

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 1,324.9 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		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	Torque			
	DE/N-DE	6316C3 / 6316C3-INS.	Full Load		888.0 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**		150 %	
External Thrust	Not applicable		Breakdown**		250 %	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)		453.394 lb.ft2	
Terminal Box	Main	Steel	Motor		121.840 lb.ft2	
	Aux.	Yes	Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing			89 dB(A)	
Application			Vibration		3.8 mm/sec (peak)	
Area classification	Hazardous		Permissible number of consecutive starts		Cold 2 times Hot 1 time	
Type of Ex-Protection	Class I, Division 2		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	

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

SPARE PARTS
1. Spare Axial Fan (C.W Direction)

SUBMITTAL DRAWING			
Outline Dimension Drawing		Motor Weight(Approx.)	
B3	LM-T5812B3C7001	6730 lb.	

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; Temp code : T3A
5. Shaft material : AISI4140
6. Uni-directional CCW viewed from drive end.

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


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CROWN TRITON

Premium Efficiency AC 3 Phase Motor



600HP	2P	460V	Cat. No.	HSDE600-36-5812S-IBBRSRSHSP			
Model	LATER		INS. Class	F	Amps	662.4	
Type	HNE6	Duty	CONT	Code	G	Amb. 40°C	
Frame	5812S	Encl.	TEFC	S.F.	1.15	RPM 3570	
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							
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D			Temp. Code (sine wave)	Frame	580FR	
					Maximum Amb. 50°C	T3A (180°C)	
No.	-	Date	-	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-HSDE600-36-5812S-IBBRSRSHSP	Revision No.	0



PERFORMANCE CURVE

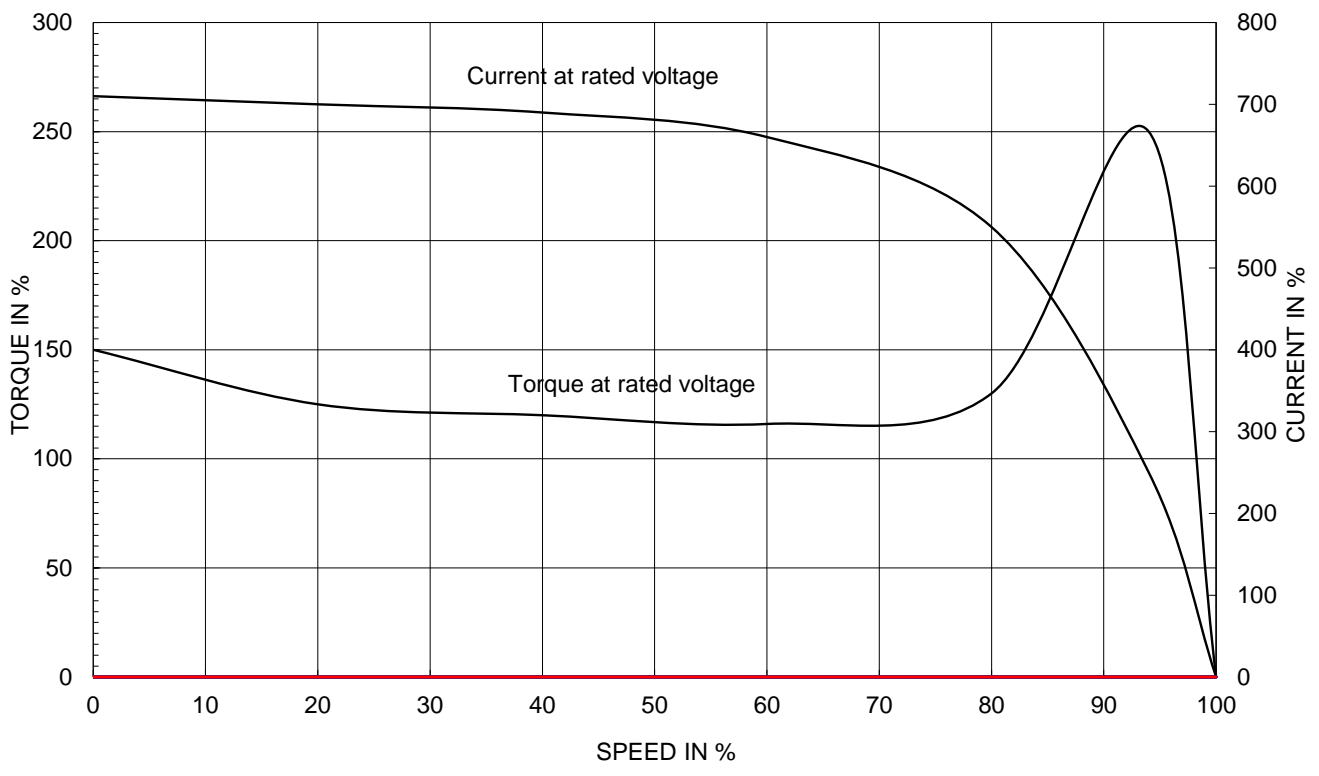
CURVE NO.

PC-HSDE600-36-5812S-IBBRSRSHSP

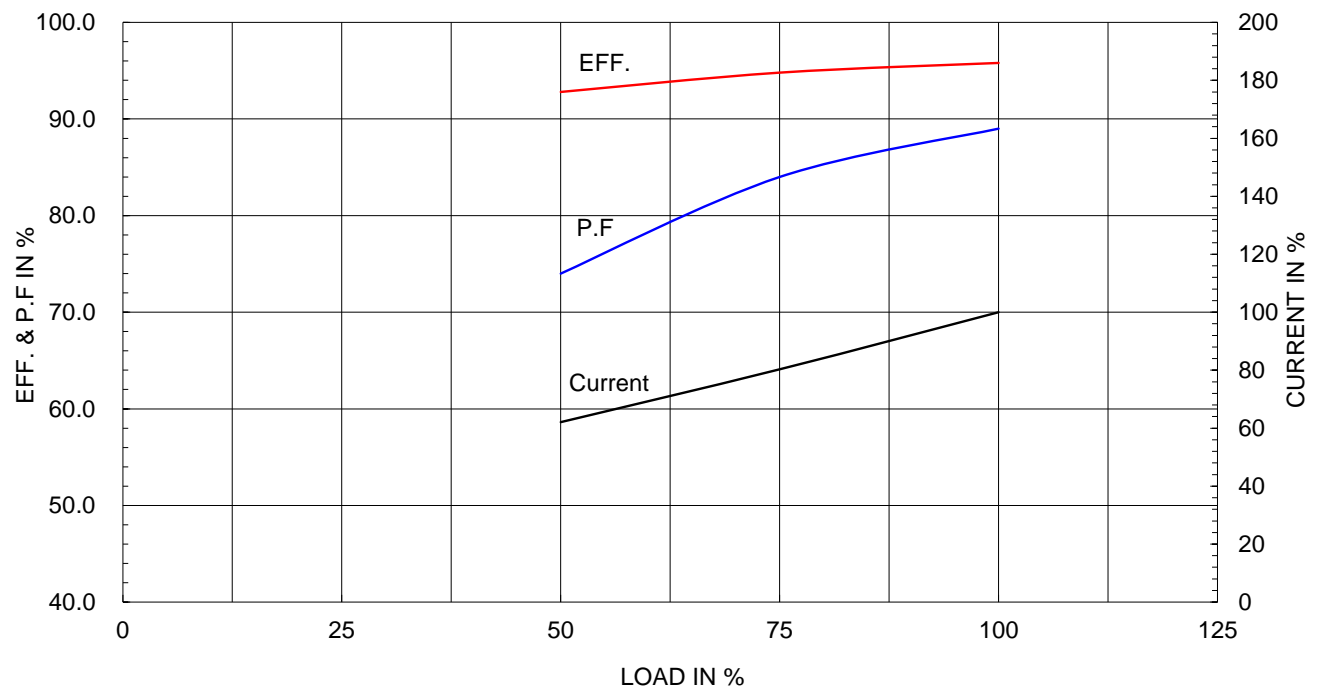
Type :	HNE6
Full Load Torque :	888.0 lb.ft
Load moment of Inertia (J) :	453.394 lb.ft2
Motor moment of Inertia (J) :	121.840 lb.ft2

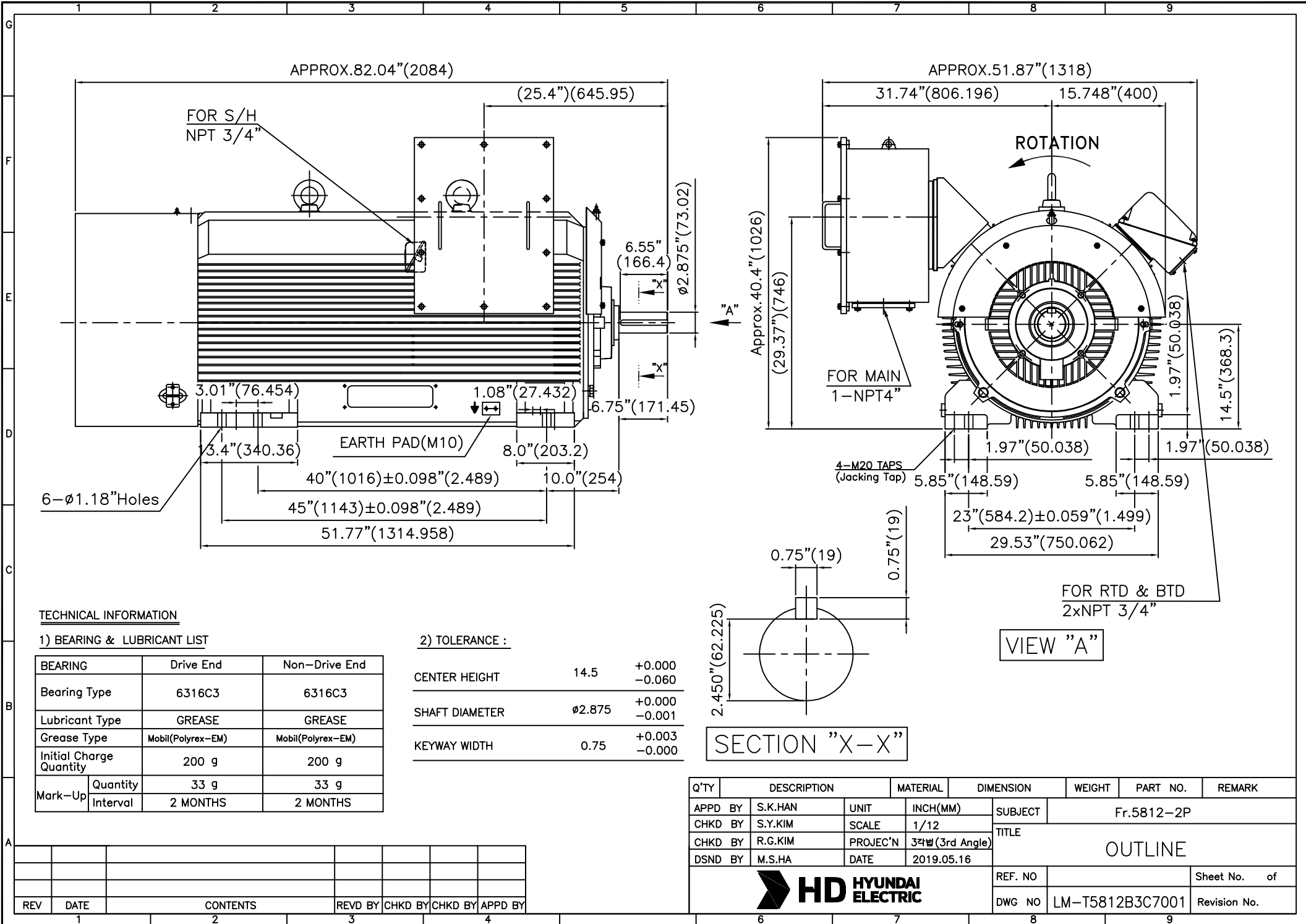
450kW 600HP	2 P	60 Hz
Speed at Full Load :		3570 RPM
Rated Voltage	575V	460V 230V
Full Load Current	529.9A	662.4A #####

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
	Interval	2 MONTHS

2) TOLERANCE :

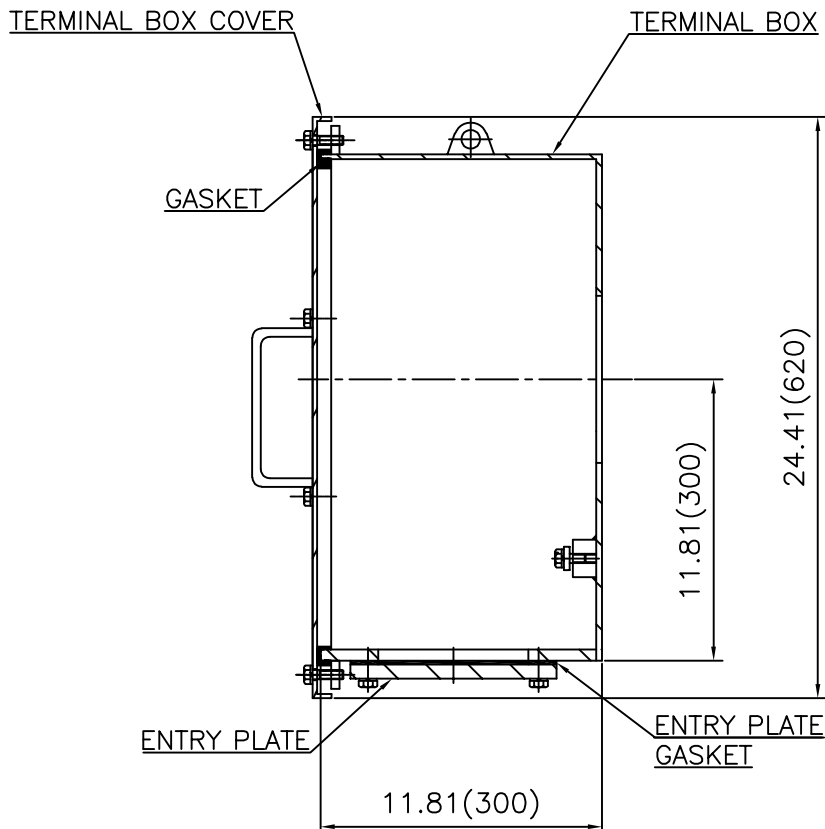
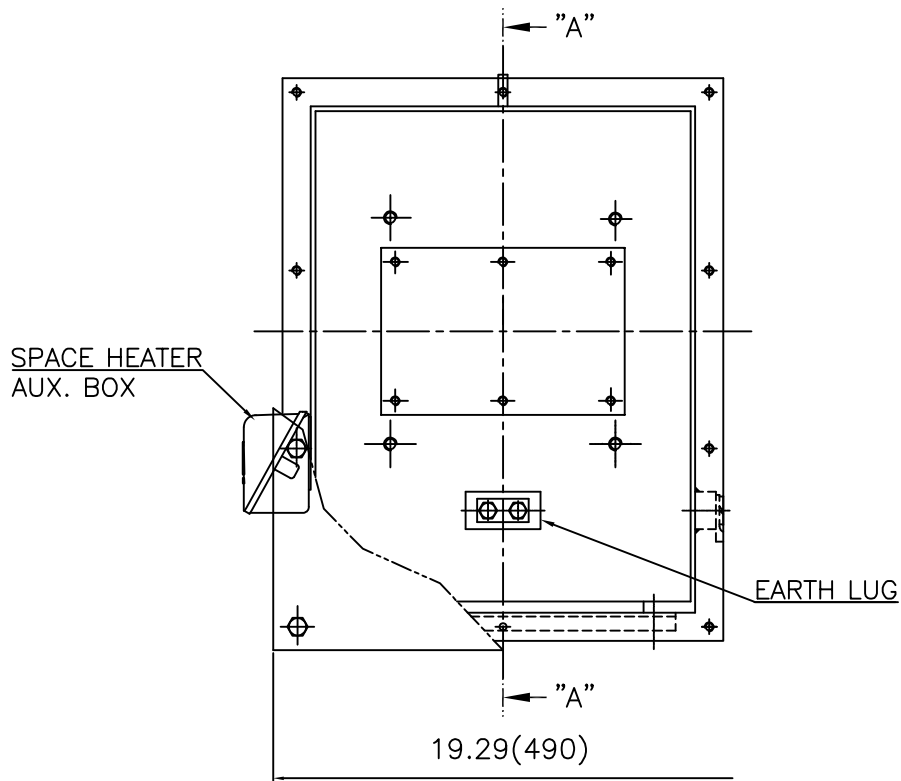
CENTER HEIGHT	14.5	+0.000	-0.060
SHAFT DIAMETER	ø2.875	+0.000	-0.001
KEYWAY WIDTH	0.75	+0.003	-0.000

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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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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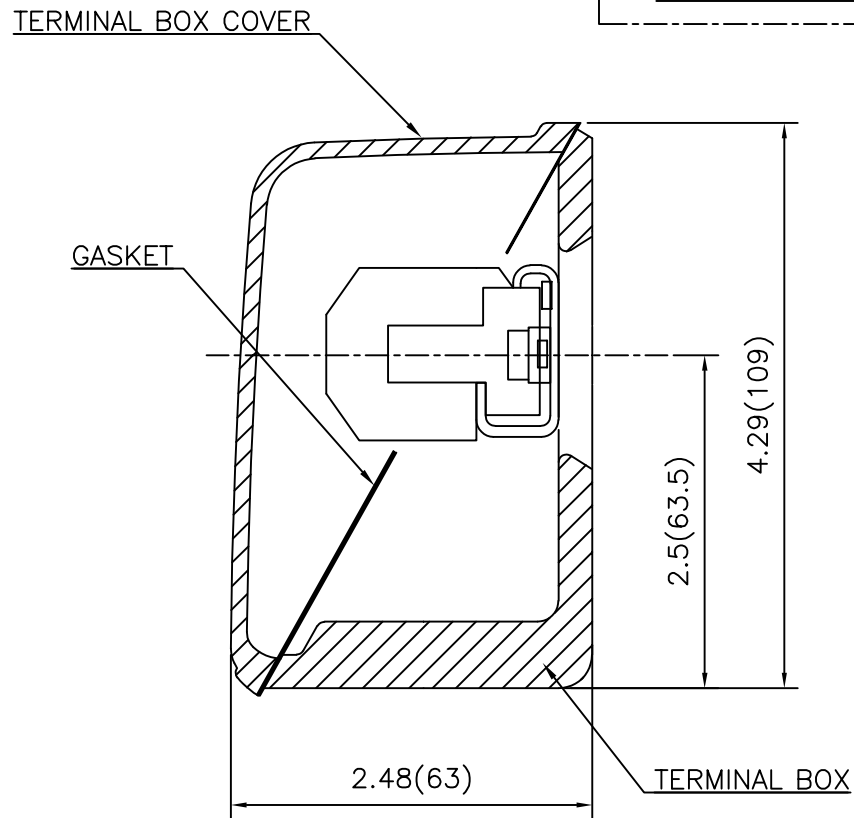
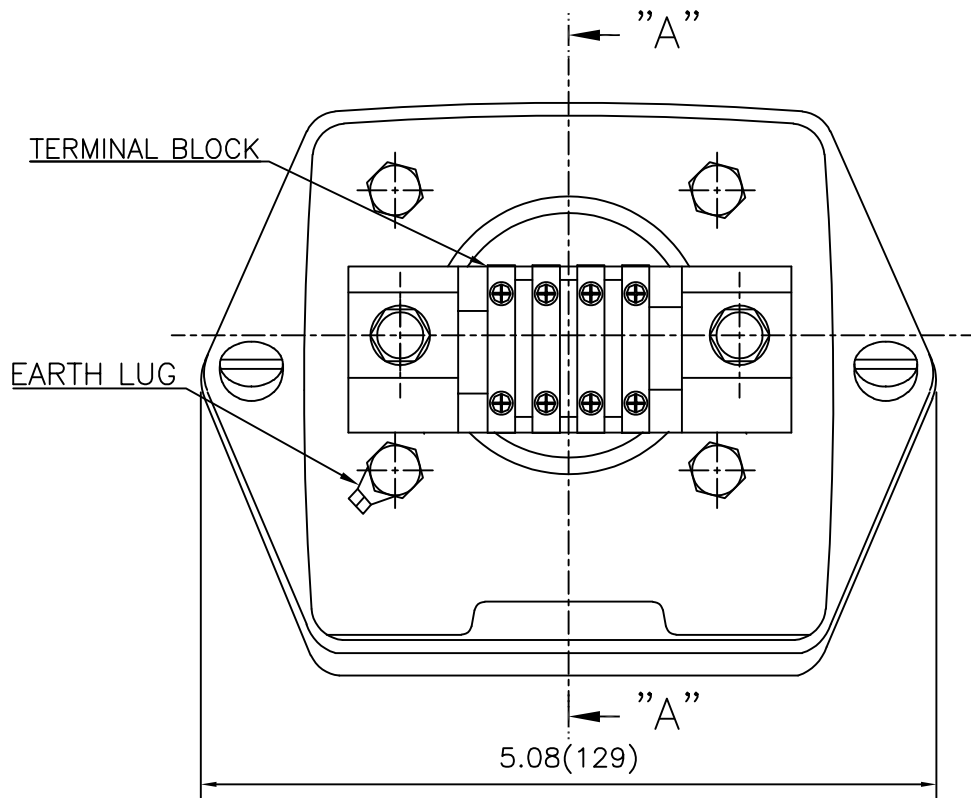
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REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

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	REF. NO	Sheet No. of
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	DWG NO		3M-165277	Revision No.
DSND BY	배승희	DATE	2024-01-18				

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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