

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
Insulation Class	F		Locked-rotor**	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	<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			
	DE/N-DE	NU322 / 6318C3-INS.			
	Lubricant	Grease(Polyrex-EM)			
External Thrust	Not applicable				
Coupling Method	<input type="checkbox"/> Direct <input type="checkbox"/> V-belt	Torque			
Shaft Extension	Single	Full Load		1,184.0 lb.ft	
Terminal Box	Main	Cast Iron			
	Aux.	Yes			
	Location	Refer to Outline Drawing			
Application		Locked-rotor**		135 %	
Area classification	Hazardous	Breakdown**		225 %	
Type of Ex-Protection	Class I&II, Division 2	Moment of Inertia (J)			
Applicable Standard	NEMA MG1, CSA C390	Load(Max.)		1,550.000 lb.ft2	
		Motor		129.342 lb.ft2	
		Sound Pressure Level (No-load & mean value at 1m from motor)			
		85 dB(A)			
		Vibration			
		3.8 mm/sec (peak)			
		Permissible number of consecutive starts		Cold 2 times	
				Hot 1 time	
		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	

ACCESSORIES
*. Space Heater : 1EA/Motor

SPARE PARTS

SUBMITTAL DRAWING		
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
 - . 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; Temp code : T3
 - . Class II, Division 2 Group F & G; Temp code : T3
5. Shaft material : AISI4140

Date	DSND	CHKD	CHKD	APPD
2024-07-13	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.

본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)



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1	2	3	4
REV	DATE	CONTENTS	REVD BY

4.72


CROWN TRITON

Premium Efficiency AC 3 Phase Motor



400HP	4P	460V	Cat. No.	HSDE400-18-L449T-IBSH			
Model	LATER	INS. Class	F	Amps	444.8		
Type	PJP	Duty	CONT	Code	G	Amb. 40°C	
Hertz	60Hz						
Frame	L449T	Encl.	TEFC	S.F.	1.15	RPM	
NEMA Nom. Eff.		96.2%					
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							
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	-	Weight	3620 lb		

4M-136053 Made in Korea H1 

2.36

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	NAMEPLATE DRAWING
DSND BY	S.H.LEE	DATE	2024.06.07				

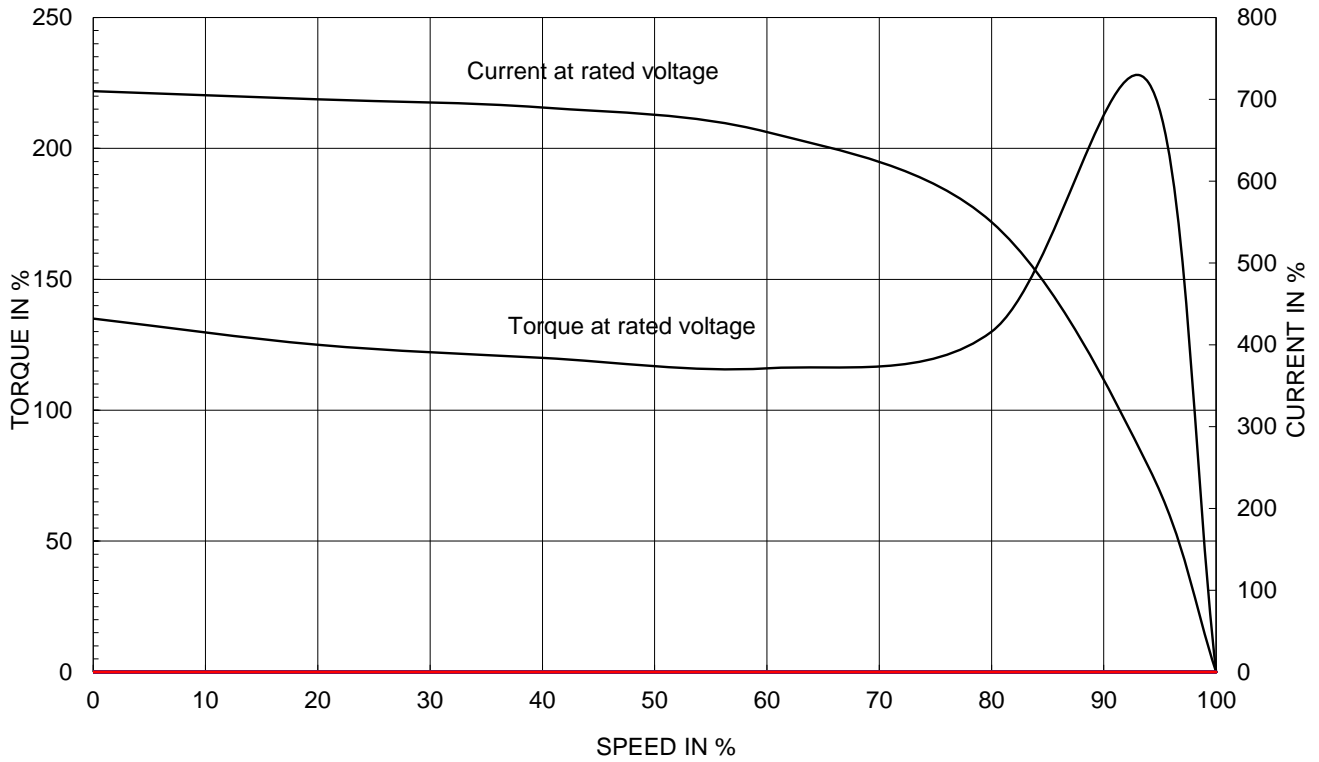


REF. NO	4M-136053	Sheet No.	of
DWG NO	NP-HSDE400-18-L449T-IBSH	Revision No.	0

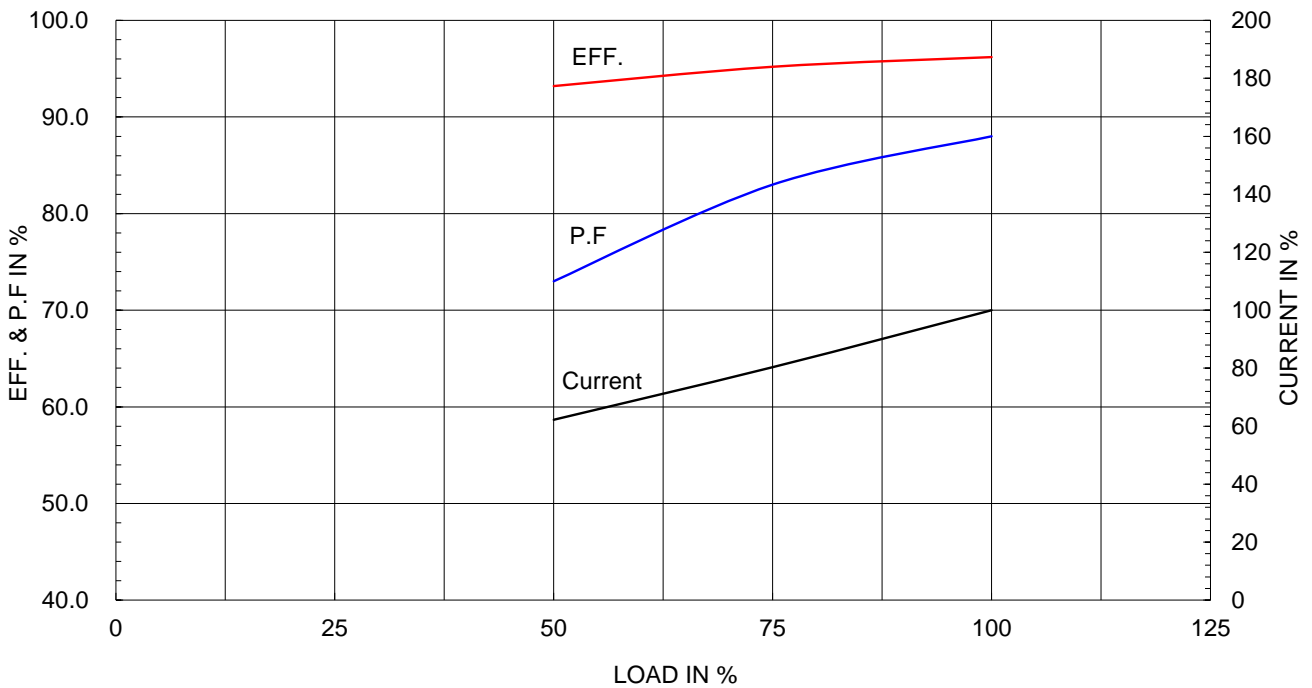
Type :	PJP
Full Load Torque :	1184.0 lb.ft
Load moment of Inertia (J) :	1550.000 lb.ft2
Motor moment of Inertia (J) :	129.342 lb.ft2

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



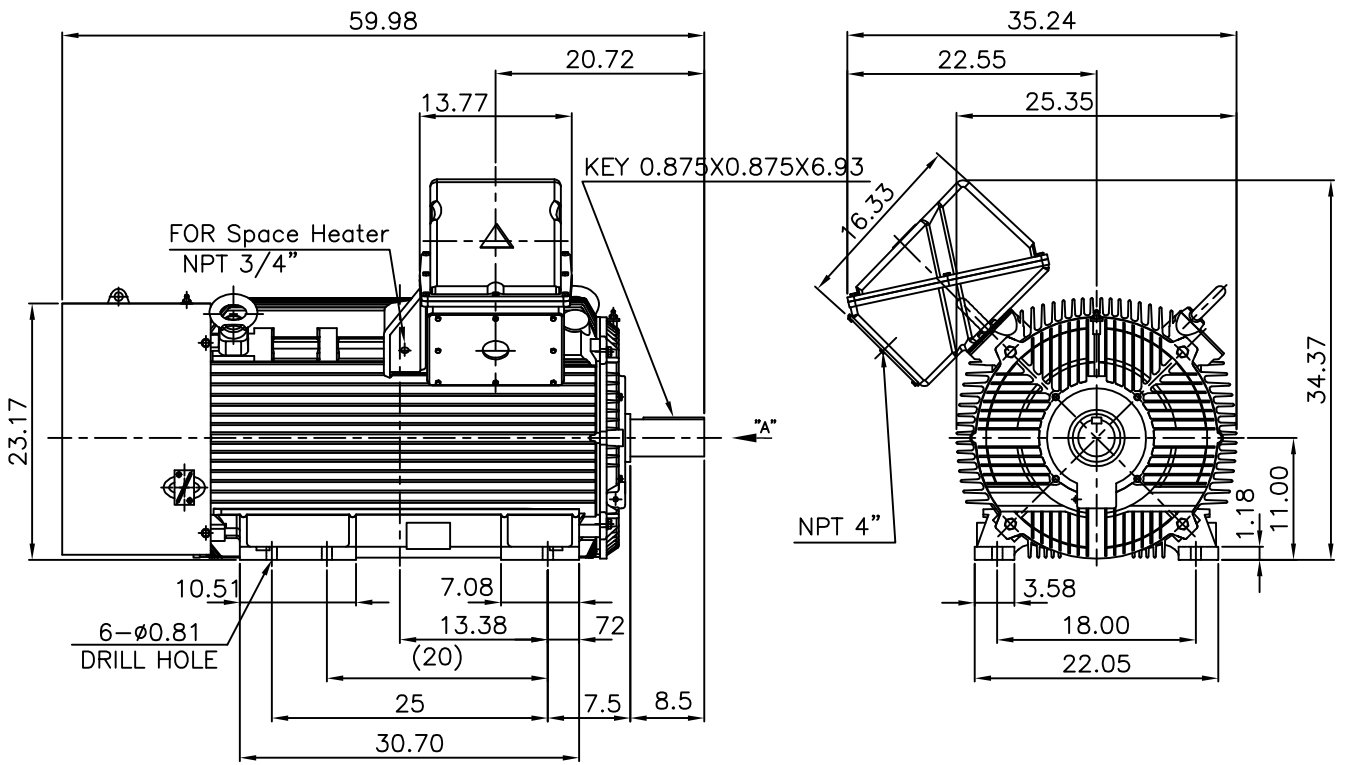
OUTPUT VS EFF., P.F & CURRENT CURVE



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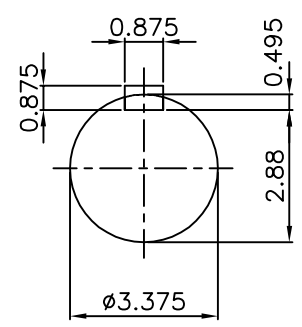
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▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



NOTE

1.TOLERANCE :

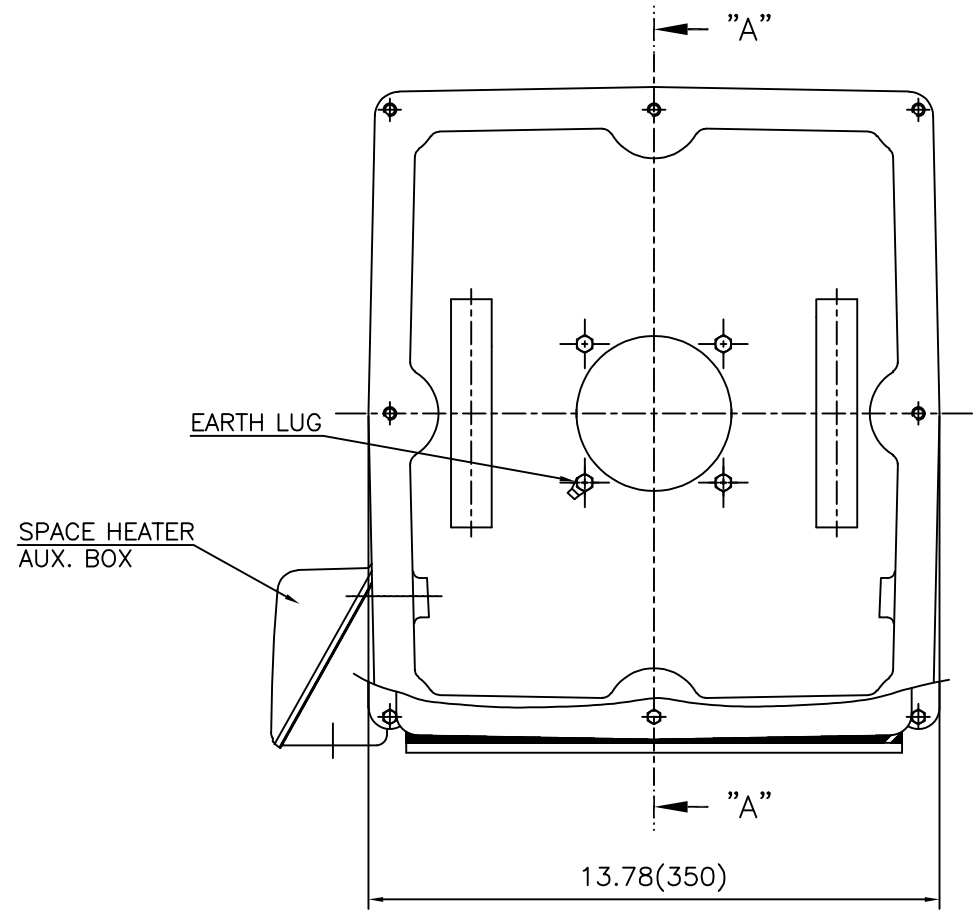
CENTER HEIGHT	11	+0.000	-0.060
SHAFT DIAMETER	∅3.375	+0.000	-0.001
KEYWAY WIDTH	0.875	+0.003	-0.000



VIEW "A"

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.L449T	DWG SIZE
CHKD BY	O.J.KIM	SCALE	1/18			A4 (1:18)
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)	TITLE		NEMA STD SHAFT(4140 SHAFT) OUTLINE
DSND BY	H.K.LEE	DATE	2021-04-27			

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IEEE 841**

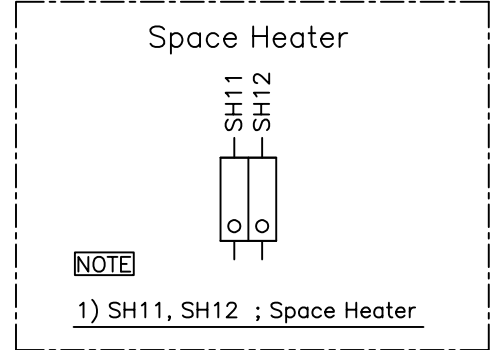
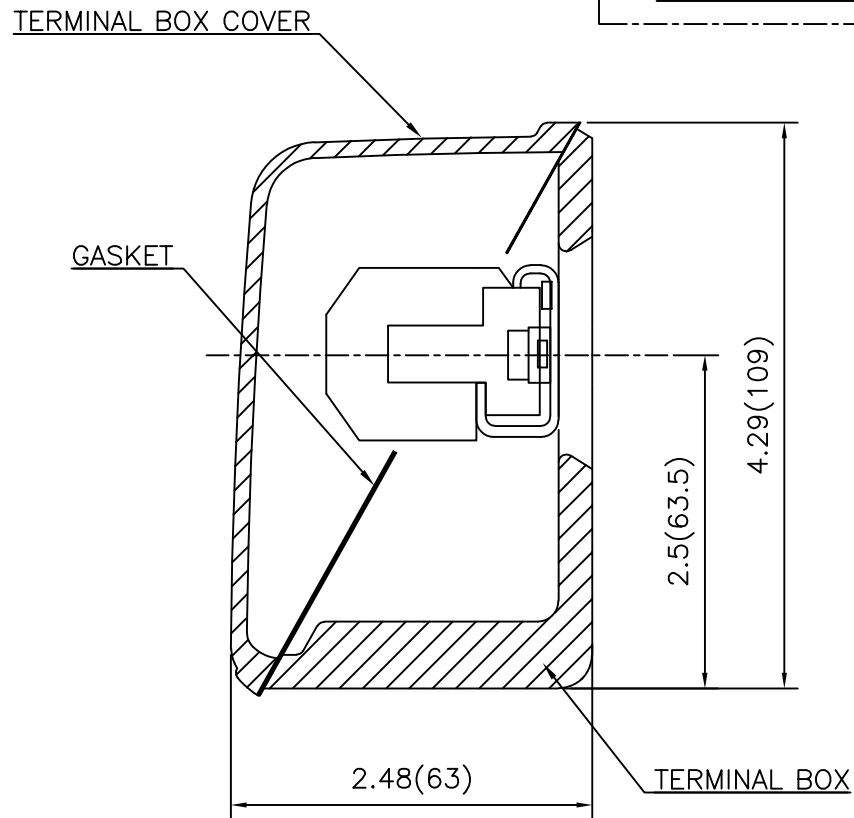
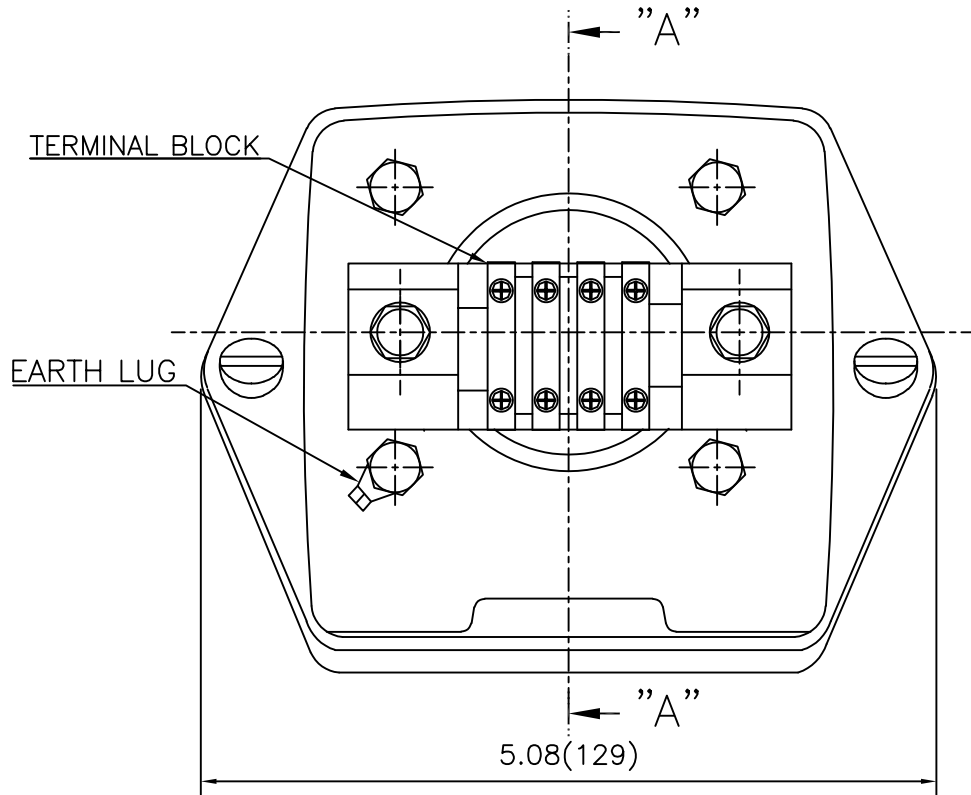


SEC. "A" - "A"

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

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	A3 (1:3.5)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	최승희	DATE	2023-10-19			
				REF. NO		Sheet No. of
				DWG NO	3M-248452	Revision No. 0

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IEEE 841



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-165277	Revision No. 0