

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		
Type of Ex-Protection	Class I, Division 2	Cold 2 times		
Applicable Standard	NEMA MG1, CSA C390	Hot 1 time		
		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
2024-09-10	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.

	REV	DATE	CONTENTS

4.72

2.36

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 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 639.79A 2970rpm S.F.: 1.15 Eff.: 95.8% Code: H
	50Hz 475HP 400/415V 614.78/599.39A 2972/2975rpm S.F.: 1.15 Eff.: 95.8/95.81% Code: H/J
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

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	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

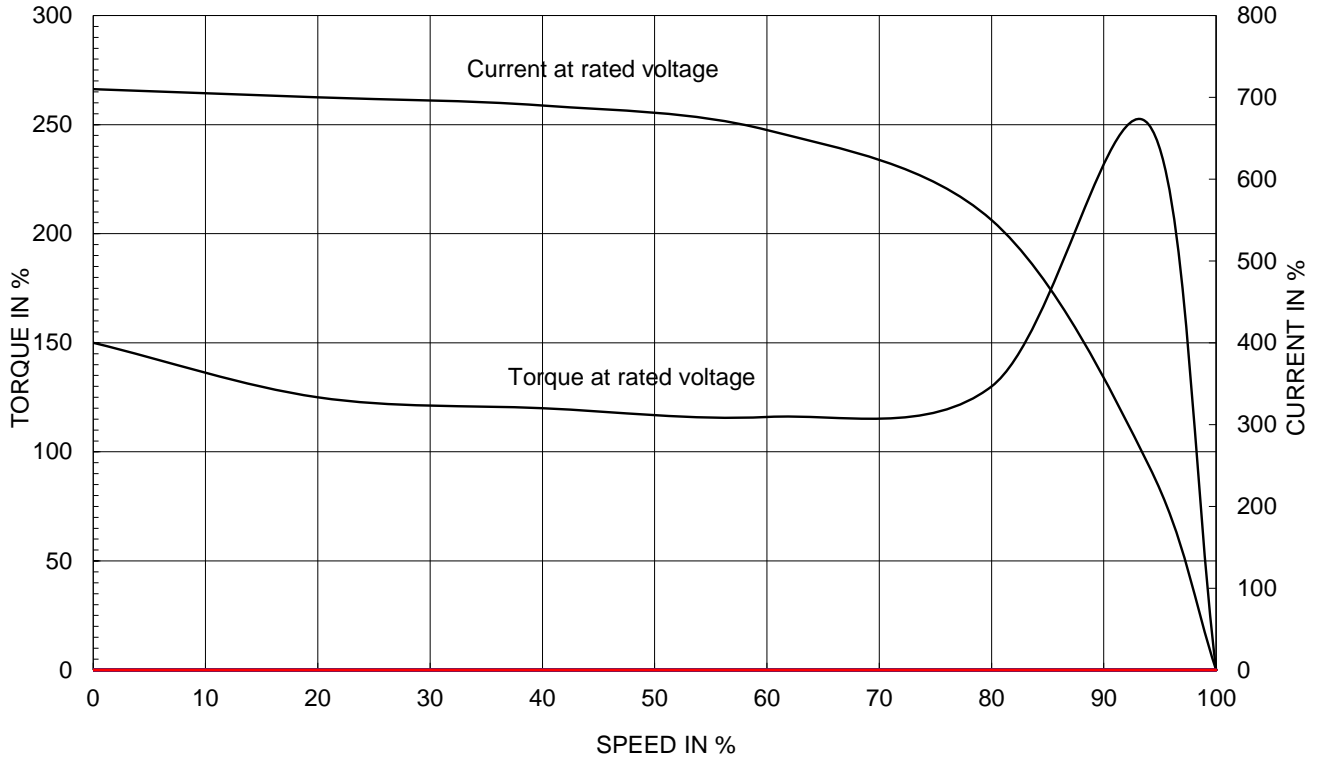
CURVE NO.

PC-HSDE600-36-5812S-IBBRSRSHSP

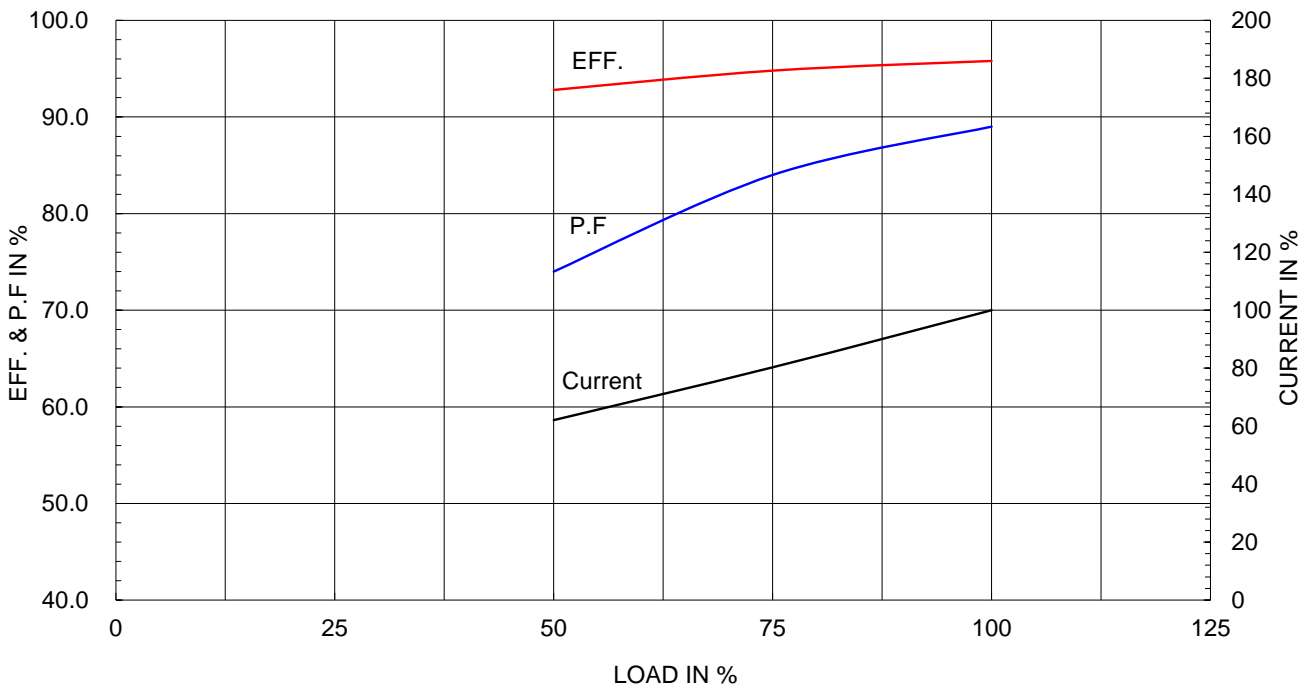
Type :	HNE6
Full Load Torque :	888.0 lb.ft
Load moment of Inertia (J) :	453.394 lb.ft2
Motor moment of Inertia (J) :	121.840 lb.ft2

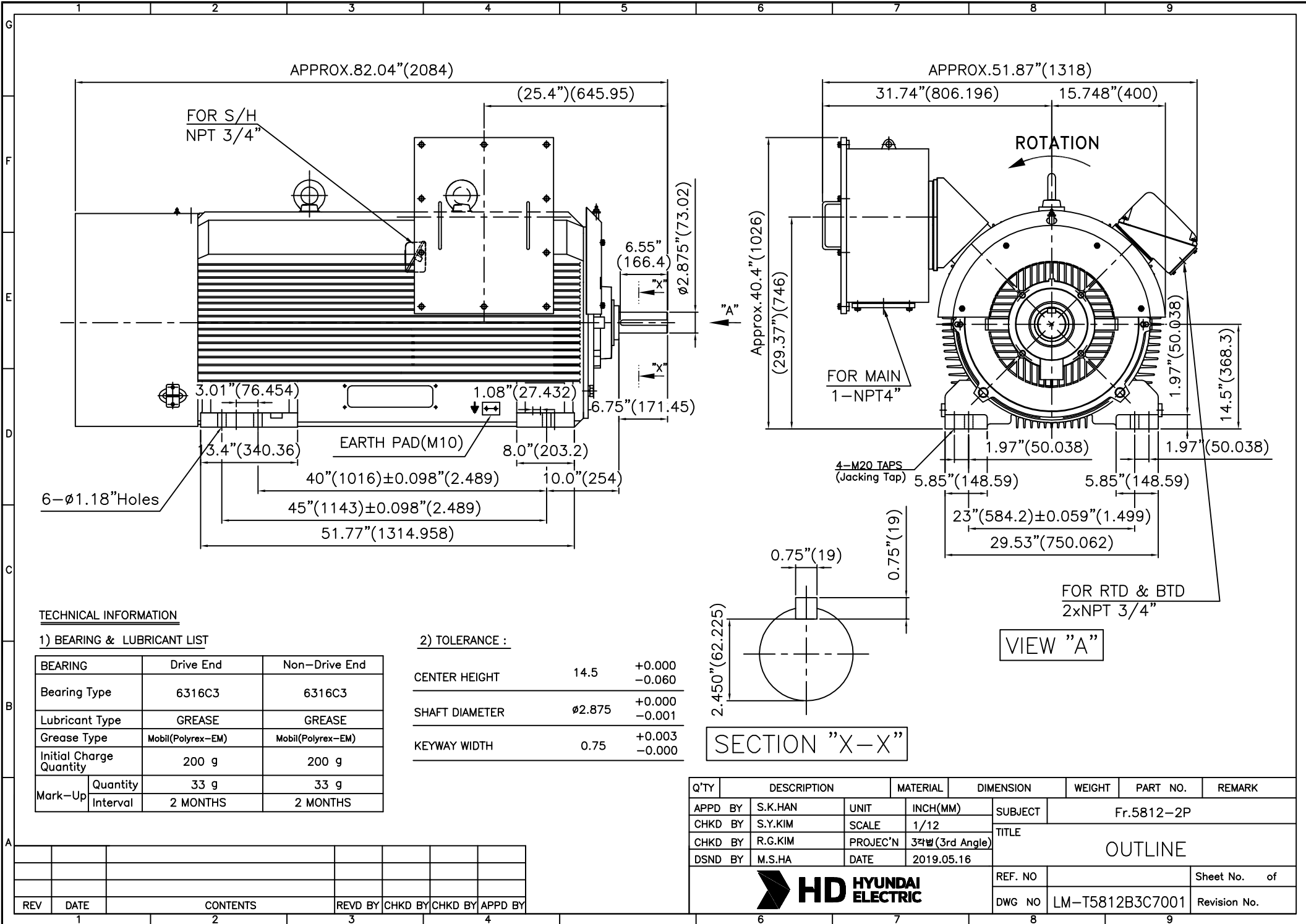
450kW 600HP	2 P	60 Hz
Speed at Full Load :		3570 RPM
Rated Voltage	575V	460V 230V
Full Load Current	529.9A	662.4A 1324.9A

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 :

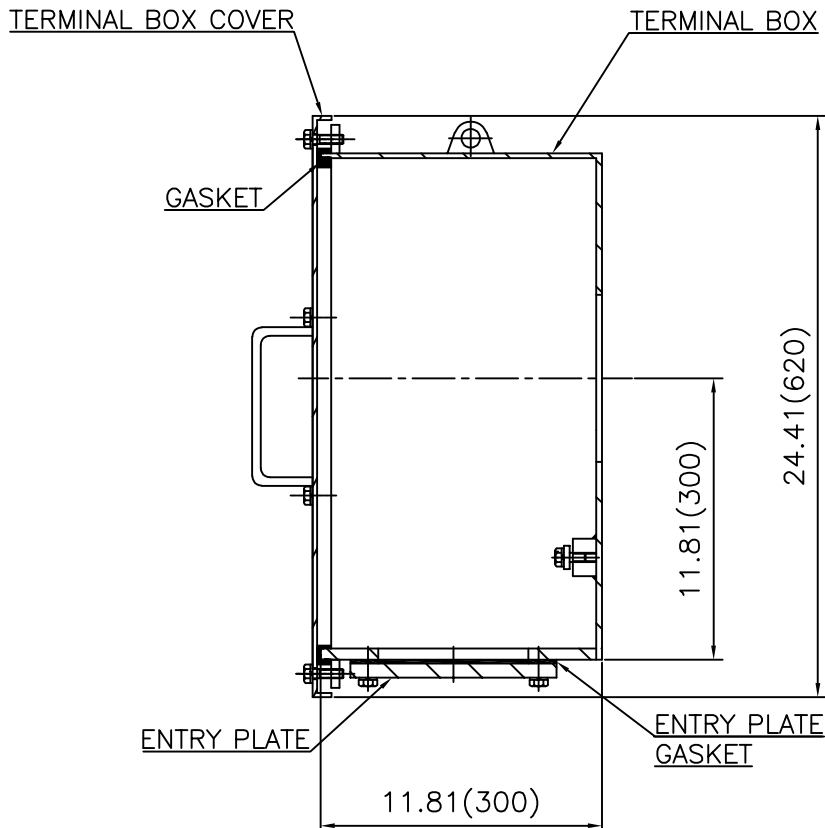
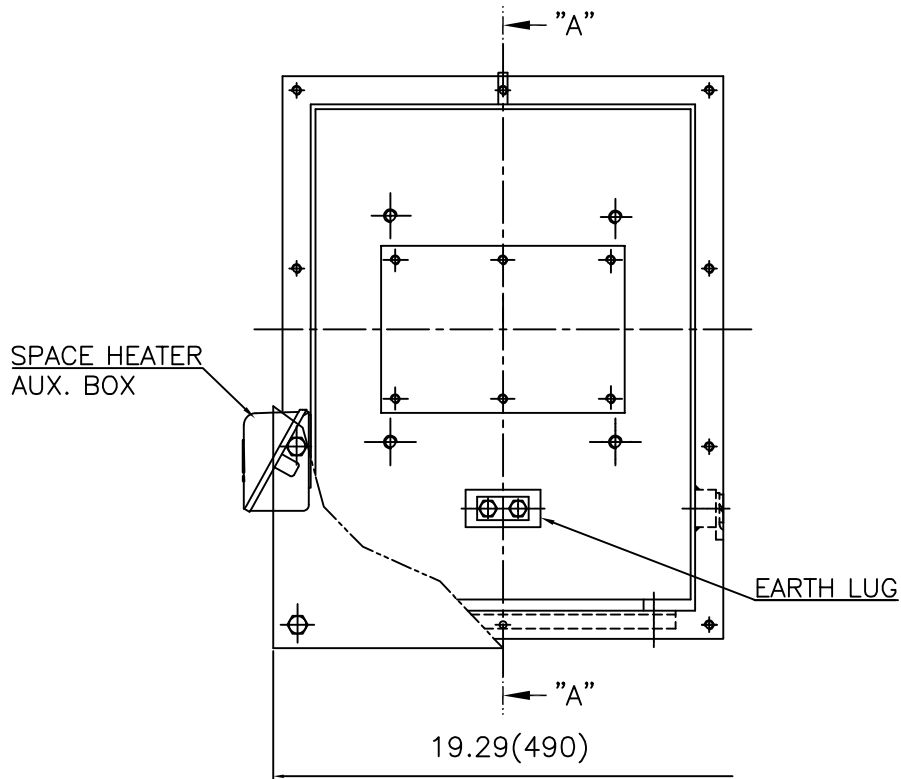
CENTER HEIGHT	14.5	+0.000	-0.060
SHAFT DIAMETER	Ø2.875	+0.000	-0.001
KEYWAY WIDTH	0.75	+0.003	-0.000

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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SEC. "A" - "A"

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
1						
2						
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	배승희	DATE	2023-10-25	DWG NO	3M-248512	Revision No.	0



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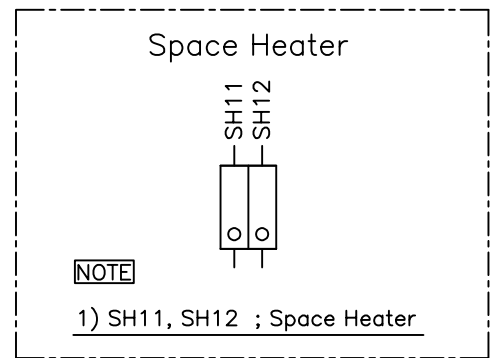
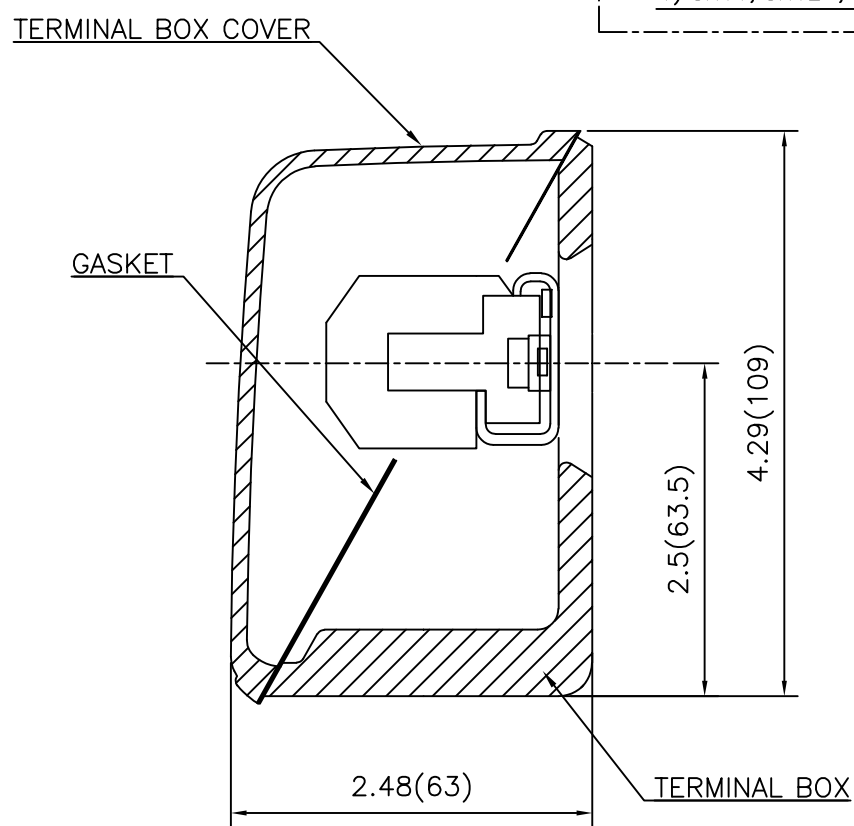
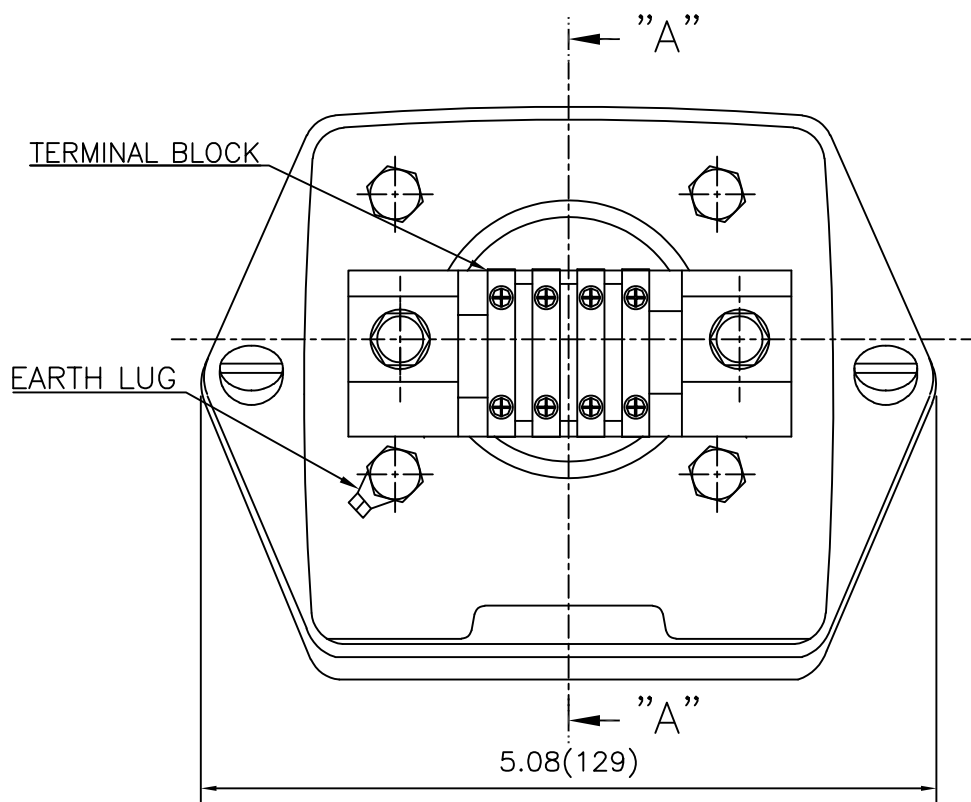
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REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

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	DSND BY		네슬렉	DATE
				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

