

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.	IEEE40-36-324TSCRD	Item No.	Rev. No.	[]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	324TSC		Rated Output	30 kW		40 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	35.6 A	44.5 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		89.4 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load		91.4 %	
Altitude	Less than 1,000 meter		100% Load		92.4 %	
Relative Humidity	Less than 80 %		Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)		50% Load		0.765	
Duty Type	Continuous (S1)		75% Load		0.865	
Service Factor	1.15		100% Load		0.915	
Mounting	B5		Speed at Full Load	3560 r.p.m		
Bearing	Type	Anti-Friction	Torque			
	DE/N-DE	6212ZC3 / 6212ZC3	Full Load		59.4 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**		150 %	
External Thrust	Not applicable		Breakdown**		230 %	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)		38.727 lb.ft2	
Terminal Box	Main	Cast Iron	Motor		3.987 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing	82 dB(A)			
Application			Vibration			
Area classification	Hazardous		3.8 mm/sec (peak)			
Type of Ex-Protection	Class I&II, Division 2		Permissible number of consecutive starts		Cold 3 times	
Applicable Standard	IEEE841, NEMA MG1, CSA C390		Hot		2 times	
	Paint	Munsell No.	7.5BG6/1.5			

ACCESSORIES

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B5	LM-I1326C5CL001	530 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
 - 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.

Date	DSND	CHKD	CHKD	APPD
2024-07-13	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.

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

4.72

40HP	2P	460V	Cat. No.	IEEE40-36-324TSCRD				
Model	HLS324PR13		INS. Class	F	HD-F1	Amps	44.5	
Type	HLS	Duty	CONT	Code	J	Amb.	40°C	
Frame	324TSC	Encl.	TEFC	S.F.	1.15	RPM	3560	
Bearing	Drive	6212ZC3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff.	91.4%	
	Opp.	6212ZC3				NEMA Design	B Torque	
Usable at	50Hz 30HP 380V 44.2A 2965rpm S.F.: 1.0 Eff.: 91.3% Code: K							
	50Hz 30HP 400/415V 42.5/41.4A 2970/2970rpm S.F.: 1.0 Eff.: 91.3/91.3% Code: L/L							
CSA Certified for	Model	LATER		Type	PJP			
	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)		Temp. Code (sine wave)	Frame	140~320FR	360~400FR	440FR
		Amb. 40°C	T3C (160°C)		T3B (165°C)	T3A (180°C)		
Amb. 55°C	T3A (180°C)	T3A (180°C)	T3 (200°C)					
No.	-		Date	-		Weight	530 lb	

IEEE Std 841-2021

4M-135701

MARINE DUTY IEEE45

Made in Korea H1

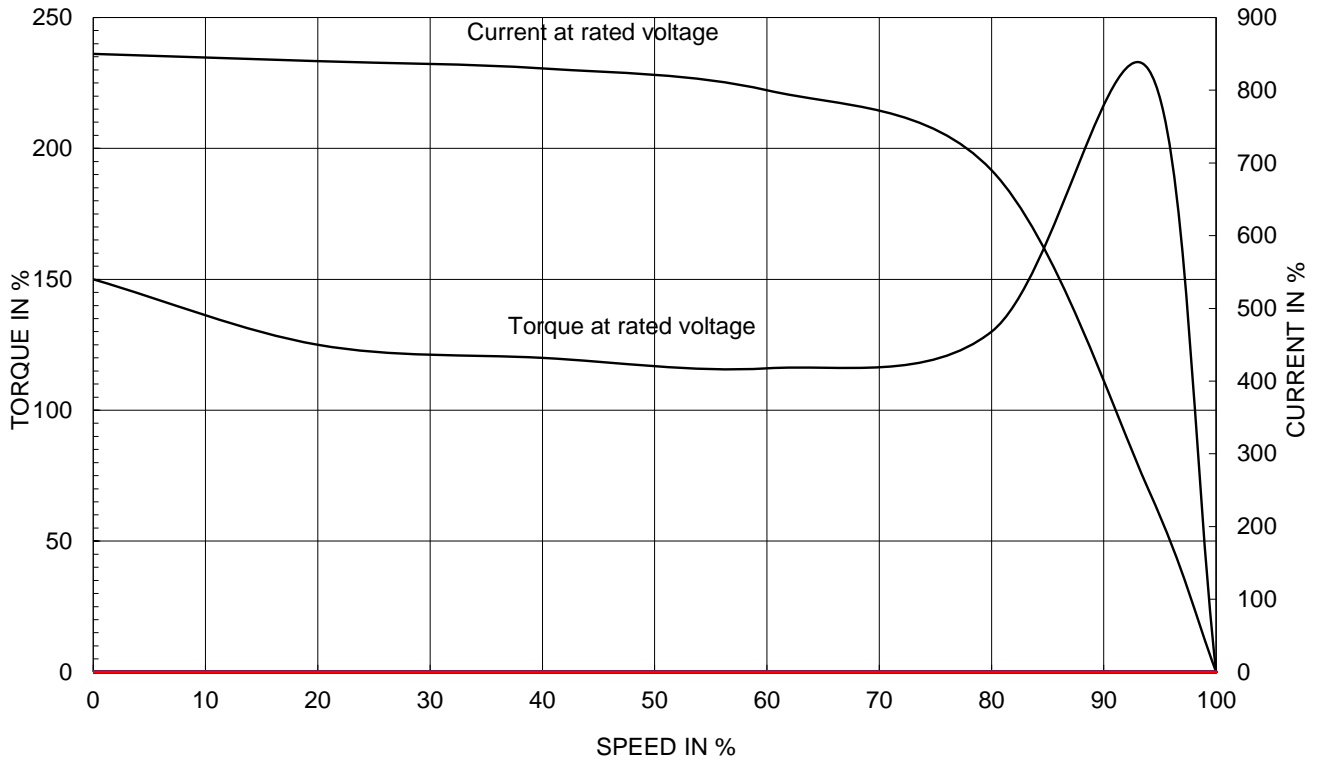
2.36

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (HL)	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-135701	Sheet No. of
				DWG NO	NP-IEEE40-36-324TSCRD	Revision No. 0

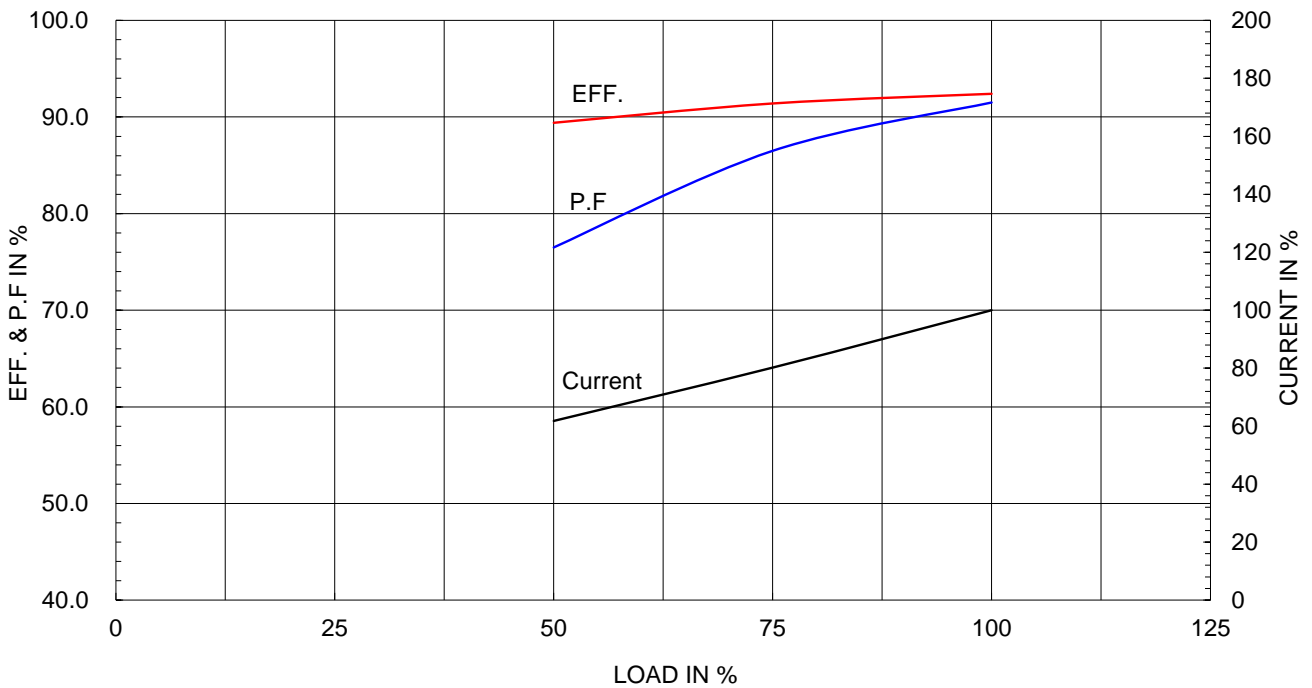
Type :	PJP
Full Load Torque :	59.4 lb.ft
Load moment of Inertia (J) :	38.727 lb.ft ²
Motor moment of Inertia (J) :	3.987 lb.ft ²

30kW	40HP	2 P	60 Hz
Speed at Full Load :			3560 RPM
Rated Voltage	575V	460V	230V
Full Load Current	35.6A	44.5A	89.1A

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

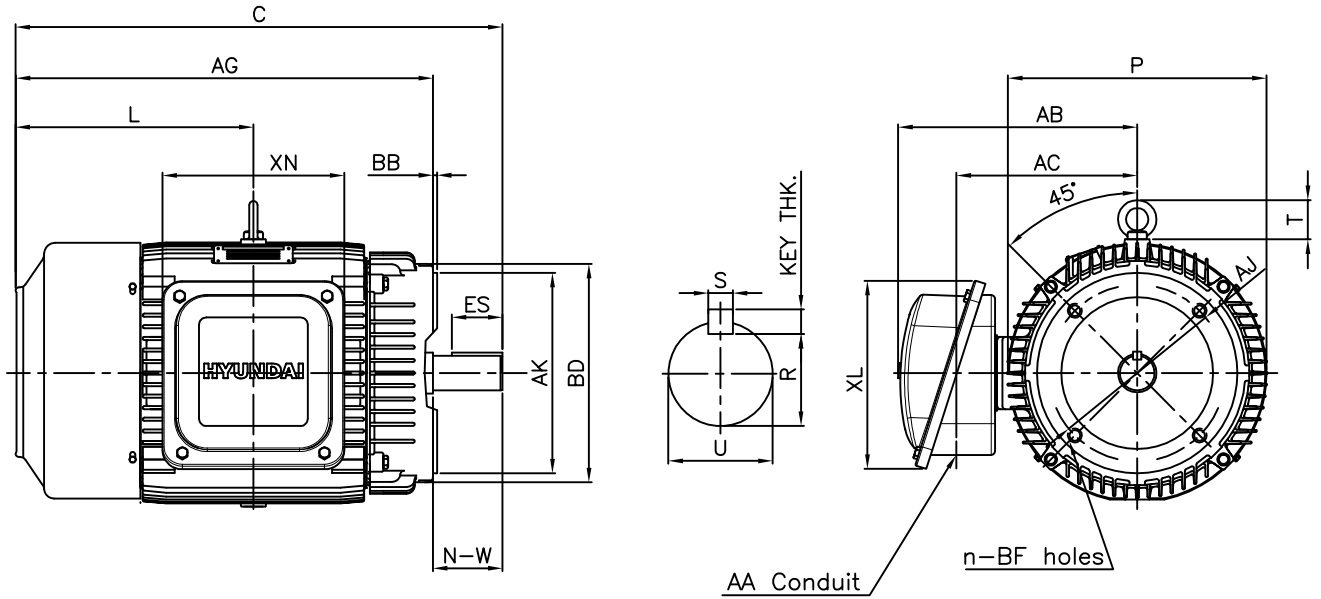


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							

IEEE841



DIMENSIONS

Unit : inch

F L A N G E						CONDUIT BOX					APPROX. WGT.(LB)	
AJ	AK	BD	BB	BF	n	AA	AB	AC	XL	XN	324TS	326TS
11.0	12.50	13.27	0.25	5/8-11	4	2.00	15.31	11.41	11.38	11.14	530	540

O V E R A L L					S H A F T					KEY THK.	B E A R I N G	
AG	C	L	P	T	U	N-W	KEYWAY				DRIVE END	OPP. DRIVE END
							R	ES	S			
26.15	31.4	14.9	15.84	2.41	1.875	3.75	1.591	2.03	0.500	0.500	6313ZC3	6211ZC3

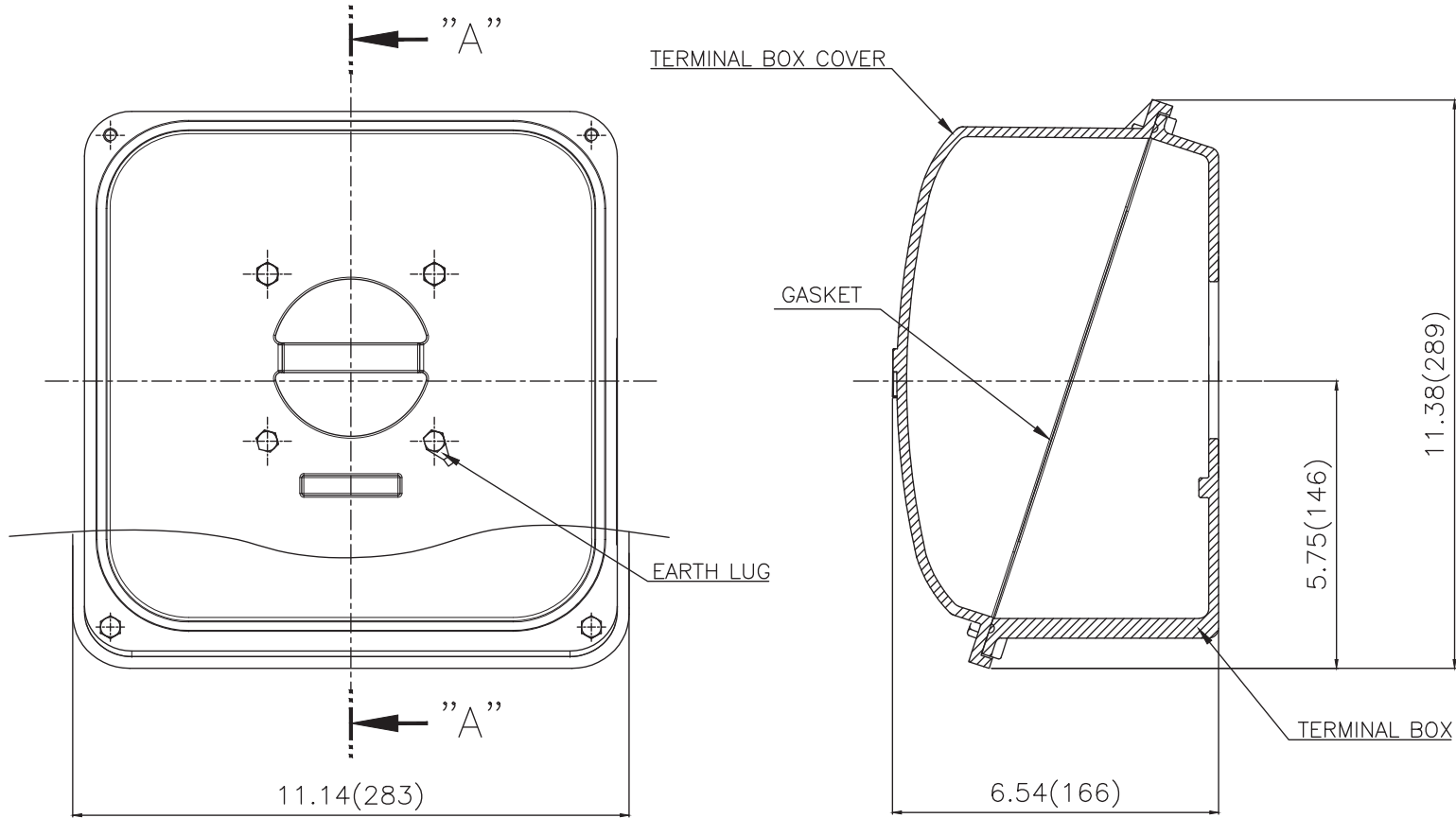
NOTE

- 1.Dimension "D" tolerance : +0.00inch - 0.03inch
- 2.Dimension "U" tolerance : +0.000inch - 0.001inch
- 3.Dimension "R" tolerance : +0.000inch - 0.015inch
- 4.Location of holes for 324TSC frame
- 5.Location of holes for 326TSC frame

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 324TSC/326TSC	DWG SIZE	A4 (11)
CHKD BY	R.G.KIM	SCALE	NONE	TITLE	OUTLINE	REF. NO	350A8512BA
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)	DWG NO		LM-I1326C5CL001	Sheet No.
DSND BY	H.K.LEE	DATE	2021-04-30			Revision No.	0



Cls. I&II, Div. 2
IEEE 841



SEC. "A"-"A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

일반가공공차		일반재공공차	
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	DATE	2023-10-19		
DSND BY	배승희	DATE					
REF. NO		Sheet No.	of				
DWG NO	3M-248459	Revision No.	0				

