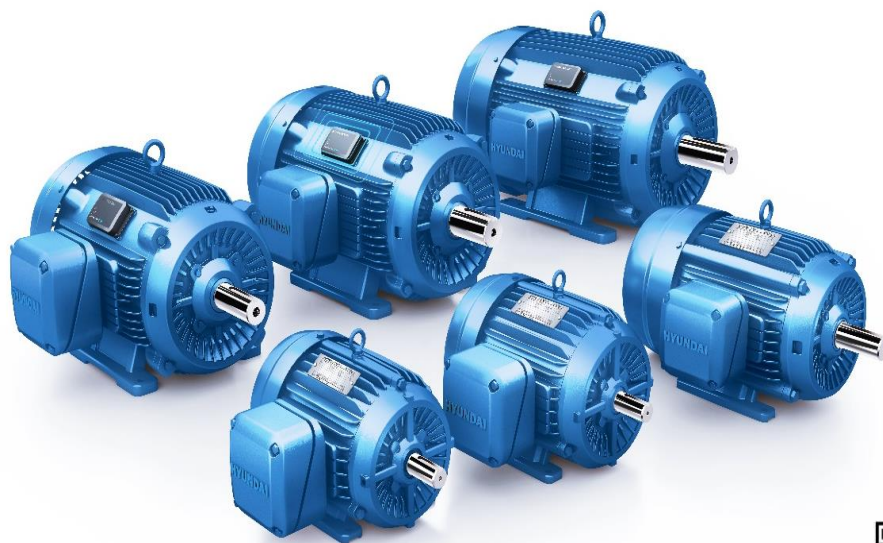


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



0		For Bidding			
No.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HSDE600-36-5812S-IBBRSRSHSP	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	5812S		Rated Output	450 kW		600 HP	
Type	HNE6		Number of Poles	2			
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	529.9 A	662.4 A	1324.9 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				
Motor Location	☐ Indoor ☐ Outdoor		50% Load 92.8 %				
Altitude	Less than 1,000 meter		75% Load 94.8 %				
Relative Humidity	Less than 80 %		100% Load 95.8 %				
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)				
Duty Type	Continuous (S1)		50% Load 0.740				
Service Factor	1.15		75% Load 0.840				
Mounting	B3		100% Load 0.890				
Bearing	Type	Anti-Friction	Speed at Full Load 3570 r.p.m				
	DE/N-DE	6316C3 / 6316C3-INS.	Torque				
	Lubricant	Grease(Polyrex-EM)	Full Load 888.02 lb.ft				
External Thrust	Not applicable		Locked-rotor** 150 %				
Coupling Method	☒ Direct ☐ V-belt		Breakdown** 250 %				
Shaft Extension	Single		Moment of Inertia (J)				
Terminal	Main	Steel	Load(Max.) 453.394 lb.ft2				
Box	Aux.	Yes	Motor 121.840 lb.ft2				
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)				
Application			89 dB(A)				
Area classification	Hazardous		Vibration 3.8 mm/sec (peak)				
Type of Ex-Protection	Class I, Division 2		Permissible number of Cold 2 times				
Applicable Standard	NEMA MG1, CSA C390		consecutive starts Hot 1 time				
ACCESSORIES *. B.T.D.(Pt 100 Ω at 0°C,Single) : 2EA/Motor *. W.T.D.(Pt 100 Ω at 0°C) : 2EA/Ph. *. Space Heater : 1EA/Motor			Paint Munsell No. 4.0PB5.4/5.5(VL-451)				
			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B3 LM-T5812B3C7001 6730 lb.				
SPARE PARTS 1. Spare Axial Fan (C.W Direction)			REMARK				
			1. Premium efficiency according to NEMA MG1				
			2. Inverter Duty @ 1.0 Service Factor & F Temperature rise -. 10:1 VT -. 2:1 CT				
			3. NDE side : Insulated bearing				
			4. CSA Certification -. Class I, Division 2, Group A, B, C & D				
			5. Shaft material : AISI4140				
			6. Uni-directional CCW viewed from drive end.				
			7. Temp. code : T3A(180°C) at sine wave				
			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.

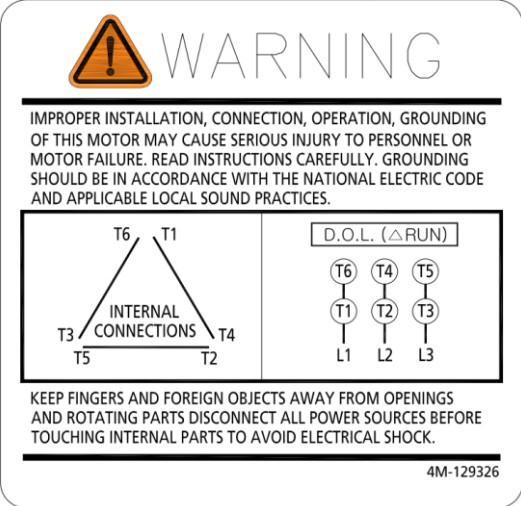
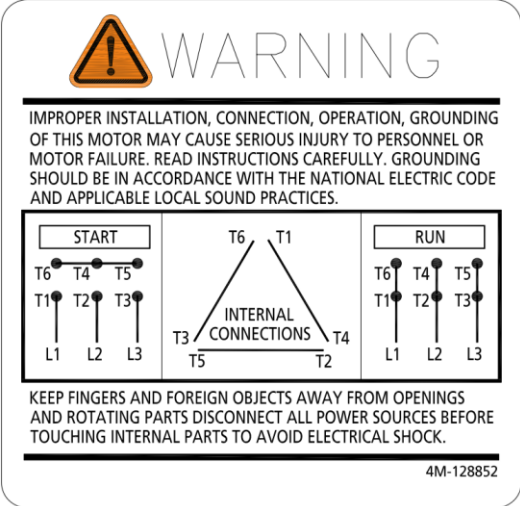
** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

MAIN NAMEPLATE

4.72

CROWN TRITON					
Premium Efficiency AC 3 Phase Motor					
600HP 2P 460V		Cat. No. HSDE600-36-5812S-IBBRSRSHSP			
Model LATER		INS. Class F		Amps 662.4A	
Type HNE6		Duty CONT		Code G Amb. 40°C Hertz 60Hz	
Frame 5812S		Encl. TEFC		S.F. 1.15 RPM 3570 NEMA Nom. Eff. 95.8%	
Bearing		Drive 6316C3		S.F.1.00 (2:1 C.T., 10:1 V.T., NEMA-MG1 Part31) 3/4 Eff. 94.8%	
		Opp. 6316C3-INS.		NEMA Design B Torque	
Usable at		50Hz 475HP 380V 639.8A 2970rpm S.F.: 1.15 Eff.: 95.8% Code: H			
		50Hz 475HP 400/415V 614.8/599.4A 2972/2975rpm S.F.: 1.15 Eff.: 95.8/95.8% Code: H/J			
CSA Certified for		CLASS I, Div. 2, Gr. A, B, C & D		Temp. Code (sine wave)	
No. -		Date -		Frame 580FR	
4M-136358		Made in Korea H1		Maximum Amb. 50°C T3A (180°C)	
				Weight 6730 lb	

WIRING DIAGRAM

D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
	

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HSDE ,5812)	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		
				REF. NO	4M-136358 / 4M-129326	Sheet No. of
				DWG NO	NP-HSDE600-36-5812S-IBBRSRSHSP	Revision No. 0

Type : HNE6

450kW 600HP

2 P

60 Hz

Full Load Torque : 888.02 lb.ft

Speed at Full Load : 3570 RPM

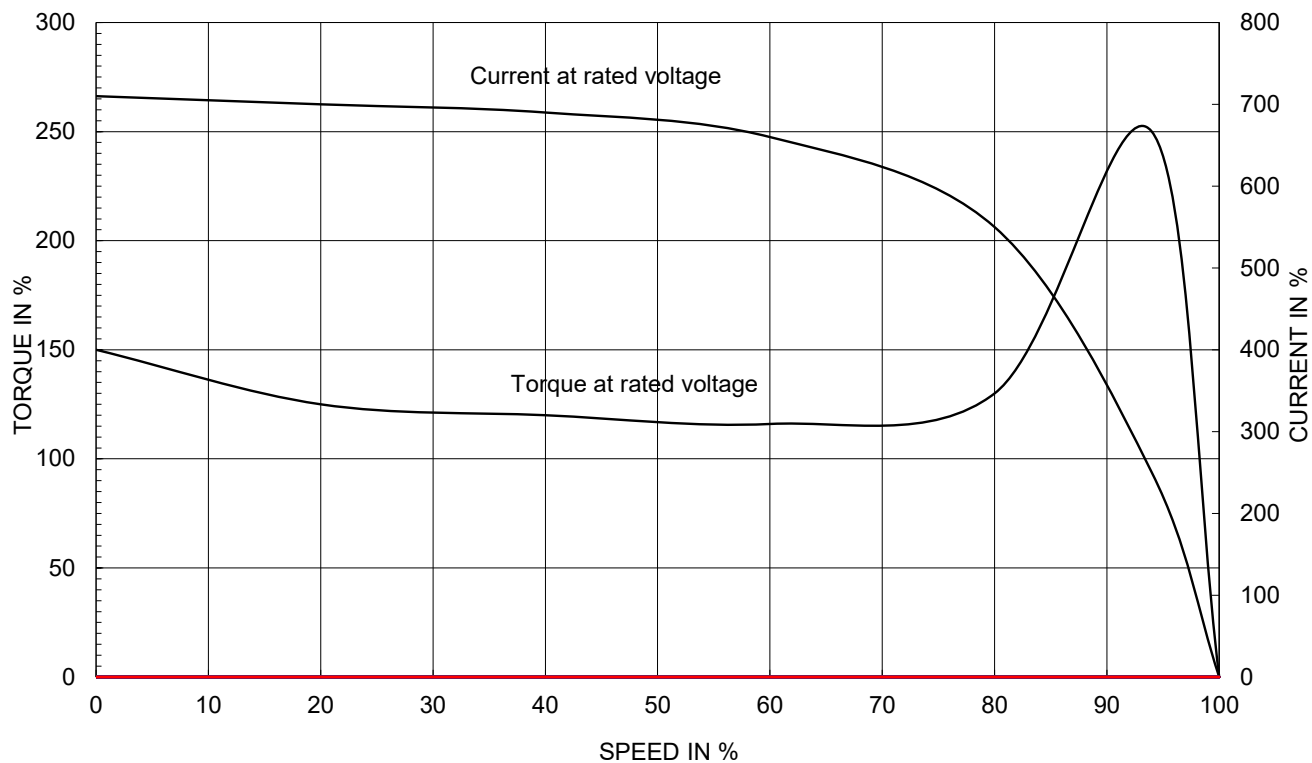
 Load moment of Inertia (J) : 453.394 lb.ft²

Rated Voltage	575V	460V	230V
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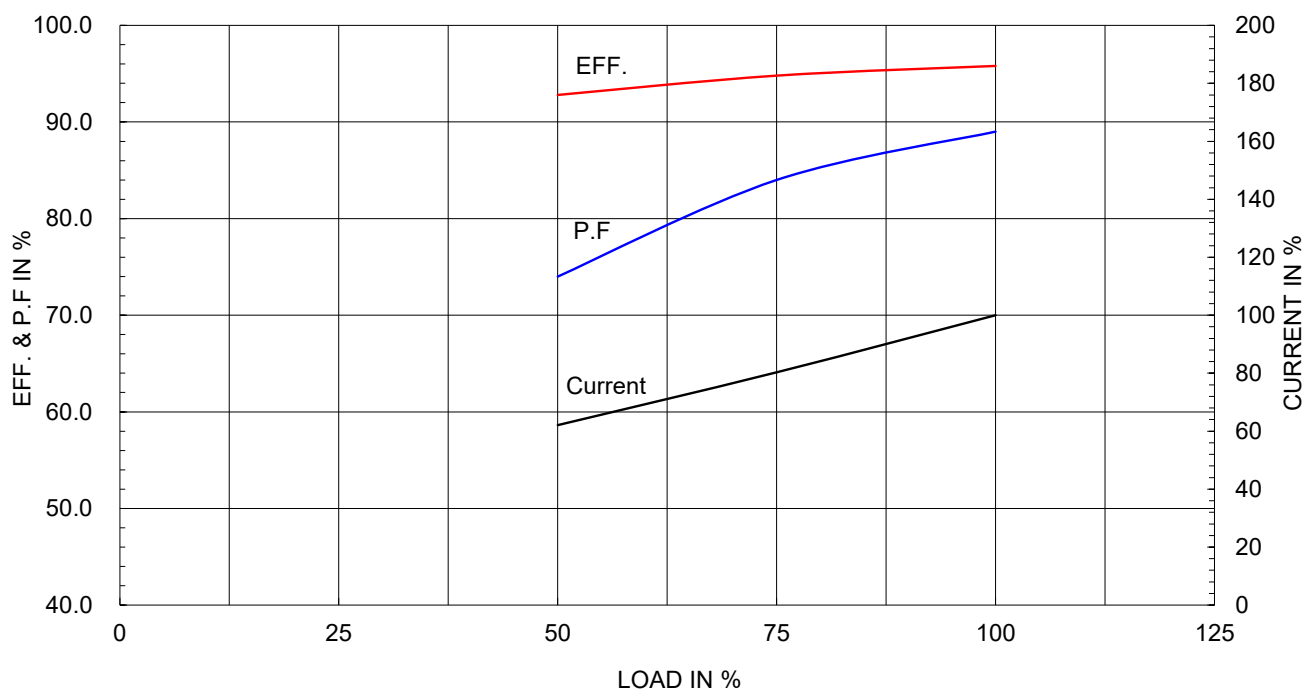
 Motor moment of Inertia (J) : 121.840 lb.ft²

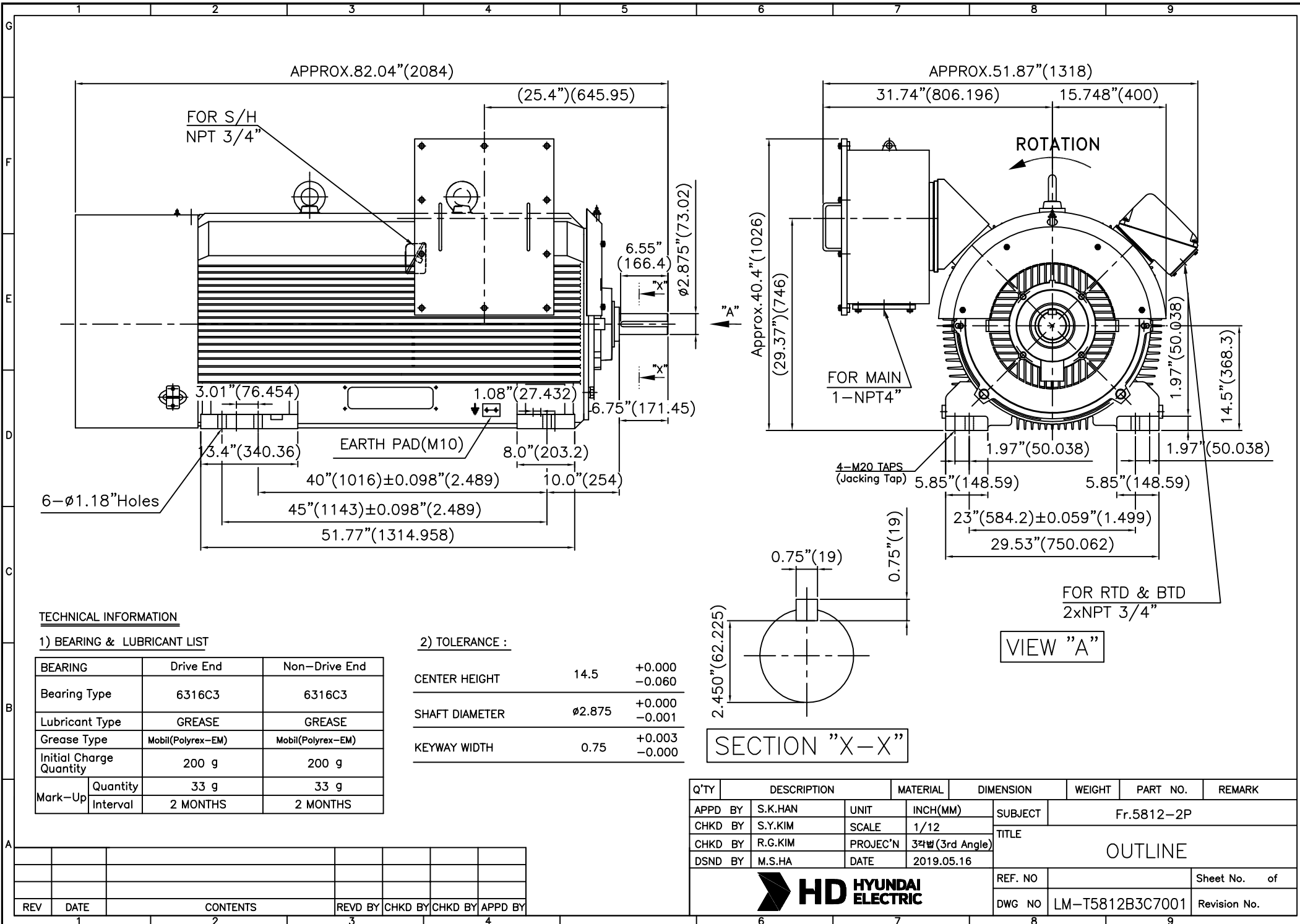
Full Load Current	529.9A	662.4A	1324.9A
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SPEED VS TORQUE & CURRENT CURVE



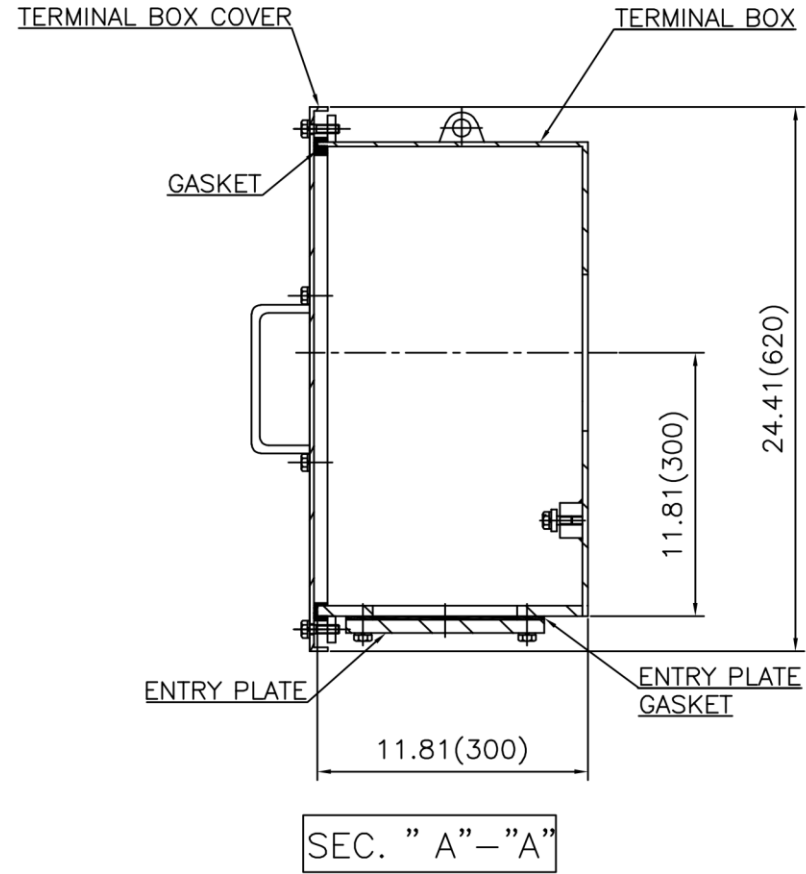
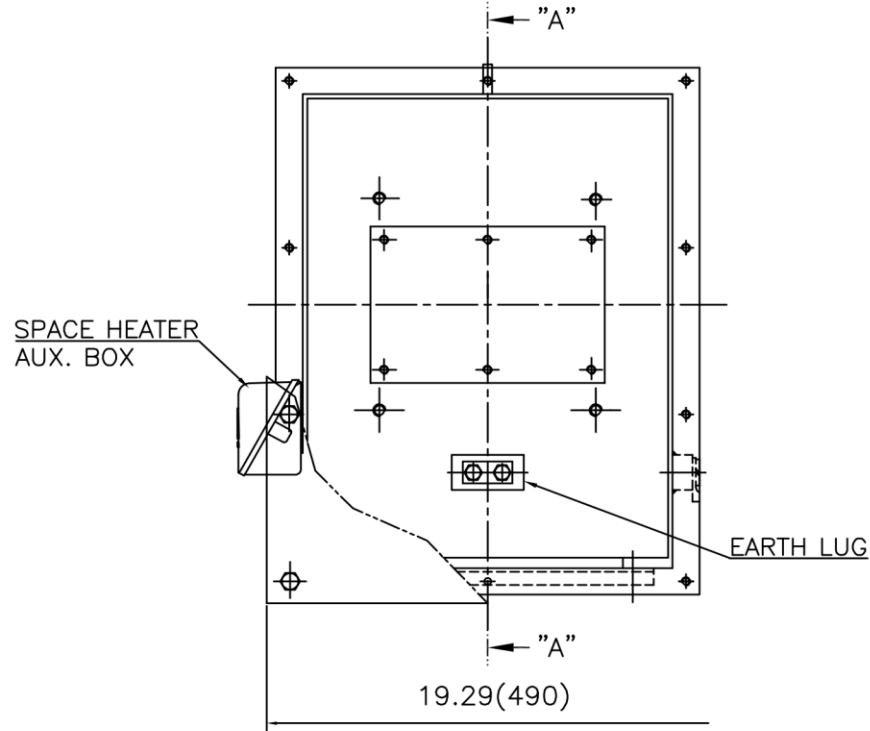
OUTPUT VS EFF., P.F & CURRENT CURVE





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SEC. "A" - "A"

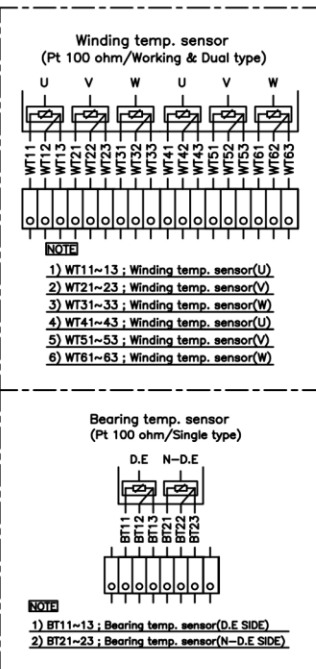
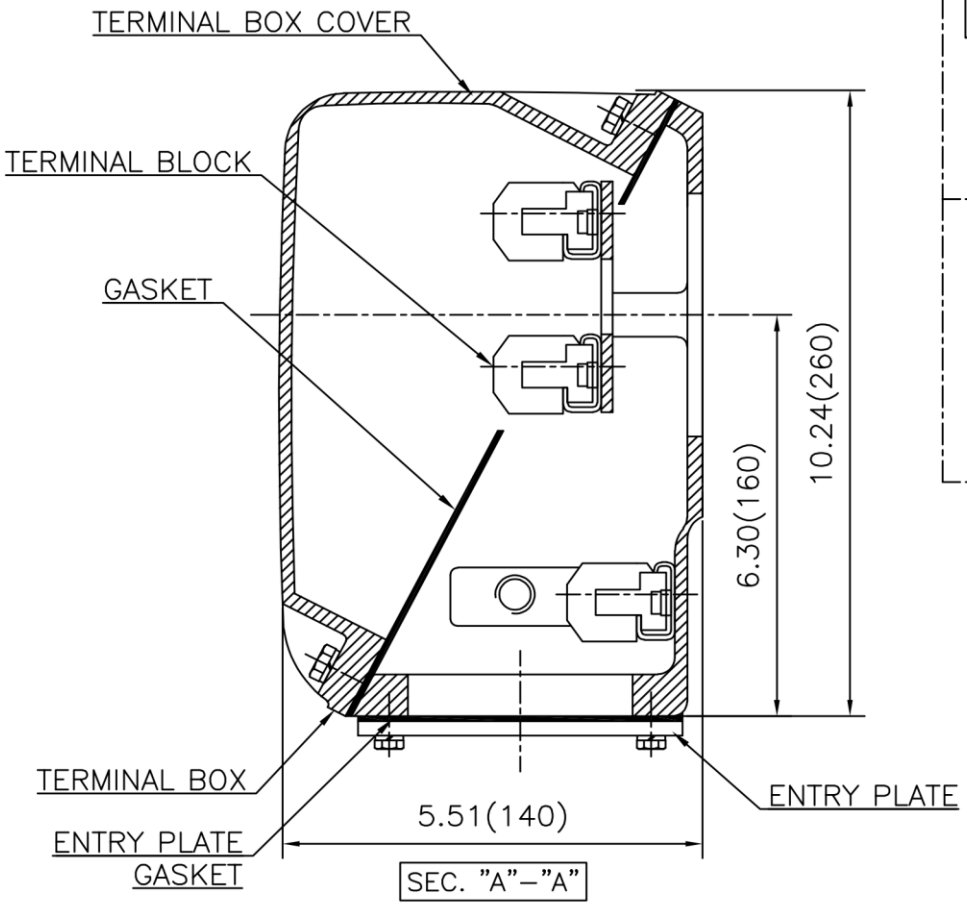
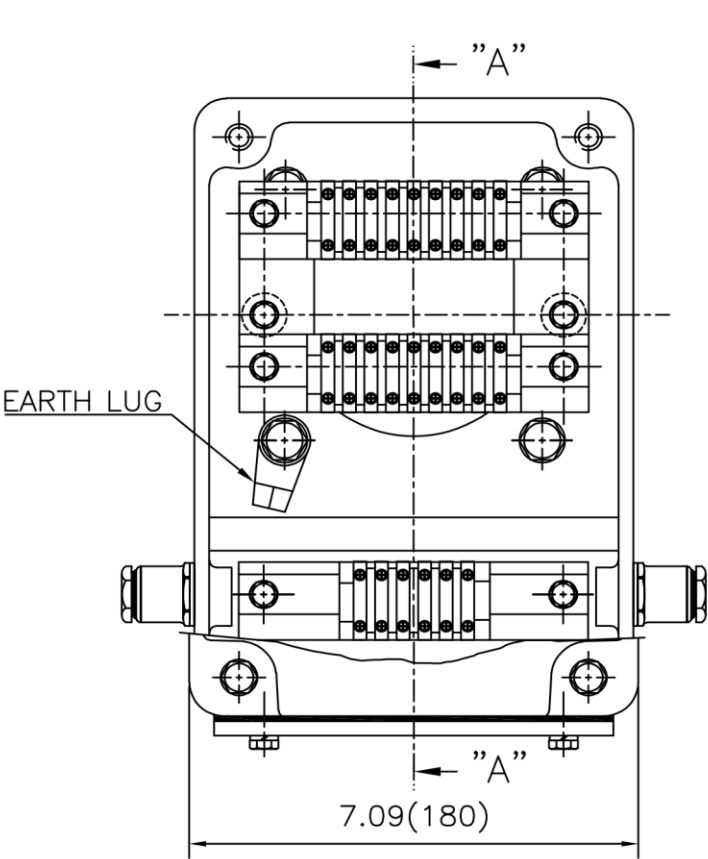
REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
1						
2						
3						
4						

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.580 (STEEL)	DWG SIZE
CHKD BY		SCALE	1/6	TITLE	MAIN TERMINAL BOX ASS'Y	A3 (1:6)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No. of
DSND BY	내수위	DATE	2023-10-25	DWG NO	3M-248512	Revision No. 0



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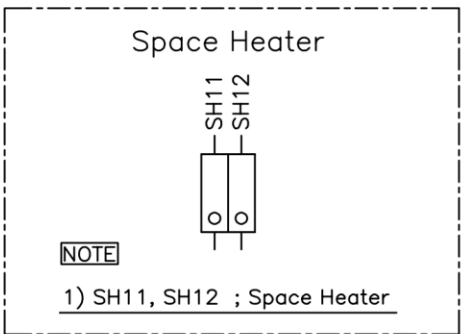
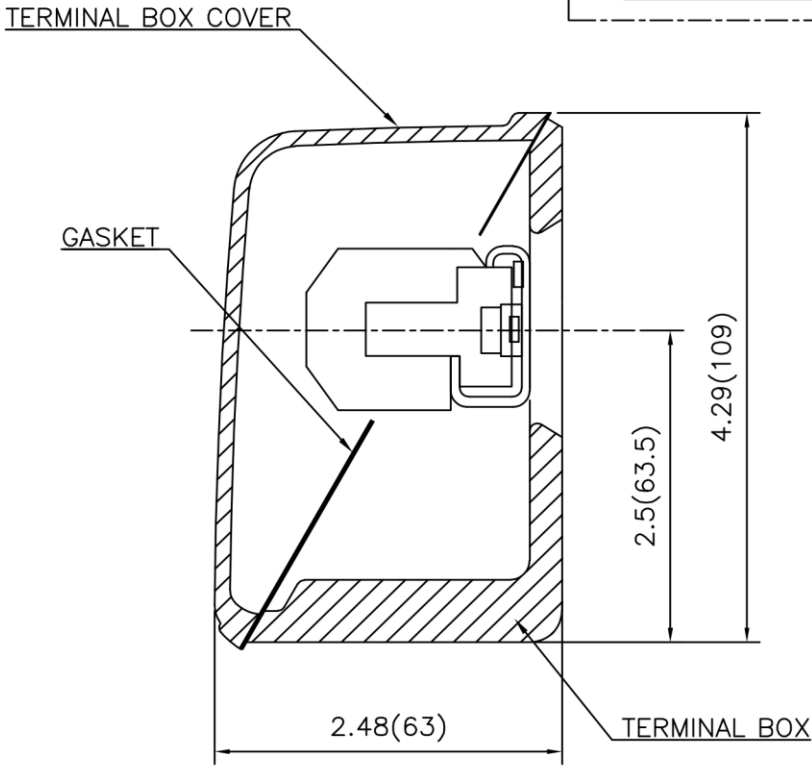
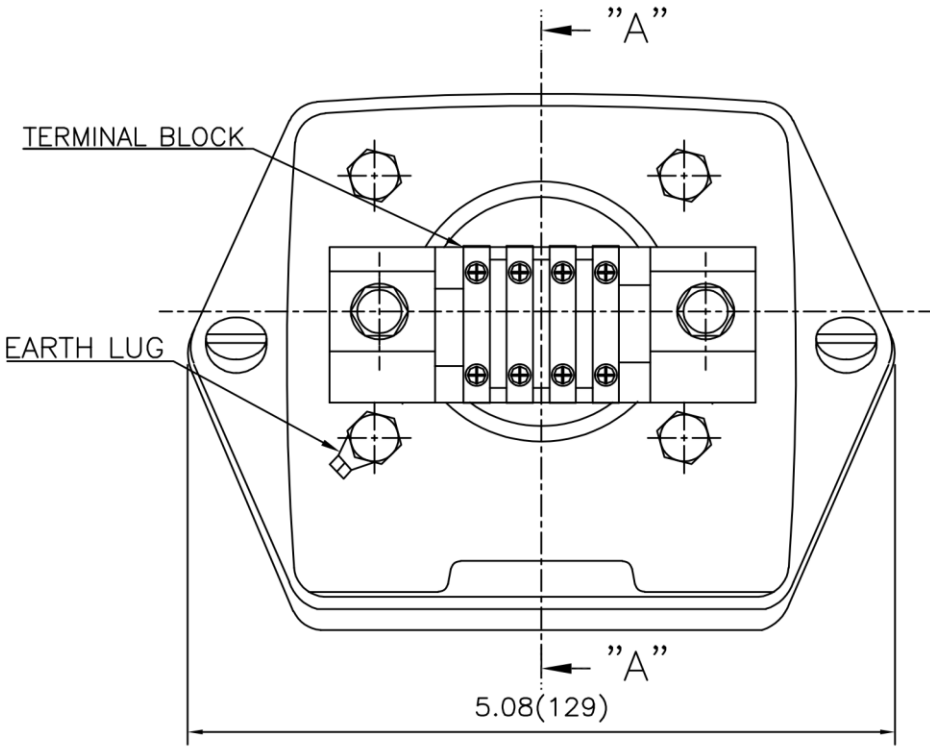


REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.360 (CAST IRON)	DWG SIZE	A3 (1:2.2)
CHKD BY	R.G.KIM	SCALE	1/1	TITLE	AUX. TERMINAL BOX ASS'Y		
DSND BY	배승희	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
		DATE	2024-01-18	DWG NO	3M-165277	Revision No.	0



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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

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY