

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.	HSDE300-18-L449T-IBSH	Item No.	Rev. No. [     ]
Project Name		Project No.	Quantity                    sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	L449T	Rated Output	225 kW                    300 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	266.9 A                    333.6 A                    667.2 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	<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	Torque		
	DE/N-DE	NU322 / 6318C3-INS.	Full Load	888.0 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	135 %	
External Thrust	Not applicable		Breakdown**	225 %	
Coupling Method	<input type="checkbox"/> Direct <input type="checkbox"/> V-belt	Moment of Inertia (J)			
Shaft Extension	Single	Load(Max.)                    1,200.000 lb.ft2			
Terminal Box	Main	Cast Iron	Motor                    101.100 lb.ft2		
	Aux.	Yes	Sound Pressure Level (No-load & mean value at 1m from motor)		
	Location	Refer to Outline Drawing	85 dB(A)		
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

\*. Space Heater : 1EA/Motor

### SPARE PARTS

### SUBMITTAL DRAWING

Outline Dimension Drawing		Motor Weight(Approx.)	
B3	LM-T044XB3UE001	2890 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

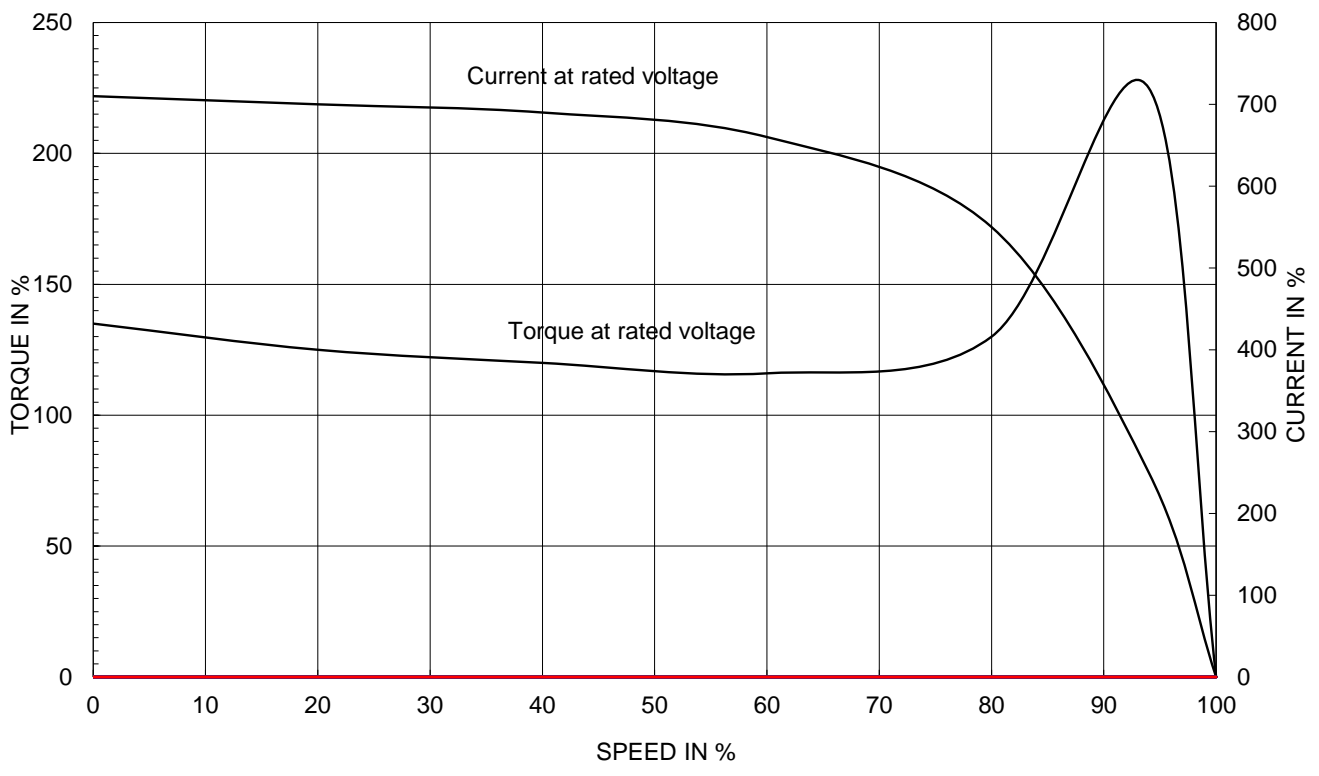
[Note] Others not mentioned in this data sheet shall be in accordance with maker standard.  
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.  
 Inspection and performance test shall be done according to maker standard, if not mentioned.  
 \* 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.

1		2		3		4	
REV	DATE	CONTENTS		REVD BY	CHKD BY	CHKD BY	APPD BY
<p><b>4.72</b></p>							
<p><b>CROWN TRITON</b> Premium Efficiency AC 3 Phase Motor</p>							
300HP 4P 460V				Cat. No. HSDE300-18-L449T-IBSH			
Model LATER		INS. Class F		Amps 333.6			
Type PJP		Duty CONT		Code G		Amb. 40°C	
Hertz 60Hz		RPM 1785		NEMA Nom. Eff. 96.2%			
Frame L449T		Encl. TEFC		S.F. 1.15		3/4 Eff. 95.2%	
Bearing Drive NU322		Opp. 6318C3-INS.		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		NEMA Design B Torque	
Usable at							
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)	
No. -		Date -		Frame L440FR - 500FR		Amb. 40°C T3 (200°C)	
				Amb. 55°C T3 (200°C)			
				Weight 2890 lb			
4M-136053		Made in Korea H1					
<p><b>MARINE DUTY IEEE45</b></p>							
<p><b>2.36</b></p>							
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	TITLE	NAMEPLATE DRAWING		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO	4M-136053		Sheet No. of
DSND BY	S.H.LEE	DATE	2024.06.07	DWG NO	NP-HSDE300-18-L449T-IBSH		Revision No. 0
1		2		3		4	

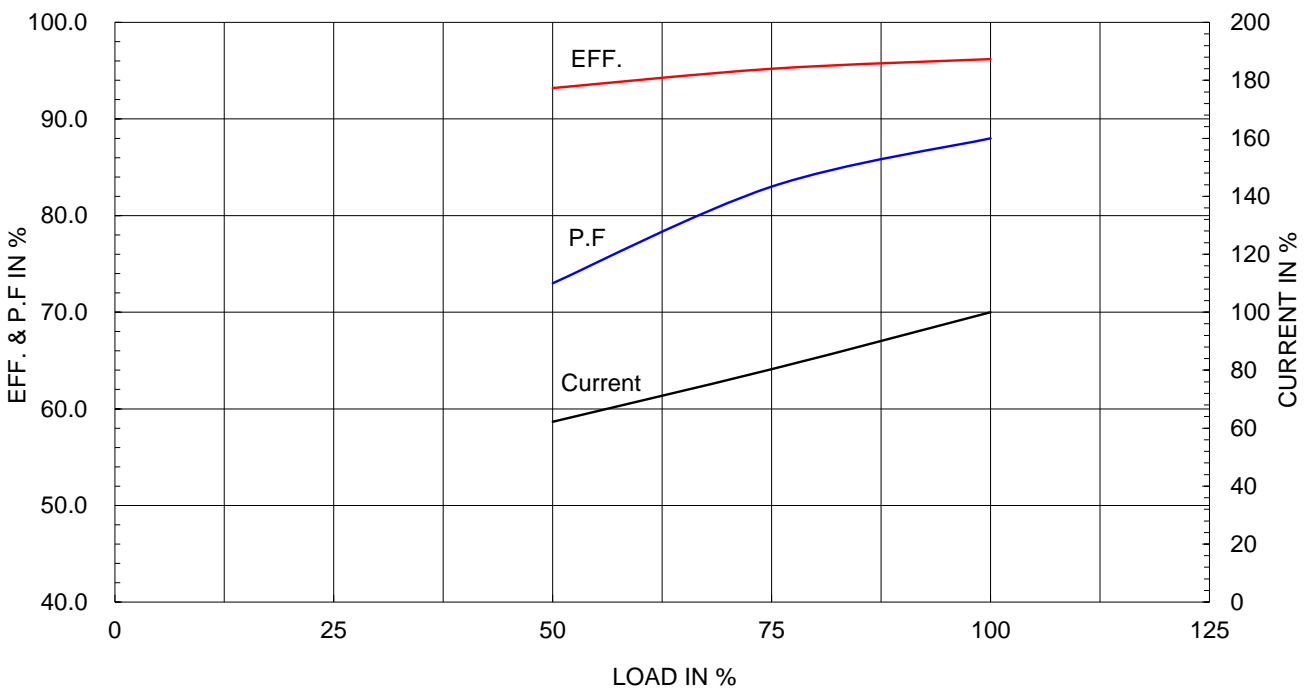
Type :	PJP
Full Load Torque :	888.0 lb.ft
Load moment of Inertia (J) :	1200.000 lb.ft2
Motor moment of Inertia (J) :	101.100 lb.ft2

225kW	300HP	4 P	60 Hz
Speed at Full Load :			1785 RPM
Rated Voltage	575V	460V	230V
Full Load Current	266.9A	333.6A	667.2A

SPEED VS TORQUE & CURRENT CURVE



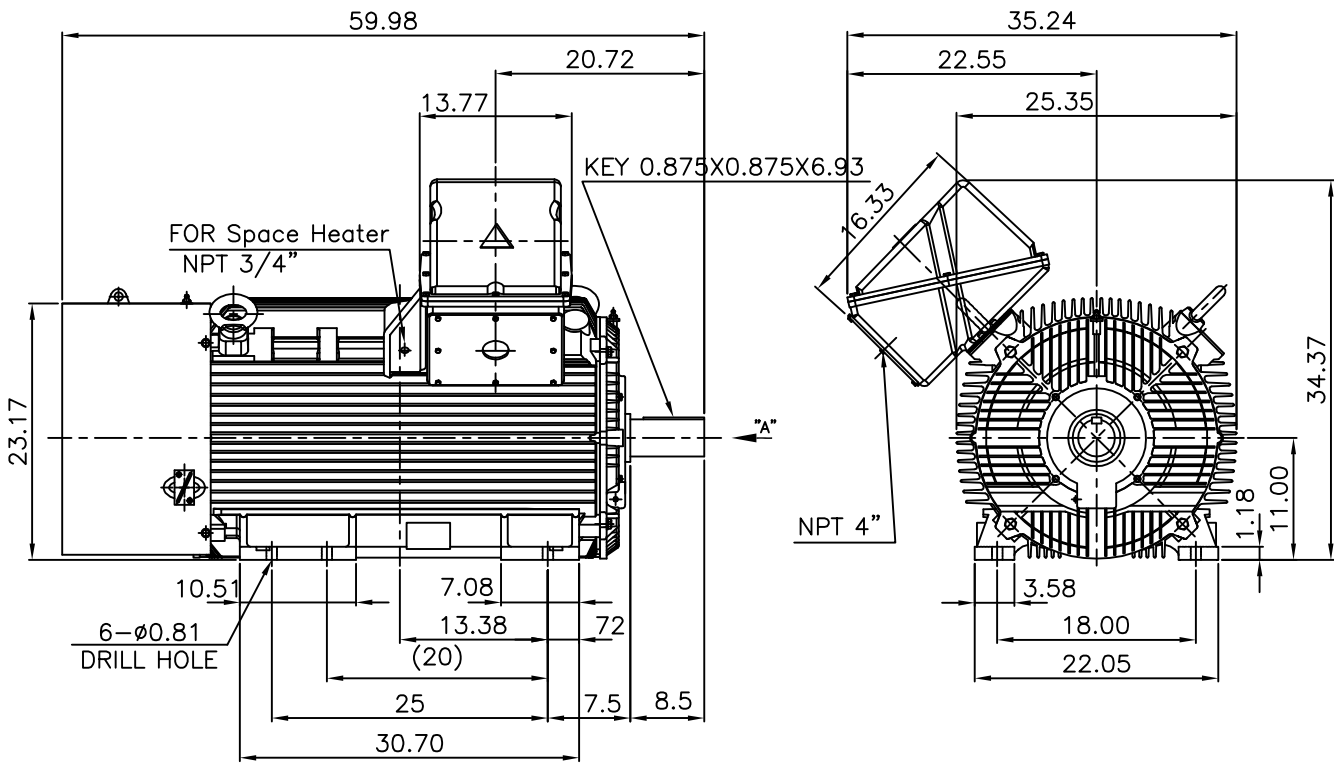
OUTPUT VS EFF., P.F & CURRENT CURVE



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

THIS DRAWING IS PROPRIETARY TO HYUNDAI ELECTRIC. NO PART OF THIS DRAWING MAYBE REPRODUCED WITHOUT THE PERMISSION OF HYUNDAI ELECTRIC.

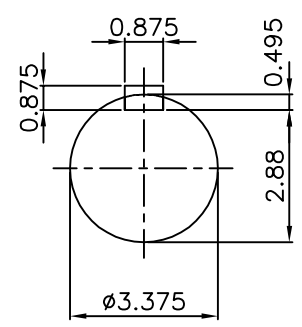
▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



**NOTE**

1.TOLERANCE :

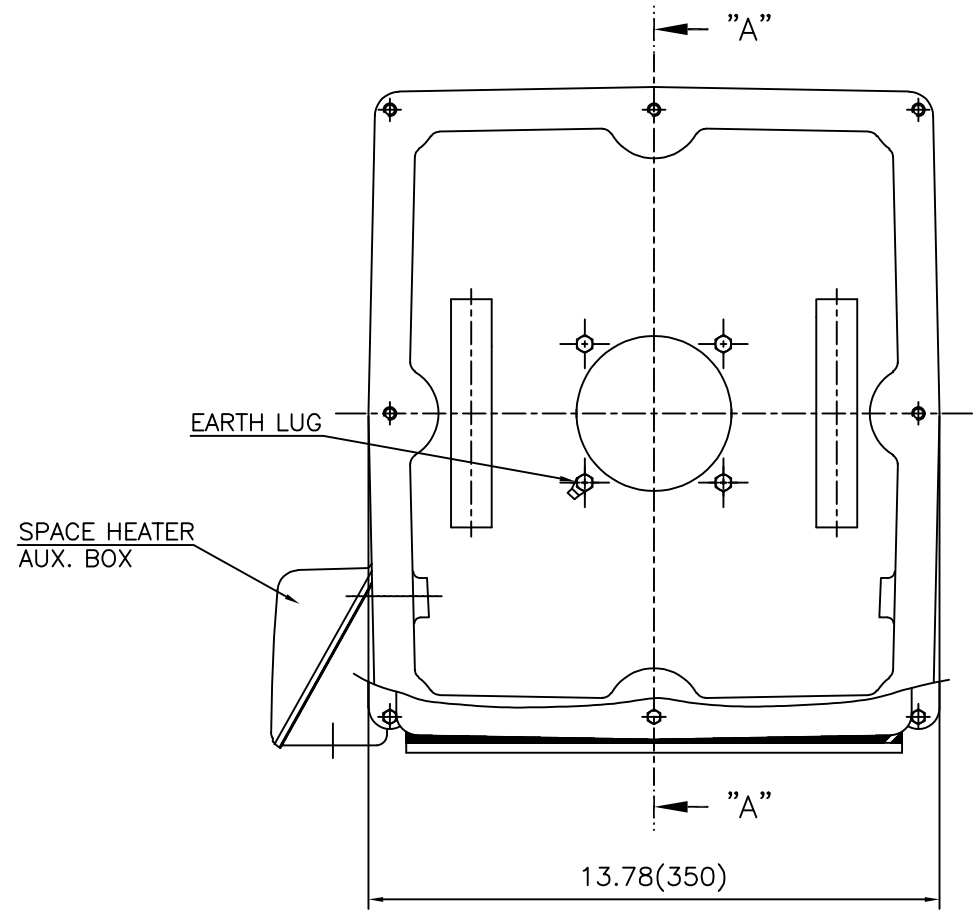
CENTER HEIGHT	11	+0.000	-0.060
SHAFT DIAMETER	ø3.375	+0.000	-0.001
KEYWAY WIDTH	0.875	+0.003	-0.000



VIEW "A"

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.L449T	DWG SIZE	A4 (1:18)
CHKD BY	O.J.KIM	SCALE	1/18			TITLE	NEMA STD SHAFT(4140 SHAFT)
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)	OUTLINE			Sheet No. of
DSND BY	H.K.LEE	DATE	2021-04-27				REF. NO
				DWG NO	LM-T044XB3UE001		

**Cls. I&II, Div. 2**  
**IEEE 841**

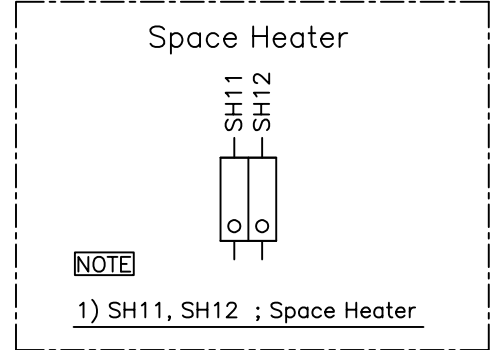
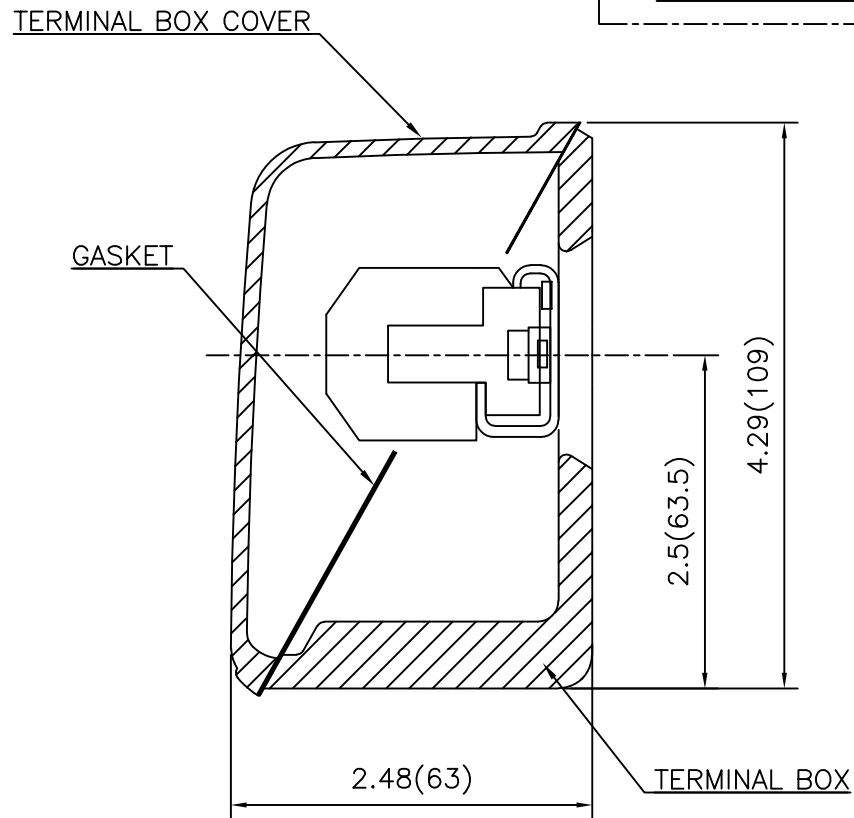
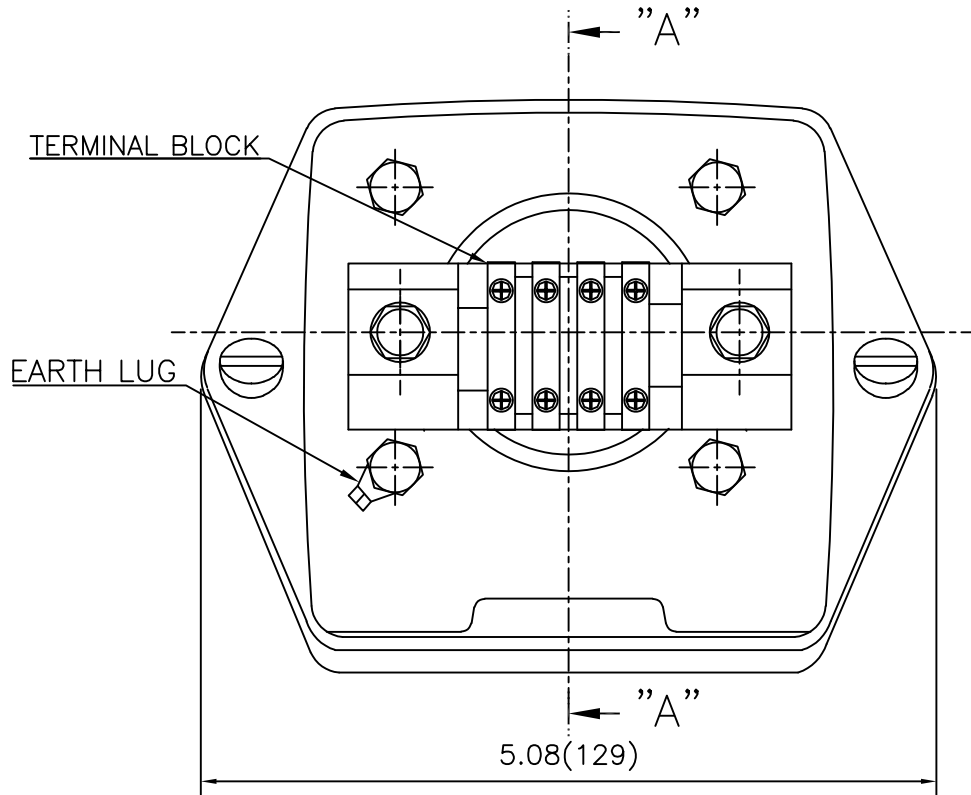


SEC. "A" - "A"

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

**Cls. I&II, Div. 2  
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