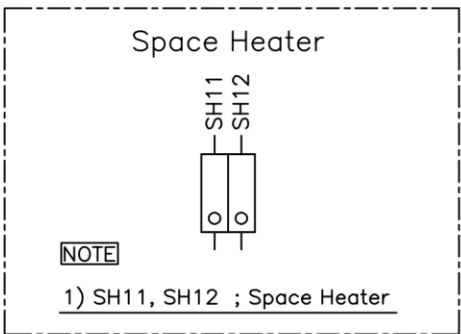
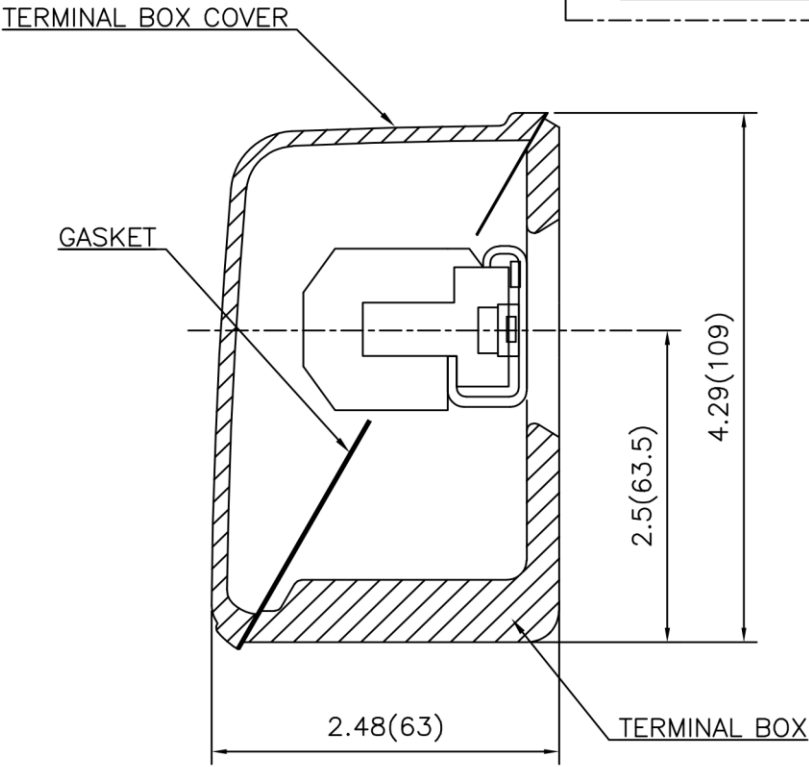
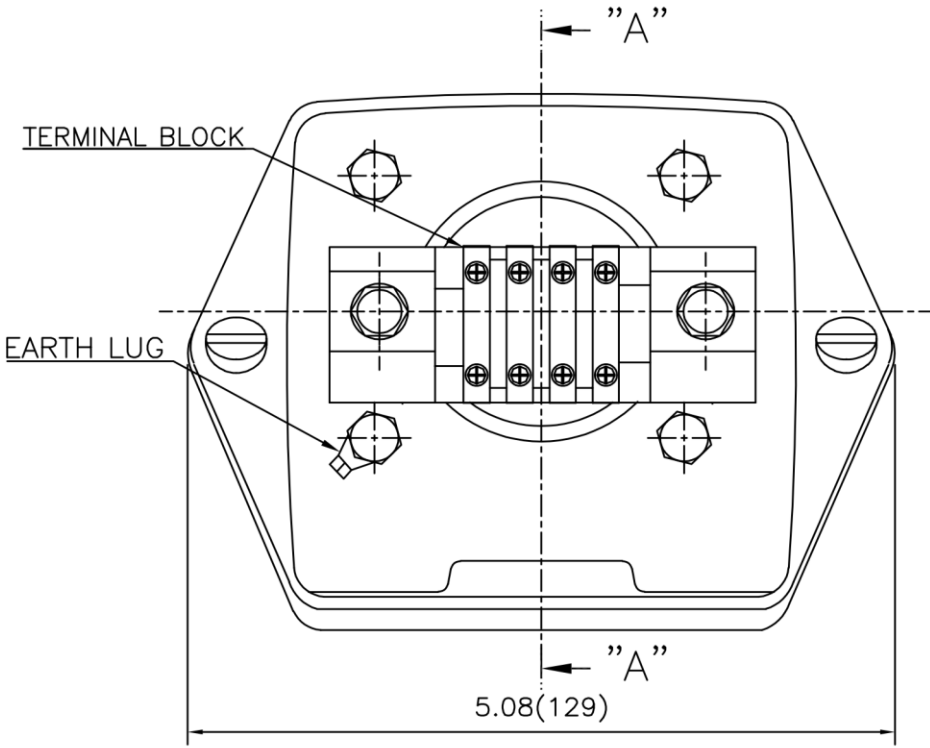


SEC. "A" - "A"

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
1						
2						
3						
4						

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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