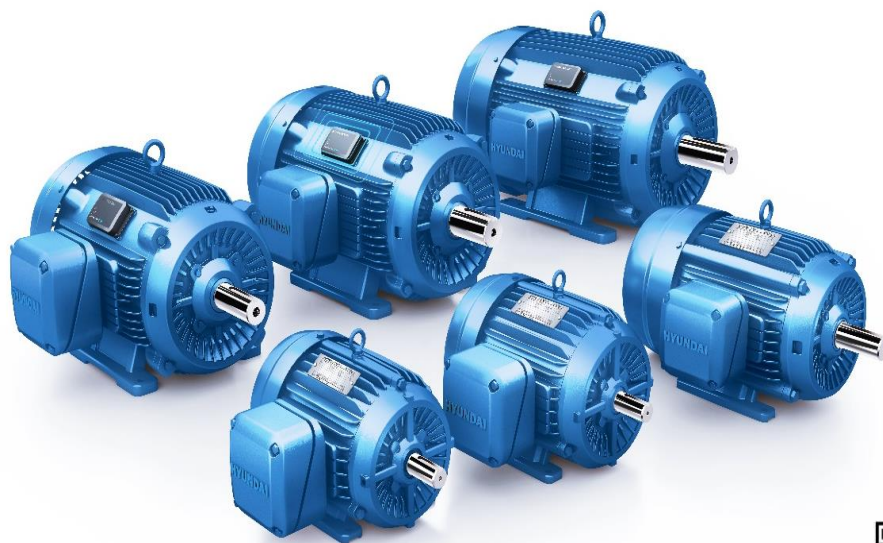


Customer :
Project Name :
Project No. :
Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

AC INDUCTION MOTOR DATA SHEET

Catalog No.	HHI250-18-449T	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	449T		Rated Output	190 kW 250 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	225.4 A	281.7 A	563.4 A
Insulation Class	F			Locked-rotor**	700 %	700 %	700 %
Temp. Rise at full load (by resistance method)			Efficiency				
at 1.0 S.F			80 deg. C				
Motor Location	☐ Indoor ☐ 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 1785 r.p.m				
	DE/N-DE	NU318 / 6316C3	Torque				
	Lubricant	Grease(Polyrex-EM)	Full Load 749.88 lb.ft				
External Thrust	Not applicable		Locked-rotor** 140 %				
Coupling Method	☒ Direct ☐ V-belt		Breakdown** 220 %				
Shaft Extension	Single		Moment of Inertia (J)				
Terminal	Main	Cast Iron	Load(Max.) 3,318.708 lb.ft2				
Box	Aux.	No	Motor 105.370 lb.ft2				
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)				
Application			85 dB(A)				
Area classification	Hazardous		Vibration 3.8 mm/sec (peak)				
Type of Ex-Protection	Class I&II, Division 2		Permissible number of				
Applicable Standard	NEMA MG1, CSA C390		consecutive starts				
			Cold 3 times				
			Hot 2 times				
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing Motor Weight(Approx.)				
			B3	LM-T1449B3PL001	2430 lb.		
			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. CSA Certification				
			- Class I, Division 2, Group A, B, C & D				
			- Class II, Division 2 Group E, F & G (Group E : up to 320Fr.)				
			4. Service Factor 1.15 and Temperature rise B are applicable under the condition of sine wave power.				
			5. Service Factor 1.25 is applicable to motors of 100HP or less with temperature rise F & Non-Hazardous.				
			6. Temp. code : T3A(180°C) at sine wave				
			Date	DSND	CHKD	CHKD	APPD
			2025-07-22	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

250HP		4P	460V	Cat. No.	HHI250-18-449T				
Model	HLS449SR0408			INS. Class	F	HD-F1	Amps	281.7A	
Type	HLS	Duty	CONT	Code	G	Amb.	40°C	Hertz	60Hz
Frame	449T	Encl.	TEFC	S.F.	1.15	RPM	1785	NEMA Nom. Eff.	96.2%
Bearing	Drive	NU318		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				3/4 Eff.	95.2%
	Opp.	6316C3						NEMA Design	B
Usable at	50Hz 250HP 380V 340.8A 1480rpm S.F.: 1.0 Eff.: 95.6% Code: F								
	50Hz 250HP 400/415V 325.3/316.1A 1482/1484rpm S.F.: 1.0 Eff.: 95.9/96.0% Code: G/G								
CSA Certified for	Model	LATER	Type	PJP	Temp. Code	Frame	140~320FR	360~400FR	440FR
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G		(Gr. E: Up to 320FR)		Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC					Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)
No.	-			Date	-			Weight	2430 lb
4M-135702				Made in Korea H1				HD HYUNDAI ELECTRIC	
MARINE DUTY IEEE45									

WIRING DIAGRAM

D.O.L (INVERTER & SOFT STARTER) 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. INTERNAL CONNECTIONS D.O.L. (Δ RUN) 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	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. START INTERNAL CONNECTIONS RUN 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
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APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)	DWG SIZE	A4 (1:1)
CHKD BY	I.K.KIM	SCALE	NONE	NAMEPLATE DRAWING			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
HD HYUNDAI ELECTRIC				REF. NO	4M-135702 / 4M-129326	Sheet No.	of
				DWG NO	NP-HHI250-18-449T	Revision No.	0

Type : PJP

190kW 250HP 4 P 60 Hz

Full Load Torque : 749.88 lb.ft

Speed at Full Load : 1785 RPM

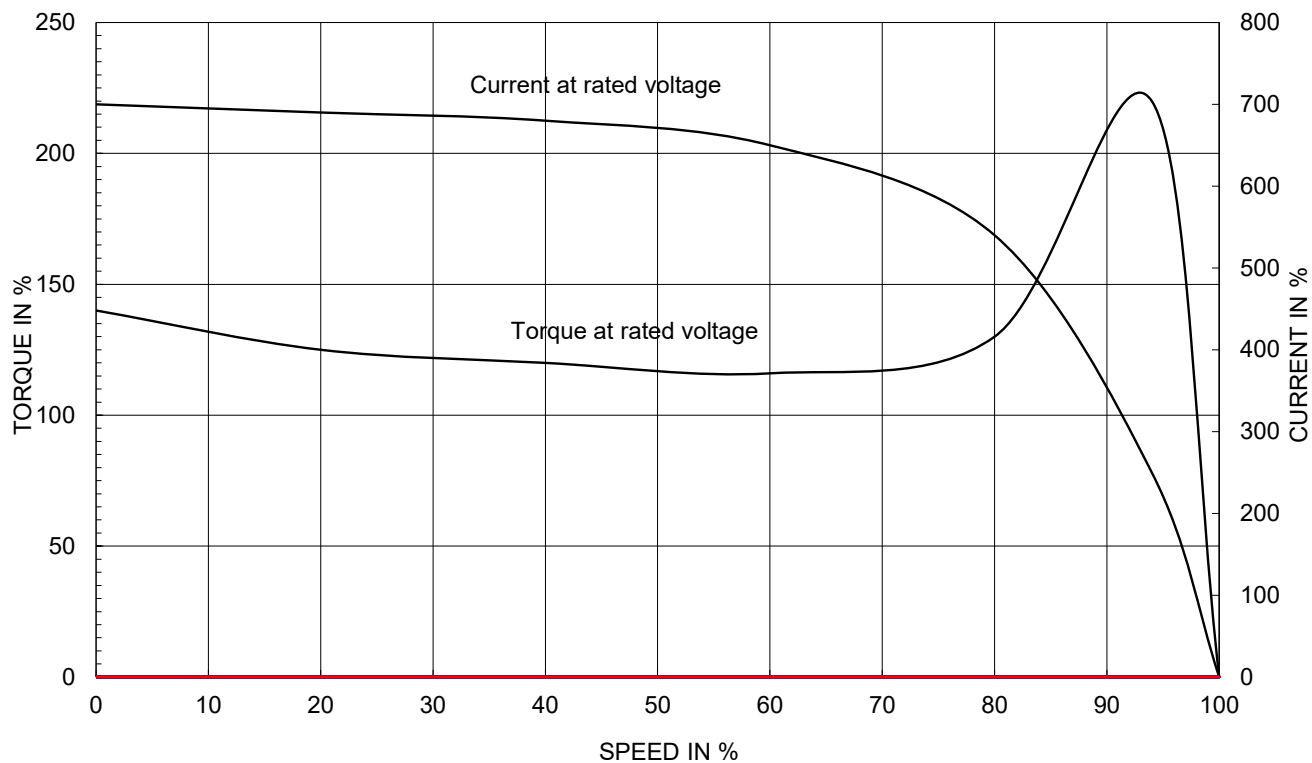
Load moment of Inertia (J) : 3318.708 lb.ft2

Rated Voltage	575V	460V	230V
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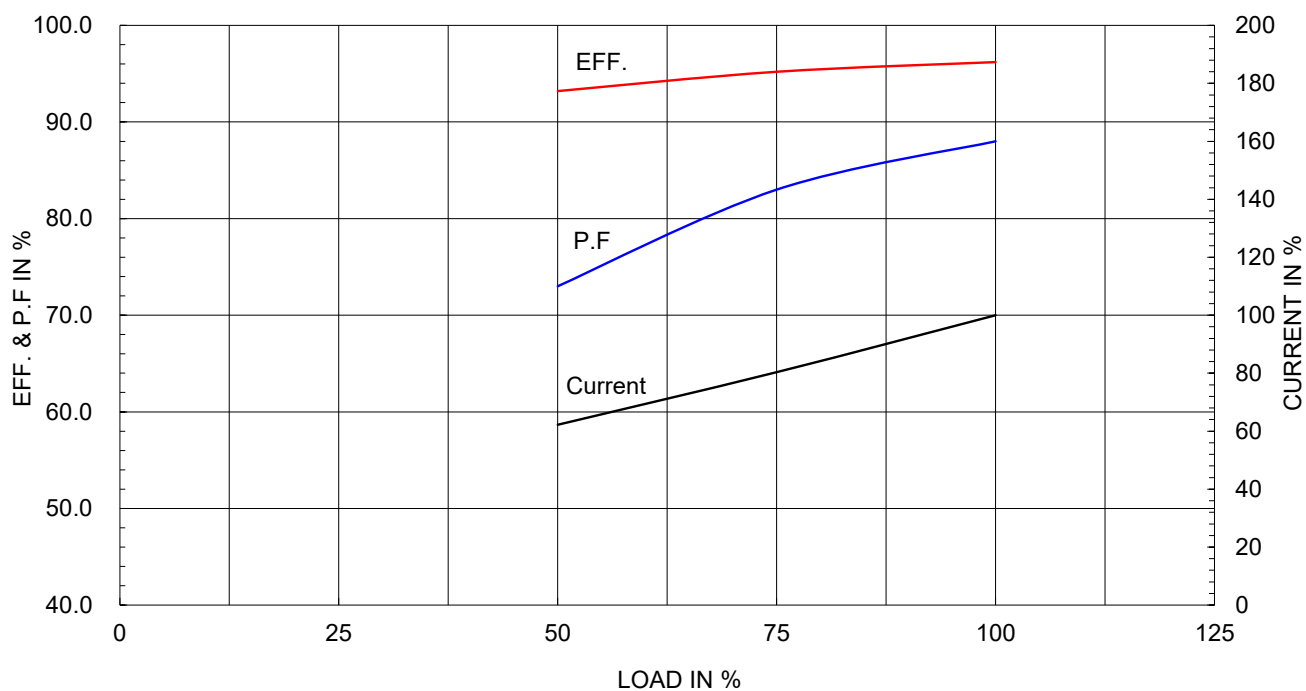
Motor moment of Inertia (J) : 105.370 lb.ft2

Full Load Current	225.4A	281.7A	563.4A
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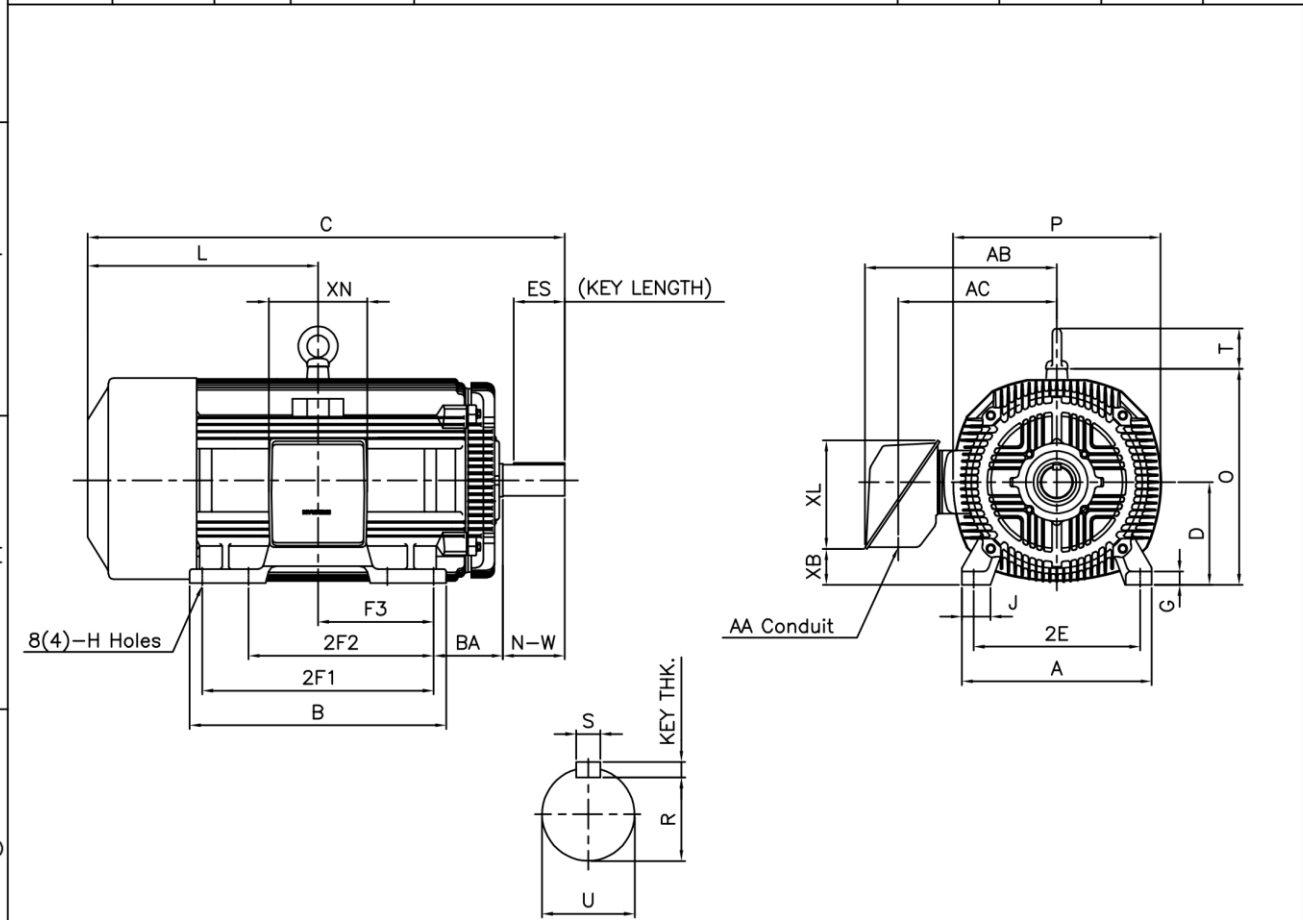
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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



DIMENSIONS

unit : inch

M O U N T I N G									C O N D U I T B O X						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
20.51	27.72	18.00	25.00	(20.00)	12.500	1.42	3.07	0.81	3.00	21.26	18.03	3.83	11.65	10.63	2430

O V E R A L L									S H A F T			KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
7.50	53.83	11.00	25.33	23.19	22.40	4.33	3.375	8.50	2.880	6.93	0.875	0.875	6318C3 or NU318	6316C3

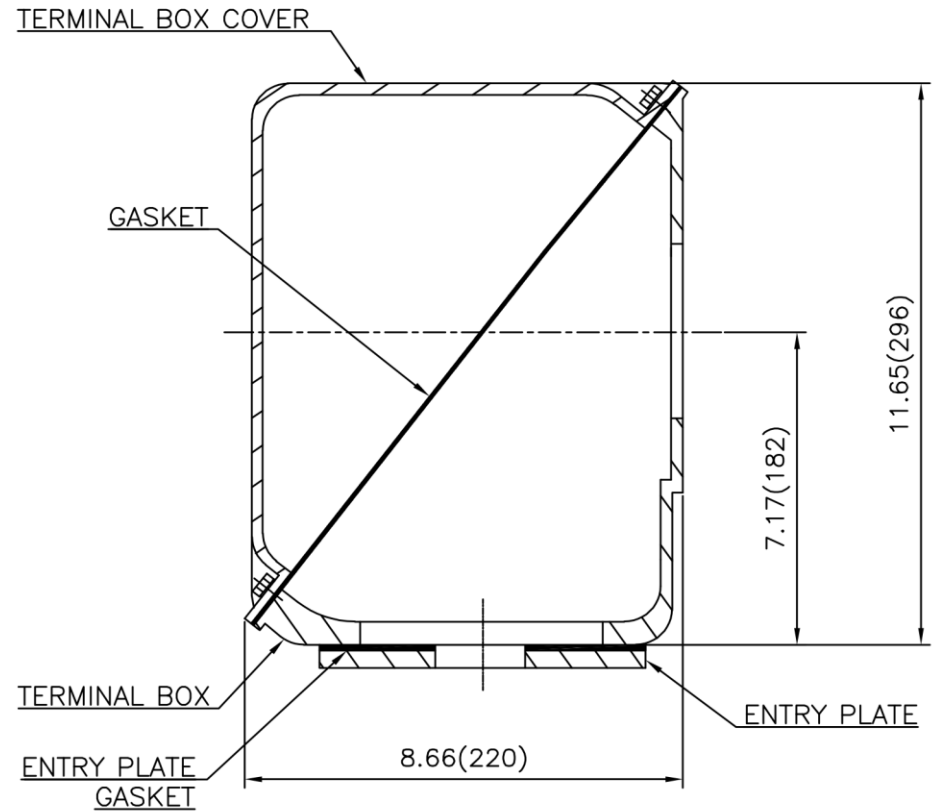
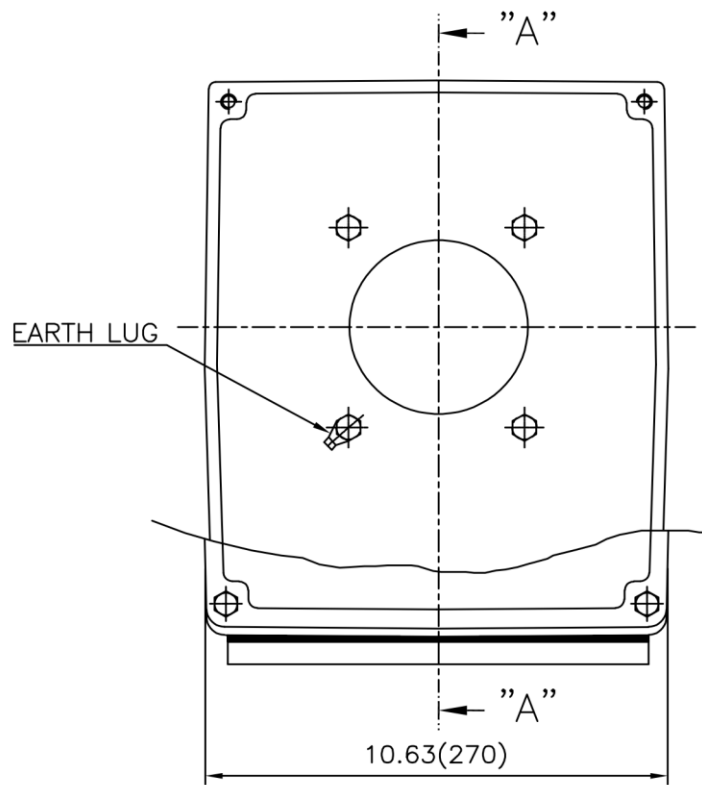
NOTE

1. Dimension "D" tolerance : +0.00inch - 0.03inch (143T-365T) ; +0.000inch - 0.06inch (404T-449T)
2. Dimension "U" tolerance : +0.000inch - 0.005inch (143T-215T), +0.000inch - 0.001inch (254T-449T)
3. Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.K.HAN	UNIT	INCH	SUBJECT	449T	DWG SIZE
Q.P CHK	I.K.KIM	SCALE	NONE	TITLE		A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	B.Y.KIM	DATE	2019.06.05			
				REF. NO	350A1120AA	Sheet No. of
				DWG NO	LM-T1449B3PL001	Revision No. 0

Cls. I&II, Div. 2

IEEE 841



SEC. "A" - "A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	CHK'D BY	APP'D BY	일반기공차	일반계관공차
							1-4 ±0.1 6-30 ±0.5	
							4-18 ±0.2 30-120 ±0.8	
							18-63 ±0.3 120-315 ±1.2	
							63-250 ±0.5 315-1000 ±2.0	
							250- ±0.8 1000- ±3.0	

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. 400-440 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/1.2	TITLE	MAIN TERMINAL BOX ASS'Y	A3 (1:1.2)	
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	네슬피	DATE	2023-10-19	DWG NO	3M-248451	Revision No.	0

