

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.	HSDE400-18-L449T-IBBRSRSH	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA					
Frame Size	L449T		Rated Output	300 kW		400 HP		
Type	PJP		Number of Poles	4				
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	355.8 A	444.8 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	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		50% Load		93.2 %			
Altitude	Less than 1,000 meter		75% Load		95.2 %			
Relative Humidity	Less than 80 %		100% Load		96.2 %			
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)					
Duty Type	Continuous (S1)		50% Load		0.730			
Service Factor	1.15		75% Load		0.830			
Mounting	B3		100% Load		0.880			
Bearing	Type	Anti-Friction	Speed at Full Load					
	DE/N-DE	NU322 / 6318C3-INS.	1785 r.p.m					
	Lubricant	Grease(Polyrex-EM)	Torque					
External Thrust	Not applicable		Full Load		1,184.0 lb.ft			
Coupling Method	<input type="checkbox"/> Direct <input type="checkbox"/> V-belt		Locked-rotor**		135 %			
Shaft Extension	Single		Breakdown**		225 %			
Terminal	Main	Cast Iron	Moment of Inertia (J)					
Box	Aux.	Yes	Load(Max.)		1,550.000 lb.ft2			
	Location	Refer to Outline Drawing	Motor		129.342 lb.ft2			
Application			Sound Pressure Level (No-load & mean value at 1m from motor)					
Area classification	Hazardous		85 dB(A)					
Type of Ex-Protection	Class I&II, Division 2		Vibration					
Applicable Standard	NEMA MG1, CSA C390		3.8 mm/sec (peak)					
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			Permissible number of consecutive starts					
			Cold		2 times			
			Hot		1 time			
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)			
			SUBMITTAL DRAWING					
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 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								
SPARE PARTS								
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.

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REV	DATE	CONTENTS	REVD BY CHKD BY CHKD BY APPD BY

4.72

400HP	4P	460V	Cat. No.	HSDE400-18-L449T-IBBRSRSH			
Model	LATER		INS. Class	F	Amps	444.8	
Type	PJP	Duty	Code	G	Amb.	40°C	
Frame	L449T	Encl.	S.F.	1.15	RPM	1785	
Bearing	Drive	NU322	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff.	95.2%	
	Opp.	6318C3-INS.			NEMA Design	B Torque	
Usable at	50Hz 335HP 380V 449.62A 1485rpm S.F.: 1.0 Eff.: 96% Code: G						
	50Hz 335HP 400/415V 437.07/430.85A 1486/1487rpm S.F.: 1.0 Eff.: 96/96.1% Code: H/J						
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D		CLASS II, Div. 2, Gr. F & G		Temp. Code (sine wave)	Frame	L440FR - 500FR
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC					Amb. 40°C	T3 (200°C)
						Amb. 55°C	T3 (200°C)
No.	-		Date	-		Weight	3620 lb
4M-136053			Made in Korea H1				

2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HSDE ,L449-500)	DWG SIZE	A4 (1:1)
CHKD BY	I.K.KIM	SCALE	NONE				
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	NAMEPLATE DRAWING			
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	4M-136053	Sheet No.	of
				DWG NO	NP-HSDE400-18-L449T-IBBRSRSH	Revision No.	0



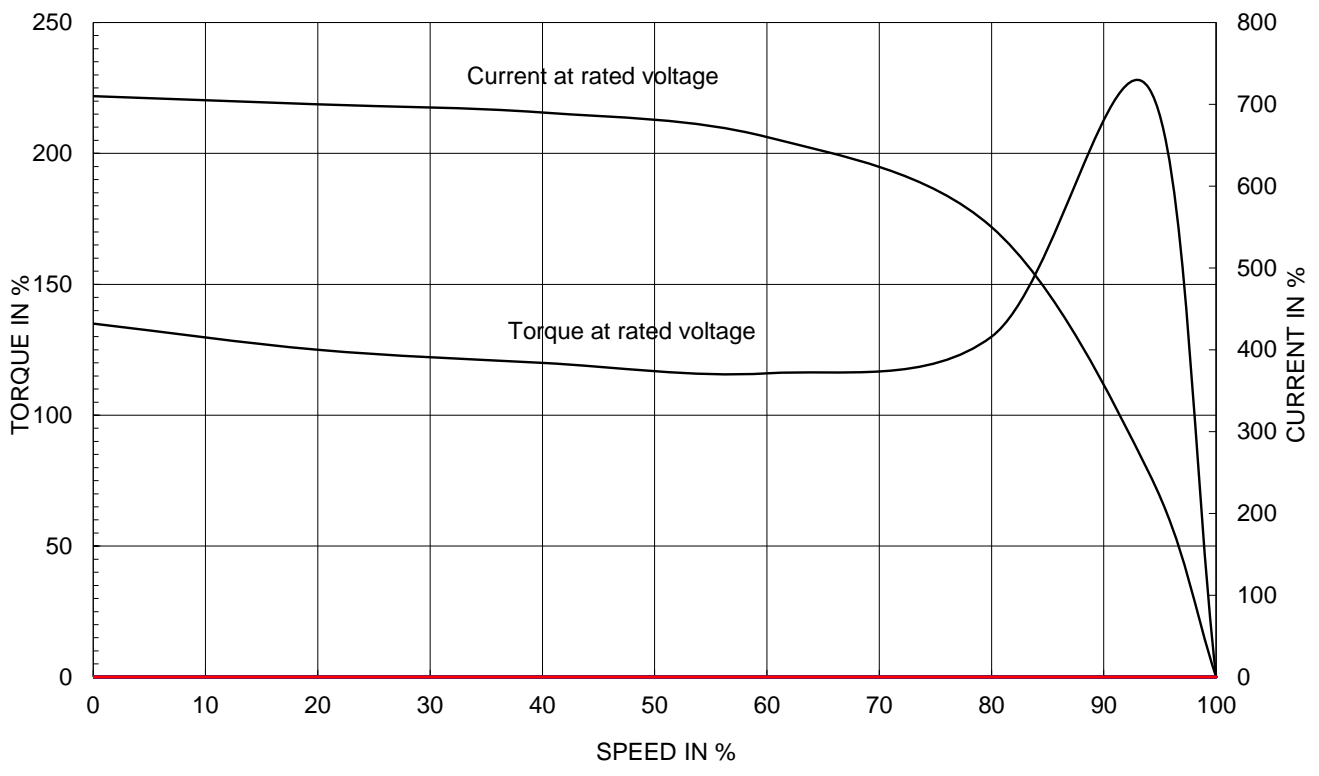
PERFORMANCE CURVE

CURVE NO.
PC-HSDE400-18-L449T-IBBRSRSH

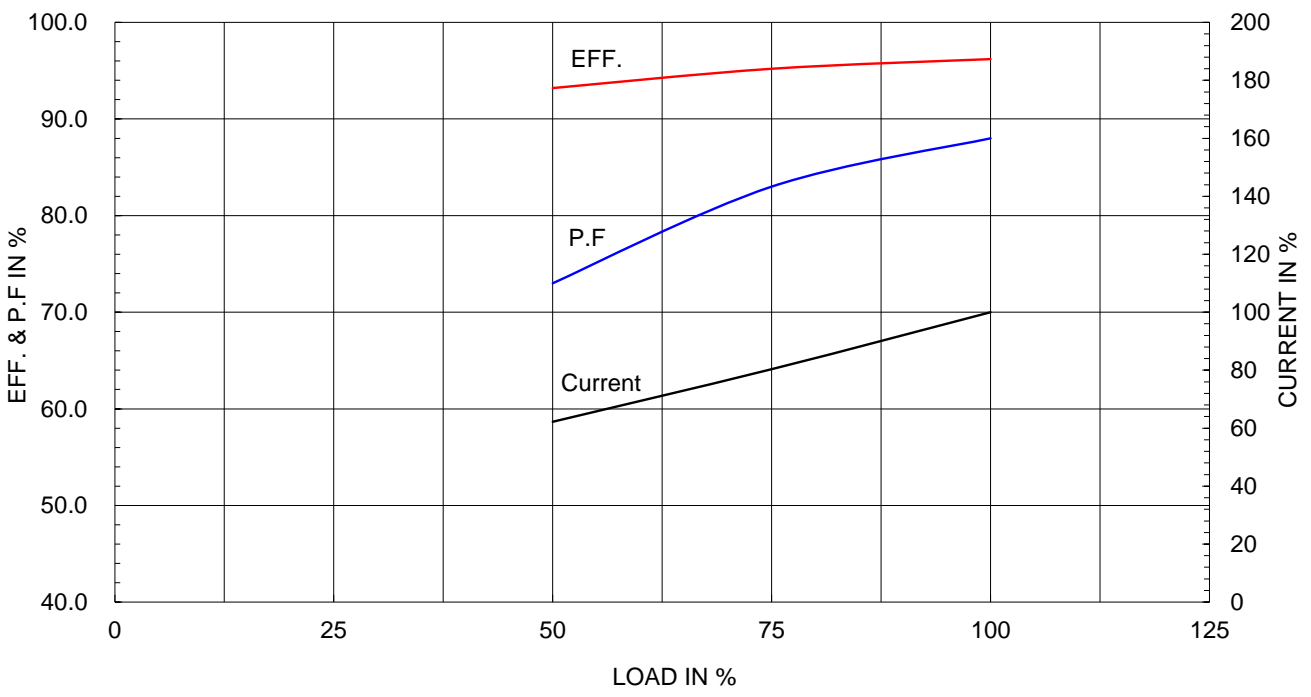
Type :	PJP
Full Load Torque :	1184.0 lb.ft
Load moment of Inertia (J) :	1550.000 lb.ft2
Motor moment of Inertia (J) :	129.342 lb.ft2

300kW 400HP	4 P	60 Hz
Speed at Full Load :		1785 RPM
Rated Voltage	575V	460V 230V
Full Load Current	355.8A	444.8A 889.6A

SPEED VS TORQUE & CURRENT CURVE



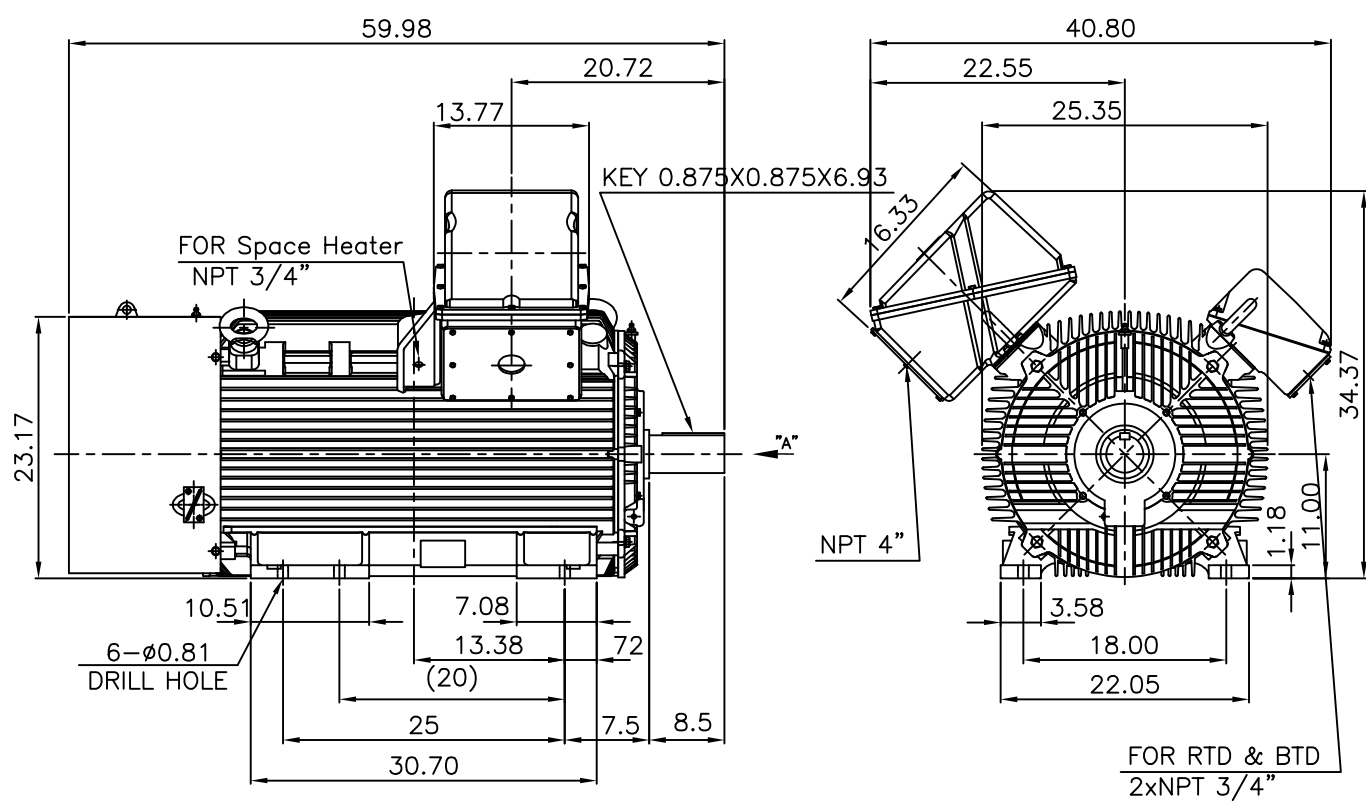
OUTPUT VS EFF., P.F & CURRENT CURVE



본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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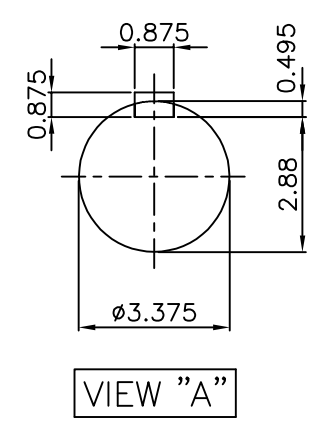
▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



NOTE

1.TOLERANCE :

CENTER HEIGHT	11	+0.000	-0.060
SHAFT DIAMETER	ø3.375	+0.000	-0.001
KEYWAY WIDTH	0.875	+0.003	-0.000

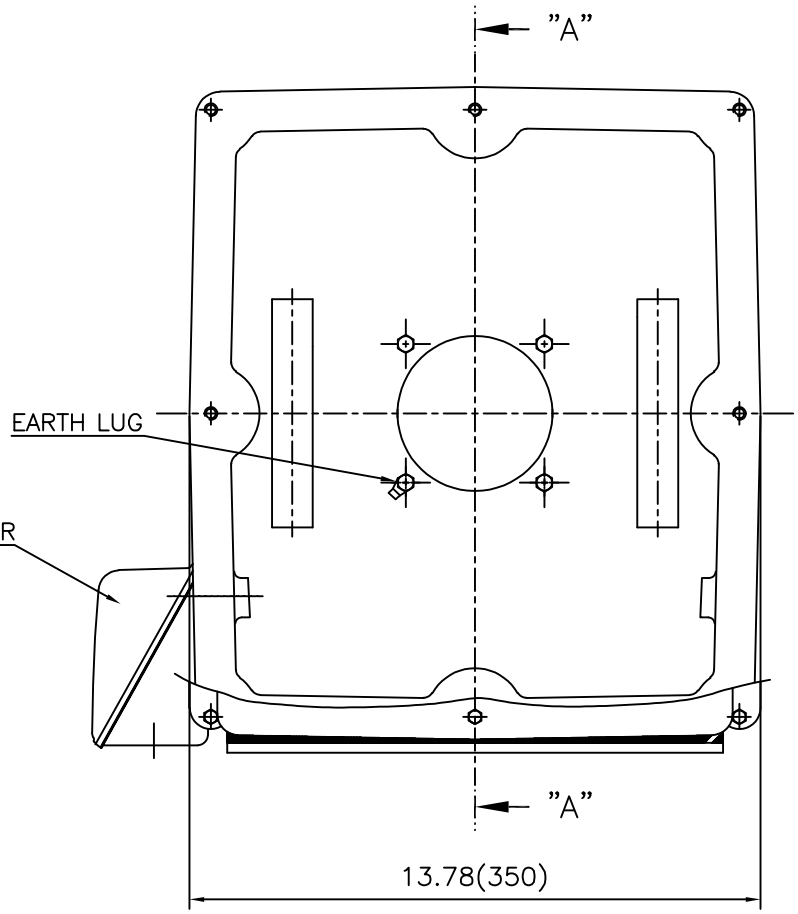


APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.L449T	DWG SIZE	A4 (1:18)
CHKD BY	O.J.KIM	SCALE	1/18	TITLE	OUTLINE		
CHKD BY	R.G.KIM	PROJEC'N	3각법(3rd Angle)				
DSND BY	H.K.LEE	DATE	2021-04-27				



REF. NO		Sheet No.	of
DWG NO	LM-T044XB3U7001	Revision No.	0

**Cls. I&II, Div. 2
IEEE 841**



SEC. "A" - "A"

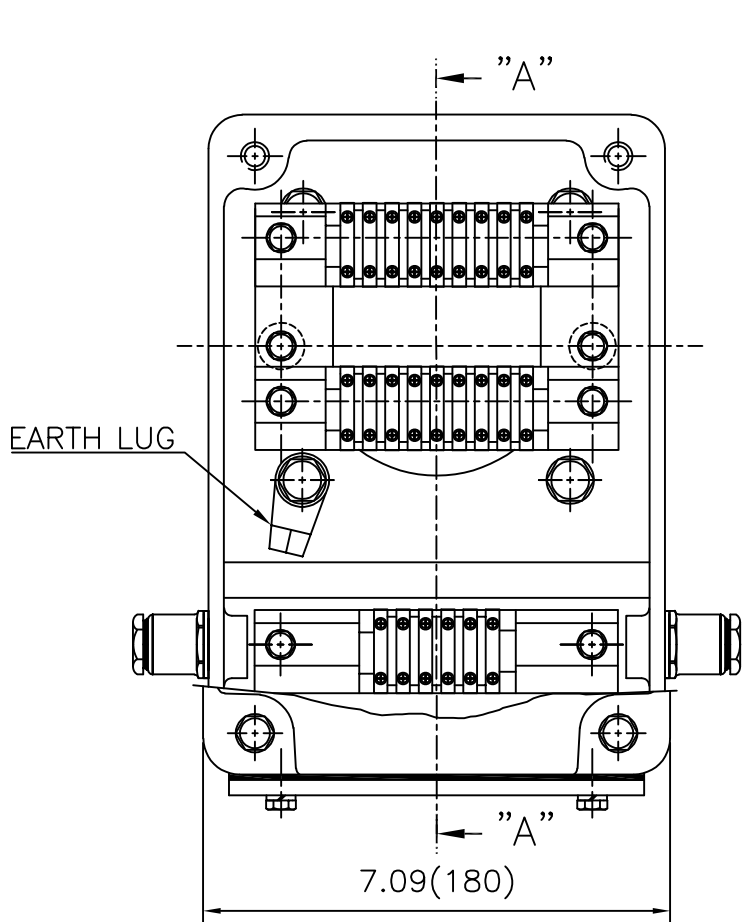
REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

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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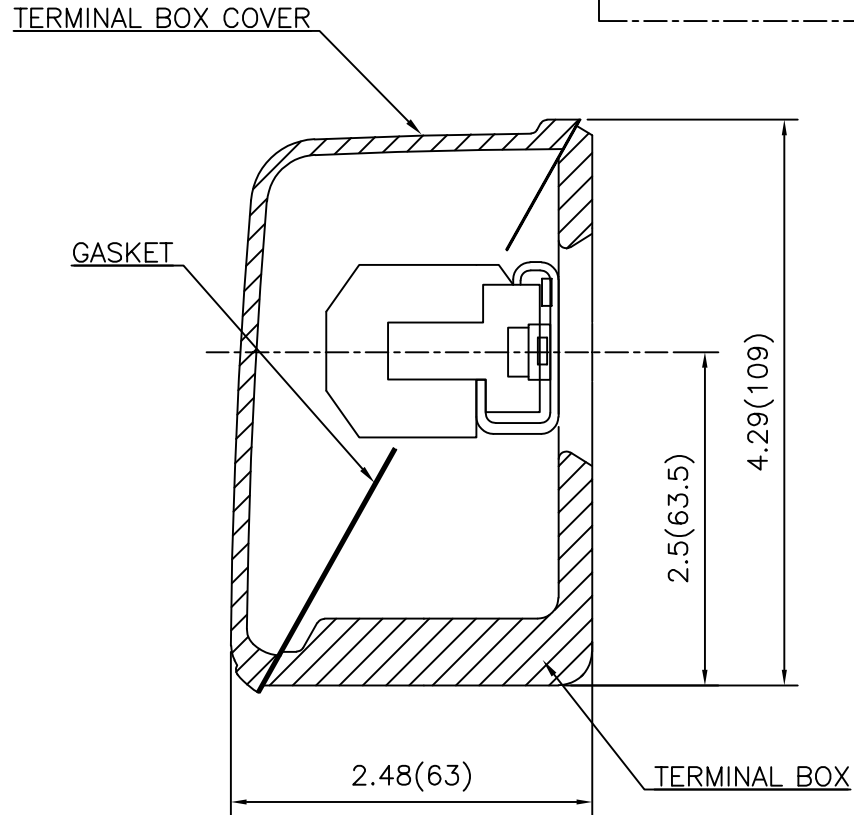


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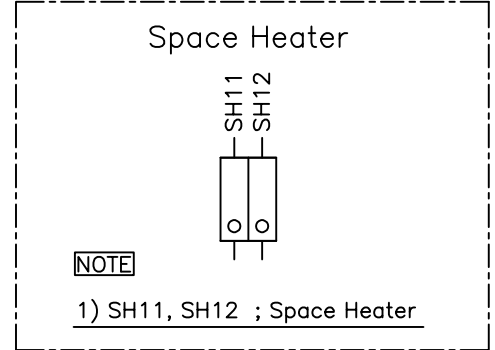
APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.360 (CAST IRON)	DWG SIZE	A3 (1:2.2)
CHKD BY		SCALE	1/1	TITLE	AUX. TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	배승희	DATE	2024-01-18	DWG NO	3M-165277	Revision No.	0



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SEC. "A" - "A"



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	
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

