

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.	HHI60-12-404TC	Item No.				Rev. No.	[]		
Project Name		Project No.				Quantity	sets		
GENERAL SPECIFICATION					PERFORMANCE DATA				
Frame Size	404TC		Rated Output	45 kW		60 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	56.9 A	71.2 A	142.3 A		
Insulation Class	F			Locked-rotor**	670 %	670 %	670 %		
Temp. Rise at full load (by resistance method)			Efficiency						
	at 1.0 S.F	80 deg. C							
Motor Location	☐ Indoor ☐ Outdoor		50% Load 91.5 %						
Altitude	Less than 1,000 meter		75% Load 93.5 %						
Relative Humidity	Less than 80 %		100% Load 94.5 %						
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)						
Duty Type	Continuous (S1)		50% Load 0.690						
Service Factor	1.15		75% Load 0.790						
Mounting	B35		100% Load 0.840						
Bearing	Type	Anti-Friction	Speed at Full Load 1185 r.p.m						
	DE/N-DE	6316C3 / 6313C3	Torque						
	Lubricant	Grease(Polyrex-EM)	Full Load 267.53 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.) 2,397.965 lb.ft2						
Box	Aux.	No	Motor 46.280 lb.ft2						
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)						
Application			75 dB(A)						
Area classification	Hazardous		Vibration 3.8 mm/sec (peak)						
Type of Ex-Protection	Class I&II, Division 2		Permissible number of Cold 3 times						
Applicable Standard	NEMA MG1, CSA C390		consecutive starts Hot 2 times						
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)				
ACCESSORIES			SUBMITTAL DRAWING						
			Outline Dimension Drawing \ Motor Weight(Approx.)						
			B35	LM-T1404C4PL001	1165 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 : T3B(165°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

2.36

CROWN TRITON			
Premium Efficiency AC 3 Phase Motor		C Energy Verified	
60HP	6P	230/460V	Cat. No. HHI60-12-404TC
Model	HLS404PR06U3	INS. Class	F HD-F1
Type	HLS	Duty	CONT
Frame	404TC	Encl.	TEFC
Bearing	Drive 6316C3	S.F. 1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)	Amps 142.3/71.2A
	Opp. 6313C3		Hertz 60Hz
Usable at	50Hz 60HP 380V 86.5A 981rpm S.F.: 1.15 Eff.: 93.3% Code: F		
	50Hz 60HP 400/415V 82.5/80.1A 983/984rpm S.F.: 1.15 Eff.: 93.6/93.8% Code: G/G		
CSA Certified for	Model LATER	Type PJP	Temp. Code (sine wave)
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G (Gr. E: Up to 320FR)	Frame 140~320FR 360~400FR 440FR
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC		Amb. 40°C T3C (160°C) T3B (165°C) T3A (180°C)
			Amb. 55°C T3A (180°C) T3A (180°C) T3 (200°C)
No.	-	Date	-
	4M-135702		Weight 1165 lb
	MARINE DUTY IEEE45	Made in Korea H1	

WIRING DIAGRAM

D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)

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	TITLE	NAMEPLATE DRAWING		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO	4M-135702 / 4M-129650	Sheet No.	of
DSND BY	S.H.LEE	DATE	2024.06.07	DWG NO	NP-HHI60-12-404TC	Revision No.	0

Type : PJP

45kW 60HP 6 P 60 Hz

Full Load Torque : 267.53 lb.ft

Speed at Full Load : 1185 RPM

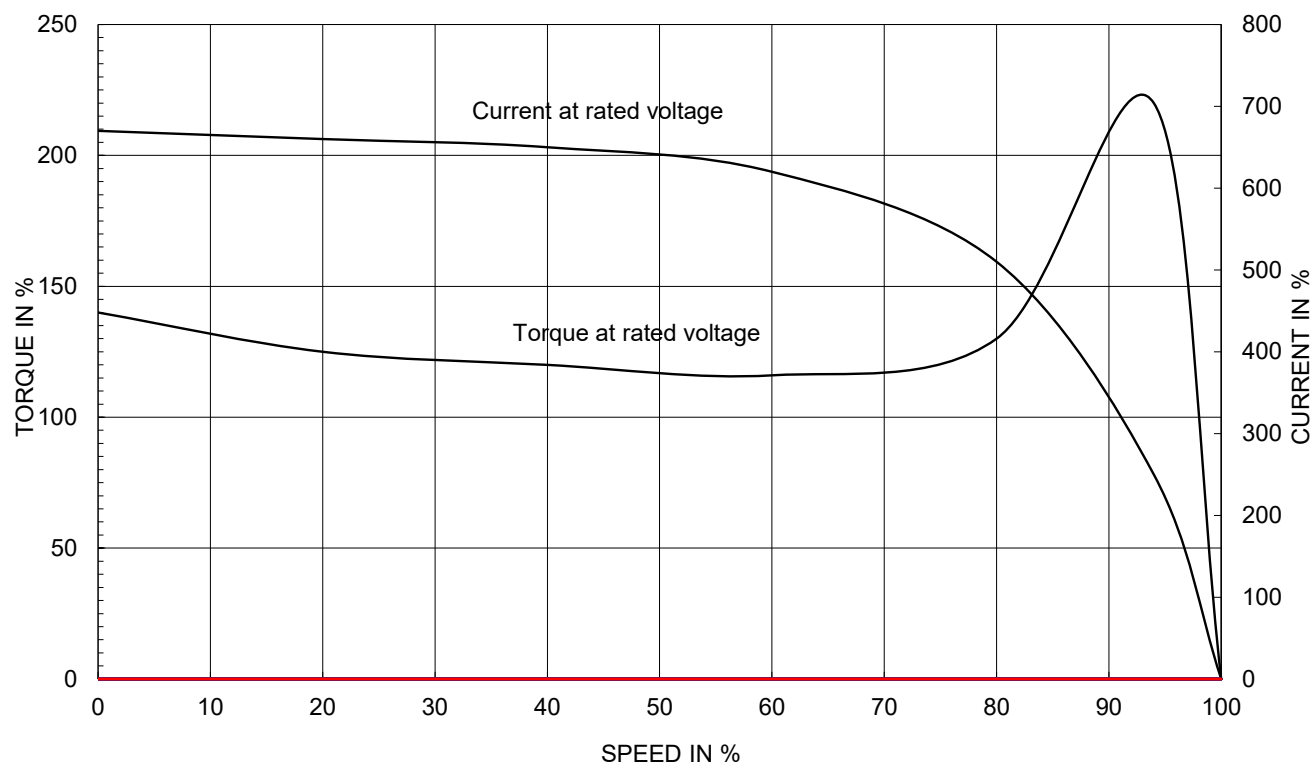
Load moment of Inertia (J) : 2397.965 lb.ft2

Rated Voltage	575V	460V	230V
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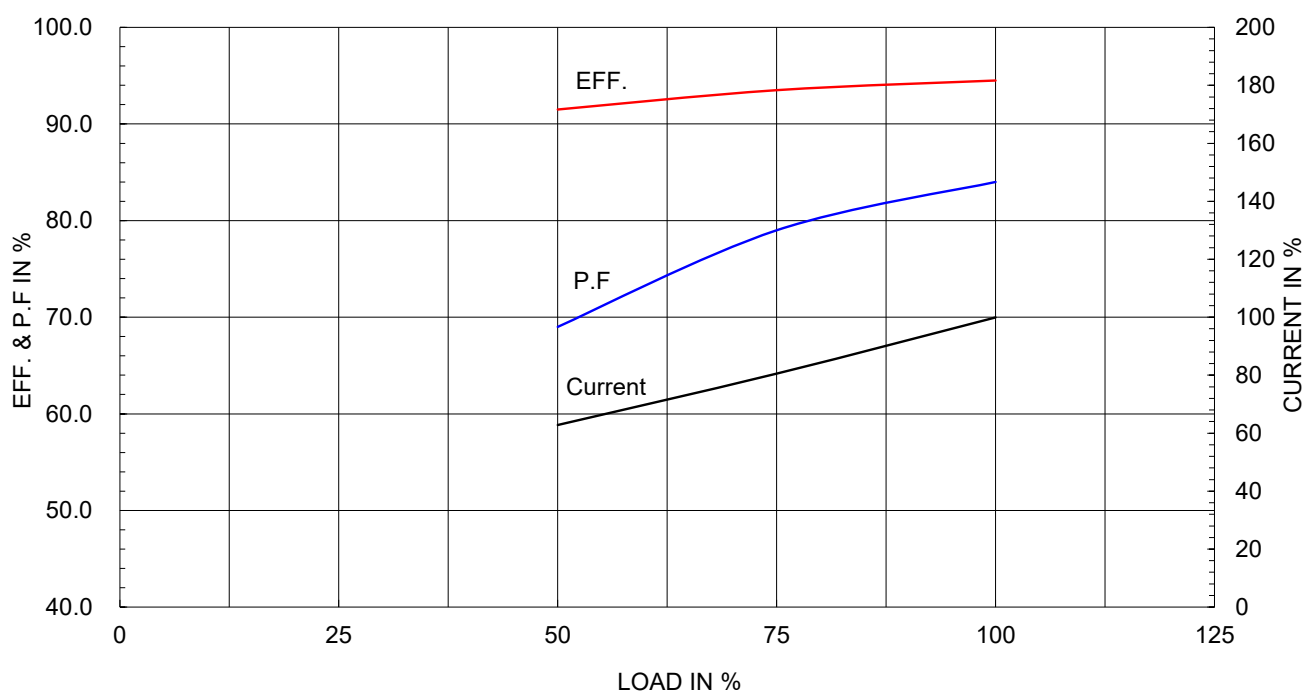
Motor moment of Inertia (J) : 46.280 lb.ft2

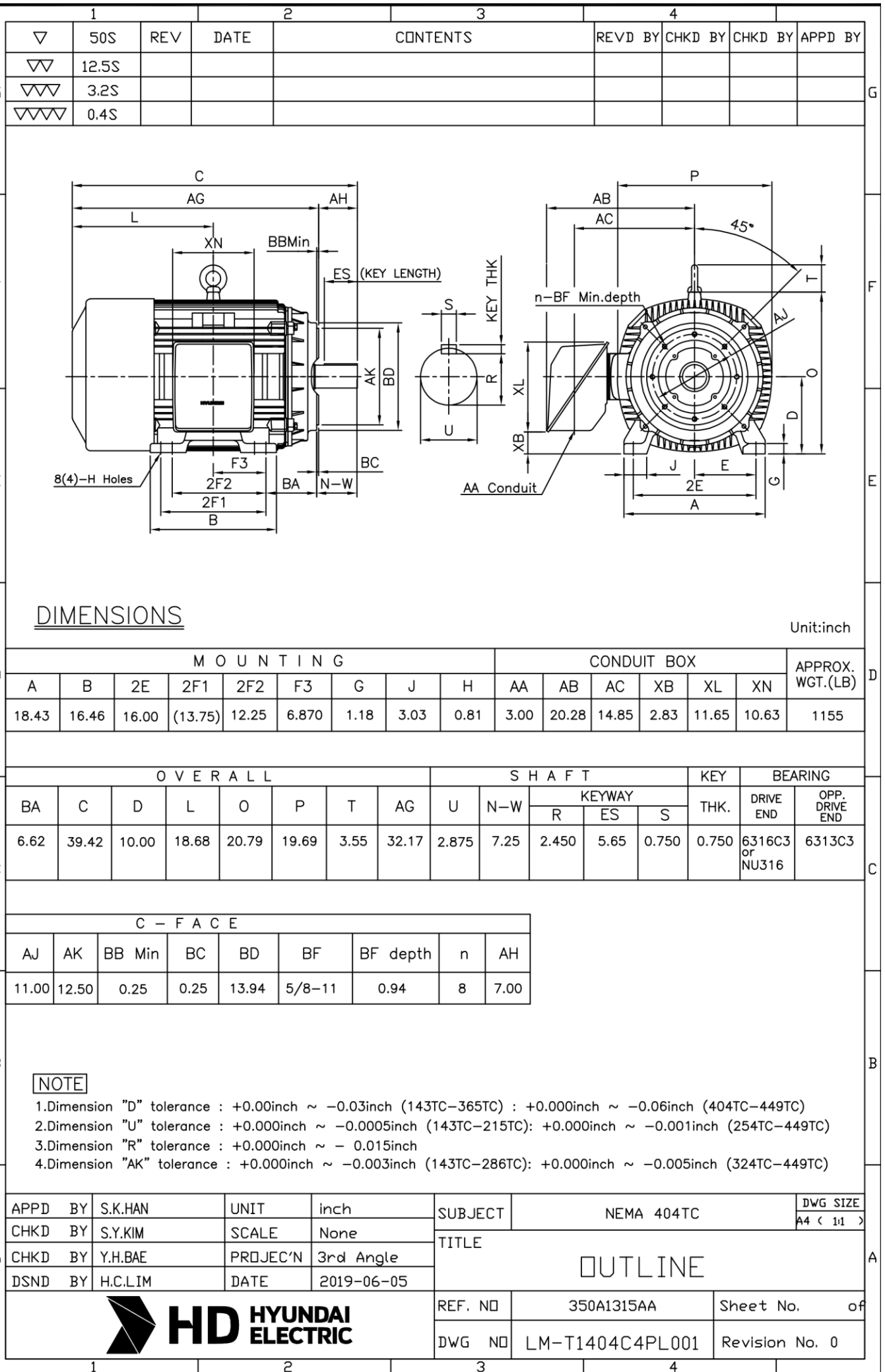
Full Load Current	56.9A	71.2A	142.3A
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SPEED VS TORQUE & CURRENT CURVE



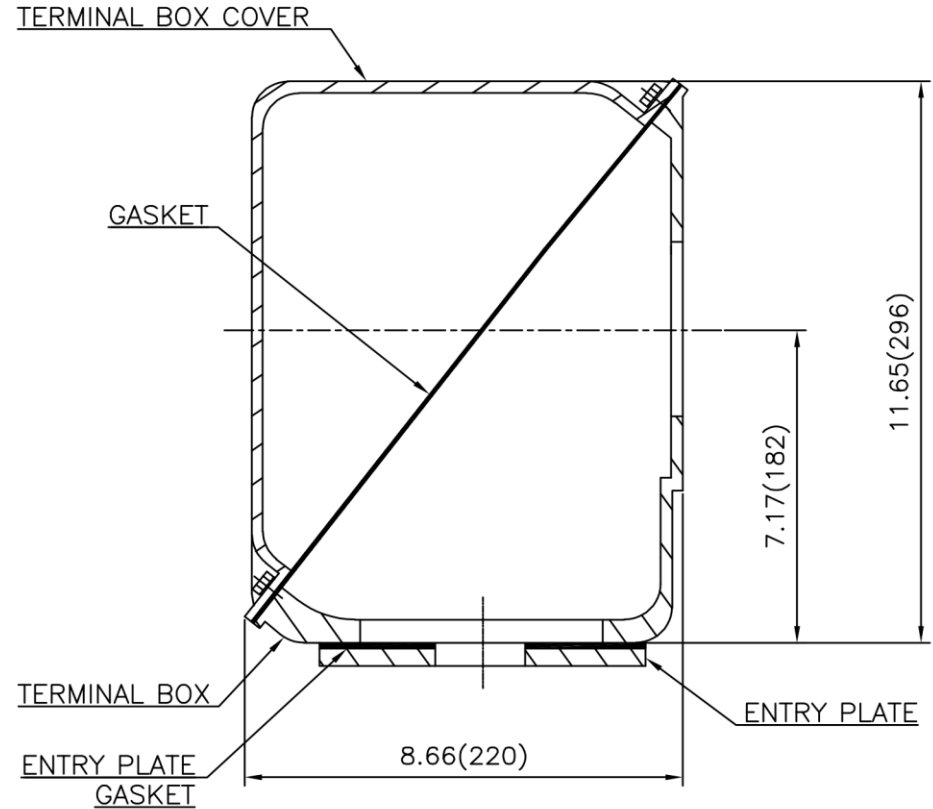
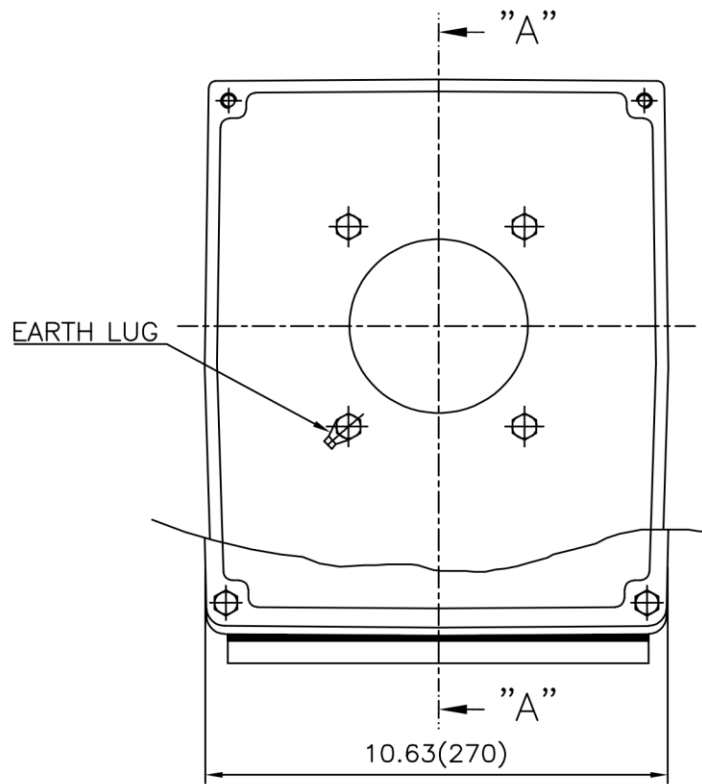
OUTPUT VS EFF., P.F & CURRENT CURVE





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	일반기공표	일반계관표
1							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		
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

