

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

IEEE841 TYPE

Catalog No.	IEEEV25-12-324TCRD	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA									
Frame Size		324TC		Rated Output		18.5 kW		25 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		25.0 A		31.2 A		62.4 A	
Insulation Class		F			Locked-rotor**		720 %		720 %		720 %	
Temp. Rise at full load (by resistance method) at 1.0 S.F				Efficiency		50% Load		90.0 %				
						75% Load		92.0 %				
100% Load		93.0 %										
Motor Location		☐ Indoor ☐ Outdoor										
Altitude		Less than 1,000 meter										
Relative Humidity		Less than 80 %		Power Factor(p.u)								
Ambient Temp.		40 deg. C (Max.)										
Duty Type		Continuous (S1)										
Service Factor		1.15										
Mounting		B5		Speed at Full Load		1175 r.p.m						
Bearing	Type	Anti-Friction		Torque								
	DE/N-DE	6313ZC3 / 6212ZC3										
	Lubricant	Grease(Polyrex-EM)										
External Thrust		Not applicable										
Coupling Method		☒ Direct ☐ V-belt		Moment of Inertia (J)								
Shaft Extension		Single										
Terminal Box	Main	Cast Iron										
	Aux.	No										
Location		Refer to Outline Drawing		Sound Pressure Level (No-load & mean value at 1m from motor)								
Application								68 dB(A)				
Vibration				2.03 mm/s (peak)								
Area classification		Hazardous		Permissible number of consecutive starts		Cold		3 times				
Type of Ex-Protection		Class I&II, Division 2				Hot		2 times				
Applicable Standard		IEEE841, NEMA MG1, CSA C390		Paint	Munsell No.	7.5BG6/1.5						

ACCESSORIES		SUBMITTAL DRAWING				
		Outline Dimension Drawing \ Motor Weight(Approx.)				
		B5		LM-I2324C5PLV23	560 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				
SPARE PARTS		- 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

25HP		6P		460V		Cat. No. IEEEV25-12-324TCRD	
Model HLS324PR338V		Type HLS		Duty CONT		Amps 31.2A	
Frame 324TC		Encl. TEFC		Code J		Hertz 60Hz	
Bearing Drive 6313ZC3		Opp. 6212ZC3		S.F. 1.15		RPM 1175	
Usable at 50Hz 25HP 380V 41.4A 980rpm S.F.: 1.15 Eff.: 91.7% Code: H		50Hz 25HP 400/415V 39.9/39.0A 980/985rpm S.F.: 1.15 Eff.: 91.7/91.7% Code: J/K		S.F. 1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)		3/4 Eff. 92.0%	
CSA Model -		Type PJP		Temp. Code		Frame 140~320FR 360~400FR 440FR	
Certified for 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)	
No. -		Date -		Weight 560 lb		T3A (180°C) T3A (180°C) T3 (200°C)	
MARINE DUTY IEEE45		4M-138416		Made in Vietnam H4		Designed By HYUNDAI, Korea	
IEEE Std 841-2021							

WIRING DIAGRAM

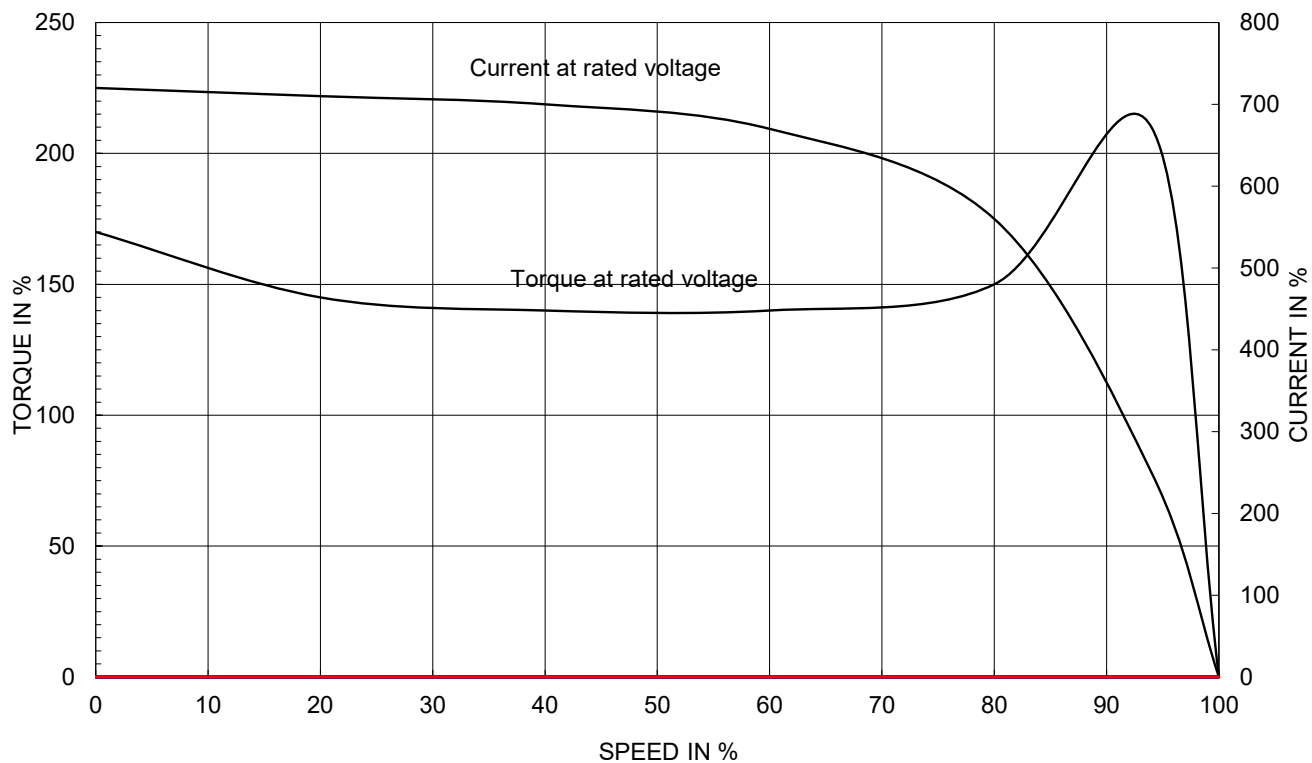
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES. T1 T2 T3 L1 L2 L3 KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-128796	N/A

APPD BY S.Y.KIM	UNIT INCH	SUBJECT CSA Class I, Division2 IEEE841 (SSEN, 254-326)	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-138416 / 4M-128796	Sheet No. of
DSND BY S.H.LEE	DATE 2024.06.07	DWG NO NP-IEEEV25-12-324TCRD	Revision No. 0

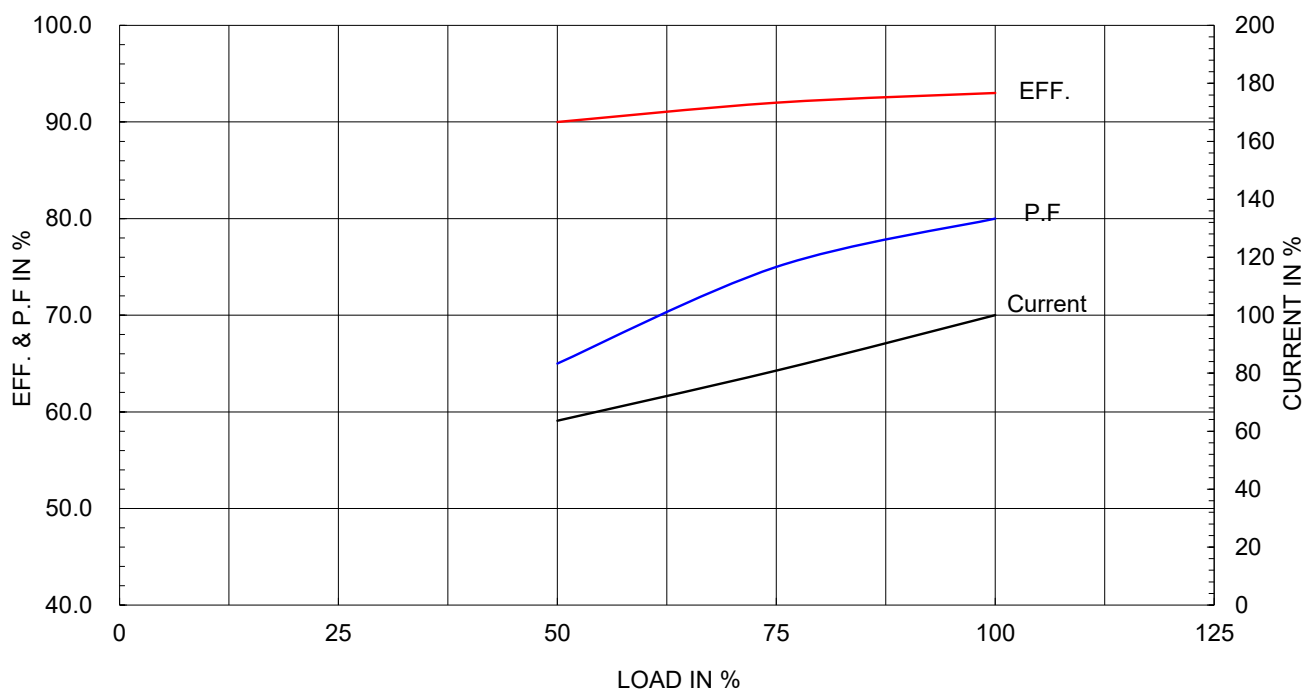
Type :	PJP	
Full Load Torque :	110.92	lb.ft
Load moment of Inertia (J) :	389.183	lb.ft2
Motor moment of Inertia (J) :	8.094	lb.ft2

18.5kW	25HP	6 P	60 Hz
Speed at Full Load :			1175 RPM
Rated Voltage	575V	460V	230V
Full Load Current	25.0A	31.2A	62.4A

SPEED VS TORQUE & CURRENT CURVE

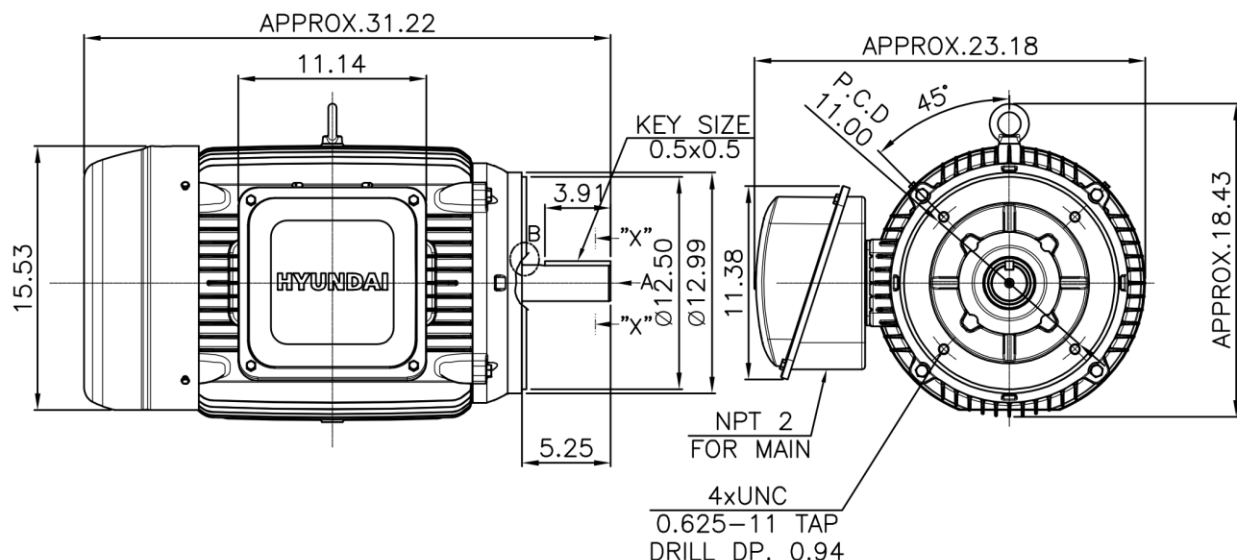


OUTPUT VS EFF., P.F & CURRENT CURVE

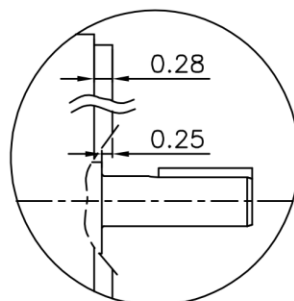


1	2	3	4
▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		

IEEE841



VIEW "A"

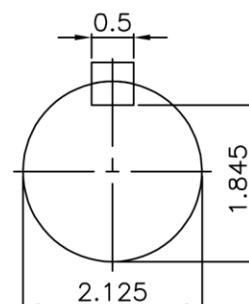


DETAIL - B

NOTE

[TOLERANCE]

- CENTER HEIGHT : +0.00inch - 0.03inch
- SHAFT DIAMETER : +0.000inch - 0.001inch
- KEYWAY DEPTH : +0.000inch - 0.015inch



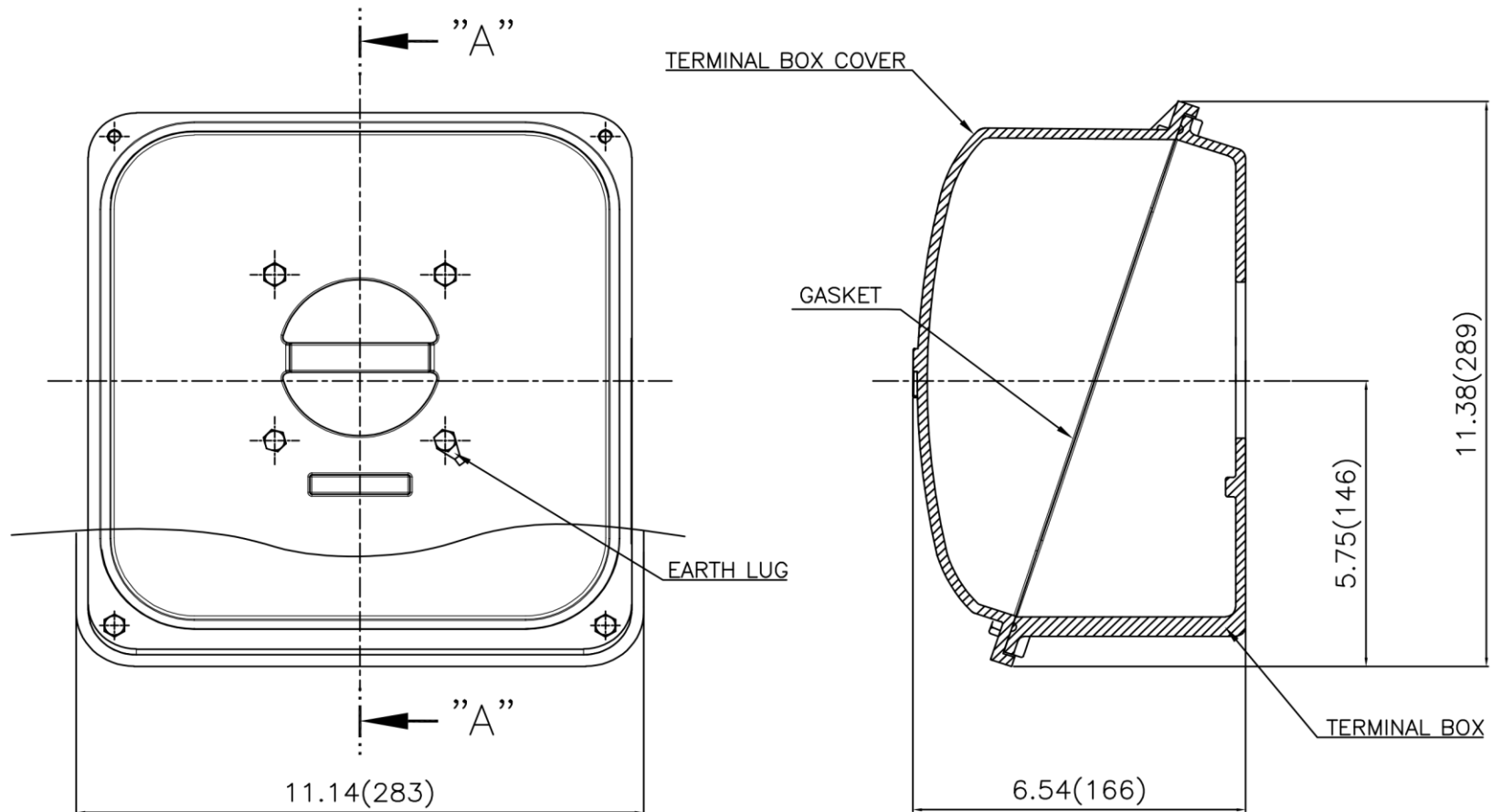
SECTION "X-X"

SCALE 5/11

APPD BY	S.Y.KIM	UNIT	inch	SUBJECT	NEMA 324TC	DWG SIZE
CHKD BY	R.G.KIM	SCALE	1/11			A4 (1:11)
CHKD BY		PROJEC'N	3rd Angle	TITLE	OUTLINE	
DSND BY	주유림	DATE	2021-04-28	REF. NO	.	Sheet No. of
				DWG NO	LM-I2324C5PLV23	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

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	A3 (1:2.5)
CHKD BY		SCALE	1/2.5	TITLE	TERMINAL BOX ASS'Y		
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

