

Customer :

Project Name :

Project No. :

Revision No. :

SPECIFICATION for INDUCTION MOTOR



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

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AC INDUCTION MOTOR DATA SHEET

Catalog No.	HES7.5-12-254/6JM		Item No.			Rev. No.	[]	
Project Name			Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA				
Frame Size	256JM		Rated Output	5.5 kW		7.5 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	8.09 A	10.1 A	20.2 A	
Insulation Class	F			Locked-rotor**	640 %	640 %	640 %	
Temp. Rise at full load (by resistance method)			Efficiency					
at 1.0 S.F			80 deg. C					
Motor Location	☐ Indoor ☐ Outdoor		50% Load		88.0 %			
Altitude	Less than 1,000 meter		75% Load		90.0 %			
Relative Humidity	Less than 80 %		100% Load		91.0 %			
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)					
Duty Type	Continuous (S1)		50% Load		0.600			
Service Factor	1.15		75% Load		0.700			
Mounting	B35		100% Load		0.750			
Bearing	Type	Anti-Friction	Speed at Full Load		1175 r.p.m			
	DE/N-DE	6310ZC3 / 6309ZC3	Torque					
	Lubricant	Grease(Polyrex-EM)	Full Load		32.98 lb.ft			
External Thrust	Not applicable		Locked-rotor**		170 %			
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		250 %			
Shaft Extension	Single		Moment of Inertia (J)					
Terminal	Main	Cast Iron	Load(Max.)		173.035 lb.ft2			
Box	Aux.	No	Motor		3.086 lb.ft2			
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)					
Application			64 dB(A)					
Area classification	Hazardous		Vibration		3.8 mm/s (peak)			
Type of Ex-Protection	Class I&II, Division 2		Permissible number of consecutive starts		Cold	3 times		
Applicable Standard	NEMA MG1, CSA C390		Hot		2 times			
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)			
ACCESSORIES			SUBMITTAL DRAWING					
			Outline Dimension Drawing \ Motor Weight(Approx.)					
			B35	LM-T2256C4MLV25	310 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 : T3C(160°C) at sine wave					
			Date	DSND	CHKD	CHKD	APPD	
			2025-09-19	S.H. LEE	I.K. KIM	R.G. KIM	S.W. KIM	

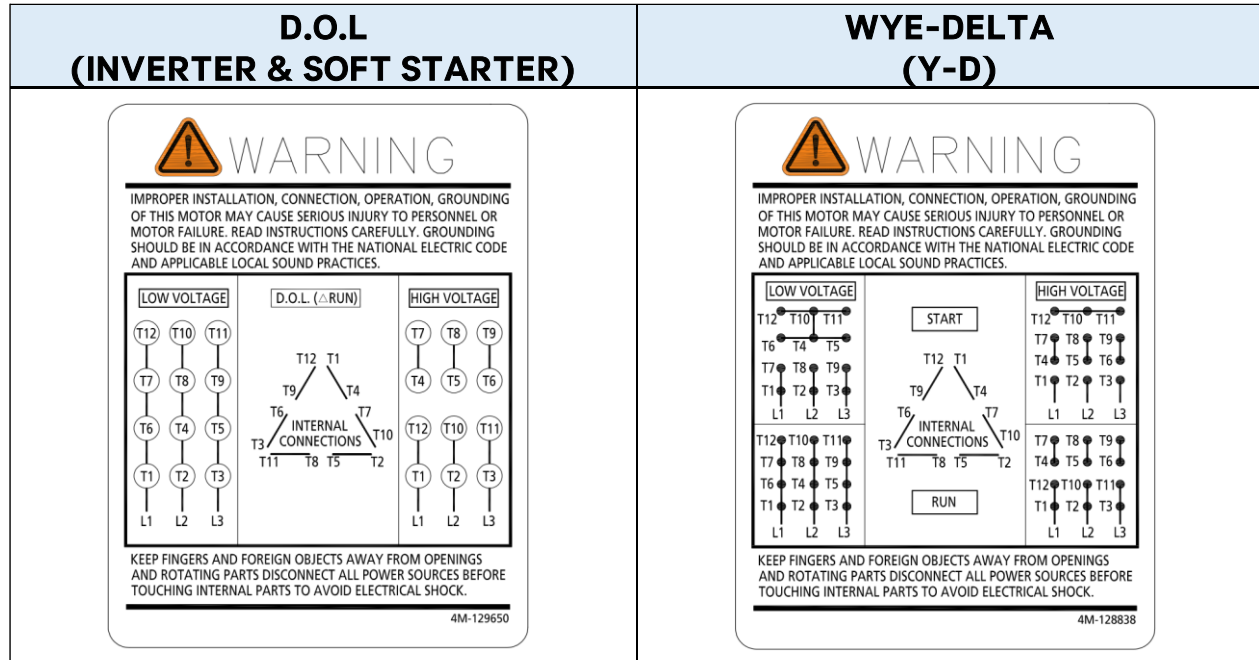
[Note] Others not mentioned in this data sheet shall be in accordance with maker standard.
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.
 Inspection and performance test shall be done according to maker standard, if not mentioned.
 * In case 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

CROWN TRITON G2			
Premium Efficiency AC 3 Phase Motor		CC038A	
7.5HP	6P	230/460V	Cat. No. HES7.5-12-254/6JM
Model	HLS256PR335V		INS. Class F HD-F1
Type	HLS	Duty	CONT
Frame	256JM	Encl.	TEFC
Bearing	Drive 6310ZC3	S.F. 1.15	RPM 1175
	Opp. 6309ZC3	S.F. 1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)	3/4 Eff. 90.0%
Usable at	50Hz 7.5HP 380V 12.7A 970rpm S.F.: 1.15 Eff.: 89.5% Code: F		
	50Hz 7.5HP 400/415V 12.5/12.5A 975/975rpm S.F.: 1.15 Eff.: 89.5/89.5% Code: G/H		
CSA Certified for	Model -	Type PJP	Temp. Frame 140~320FR 360~400FR 440FR
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G	Amb. 40°C T3C (160°C) T3B (165°C) T3A (180°C)
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC	(Gr. E: Up to 320FR)	Amb. 55°C T3A (180°C) T3A (180°C) T3 (200°C)
No.	-	Date -	Weight 310 lb
4M-137666 MARINE DUTY IEEE45		Made in Vietnam H4 Designed By HYUNDAI, Korea	

WIRING DIAGRAM



APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, JM/JP, 254-326)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO	4M-137666 / 4M-129650	Sheet No. of
DSND BY	S.H.LEE	DATE	2024.06.07	DWG NO	NP-HES7.5-12-254/6JM	Revision No. 0

Type : PJP

5.5kW 7.5HP

6 P

60 Hz

Full Load Torque : 32.98 lb.ft

Speed at Full Load : 1175 RPM

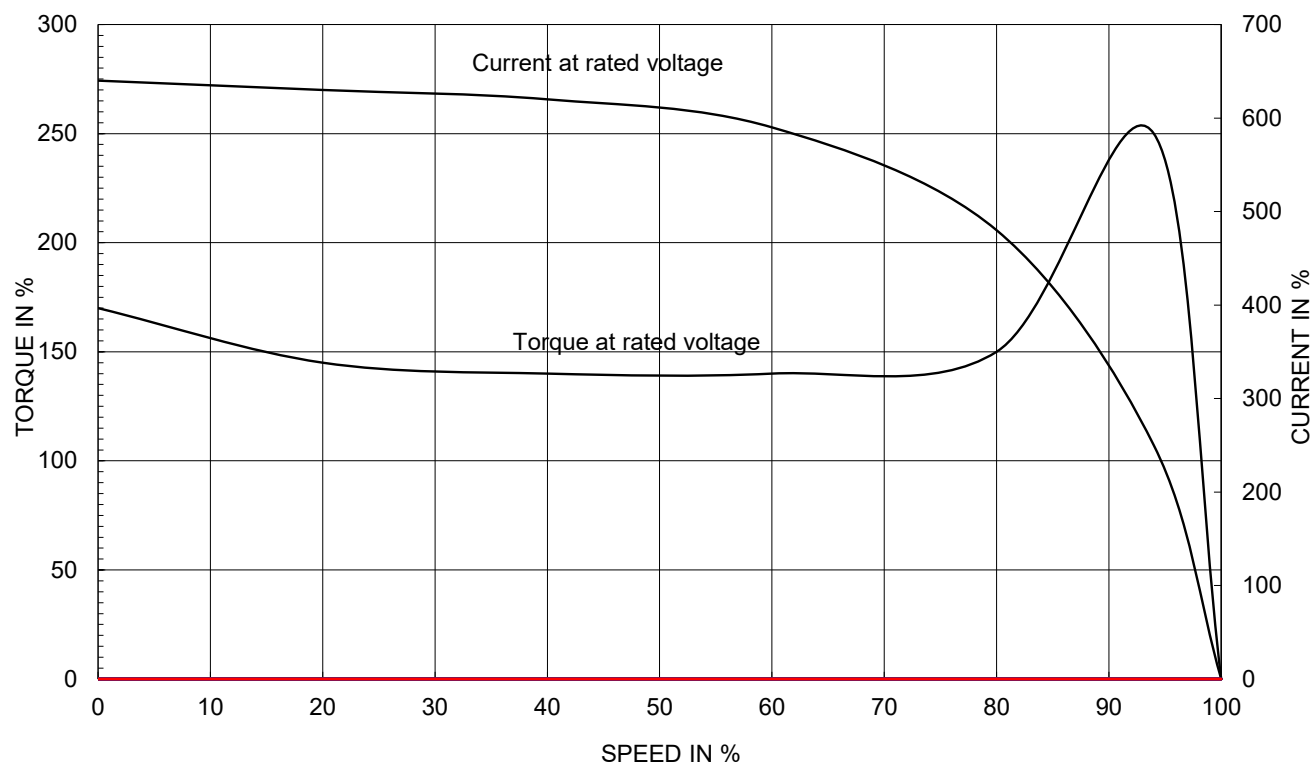
Load moment of Inertia (J) : 173.035 lb.ft2

Rated Voltage	575V	460V	230V
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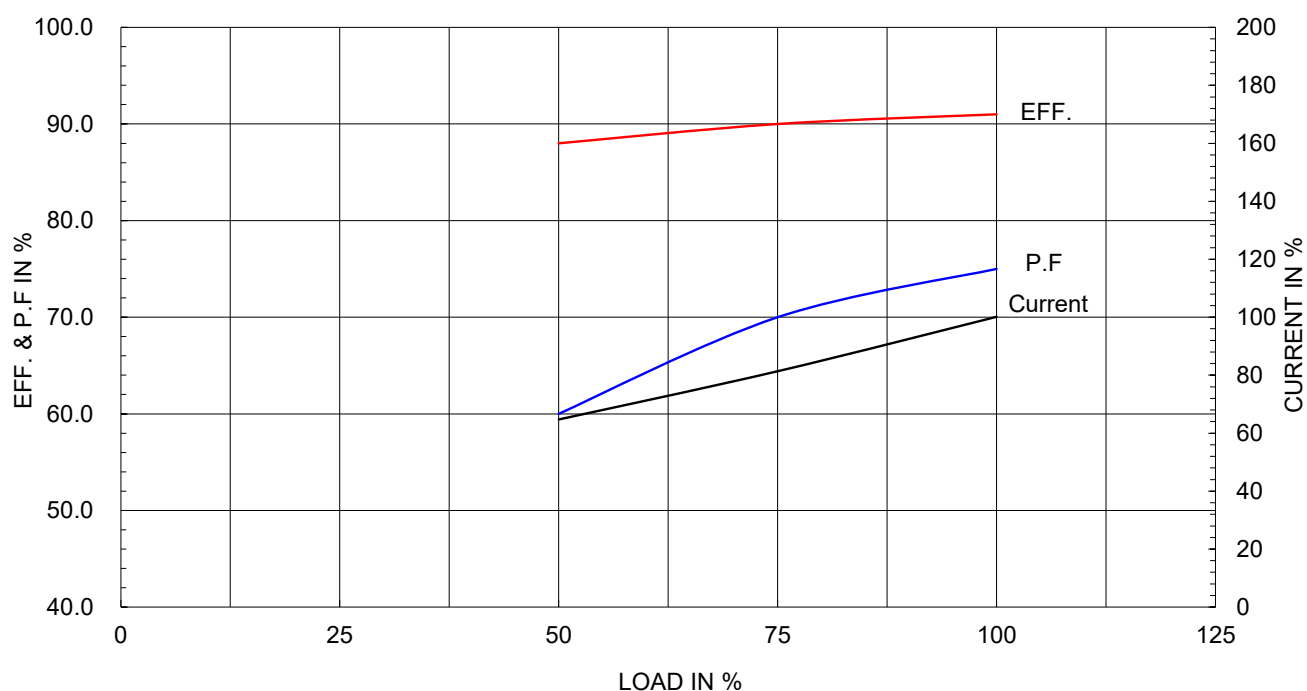
Motor moment of Inertia (J) : 3.086 lb.ft2

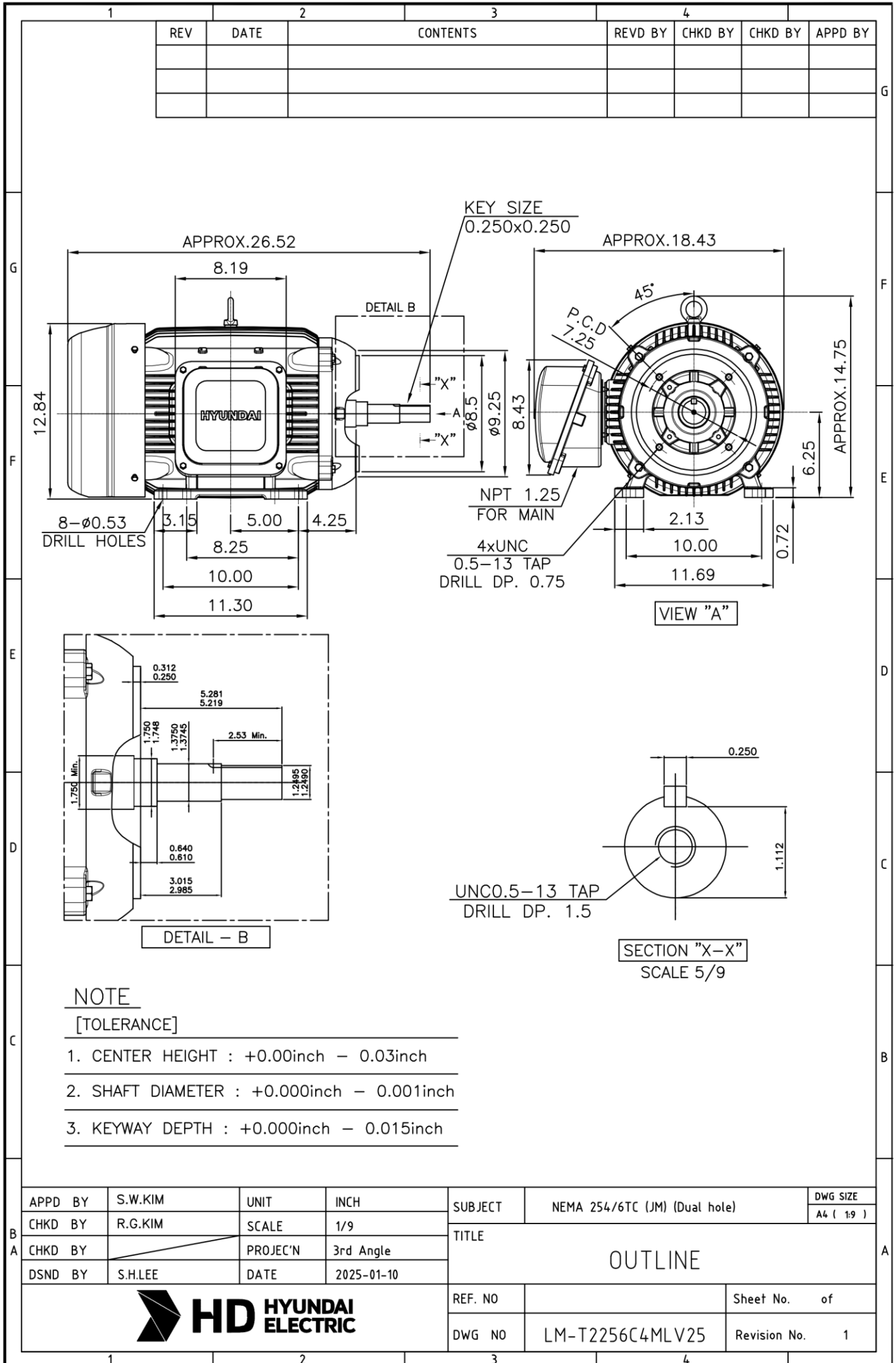
Full Load Current	8.09A	10.1A	20.2A
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SPEED VS TORQUE & CURRENT CURVE



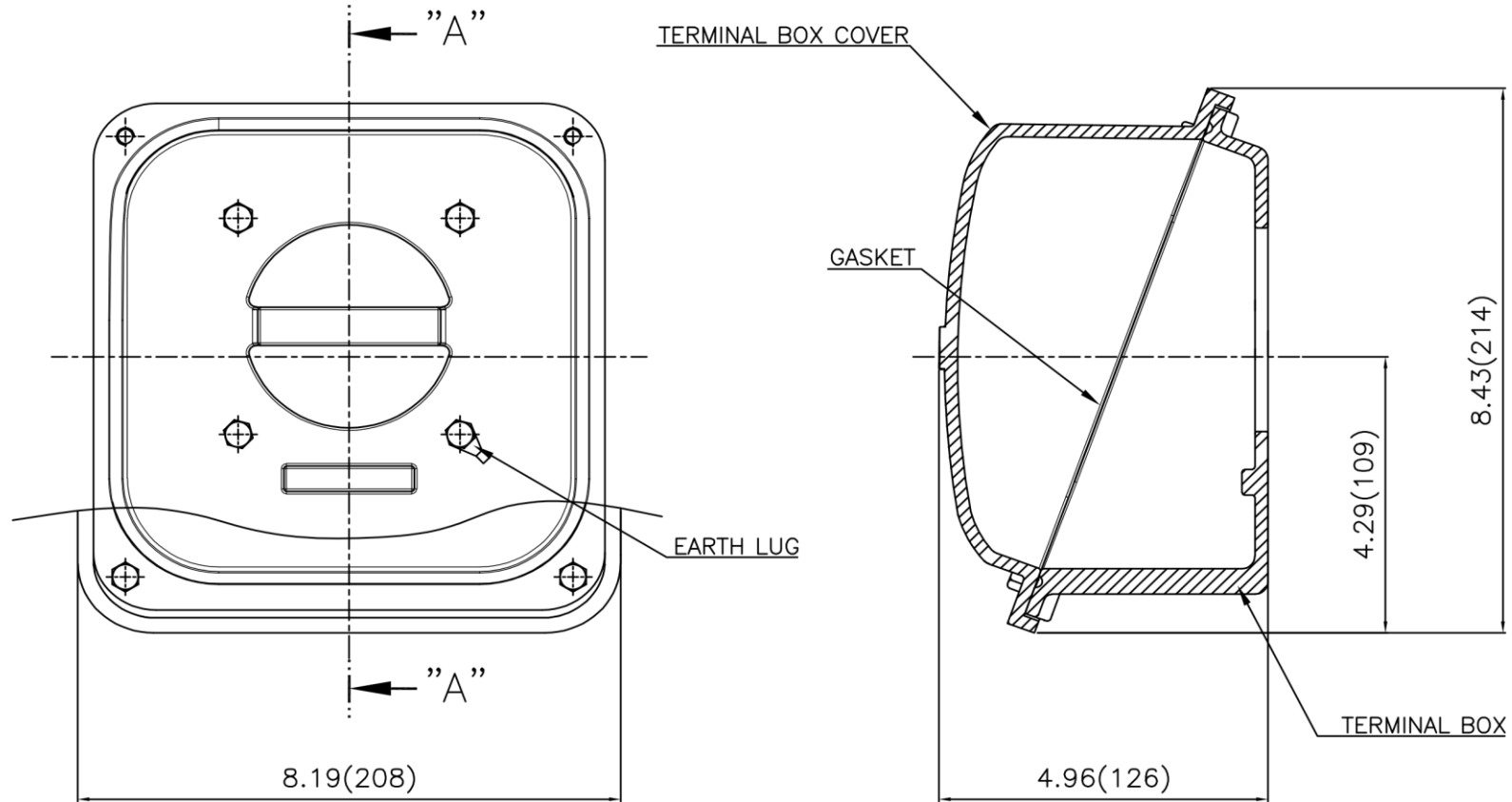
OUTPUT VS EFF., P.F & CURRENT CURVE





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
1						

일반가공공차		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. 250-280 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/2	TITLE	TERMINAL BOX ASS'Y	A3 (1:2)	
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	네슬의	DATE	2023-10-19	DWG NO	3M-248458	Revision No.	0

