

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.	HES40-18-324TC	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets
GENERAL SPECIFICATION			PERFORMANCE DATA		
Frame Size	324TC	Rated Output	30 kW	40 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	39.0 A	48.8 A
Insulation Class	F		Locked-rotor**	850 %	850 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C	50% Load			
Motor Location	☐ Indoor ☐ Outdoor	75% Load			
Altitude	Less than 1,000 meter	100% Load			
Relative Humidity	Less than 80 %	Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)	50% Load			
Duty Type	Continuous (S1)	75% Load			
Service Factor	1.15	100% Load			
Mounting	B35	Speed at Full Load			
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	6313ZC3 / 6212ZC3	Full Load		
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**		
External Thrust	Not applicable	Breakdown**			
Coupling Method	☒ Direct ☐ V-belt	Moment of Inertia (J)			
Shaft Extension	Single	Load(Max.)			
Terminal	Main	Cast Iron	Motor		
Box	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)		
	Location	Refer to Outline Drawing	74 dB(A)		
Application		Vibration			
Area classification	Hazardous	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			
		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	
ACCESSORIES		SUBMITTAL DRAWING			
		Outline Dimension Drawing \ Motor Weight(Approx.)			
		B35	LM-T2324C4PLV23	570 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
		2025-07-22	S.H. LEE	I.K. KIM	R.G. KIM
					APPD
					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.

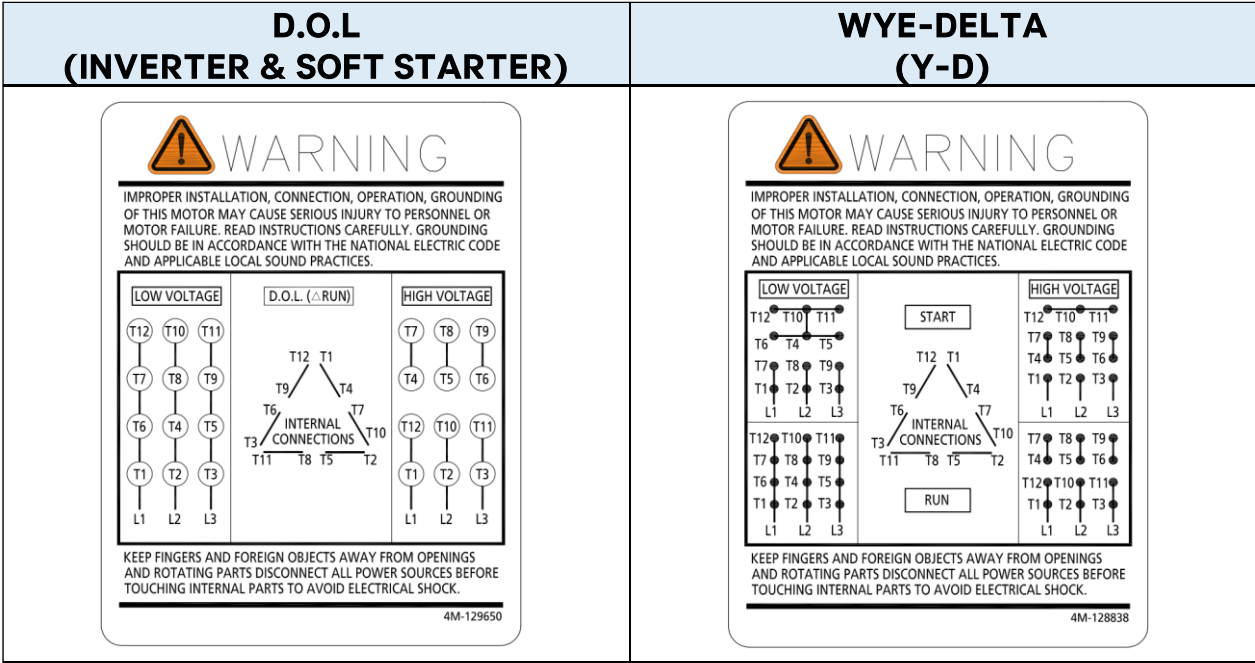
MAIN NAMEPLATE

4.72

40HP		4P	230/460V	Cat. No.	HES40-18-324TC				
Model		HLS324PR235V		INS. Class	F	HD-F1	Amps	97.6/48.8A	
Type	HLS	Duty	CONT	Code	K	Amb.	40°C	Hertz	60Hz
Frame	324TC	Encl.	TEFC	S.F.	1.15	RPM	1780	NEMA Nom. Eff.	94.1%
Bearing	Drive	6313ZC3			S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)			3/4 Eff.	93.1%
	Opp.	6212ZC3			S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			NEMA Design	B Torque
Usable at	50Hz 40HP 380V 66.4A 1480rpm S.F.: 1.0 Eff.: 93.0% Code: J								
	50Hz 40HP 400/415V 64.4/63.5A 1480/1485rpm S.F.: 1.0 Eff.: 93.0/93.0% Code: K/L								
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 I, Zone 2, Gr. IIA, IIB, & IIC		CLASS II, Div. 2 Gr. E, F & G (Gr. E : Up to 320FR)		(sine wave)	Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)
No.	-			Date	-			Weight	570 lb
4M-136024 MARINE DUTY IEEE45				Made in Vietnam H4 Designed By HYUNDAI, Korea			HD HYUNDAI ELECTRIC		

2.36

WIRING DIAGRAM



APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HES, 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					
DSND BY	S.H.LEE	DATE	2024.06.07					
HD HYUNDAI ELECTRIC				REF. NO	4M-136024 / 4M-129650	Sheet No.	of	
				DWG NO	NP-HES40-18-324TC	Revision No.	0	

Type : PJP

30kW 40HP 4 P 60 Hz

Full Load Torque : 118.74 lb.ft

Speed at Full Load : 1780 RPM

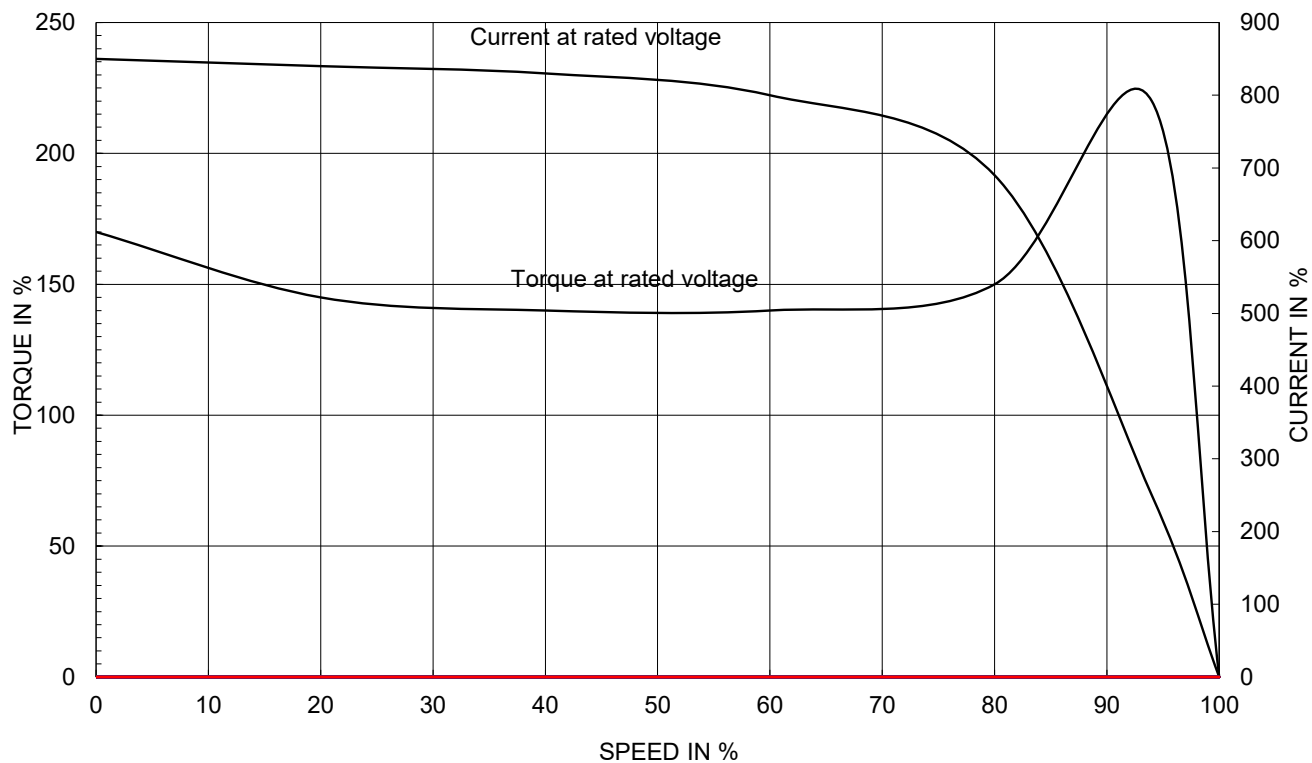
Load moment of Inertia (J) : 218.553 lb.ft2

Rated Voltage	575V	460V	230V
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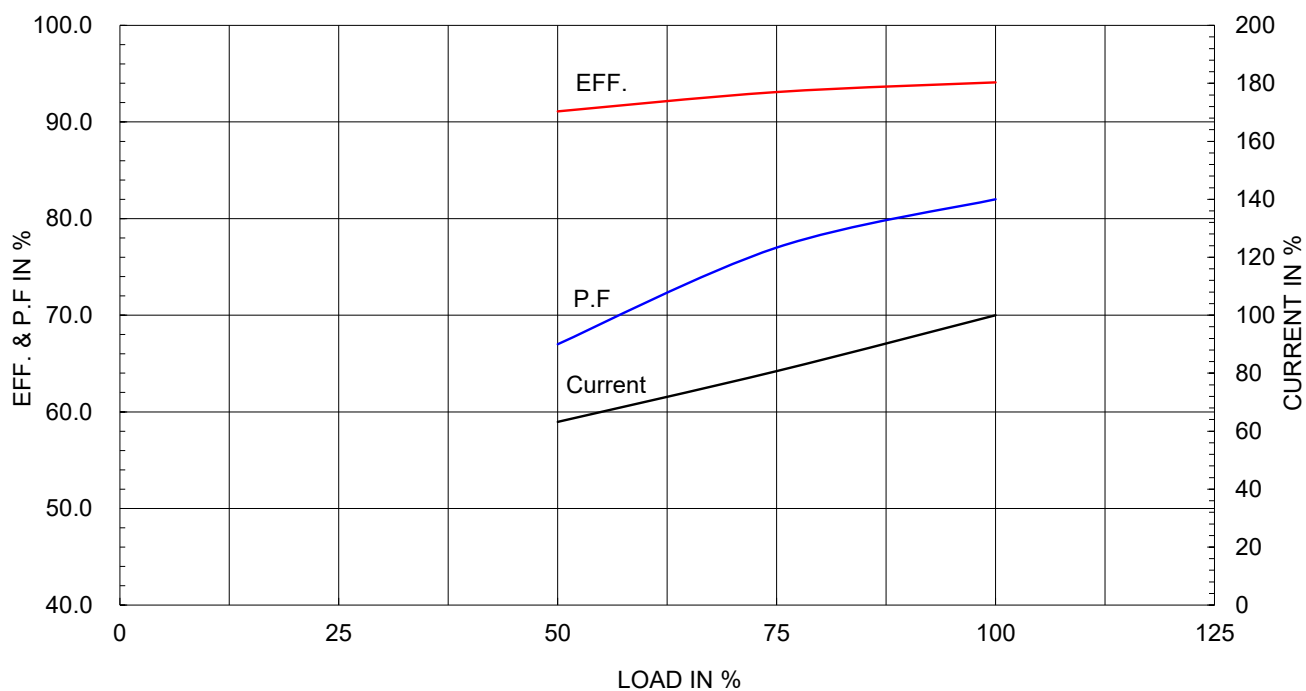
Motor moment of Inertia (J) : 7.121 lb.ft2

Full Load Current	39.0A	48.8A	97.6A
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SPEED VS TORQUE & CURRENT CURVE

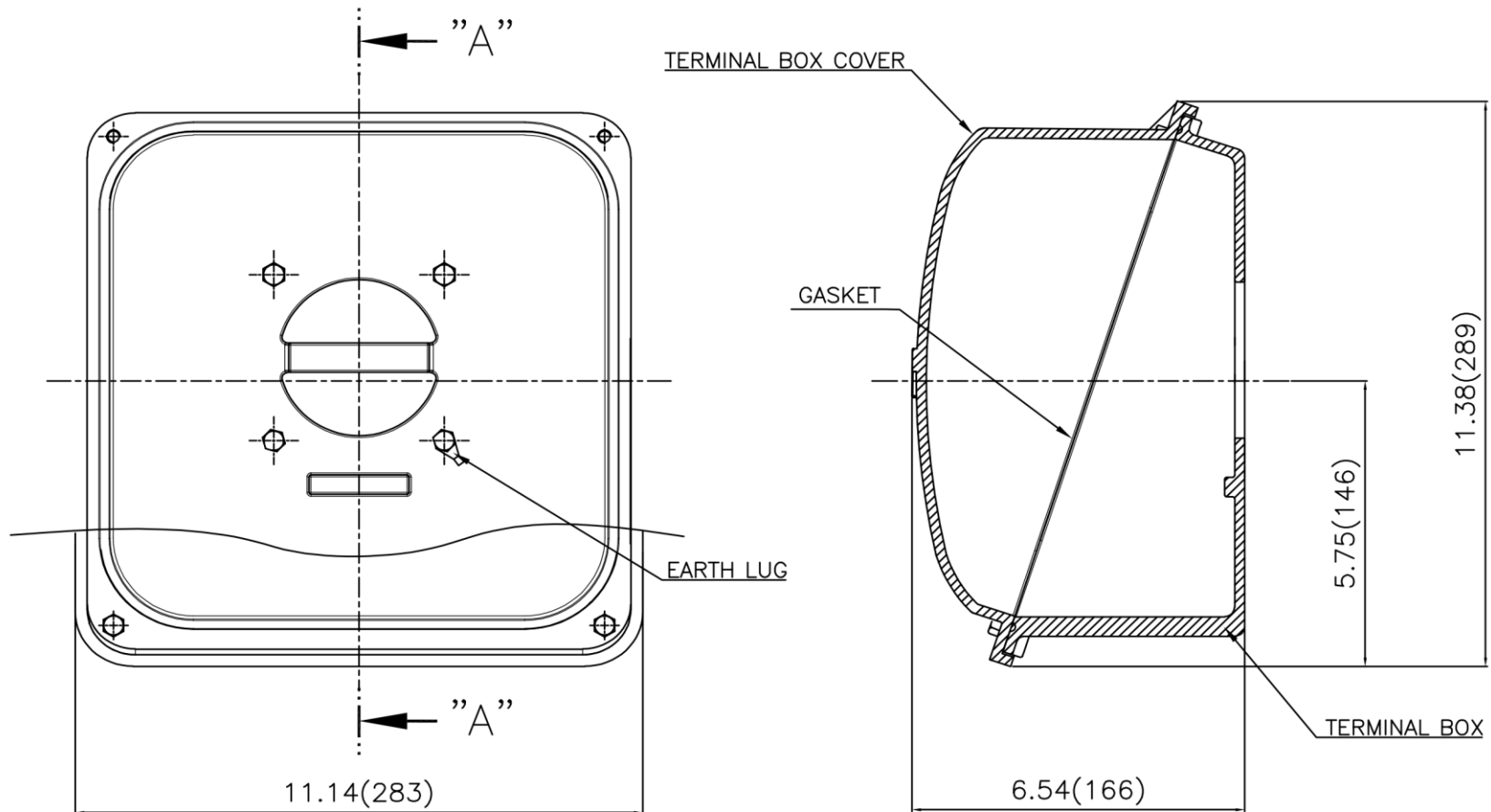


OUTPUT VS EFF., P.F & CURRENT CURVE



Cls. I&II, Div. 2

IEEE 841



▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
1						
2						
3						
4						
5						

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