

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.	HES50-18-324/6JP	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	326JP		Rated Output	37 kW		50 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	46.8 A	58.5 A	117.0 A
Insulation Class	F			Locked-rotor**	830 %	830 %	830 %
Temp. Rise at full load (by resistance method)			Efficiency				
	at 1.0 S.F	80 deg. C	50% Load 91.5 %				
Motor Location	☐ Indoor ☐ Outdoor		75% Load 93.5 %				
Altitude	Less than 1,000 meter		100% Load 94.5 %				
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	1780 r.p.m			
Bearing	Type	Anti-Friction	Torque				
	DE/N-DE	6313ZC3 / 6212ZC3	Full Load 146.44 lb.ft				
	Lubricant	Grease(Polyrex-EM)	Locked-rotor** 170 %				
External Thrust	Not applicable		Breakdown** 220 %				
Coupling Method	☒ Direct ☐ V-belt		Moment of Inertia (J)				
Shaft Extension	Single		Load(Max.) 278.234 lb.ft2				
Terminal	Main	Cast Iron	Motor 8.307 lb.ft2				
Box	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)				
	Location	Refer to Outline Drawing	74 dB(A)				
Application			Vibration 3.8 mm/s (peak)				
Area classification	Hazardous		Permissible number of Cold 3 times				
Type of Ex-Protection	Class I&II, Division 2		consecutive starts Hot 2 times				
Applicable Standard	NEMA MG1, CSA C390		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
ACCESSORIES			SUBMITTAL DRAWING				
			Outline Dimension Drawing \ Motor Weight(Approx.)				
			B35		LM-T2326C4JLV25	575 lb.	
SPARE PARTS			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
			2025-09-18	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.

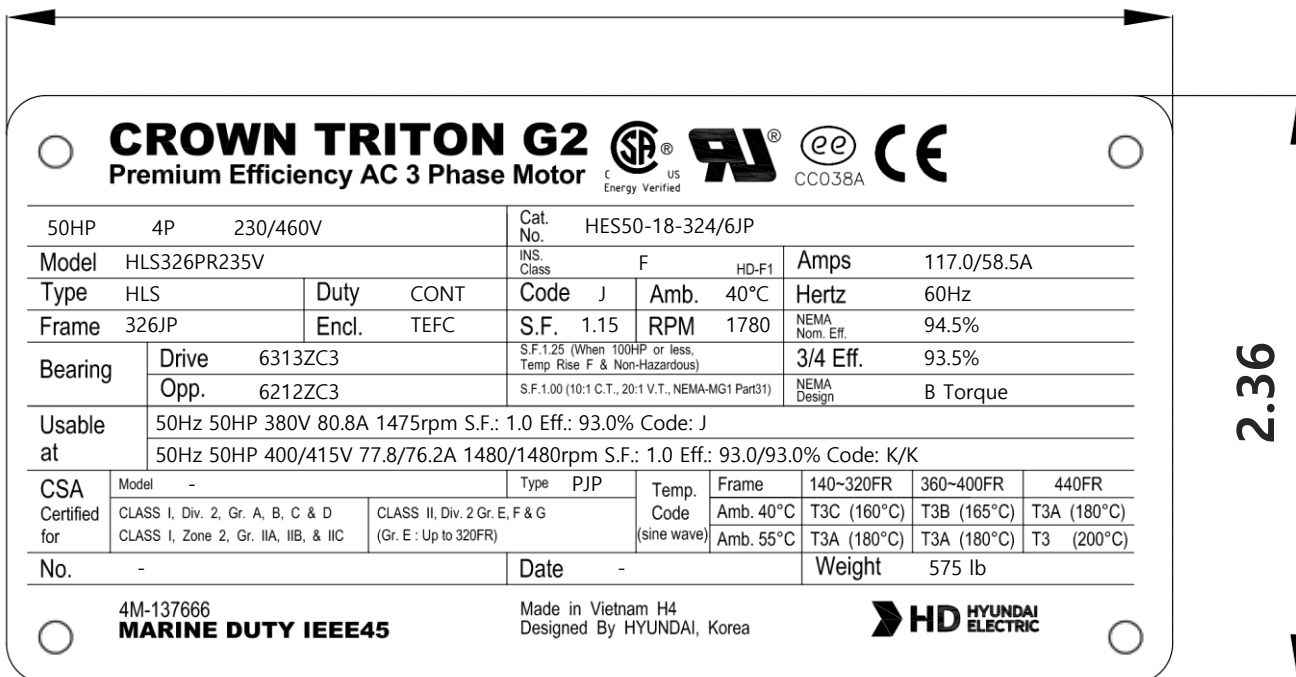
* In case of Inverter-Fed Motor, performance data is based on sine wave tests. It may be different from test data of Inverter combined motor.

** Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

MAIN NAMEPLATE

4.72



■ 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.

LOW VOLTAGE	D.O.L (△ RUN)	HIGH VOLTAGE
	INTERNAL CONNECTIONS	

KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK.

4M-129650

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.

LOW VOLTAGE		HIGH VOLTAGE
	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-128838

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			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE	NAMEPLATE DRAWING	
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-137666 / 4M-129650	Sheet No. of
				DWG NO	NP-HES50-18-324/6JP	Revision No. 0

Type : PJP

37kW 50HP 4 P 60 Hz

Full Load Torque : 146.44 lb.ft

Speed at Full Load : 1780 RPM

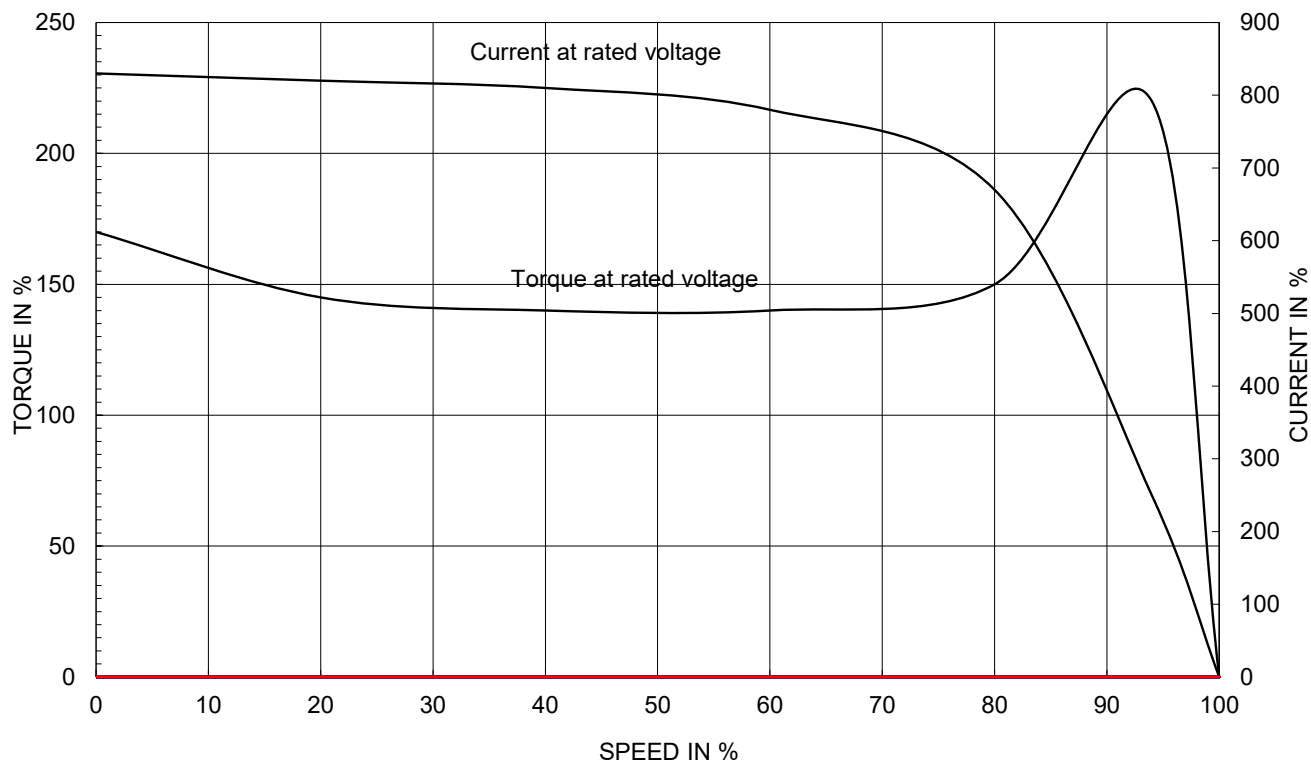
Load moment of Inertia (J) : 278.234 lb.ft2

Rated Voltage	575V	460V	230V
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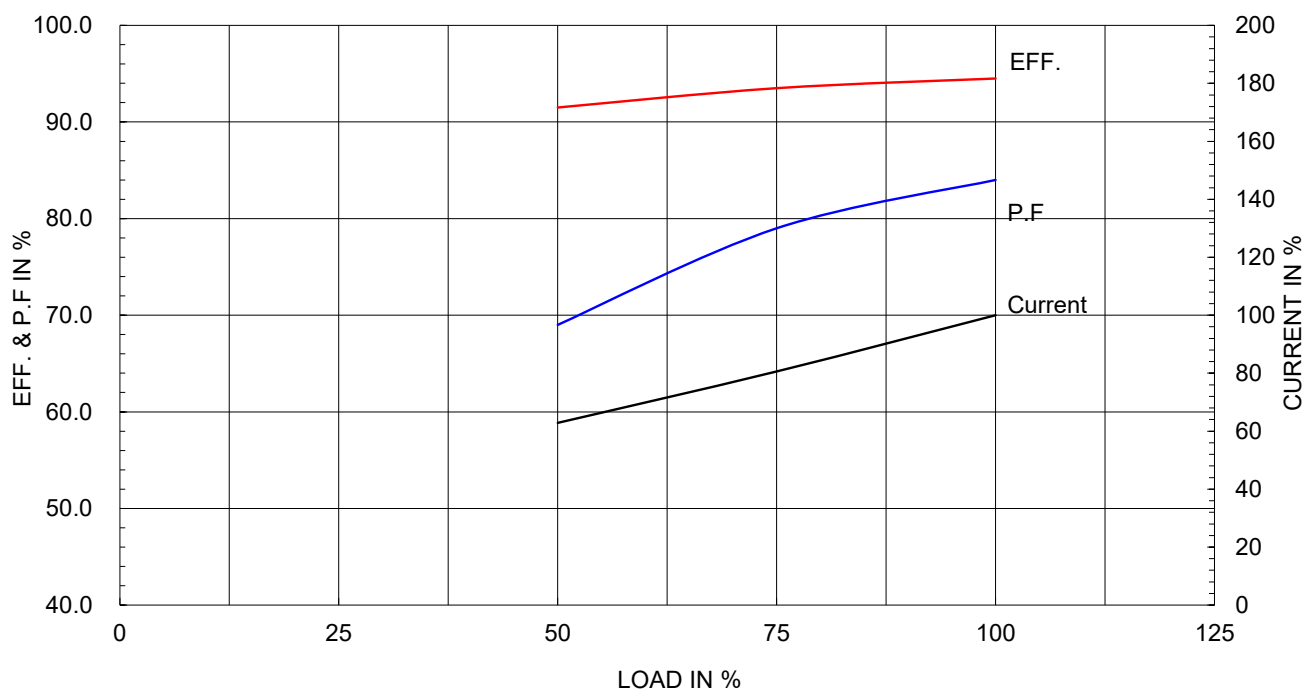
Motor moment of Inertia (J) : 8.307 lb.ft2

Full Load Current	46.8A	58.5A	117.0A
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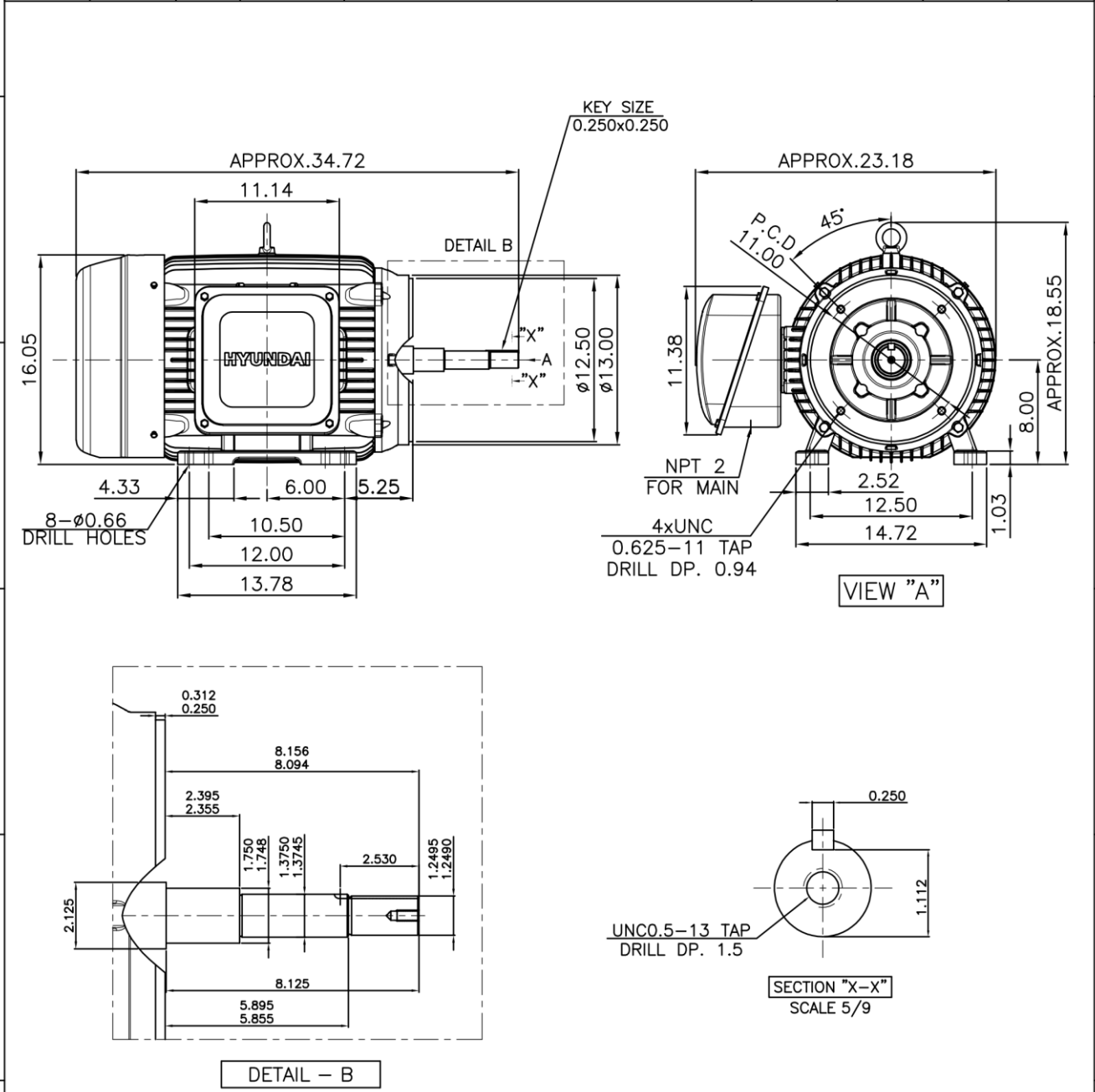
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



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



NOTE

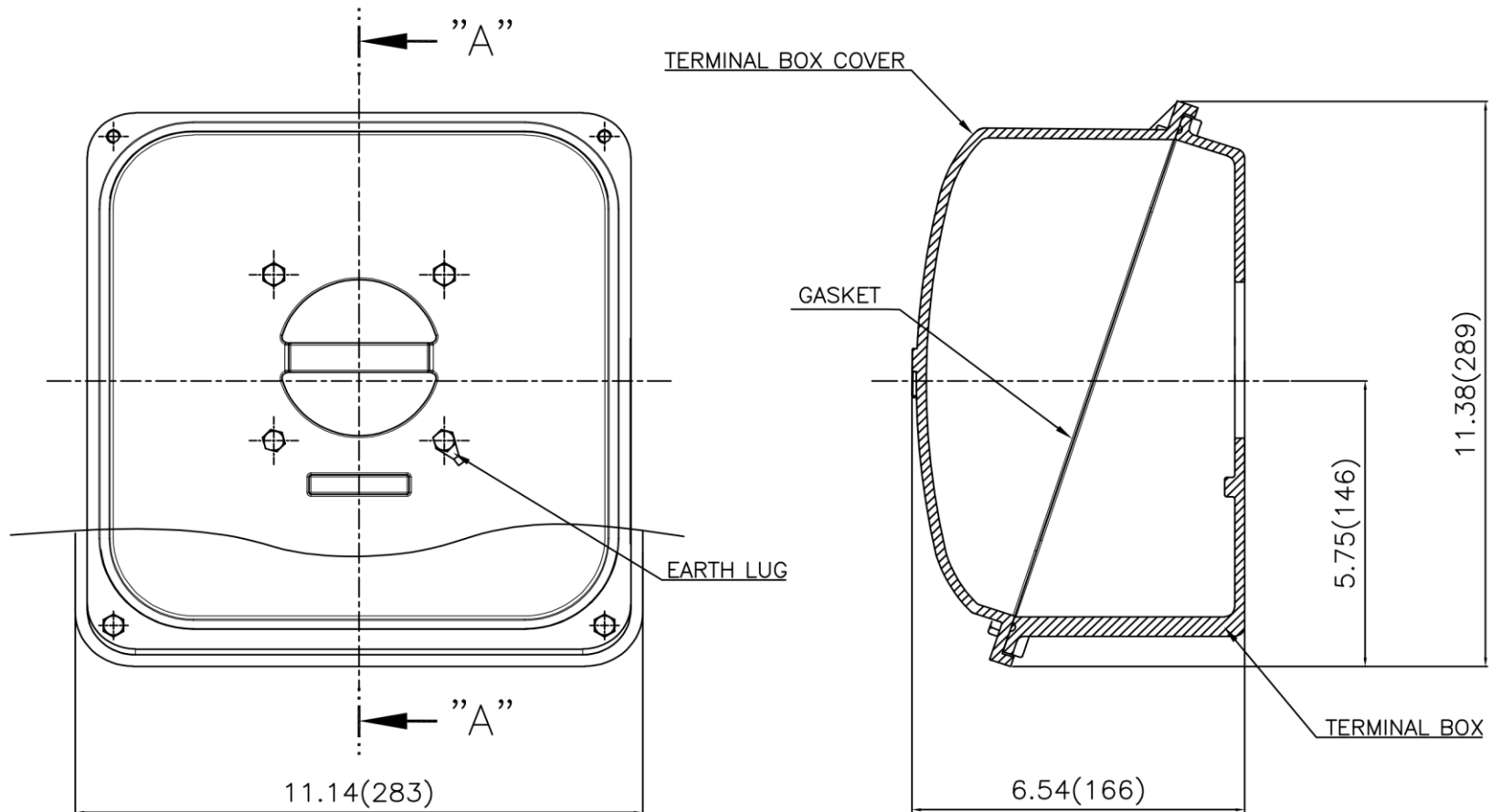
[TOLERANCE]

1. CENTER HEIGHT : +0.00inch - 0.03inch
2. SHAFT DIAMETER : +0.000inch - 0.001inch
3. KEYWAY DEPTH : +0.000inch - 0.015inch

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 324/6TC (JP) (Dual hole)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	1/11	TITLE	OUTLINE	A4 (1:12)
CHKD BY		PROJEC'N	3rd Angle			
DSND BY	E.J.KIM	DATE	2025-01-17			
				REF. NO		Sheet No. of
				DWG NO	LM-T2326C4JLV25	Revision No. 0

Cls. I&II, Div. 2

IEEE 841



▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	CHK'D BY	APP'D BY
1						
2						
3						
4						

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. 320 (CAST IRON)	DWG SIZE	
CHKD BY		SCALE	1/2.5	TITLE	TERMINAL BOX ASS'Y	A3 (1:2.5)	
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	네슬의	DATE	2023-10-19	DWG NO	3M-248459	Revision No.	0