

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.		HSDE400-12-5009C-IBSH		Item No.		Rev. No.		[]				
Project Name				Project No.		Quantity		sets				
GENERAL SPECIFICATION					PERFORMANCE DATA							
Frame Size		5009C		Rated Output		300 kW		400 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	374.3 A	467.9 A	935.8 A			
Insulation Class		F		Locked-rotor**		680 %	680 %	680 %				
Temp. Rise at full load (by resistance method)				Efficiency								
at 1.0 S.F		80 deg. C		50% Load		92.8 %						
Motor Location		<input type="checkbox"/> Indoor <input type="checkbox"/> 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		6324C3 / 6320C3-INS.		Full Load		1,783.5 lb.ft				
		Lubricant		Grease(Polyrex-EM)		Locked-rotor**		135 %				
External Thrust		Not applicable		Breakdown**		220 %						
Coupling Method		<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)								
Shaft Extension		Single		Load(Max.)		4,199.000 lb.ft2						
Terminal Box		Main		Cast Iron		Motor		246.780 lb.ft2				
		Aux.		Yes		Sound Pressure Level (No-load & mean value at 1m from motor)						
Location		Refer to Outline Drawing				83.5 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					SUBMITTAL DRAWING							
*. Space Heater : 1EA/Motor					Outline Dimension Drawing \ Motor Weight(Approx.)							
					B35		LM-T0509C4PE001		4110 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							
SPARE PARTS					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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REV	DATE	CONTENTS	REVD BY CHKD BY CHKD BY APPD BY

4.72

CROWN TRITON

Premium Efficiency AC 3 Phase Motor

400HP 6P 460V		Cat. No. HSDE400-12-5009C-IBSH	
Model	LATER	INS. Class	F
Type	PJP	Duty	CONT
Frame	5009C	Encl.	TEFC
Bearing	Drive	6324C3	S.F. 1.15
	Opp.	6320C3-INS.	RPM 1185
Usable at		NEMA Nom. Eff. 95.8%	
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2, Gr. F & G	Temp. Code (sine wave)
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC		Frame L440FR - 500FR
			Amb. 40°C T3 (200°C)
No.	-	Date	-
4M-136053		Weight 4110 lb	

MARINE DUTY IEEE45 Made in Korea H1 **HD HYUNDAI ELECTRIC**

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			

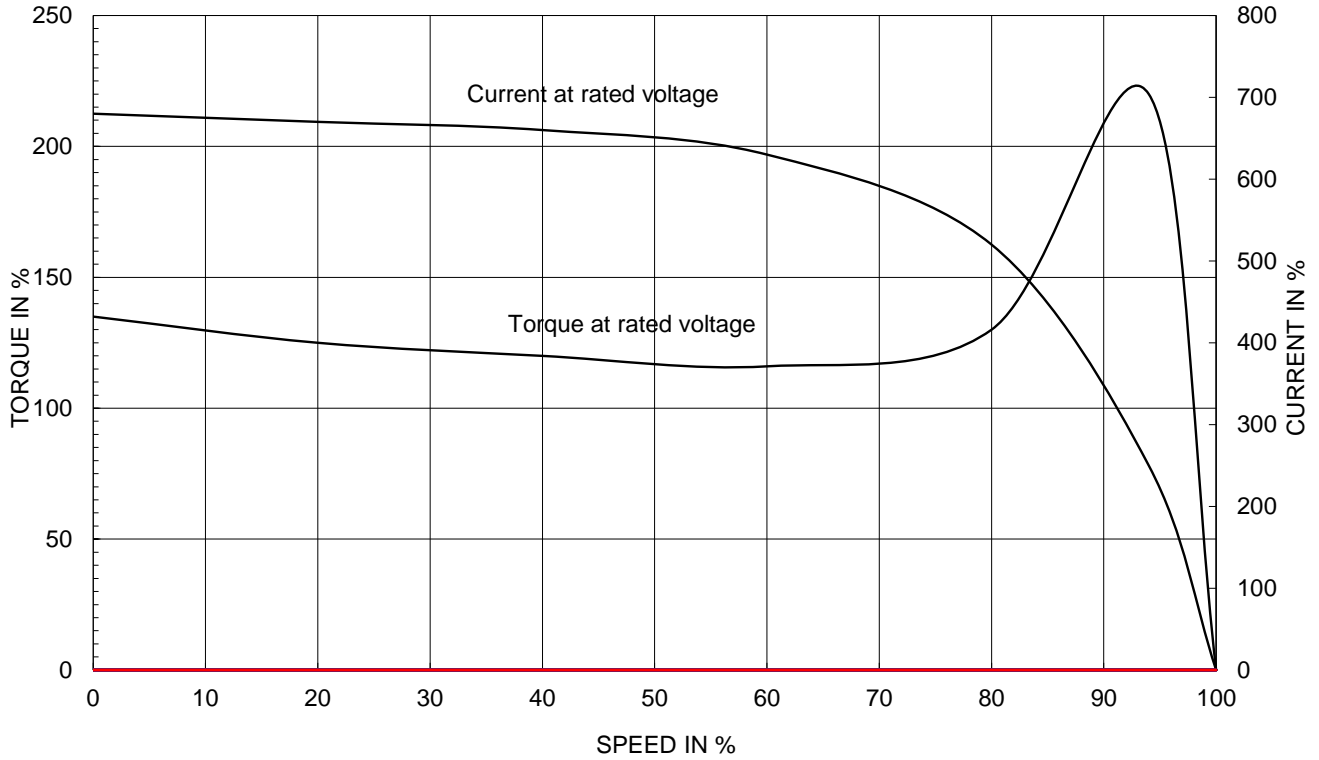


REF. NO	4M-136053	Sheet No. of
DWG NO	NP-HSDE400-12-5009C-IBSH	Revision No. 0

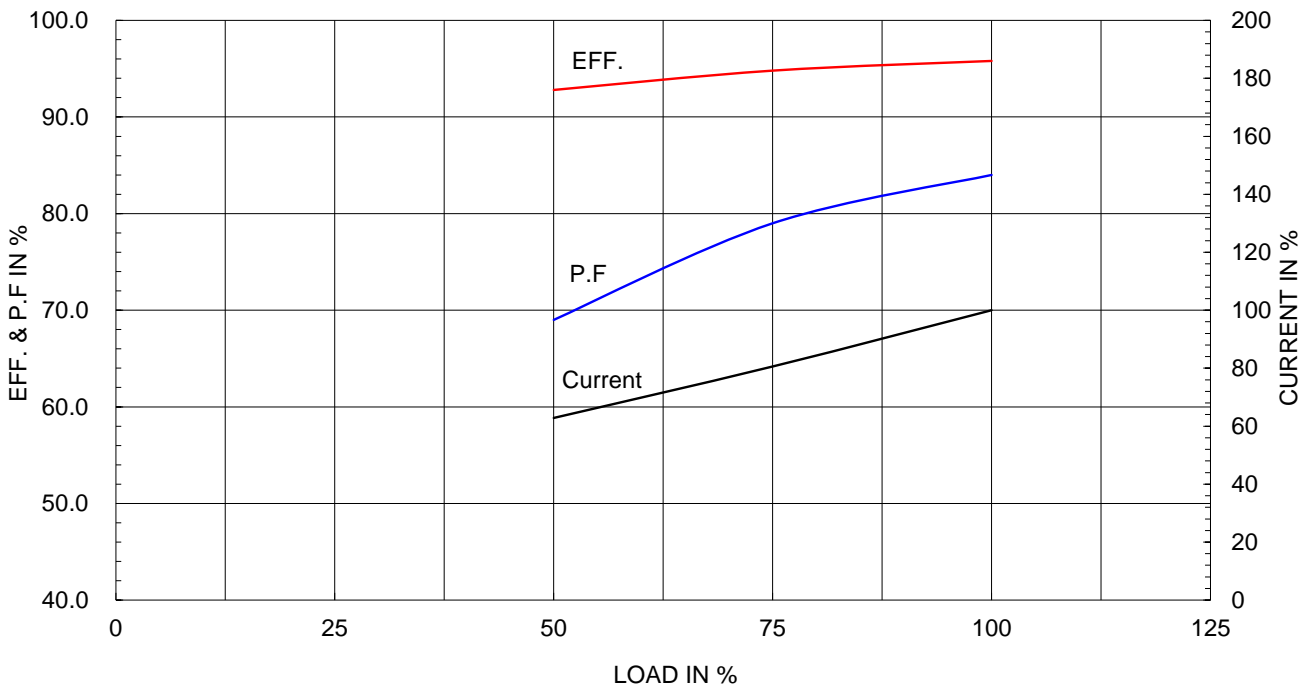
Type :	PJP
Full Load Torque :	1783.5 lb.ft
Load moment of Inertia (J) :	4199.000 lb.ft ²
Motor moment of Inertia (J) :	246.780 lb.ft ²

300kW	400HP	6 P	60 Hz
Speed at Full Load :			1185 RPM
Rated Voltage	575V	460V	230V
Full Load Current	374.3A	467.9A	935.8A

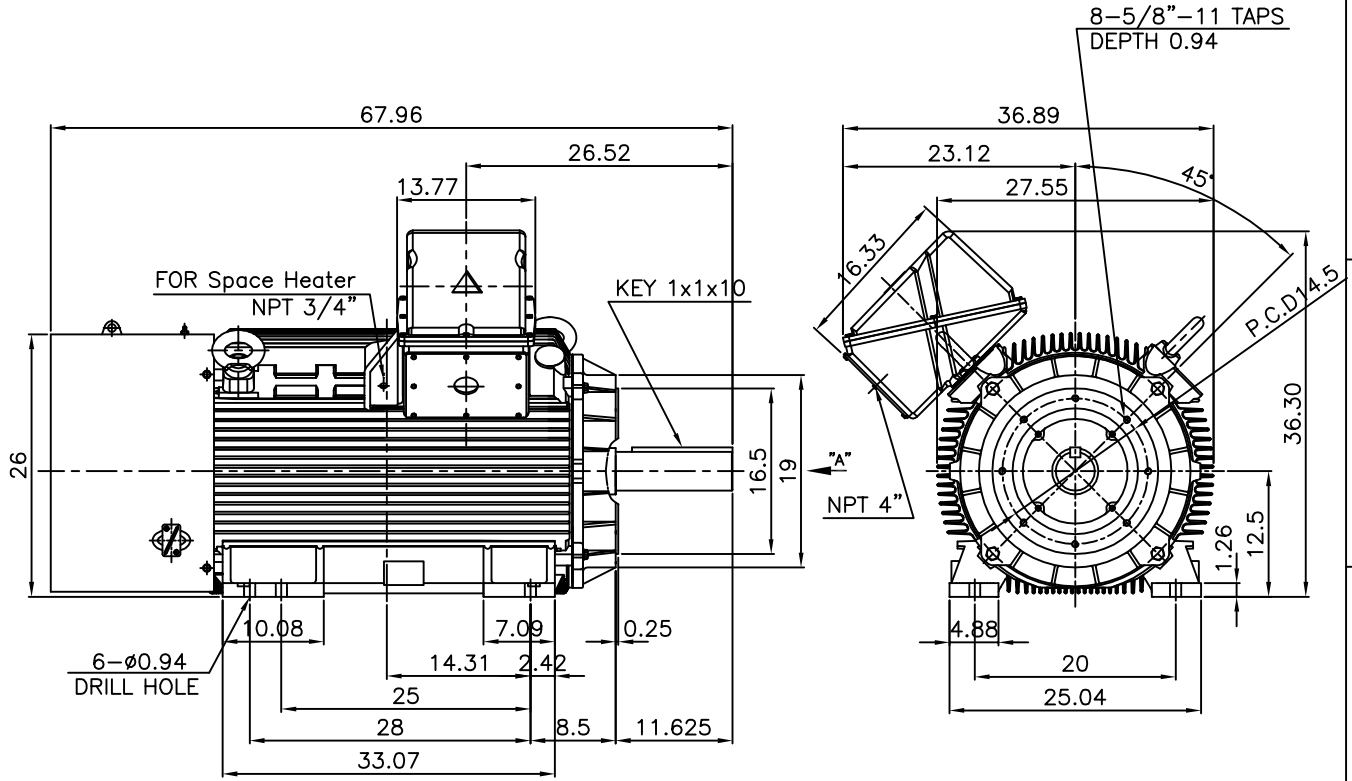
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



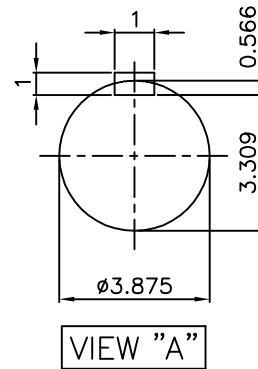
▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



NOTE

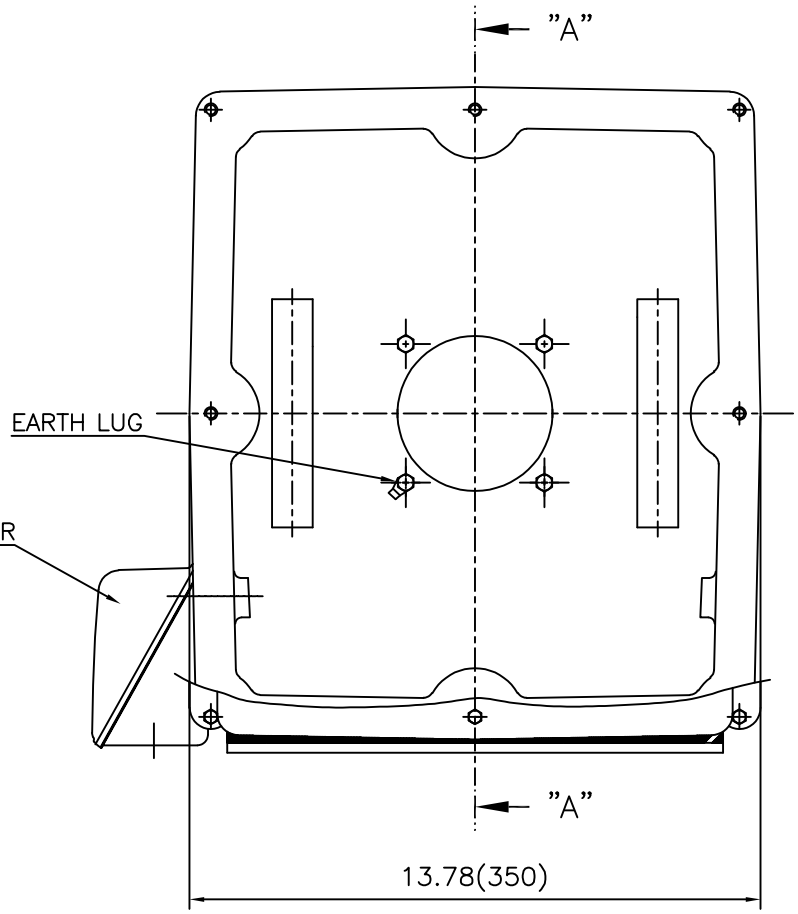
1.TOLERANCE :

CENTER HEIGHT	12.5	+0.000	-0.060
RABBET DIAMETER	∅16.5	+0.000	-0.005
SHAFT DIAMETER	∅3.875	+0.000	-0.001
KEYWAY WIDTH	1	+0.003	-0.000



APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.5008/5009TC	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				
				REF. NO		Sheet No.	of
				DWG NO	LM-T0509C4PE001	Revision No.	0

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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

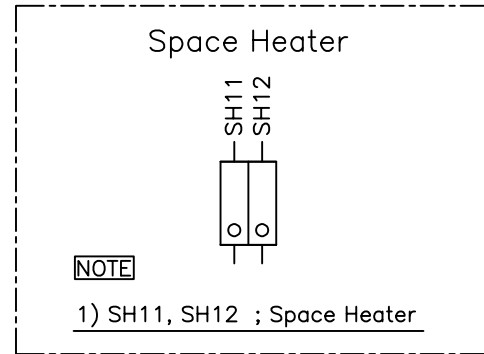
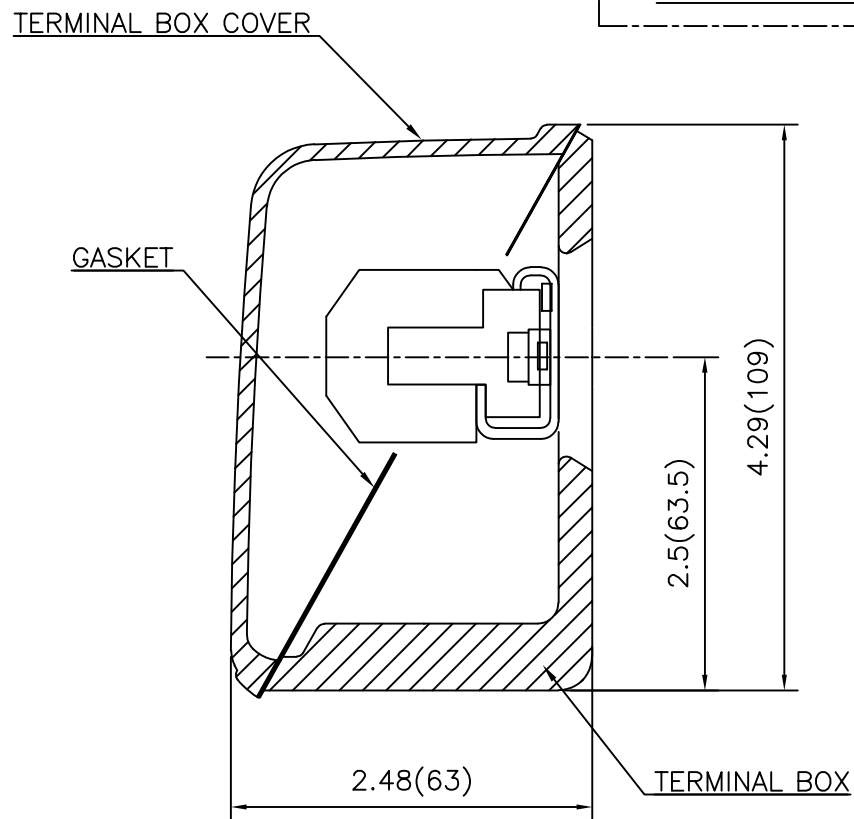
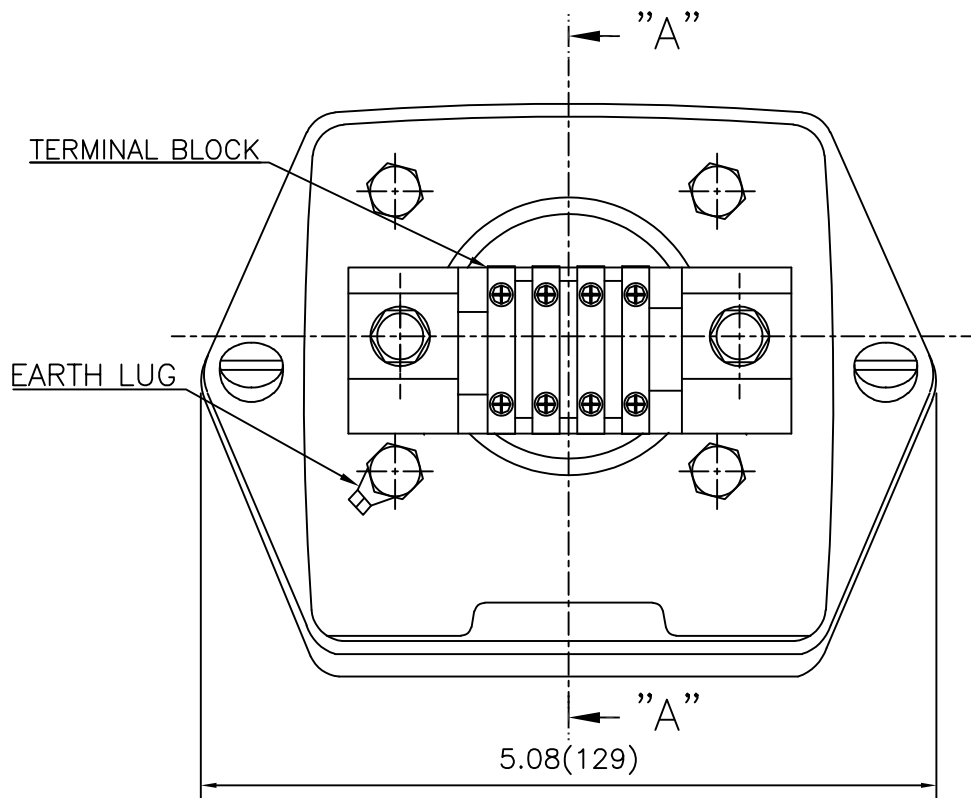
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REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

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