

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.	HSDE700-36-5812S-IBBRSRSHSP	Item No.		Rev. No.	[]			
Project Name		Project No.		Quantity	sets			
GENERAL SPECIFICATION			PERFORMANCE DATA					
Frame Size	5812S	Rated Output	522 kW 700 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	614.7 A	768.4 A 1,536.8 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		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		0.740				
Duty Type	Continuous (S1)	75% Load		0.840				
Service Factor	1.15	100% Load		0.890				
Mounting	B3	Speed at Full Load		3570 r.p.m				
Bearing	Type	Anti-Friction						
	DE/N-DE	6316C3 / 6316C3-INS.						
	Lubricant	Grease(Polyrex-EM)						
External Thrust	Not applicable							
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Torque						
Shaft Extension	Single	Full Load		1,030.1 lb.ft				
Terminal Box	Main	Locked-rotor**		150 %				
	Aux.	Breakdown**		250 %				
Box Location	Refer to Outline Drawing	Moment of Inertia (J)						
Application		Load(Max.)		513.845 lb.ft2				
Area classification	Hazardous	Motor		121.840 lb.ft2				
Type of Ex-Protection	Class I, Division 2	Sound Pressure Level (No-load & mean value at 1m from motor)						
Applicable Standard	NEMA MG1, CSA C390	89 dB(A)						
ACCESSORIES			SUBMITTAL DRAWING					
*. 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			Outline Dimension Drawing \ Motor Weight(Approx.)					
			B3		LM-T5812B3C7001	6730 lb.		
			REMARK					
SPARE PARTS 1. Spare Axial Fan (C.W Direction)			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; Temp code : T3A					
			5. Shaft material : AISI4140					
			6. Uni-directional CCW viewed from drive end.					
			Date	DSND	CHKD			
			2024-07-13	S.H. Lee	I.K. Kim R.G. Kim APPD 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


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CROWN TRITON

Premium Efficiency AC 3 Phase Motor



700HP 2P 460V		Cat. No. HSDE700-36-5812S-IBBRSRSHSP	
Model	LATER	INS. Class	F
Type	HNE6	Duty	CONT
Frame	5812S	Encl.	TEFC
Bearing	Drive	6316C3	S.F. 1.15 RPM 3570
	Opp.	6316C3-INS.	
Usable at		NEMA Nom. Eff. 95.8%	
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D	Temp. Code	Frame
		(sine wave)	580FR
No.	-	Weight	6730 lb

4M-136358 Made in Korea H1 

2.36

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 NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			



REF. NO	4M-136358	Sheet No. of
DWG NO	NP-HSDE700-36-5812S-IBBRSRSHSP	Revision No. 0



PERFORMANCE CURVE

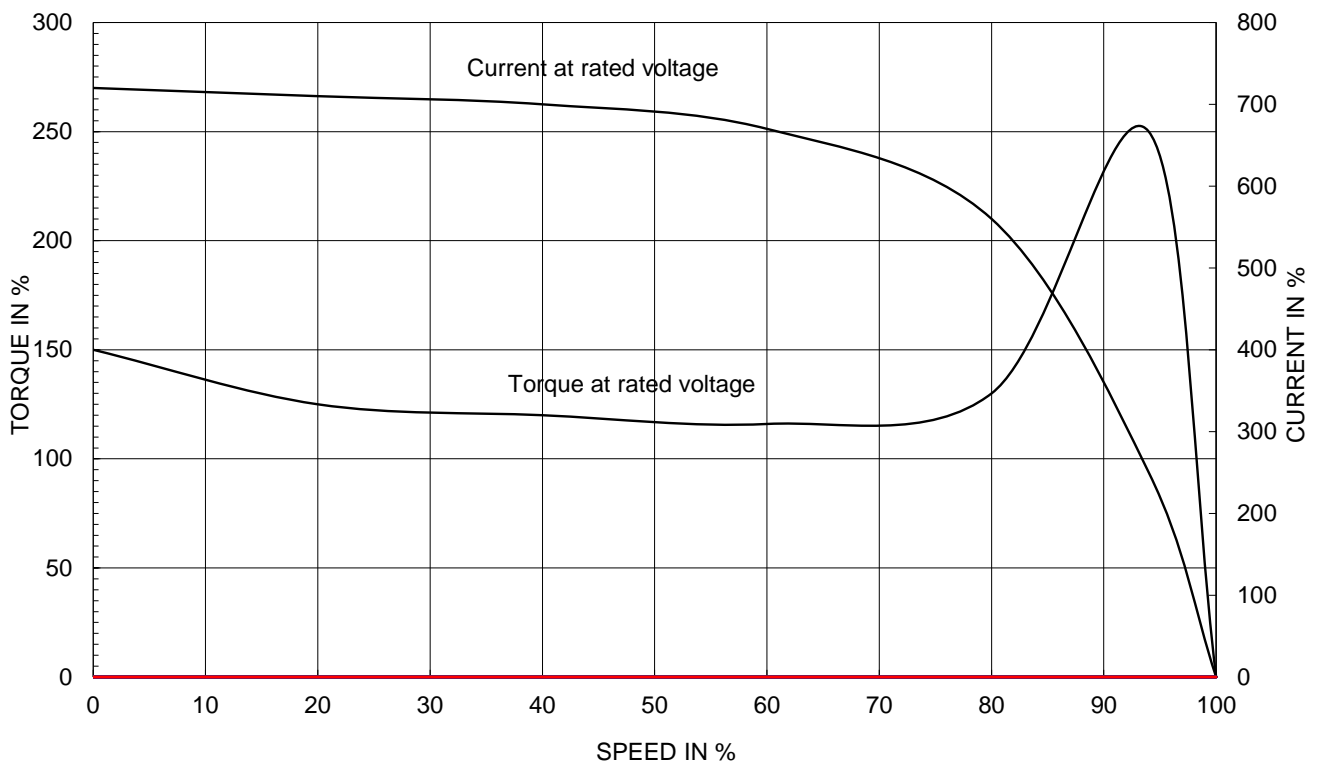
CURVE NO.

PC-HSDE700-36-5812S-IBBRSRSHSP

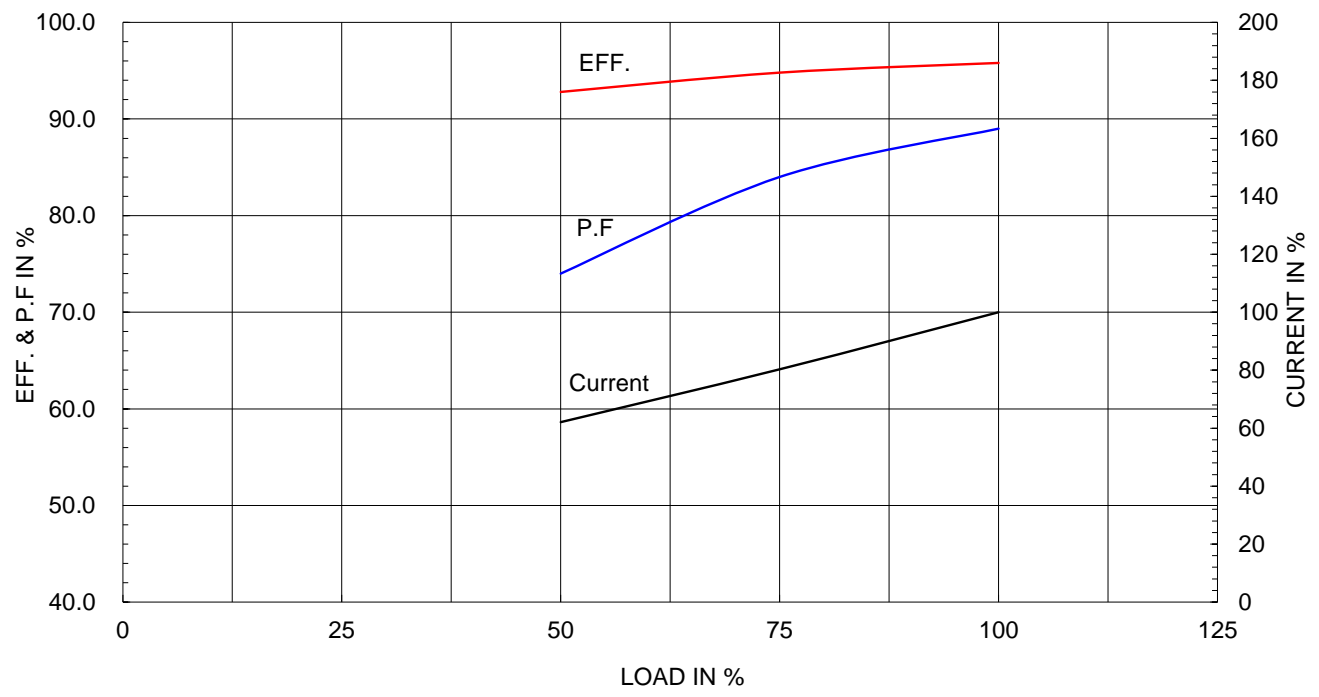
Type :	HNE6
Full Load Torque :	1030.1 lb.ft
Load moment of Inertia (J) :	513.845 lb.ft2
Motor moment of Inertia (J) :	121.840 lb.ft2

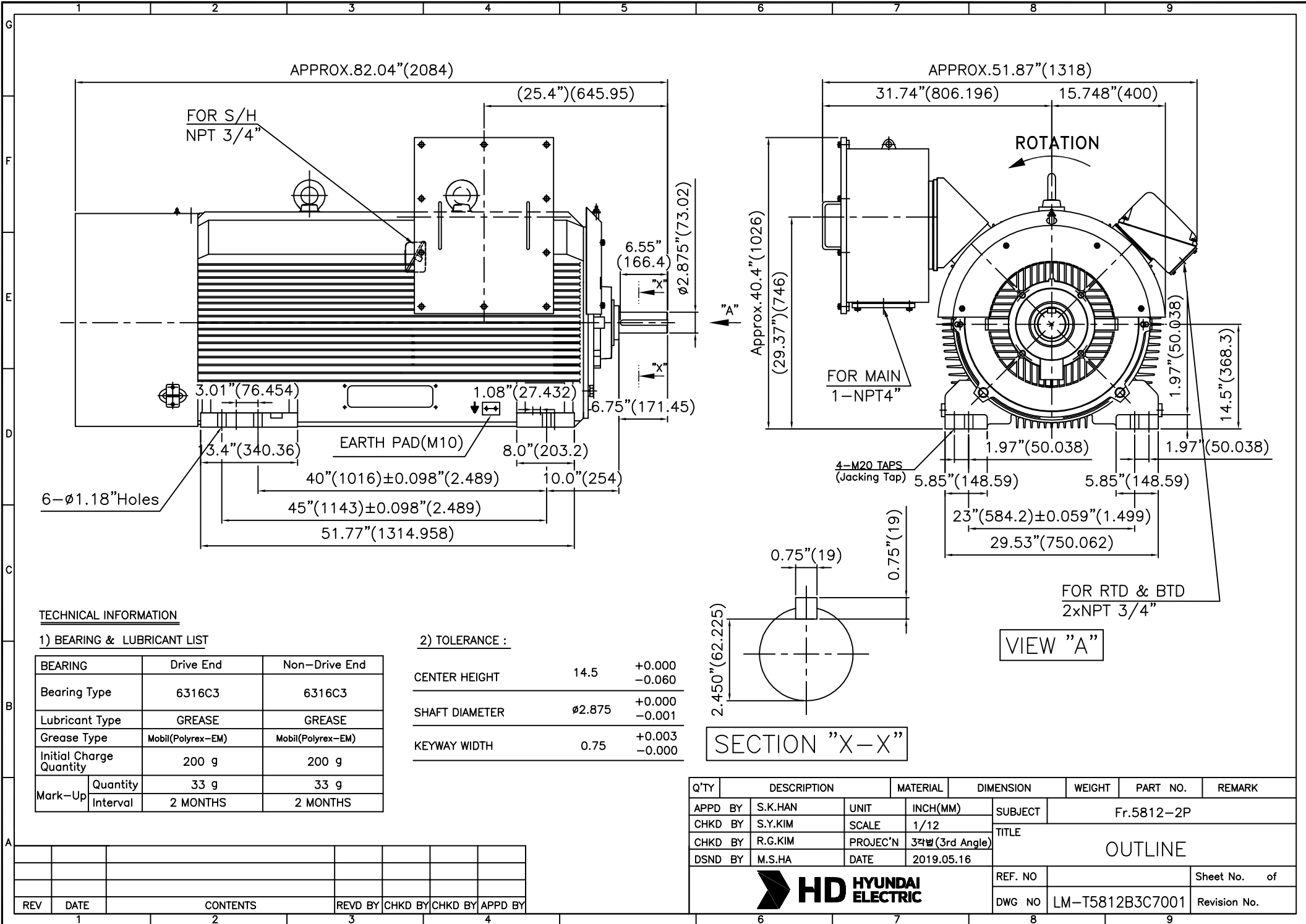
522kW 700HP	2 P	60 Hz
Speed at Full Load :		3570 RPM
Rated Voltage	575V	460V 230V
Full Load Current	614.7A	768.4A #####

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





TECHNICAL INFORMATION

1) BEARING & LUBRICANT LIST

BEARING	Drive End	Non-Drive End	
Bearing Type	6316C3	6316C3	
Lubricant Type	GREASE	GREASE	
Grease Type	Mobil(Polyrex-EM)	Mobil(Polyrex-EM)	
Initial Charge Quantity	200 g	200 g	
Mark-Up	Quantity	33 g	33 g
	Interval	2 MONTHS	2 MONTHS

2) TOLERANCE :

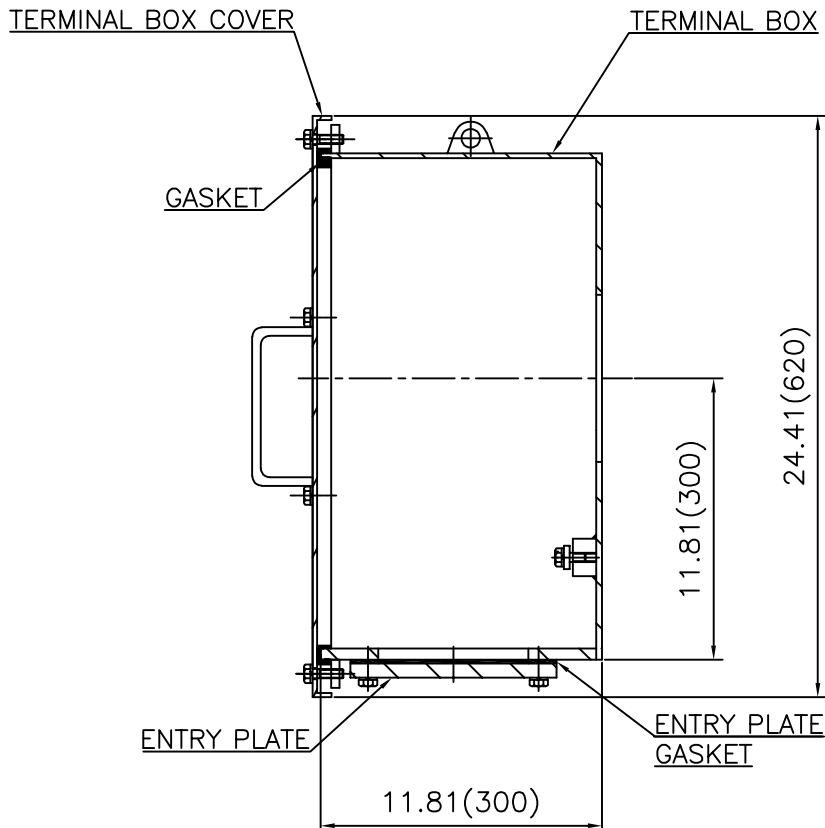
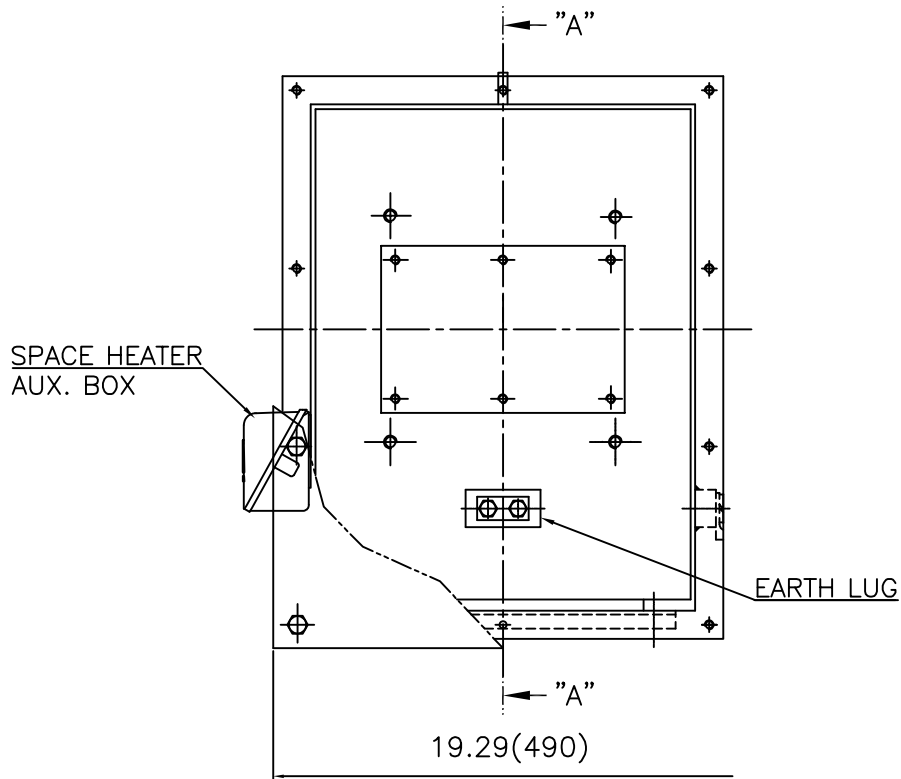
CENTER HEIGHT	14.5	+0.000	-0.060
SHAFT DIAMETER	Ø2.875	+0.000	-0.001
KEYWAY WIDTH	0.75	+0.003	-0.000

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
1						

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK
APPD BY	S.K.HAN	UNIT	INCH(MM)	SUBJECT	Fr.5812-2P	
CHKD BY	S.Y.KIM	SCALE	1/12	TITLE	OUTLINE	
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)	REF. NO		Sheet No. of
DSND BY	M.S.HA	DATE	2019.05.16	DWG NO	LM-T5812B3C7001	Revision No.



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IEEE 841**



SEC. "A" - "A"

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



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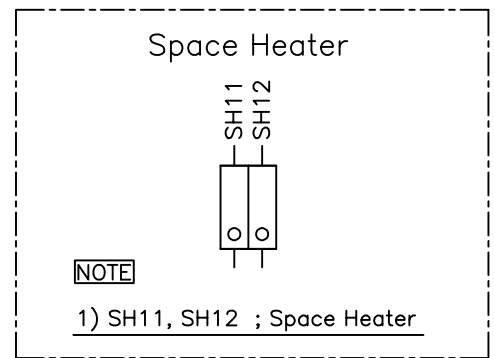
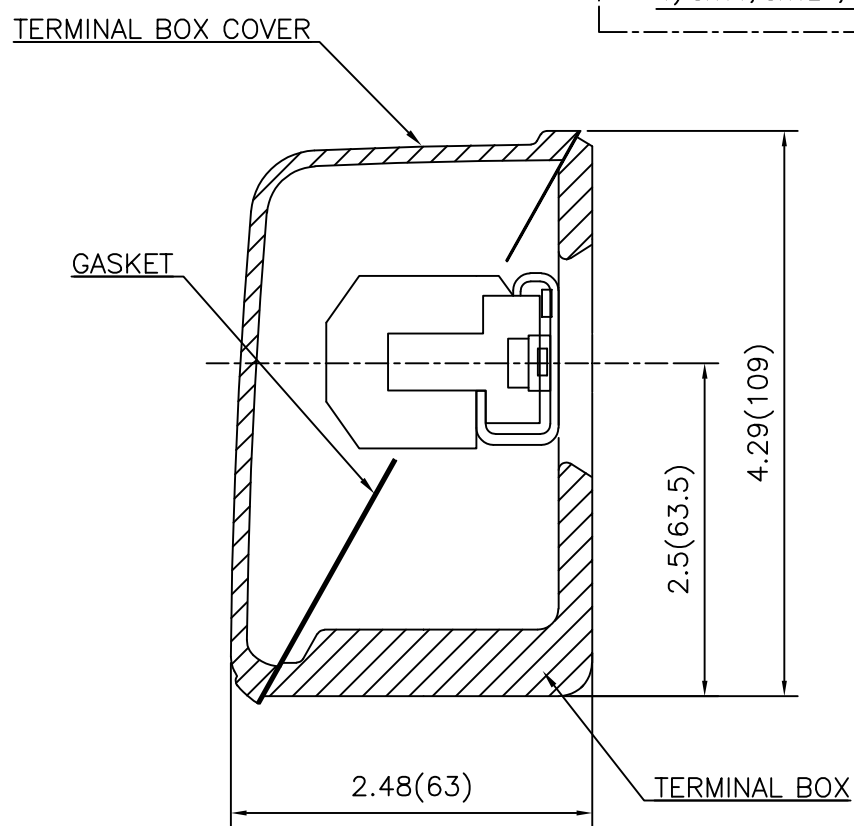
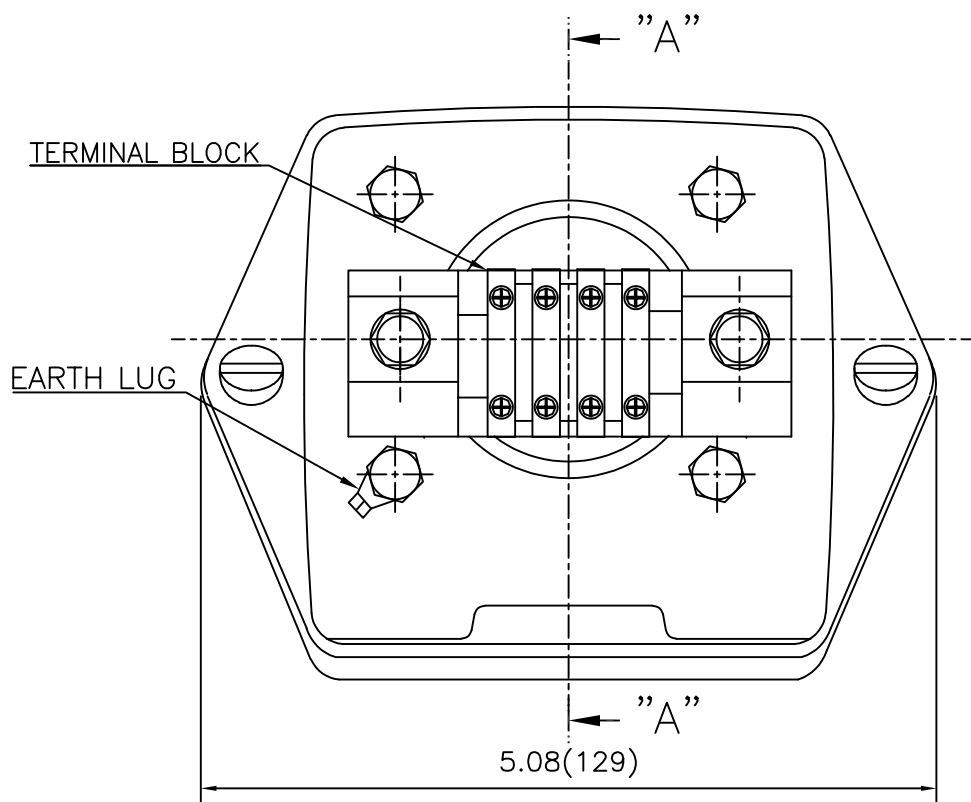


REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.360 (CAST IRON)	DWG SIZE	A3 (1:2.2)
CHKD BY		SCALE	1/1	TITLE	AUX. TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	배승희	DATE	2024-01-18	DWG NO	3M-165277	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	A3 (1:1.1)
CHKD BY		SCALE	1/1	TITLE	SUB. TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	배승희	DATE	2024-01-18	DWG NO	3M-165278	Revision No.	0

