

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

IEEE841 TYPE

Catalog No.	IEEE450-18-5009-IBSH	Item No.	Rev. No. []
Project Name		Project No.	Quantity sets

GENERAL SPECIFICATION		PERFORMANCE DATA							
Frame Size	5009	Rated Output	335 kW 450 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	392.9 A	491.1 A				
Insulation Class	F		Locked-rotor**	720 %	720 %	720 %			
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		0.740					
Duty Type	Continuous (S1)	75% Load		0.840					
Service Factor	1.15	100% Load		0.890					
Mounting	B3	Speed at Full Load		1785 r.p.m					
Bearing	Type	Anti-Friction							
	DE/N-DE	NU324 / 6320C3-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		1,322.2 lb.ft					
Terminal Box	Main	Locked-rotor**		135 %					
	Aux.	Breakdown**		230 %					
Box Location	Refer to Outline Drawing	Moment of Inertia (J)							
Application		Load(Max.)		1,710.000 lb.ft2					
Area classification	Hazardous	Motor		158.058 lb.ft2					
Type of Ex-Protection	Class I&II, Division 2	Sound Pressure Level (No-load & mean value at 1m from motor)							
Applicable Standard	IEEE841, NEMA MG1, CSA C390			85 dB(A)					
ACCESSORIES *. Space Heater : 1EA/Motor		Vibration				3.8 mm/sec (peak)			
		Permissible number of consecutive starts		Cold	2 times				
				Hot	1 time				
		Paint	Munsell No.	7.5BG6/1.5					
SPARE PARTS		SUBMITTAL DRAWING							
		Outline Dimension Drawing		Motor Weight(Approx.)					
		B3	LM-I0509B3PE001	3970 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.

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CROWN TRITON

Premium Efficiency AC 3 Phase Motor


450HP	4P	460V	Cat. No.	IEEE450-18-5009-IBSH			
Model	LATER		INS. Class	F	Amps	491.1	
Type	PJP	Duty	CONT	Code	G	Amb. 40°C	
Frame	5009	Encl.	TEFC	S.F.	1.15	RPM 1785	
Bearing	Drive	NU324		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff. 95.2%	
	Opp.	6320C3-INS.				NEMA Design B	
Usable at							
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D		CLASS II, Div. 2, Gr. F & G		Temp. Code (sine wave)	Frame L440FR - 500FR	
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC					Amb. 40°C	T3 (200°C)
						Amb. 55°C	T3 (200°C)
No.	-	Date	-	Weight	3970 lb		

IEEE Std 841-2021


4M-136054

MARINE DUTY IEEE45

Made in Korea H1



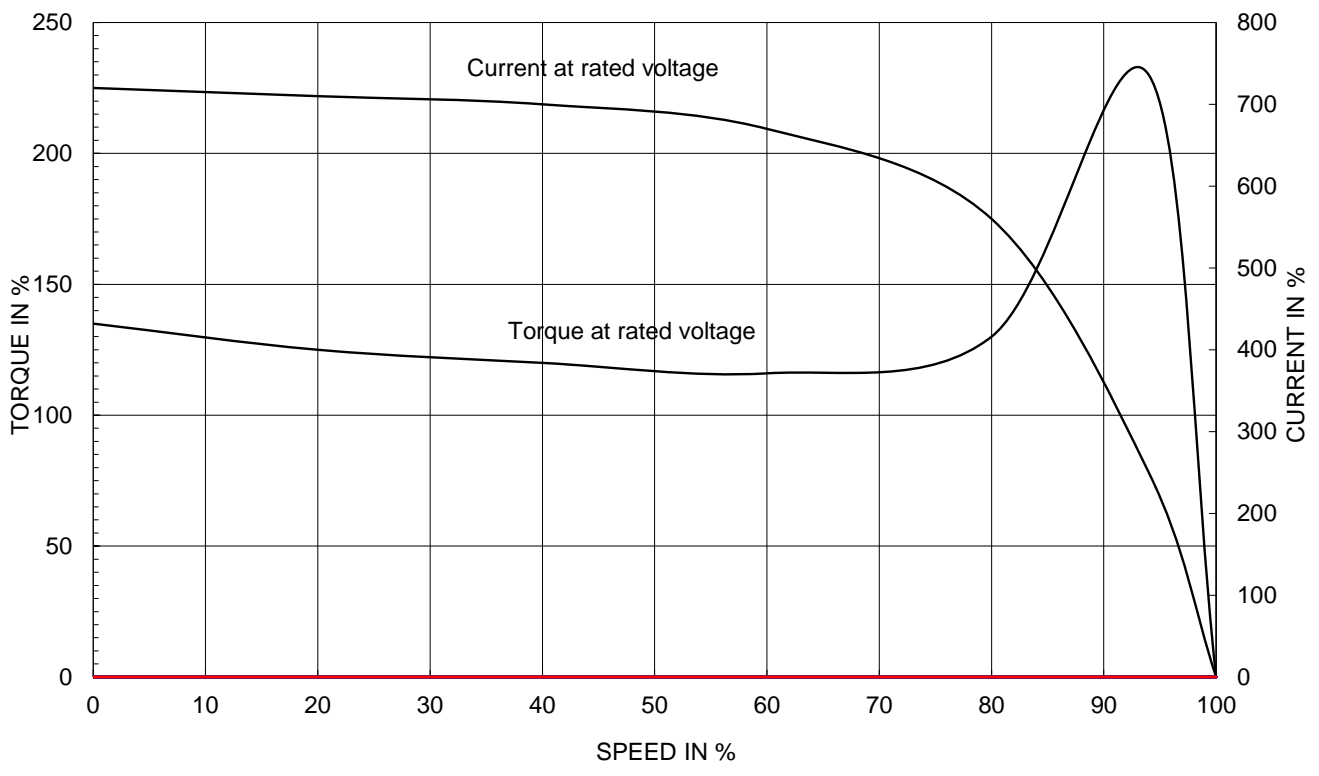
2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (XL)	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-136054	Sheet No. of
				DWG NO	NP-IEEE450-18-5009-IBSH	Revision No. 0

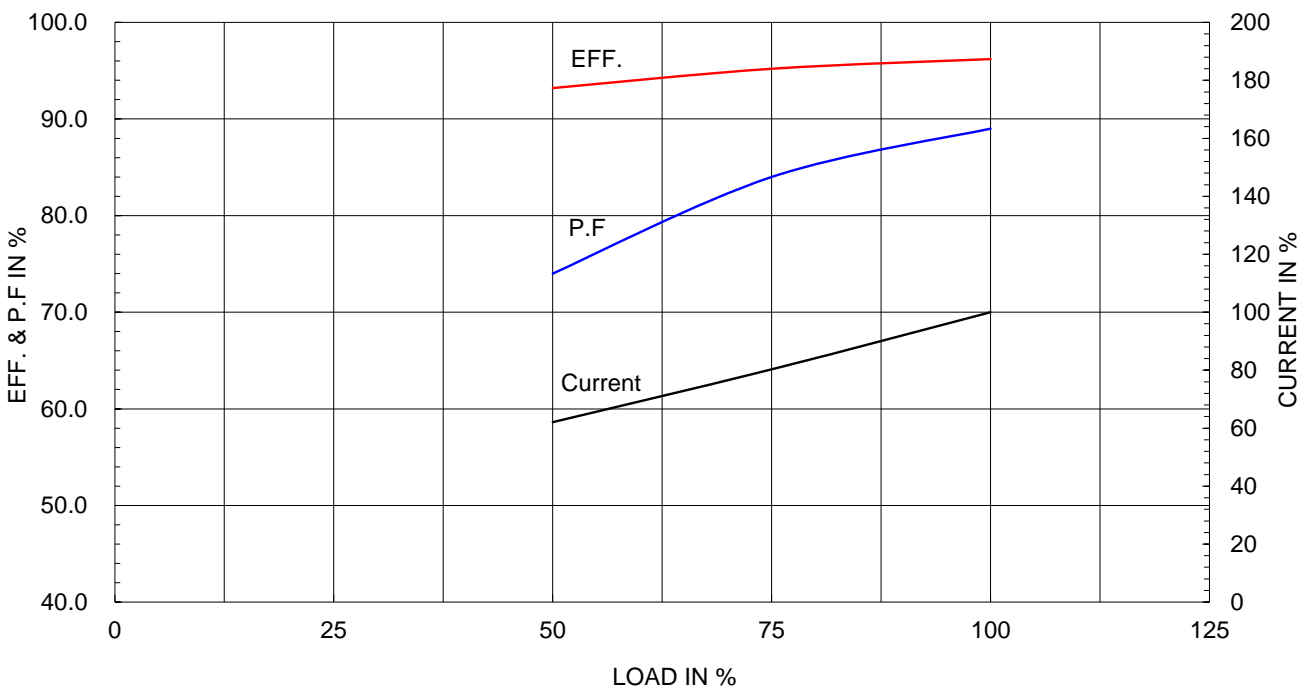
Type :	PJP
Full Load Torque :	1322.2 lb.ft
Load moment of Inertia (J) :	1710.000 lb.ft2
Motor moment of Inertia (J) :	158.058 lb.ft2

335kW 450HP	4 P	60 Hz
Speed at Full Load :		1785 RPM
Rated Voltage	575V	460V 230V
Full Load Current	392.9A	491.1A 982.2A

SPEED VS TORQUE & CURRENT CURVE

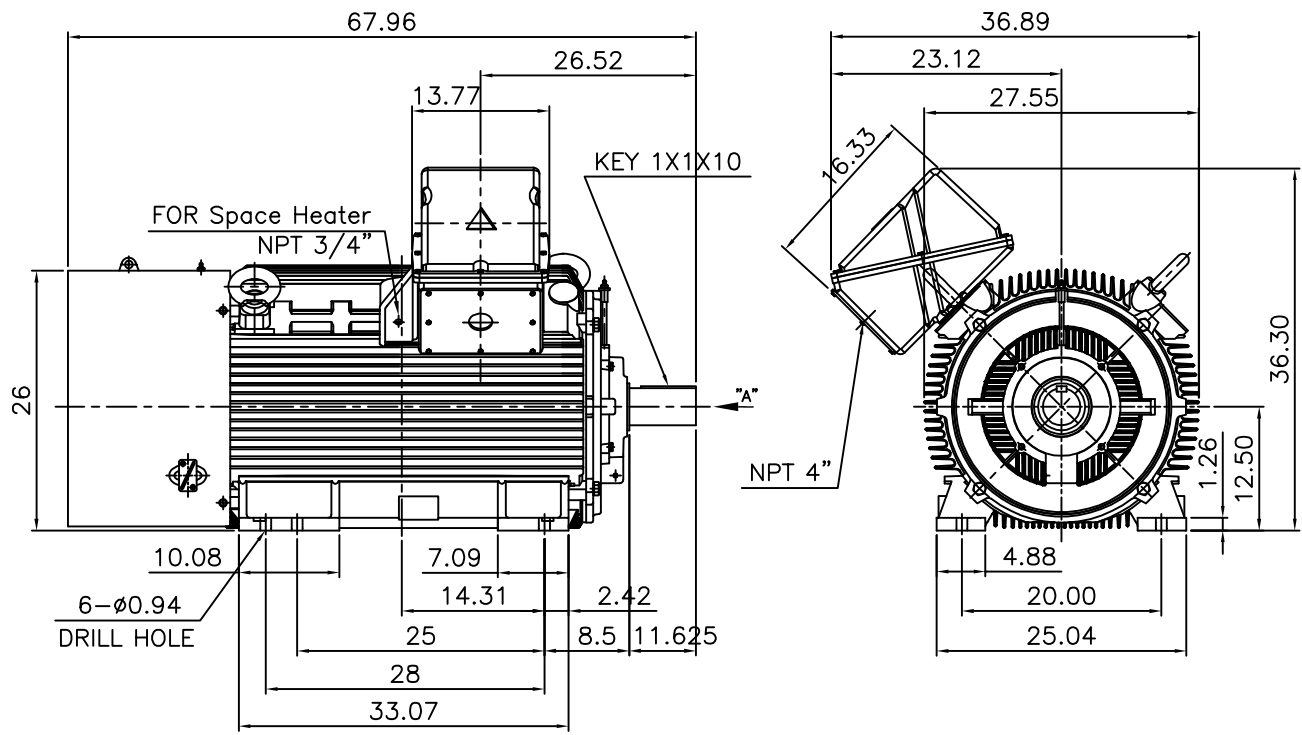


OUTPUT VS EFF., P.F & CURRENT CURVE



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

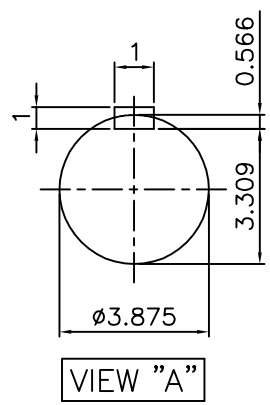
IEEE841



NOTE

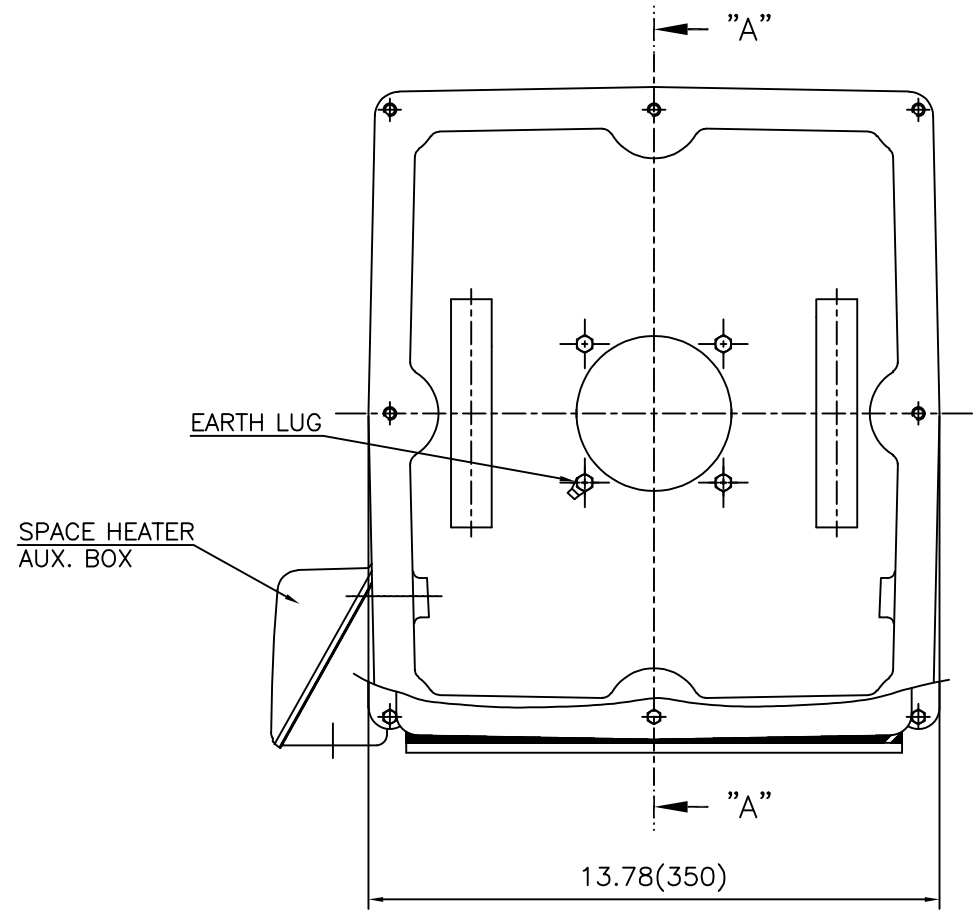
1.TOLERANCE :

CENTER HEIGHT	12.5	+0.000	-0.060
SHAFT DIAMETER	Ø3.875	+0.000	-0.001
KEYWAY WIDTH	1	+0.003	-0.000



APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.5008/5009T	DWG SIZE	A4 (1:19)
CHKD BY	O.J.KIM	SCALE	1/19	TITLE	CAST IRON T-BOX		
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)	OUTLINE			
DSND BY	H.K.LEE	DATE	2021-04-27				
HD HYUNDAI ELECTRIC				REF. NO		Sheet No.	of
				DWG NO	LM-10509B3PE001	Revision No.	0

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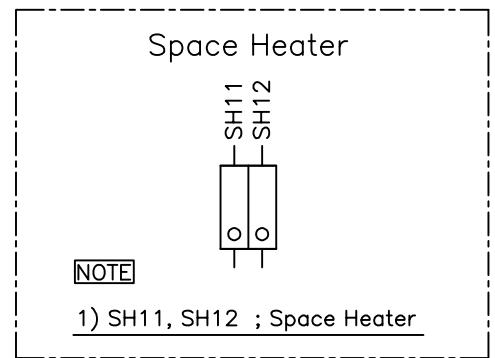
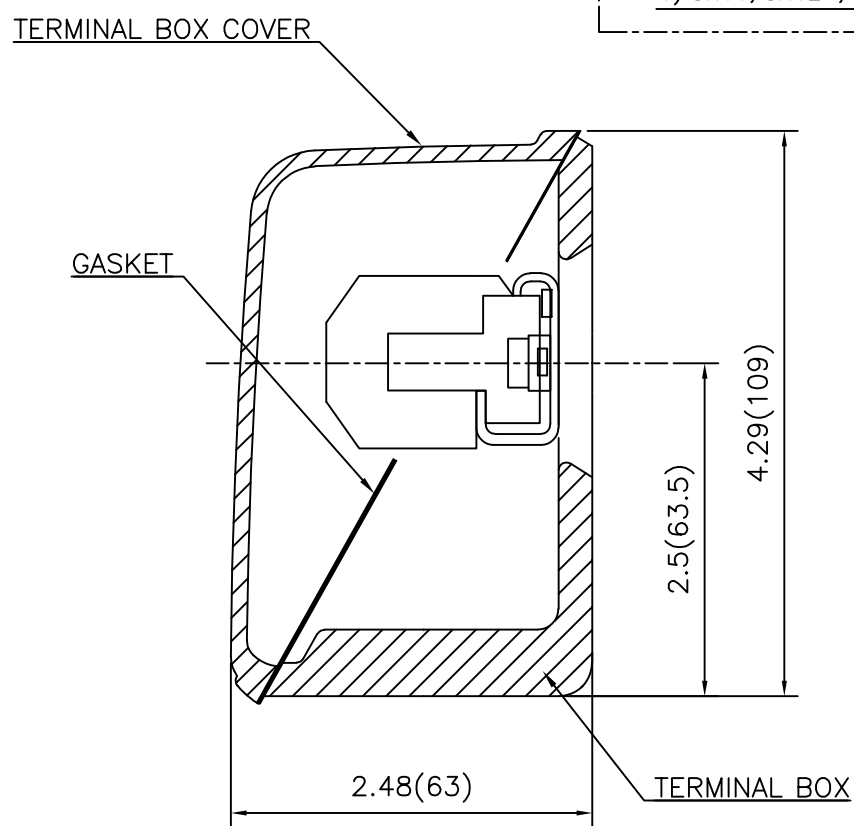
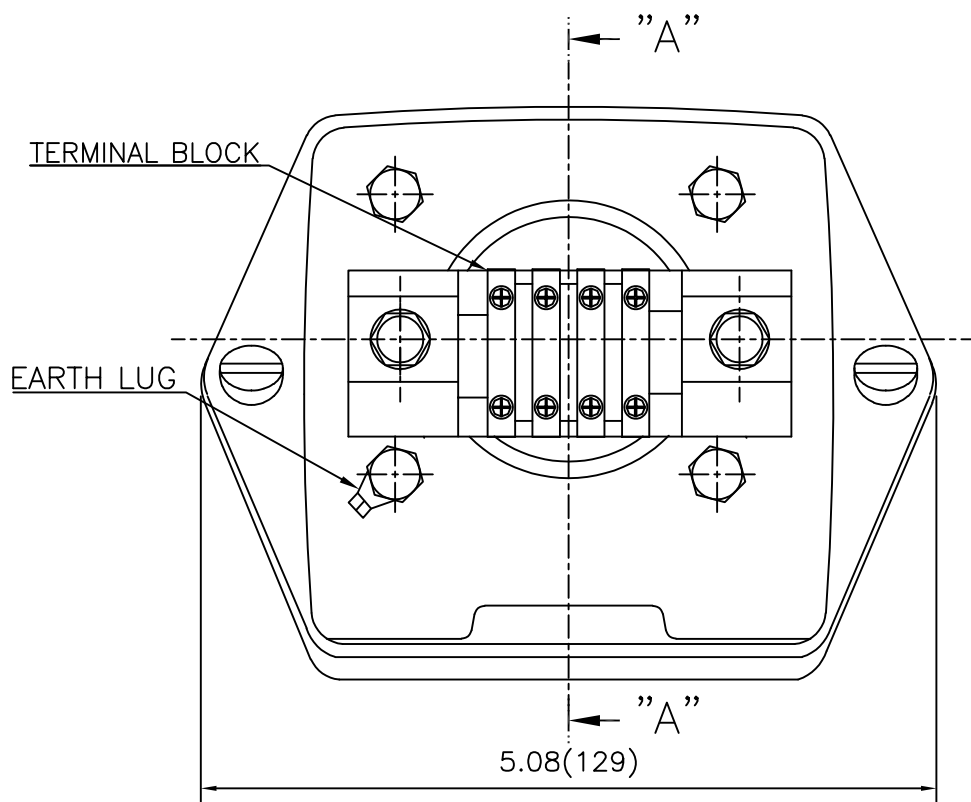


SEC. "A" - "A"

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
1						
2						
3						
4						

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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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-165278	Revision No. 0