

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.	HES50-36-326TSC	Item No.			Rev. No.	[]	
Project Name		Project No.			Quantity	sets	
GENERAL SPECIFICATION				PERFORMANCE DATA			
Frame Size	326TSC		Rated Output	37 kW		50 HP	
Type	PJP		Number of Poles	2			
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	43.7 A	54.6 A	109.1 A
Insulation Class	F			Locked-rotor**	850 %	850 %	850 %
Temp. Rise at full load (by resistance method)			Efficiency				
at 1.0 S.F			80 deg. C				
Motor Location	☐ Indoor ☐ Outdoor		50% Load		90.0 %		
Altitude	Less than 1,000 meter		75% Load		92.0 %		
Relative Humidity	Less than 80 %		100% Load		93.0 %		
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)				
Duty Type	Continuous (S1)		50% Load		0.765		
Service Factor	1.15		75% Load		0.865		
Mounting	B35		100% Load		0.915		
Bearing	Type	Anti-Friction	Speed at Full Load		3560 r.p.m		
	DE/N-DE	6212ZC3 / 6212ZC3	Torque				
	Lubricant	Grease(Polyrex-EM)	Full Load		73.22 lb.ft		
External Thrust	Not applicable		Locked-rotor**		150 %		
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		230 %		
Shaft Extension	Single		Moment of Inertia (J)				
Terminal	Main	Cast Iron	Load(Max.)		49.240 lb.ft2		
Box	Aux.	No	Motor		4.272 lb.ft2		
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)				
Application			82 dB(A)				
Area classification	Hazardous		Vibration		3.8 mm/sec (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-T2326C4CLV23	580 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
			2025-07-22	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.

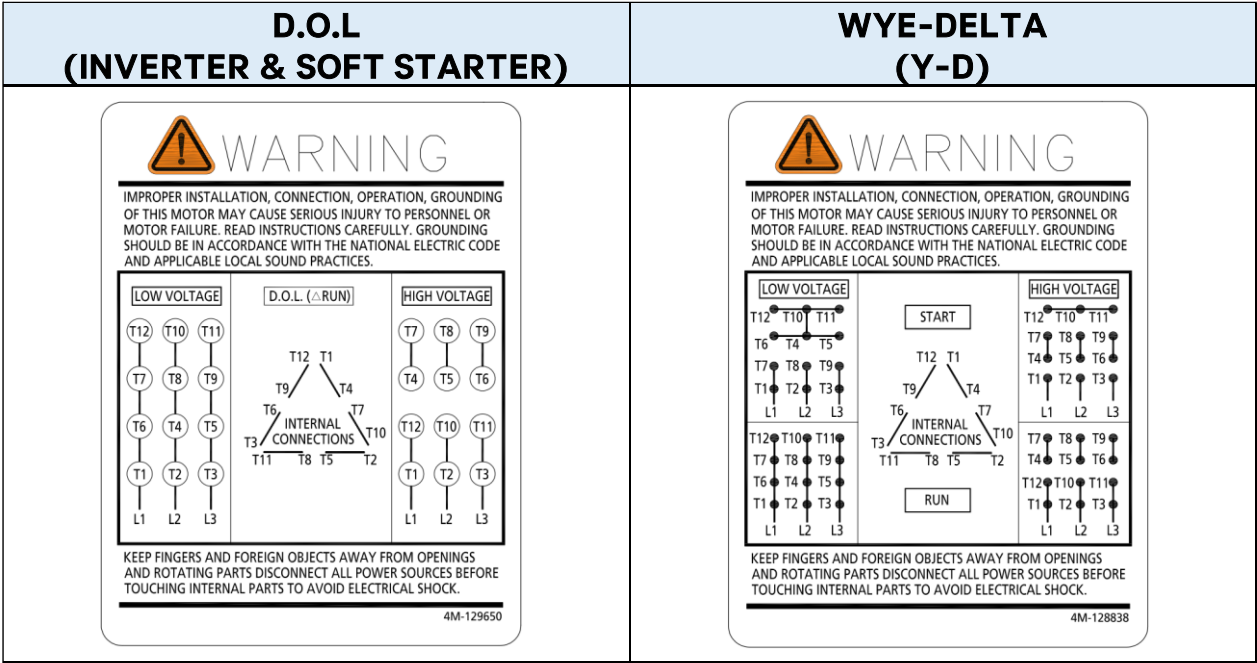
MAIN NAMEPLATE

4.72

50HP		2P	230/460V	Cat. No.	HES50-36-326TSC				
Model		HLS326PR135V		INS. Class	F	HD-F1	Amps	109.1/54.6A	
Type	HLS	Duty	CONT	Code	J	Amb.	40°C	Hertz	60Hz
Frame	326TSC	Encl.	TEFC	S.F.	1.15	RPM	3560	NEMA Nom. Eff.	93.0%
Bearing	Drive	6212ZC3		S.F.1.25 (When 100HP or less, Temp Rise F & Non-Hazardous)		3/4 Eff.		92.0%	
	Opp.	6212ZC3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		NEMA Design		B Torque	
Usable at	50Hz 50HP 380V 72.5A 2950rpm S.F.: 1.0 Eff.: 92.4% Code: G								
	50Hz 50HP 400/415V 69.0/66.6A 2955/2960rpm S.F.: 1.0 Eff.: 92.4/92.4% Code: H/J								
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 II, Div. 2 Gr. E, F & G (Gr. E : Up to 320FR)		Amb. 40°C	T3C (160°C)	T3B (165°C)	T3A (180°C)	
		CLASS I, Zone 2, Gr. IIA, IIB, & IIC				Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)
No.	-			Date	-			Weight	580 lb
4M-136024				Made in Vietnam H4			Designed By HYUNDAI, Korea		
MARINE DUTY IEEE45							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	A4 (1:1)		
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	REF. NO	4M-136024 / 4M-129650		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle					Sheet No.	of
DSND BY	S.H.LEE	DATE	2024.06.07						
					Revision No.	0			

Type : PJP

37kW 50HP 2 P 60 Hz

Full Load Torque : 73.22 lb.ft

Speed at Full Load : 3560 RPM

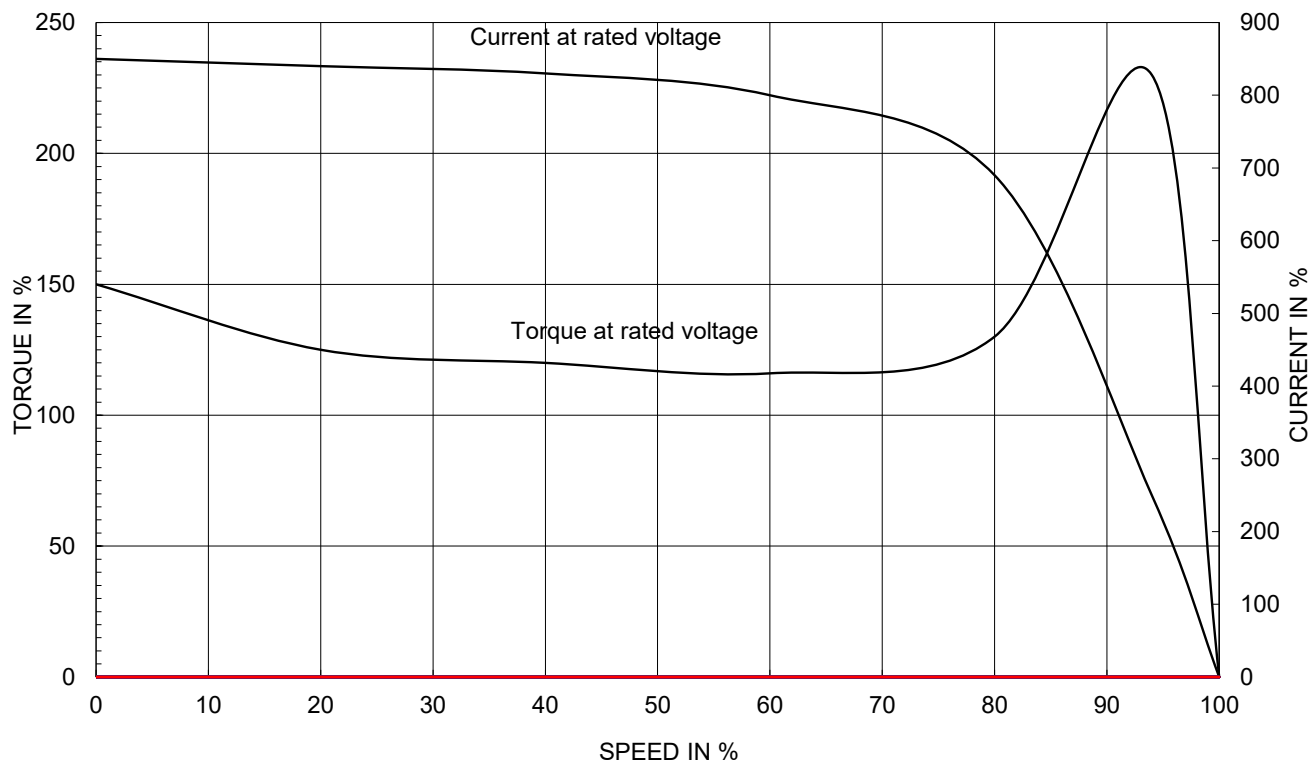
 Load moment of Inertia (J) : 49.240 lb.ft²

Rated Voltage	575V	460V	230V
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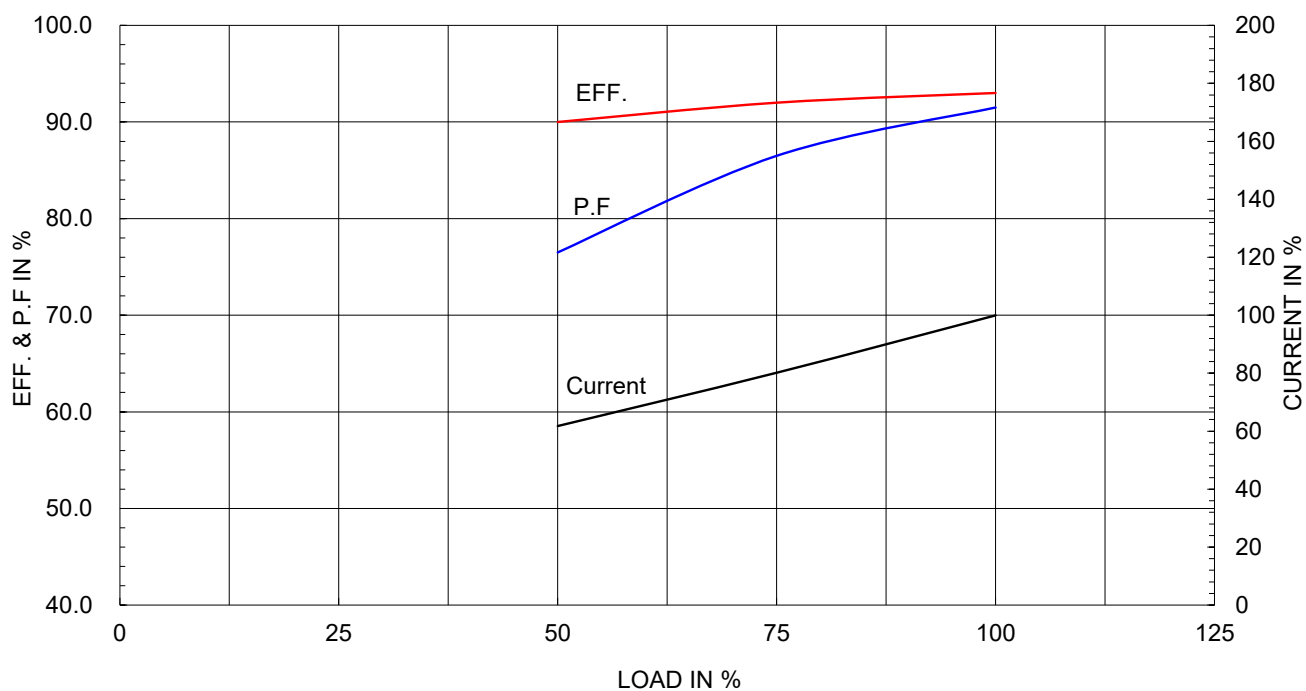
 Motor moment of Inertia (J) : 4.272 lb.ft²

Full Load Current	43.7A	54.6A	109.1A
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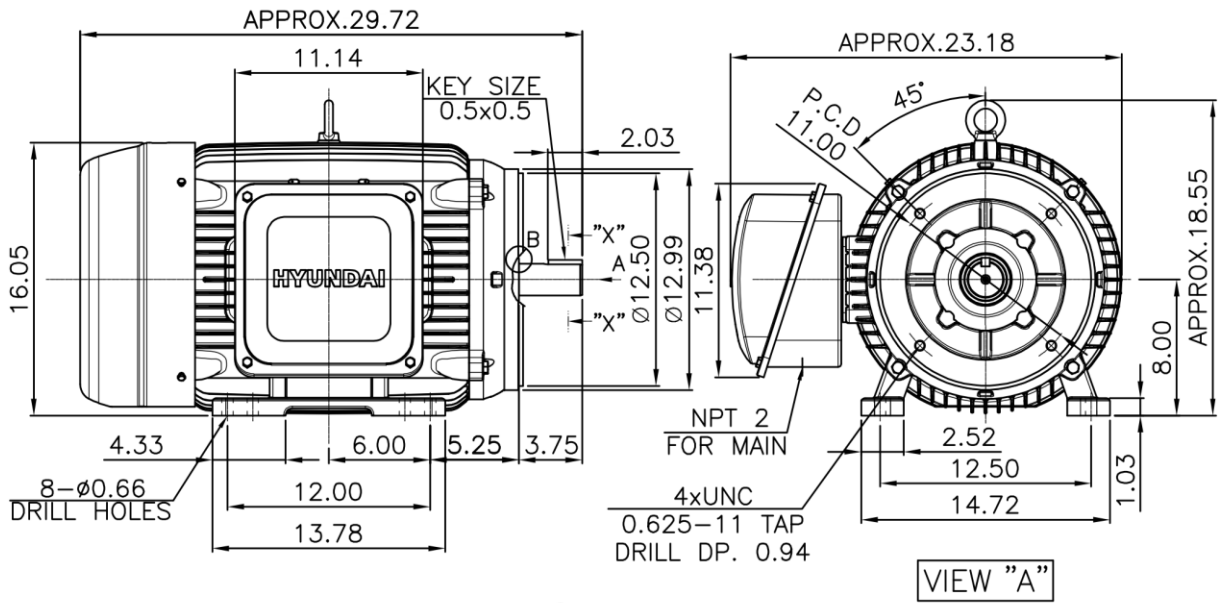
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



1			2		3		4		
▽	50S	REV	DATE	CONTENTS		REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S								
▽▽▽	3.2S								
▽▽▽▽	0.4S								



NOTE

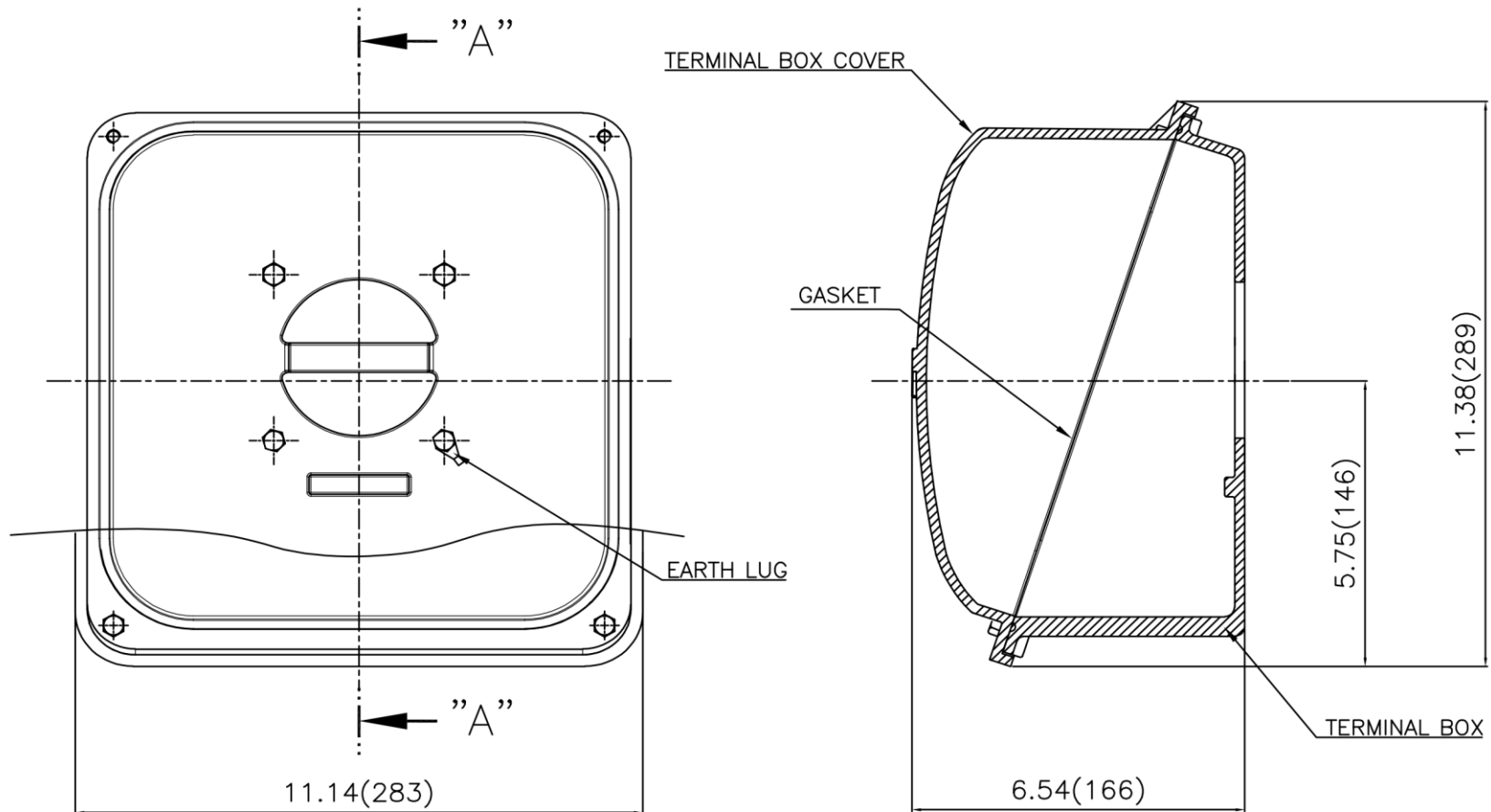
[TOLERANCE]

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 326TSC	DWG SIZE
CHKD BY	R.G.KIM	SCALE	1/11	TITLE		A4 (1:11)
CHKD BY		PROJEC'N	3rd Angle			
DSND BY	주유림	DATE	2021-04-29	OUTLINE		
				REF. NO	.	Sheet No. of
				DWG NO	LM-T2326C4CLV23	Revision No. 0

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