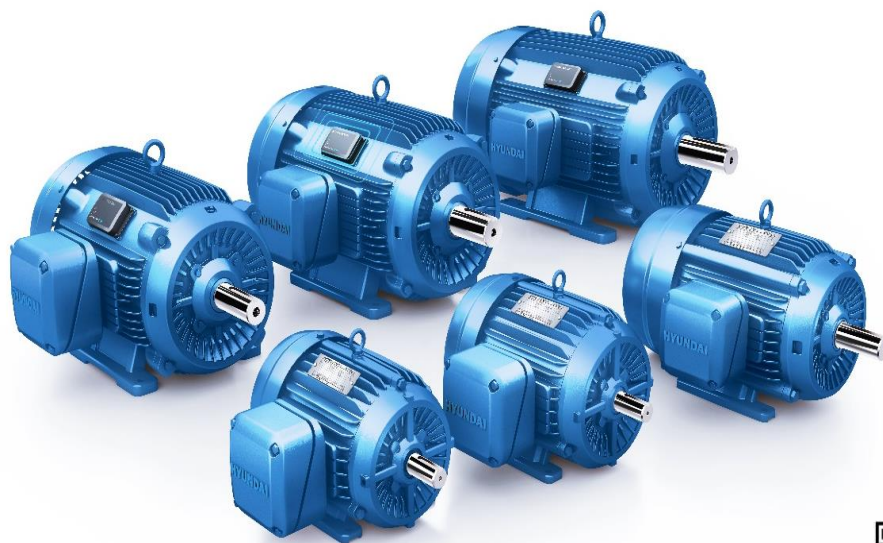


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HSDE400-12-5009C-IBBRSRSH	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	5009C		Rated Output	300 kW		400 HP	
Type	PJP		Number of Poles	6			
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	374.3 A	467.9 A	935.8 A
Insulation Class	F			Locked-rotor**	680 %	680 %	680 %
Temp. Rise at full load (by resistance method)			Efficiency				
	at 1.0 S.F	80 deg. C	50% Load 92.8 %				
Motor Location	☐ Indoor ☐ 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 0.690				
Duty Type	Continuous (S1)		75% Load 0.790				
Service Factor	1.15		100% Load 0.840				
Mounting	B35		Speed at Full Load		1185 r.p.m		
Bearing	Type	Anti-Friction	Torque				
	DE/N-DE	6324C3 / 6320C3-INS.	Full Load 1783.53 lb.ft				
	Lubricant	Grease(Polyrex-EM)	Locked-rotor** 135 %				
External Thrust	Not applicable		Breakdown** 220 %				
Coupling Method	☒ Direct ☐ V-belt		Moment of Inertia (J)				
Shaft Extension	Single		Load(Max.) 4,199.000 lb.ft2				
Terminal	Main	Cast Iron	Motor 246.780 lb.ft2				
Box	Aux.	Yes	Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing	84 dB(A)				
Application			Vibration 3.8 mm/s (peak)				
Area classification	Hazardous		Permissible number of Cold 2 times				
Type of Ex-Protection	Class I&II, Division 2		consecutive starts Hot 1 time				
Applicable Standard	NEMA MG1, CSA C390		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
ACCESSORIES			SUBMITTAL DRAWING				
*. B.T.D.(Pt 100 Ω at 0°C,Single) : 2EA/Motor			Outline Dimension Drawing \ Motor Weight(Approx.)				
*. W.T.D.(Pt 100 Ω at 0°C) : 2EA/Ph.			B35 LM-T0509C4P7001 4110 lb.				
*. Space Heater : 1EA/Motor							
			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 (1 hour duty, 4:1 continuous)				
			-. 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				
			-. Class II, Division 2 Group F & G				
			5. Shaft material : AISI4140				
			6. Temp. code : T3(200°C) at sine wave				
			Date	DSND	CHKD	CHKD	APPD
			2025-09-19	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.

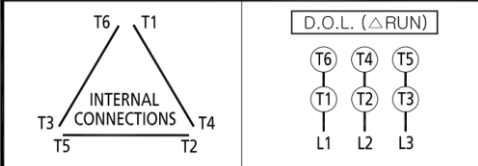
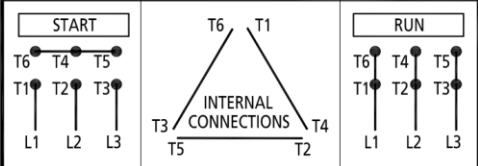
MAIN NAMEPLATE

4.72

2.36

CROWN TRITON							
Premium Efficiency AC 3 Phase Motor							
400HP	6P	460V	Cat. No. HSDE400-12-5009C-IBBRSRSH				
Model	-		INS. Class	F	Amps	467.9A	
Type	PJP	Duty	CONT	Code	H	Amb.	40°C
Frame	5009C	Encl.	TEFC	S.F.	1.15	RPM	1185
Bearing	Drive 6324C3	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			3/4 Eff.	94.8%	
	Opp. 6320C3-INS.				NEMA Design	B Torque	
Usable at	50Hz 335HP 380V 472.0A 985rpm S.F.: 1.0 Eff.: 95.8% Code: G						
	50Hz 335HP 400/415V 459.3/453.8A 986/987rpm S.F.: 1.0 Eff.: 95.8/95.8% Code: H/J						
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2, Gr. F & G	Temp. Code		Frame	L440FR - 500FR	
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC		(sine wave)		Amb. 40°C	T3 (200°C)	
					Amb. 55°C	T3 (200°C)	
No.	-	Date	-		Weight	4110 lb	
4M-137952		Made in Korea H1					
MARINE DUTY IEEE45							

WIRING DIAGRAM

D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
 WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES.  KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-129326	 WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES.  KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-128852

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HSDE, L449-500)	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-137952 / 4M-129326	Sheet No. of
				DWG NO	NP-HSDE400-12-5009C-IBBRSRSH	Revision No. 0

Type : PJP

300kW 400HP

6 P

60 Hz

Full Load Torque : 1783.53 lb.ft

Speed at Full Load : 1185 RPM

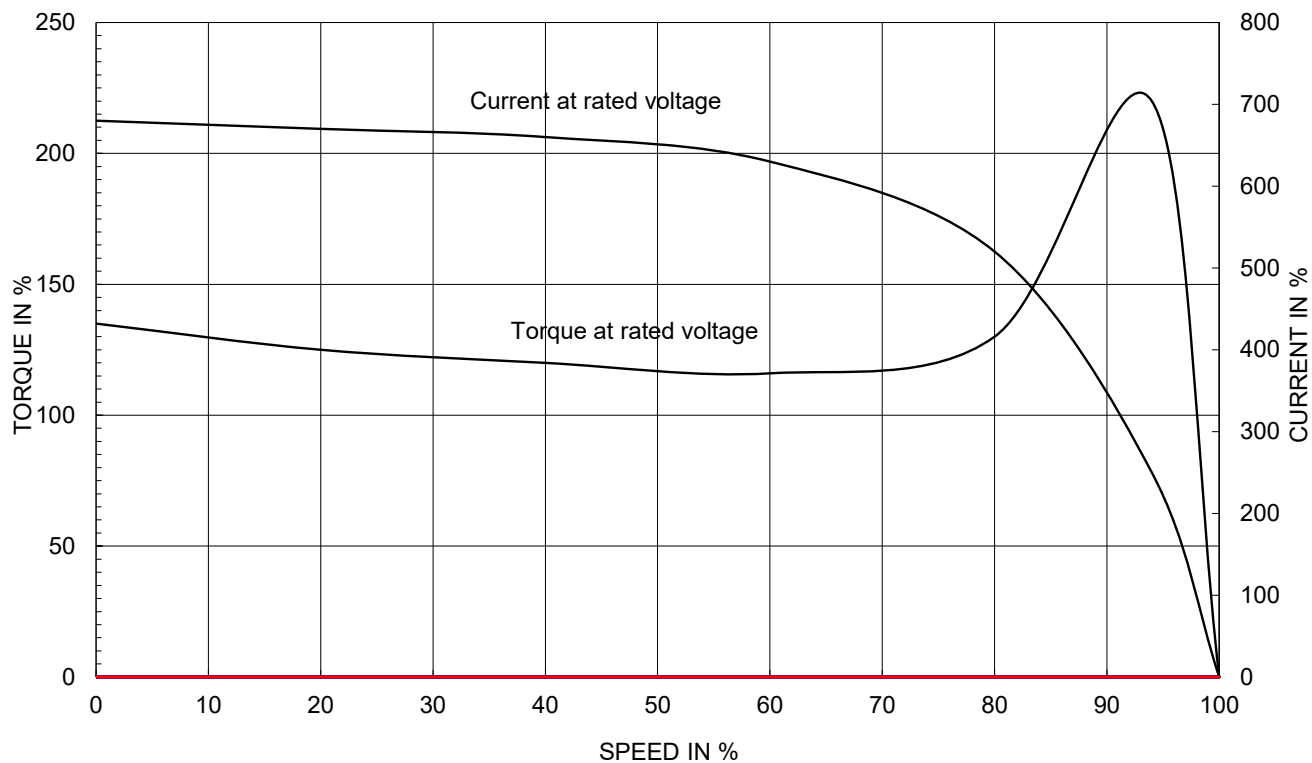
Load moment of Inertia (J) : 4199.000 lb.ft2

Rated Voltage 575V 460V 230V

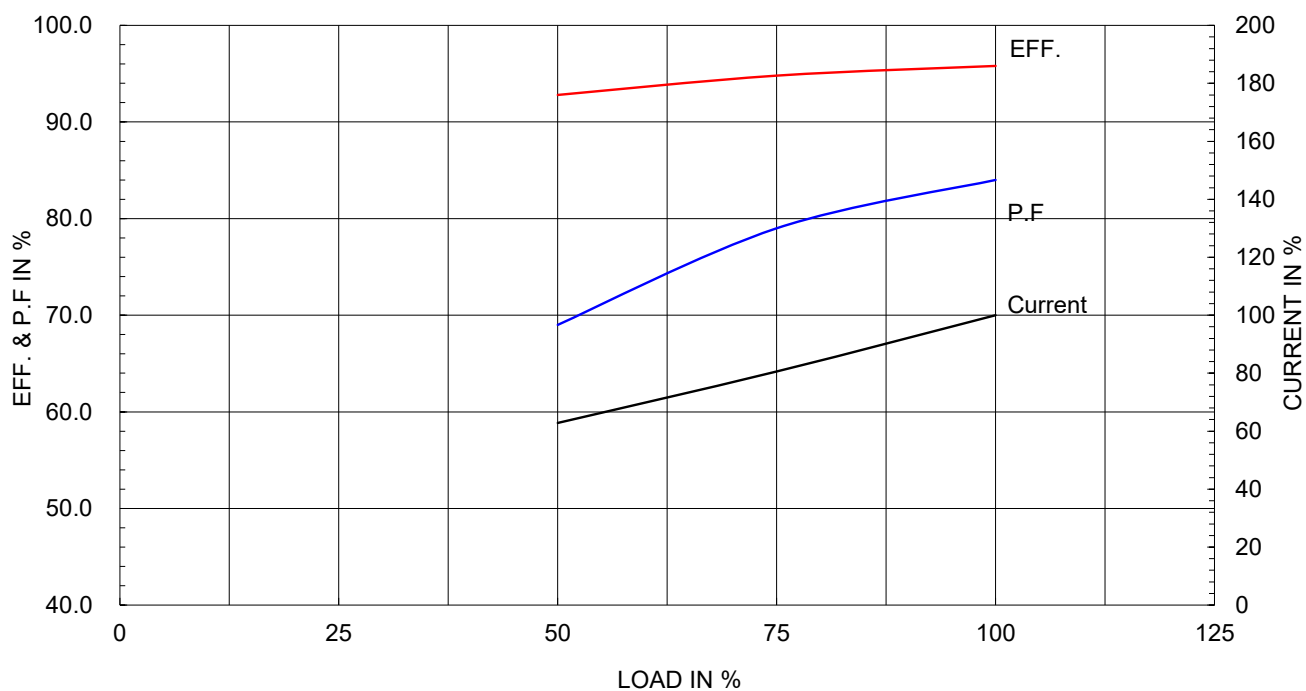
Motor moment of Inertia (J) : 246.780 lb.ft2

Full Load Current 374.3A 467.9A 935.8A

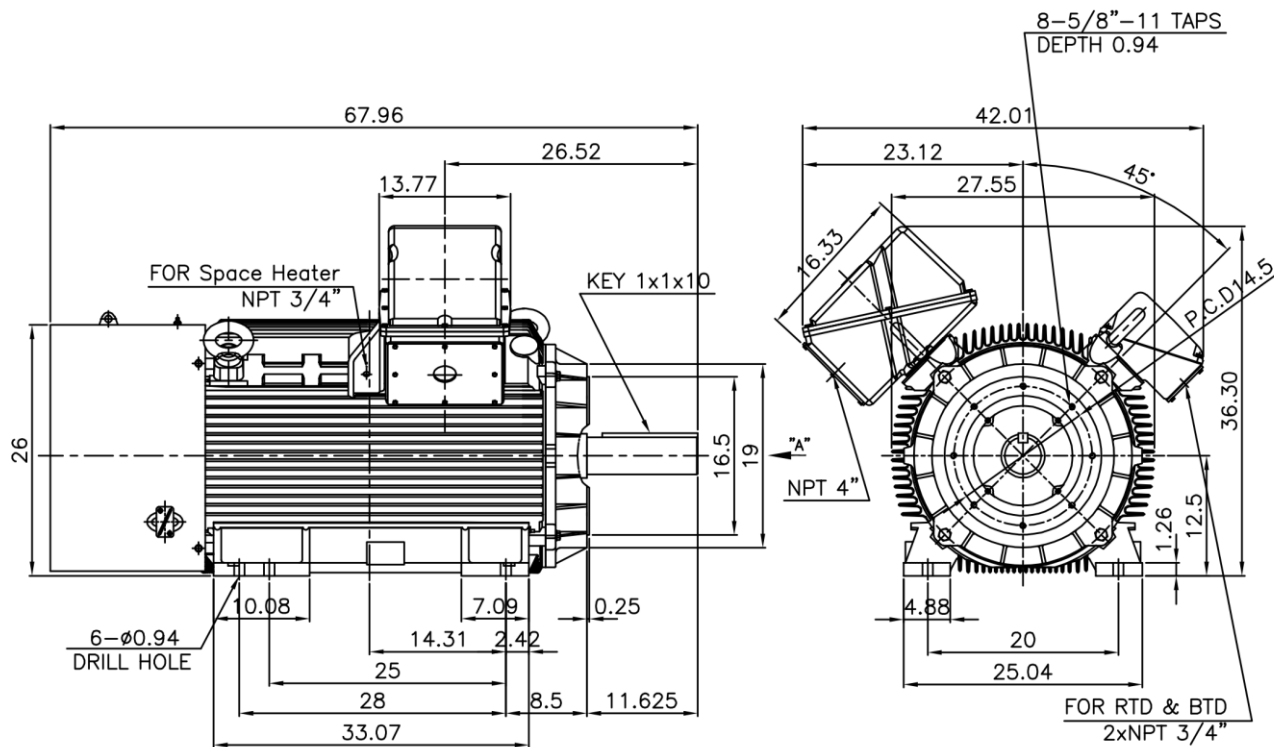
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



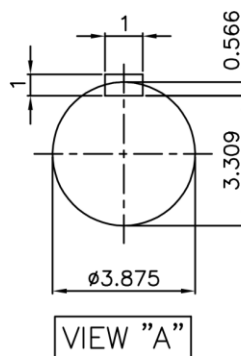
1	2	3	4
▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		



NOTE

1.TOLERANCE :

CENTER HEIGHT	12.5	+0.000 -0.060
RABBET DIAMETER	ø16.5	+0.000 -0.005
SHAFT DIAMETER	ø3.875	+0.000 -0.001
KEYWAY WIDTH	1	+0.003 -0.000

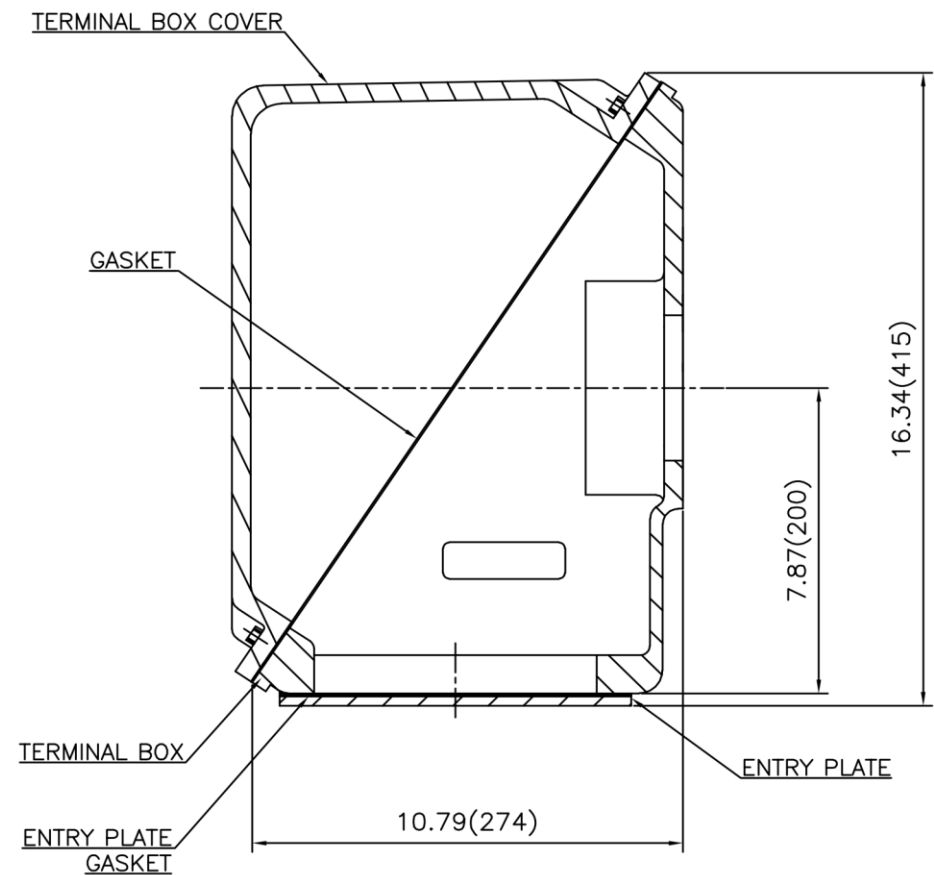
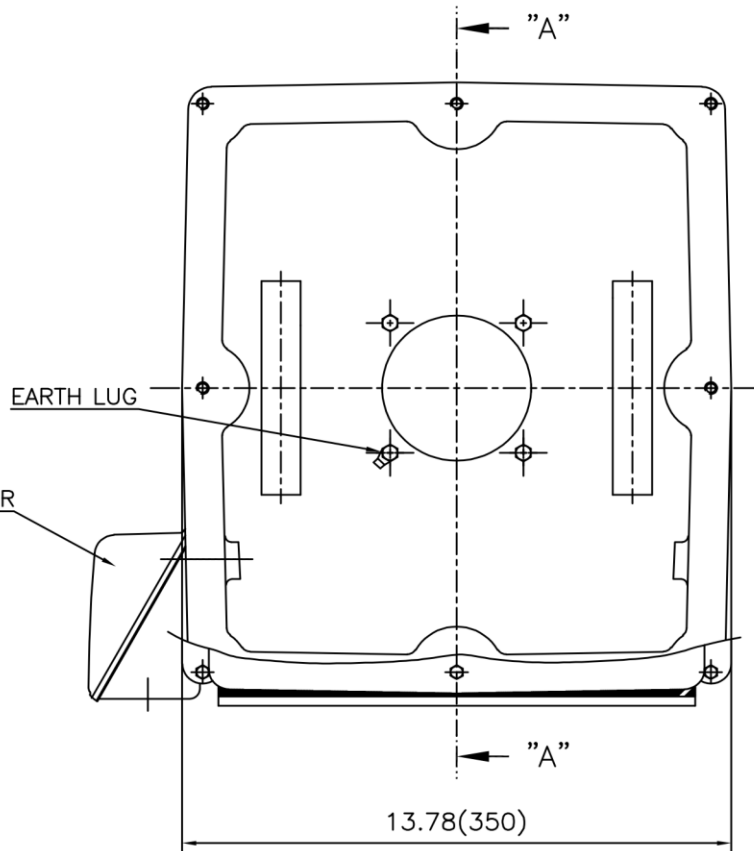


VIEW "A"

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.5008/5009C	DWG SIZE
CHKD BY	O.J.KIM	SCALE	1/19			A4 (1:19)
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)	TITLE	OUTLINE	
DSND BY	H.K.LEE	DATE	2021-04-27	REF. NO		Sheet No. of
				DWG NO	LM-T0509C4P7001	Revision No. 0

Cls. I&II, Div. 2

IEEE 841



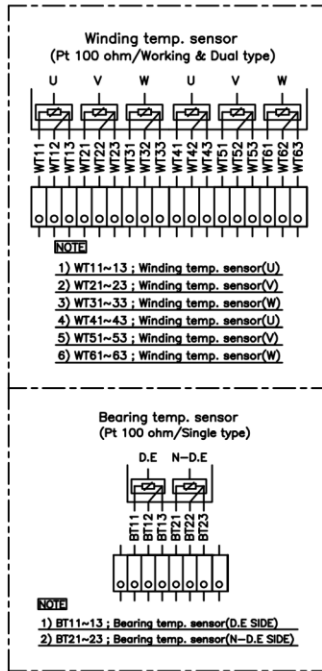
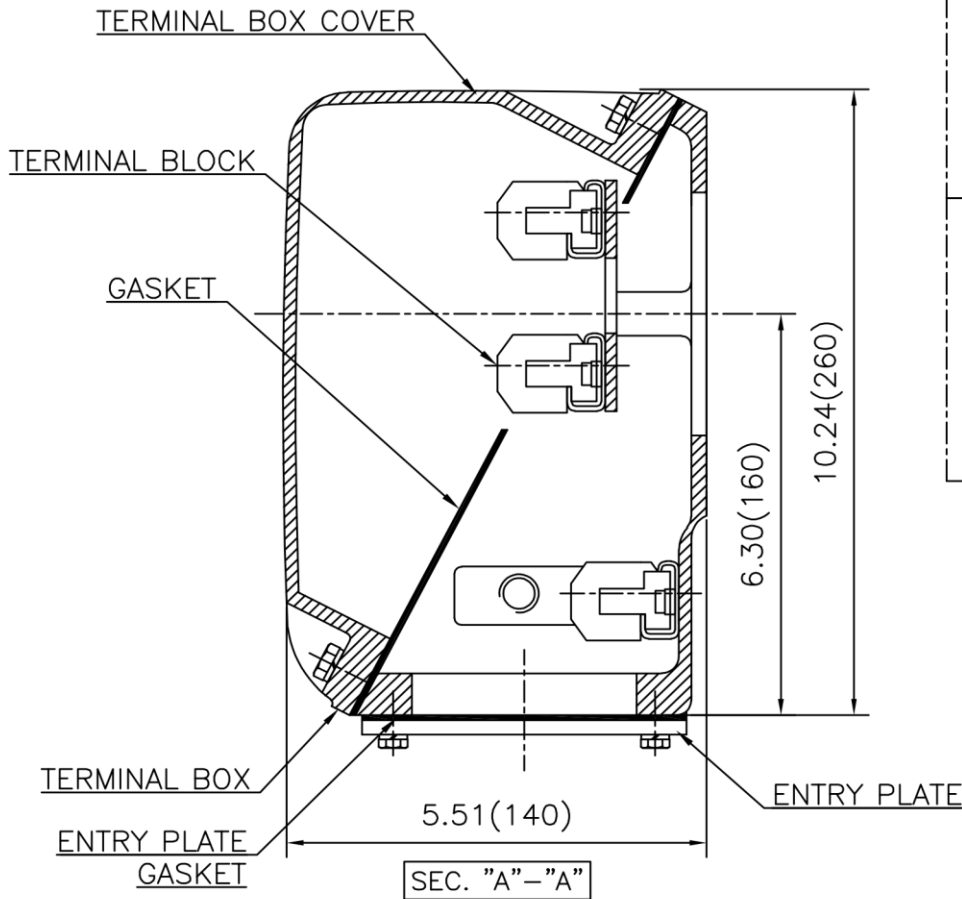
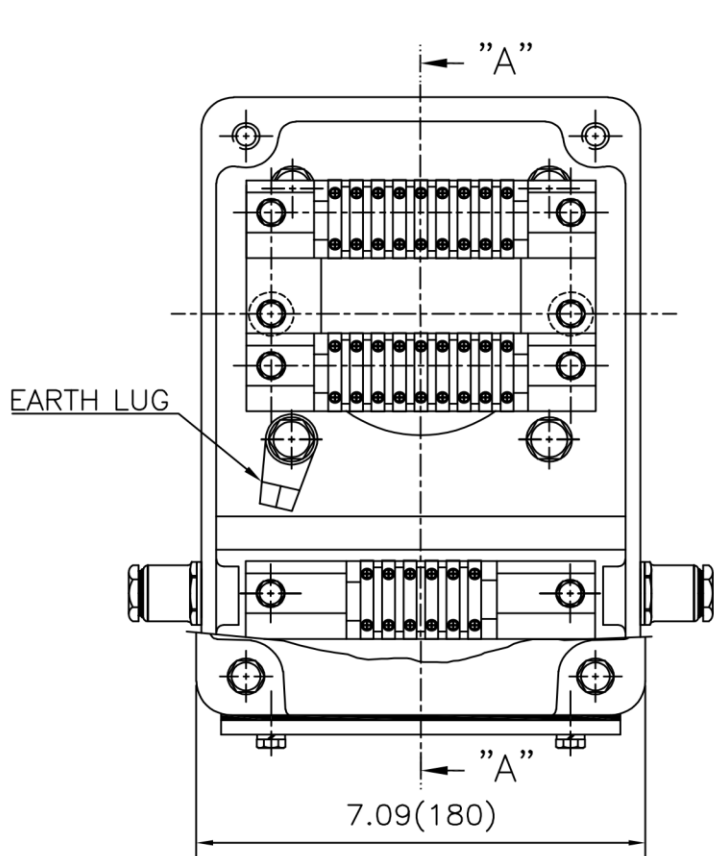
SEC. "A" - "A"

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. L440 (CAST IRON)	DWG SIZE	A3 (1:3.5)
CHKD BY		SCALE	1/3.5	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	내수익	DATE	2023-10-19	REF. NO		Sheet No.	of
				DWG NO	3M-248452	Revision No.	0

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

Cls. I&II, Div. 2

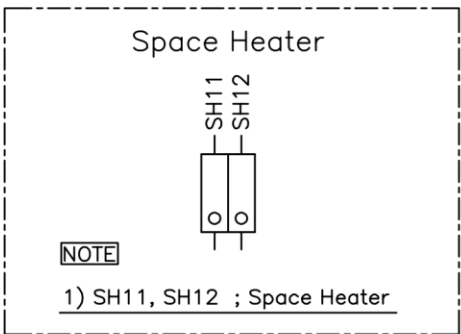
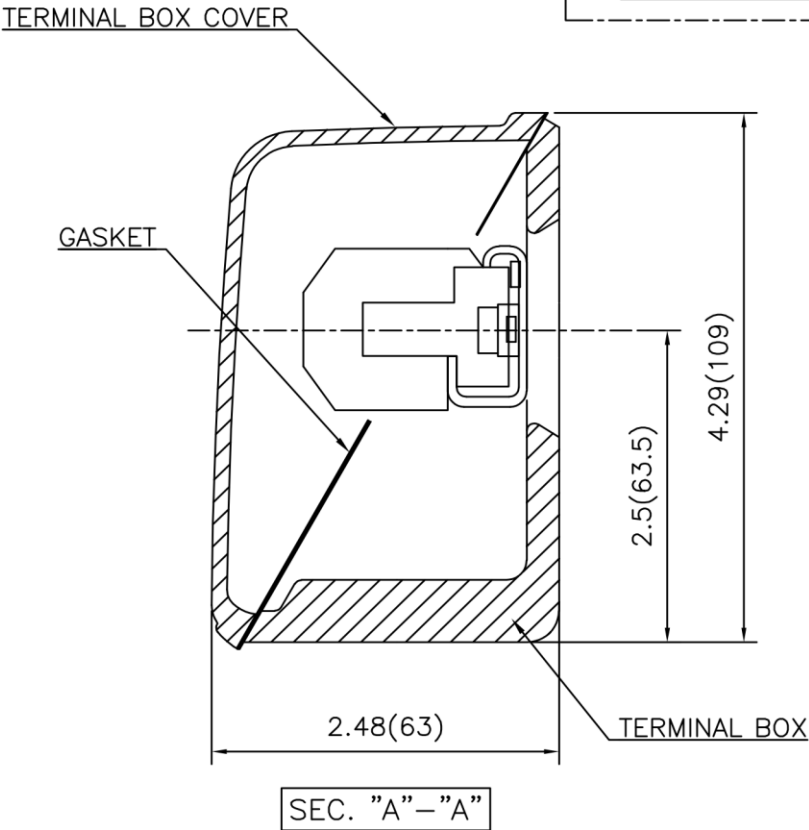
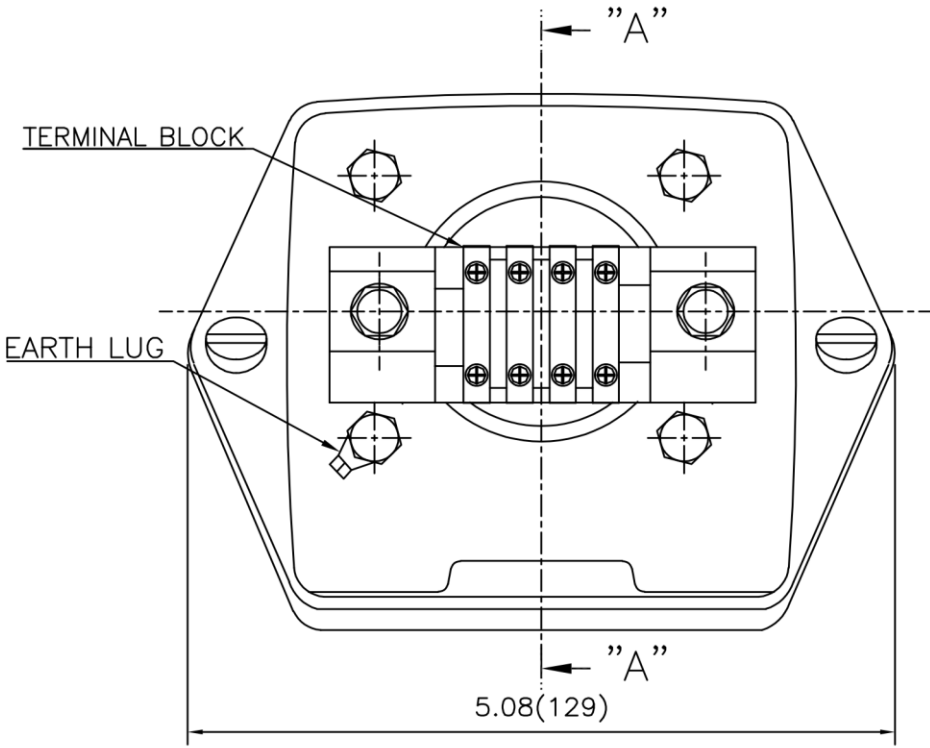
IEEE 841



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

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

Cls. I&II, Div. 2
IEEE 841



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