

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.	IEEE40-36-324TSC	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	B35	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		3.8 mm/sec (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.)	
B35	LM-I1324C4CL001	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.	IEEE40-36-324TSC								
Model	HLS324PR13	INS. Class	F	HD-F1	Amps	44.5					
Type	HLS	Duty	CONT	Code	J	Amb. 40°C	Hertz	60Hz			
Frame	324TSC	Encl.	TEFC	S.F.	1.15	RPM	3560	NEMA Nom. Eff.	92.4%		
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		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)		(sine wave)	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	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			

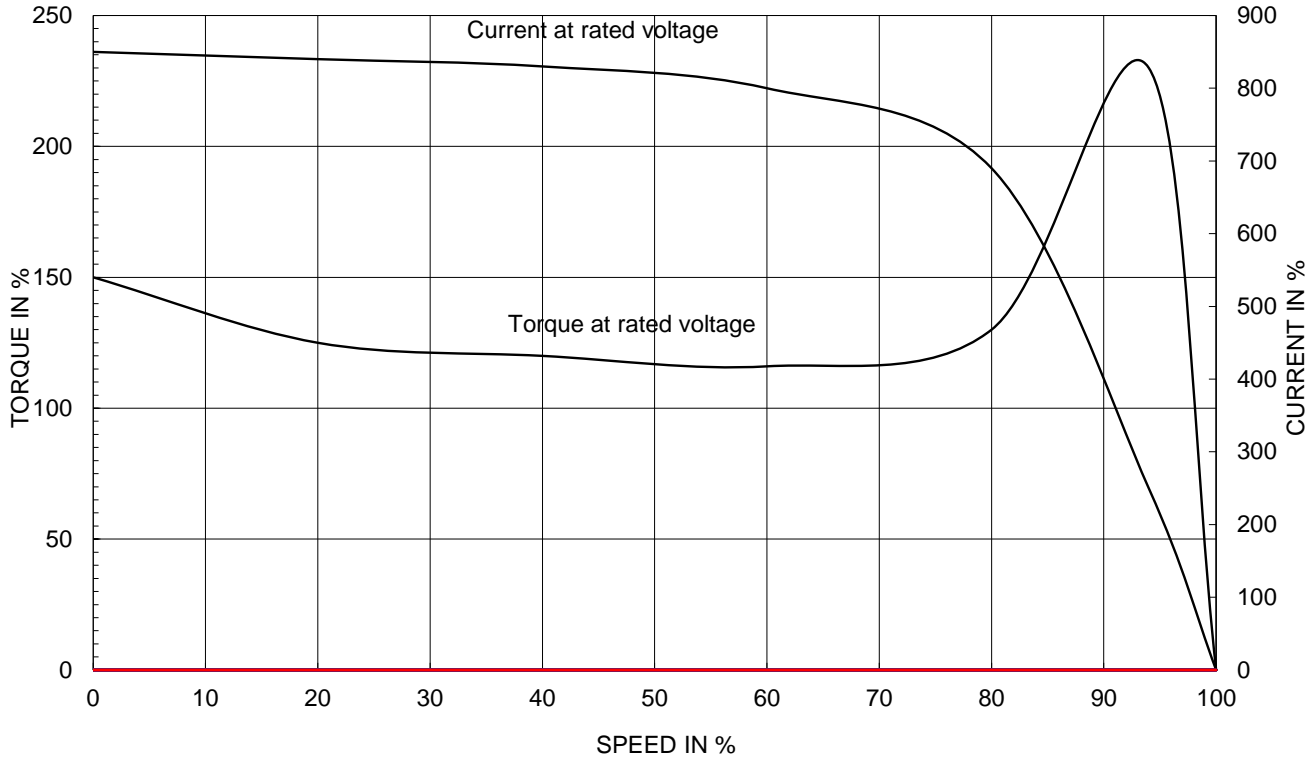


REF. NO	4M-135701	Sheet No.	of
DWG NO	NP-IEEE40-36-324TSC	Revision No.	0

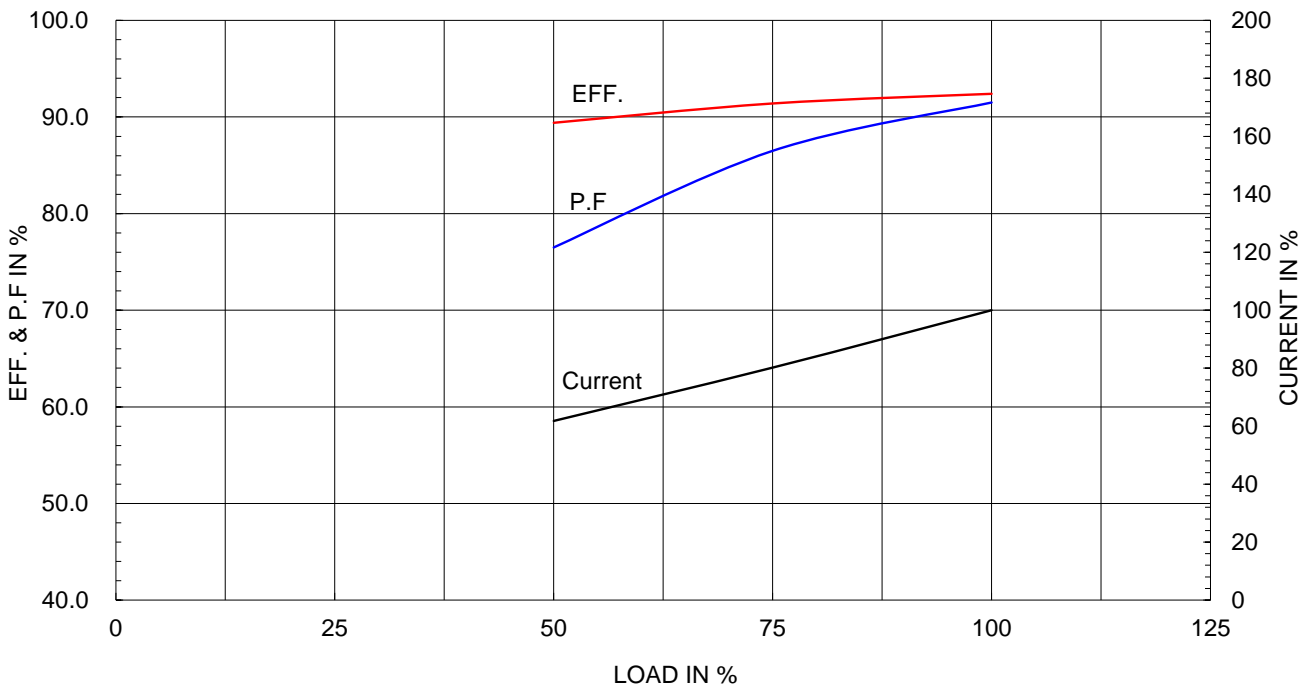
Type :	PJP
Full Load Torque :	59.4 lb.ft
Load moment of Inertia (J) :	38.727 lb.ft ²
Motor moment of Inertia (J) :	3.987 lb.ft ²

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

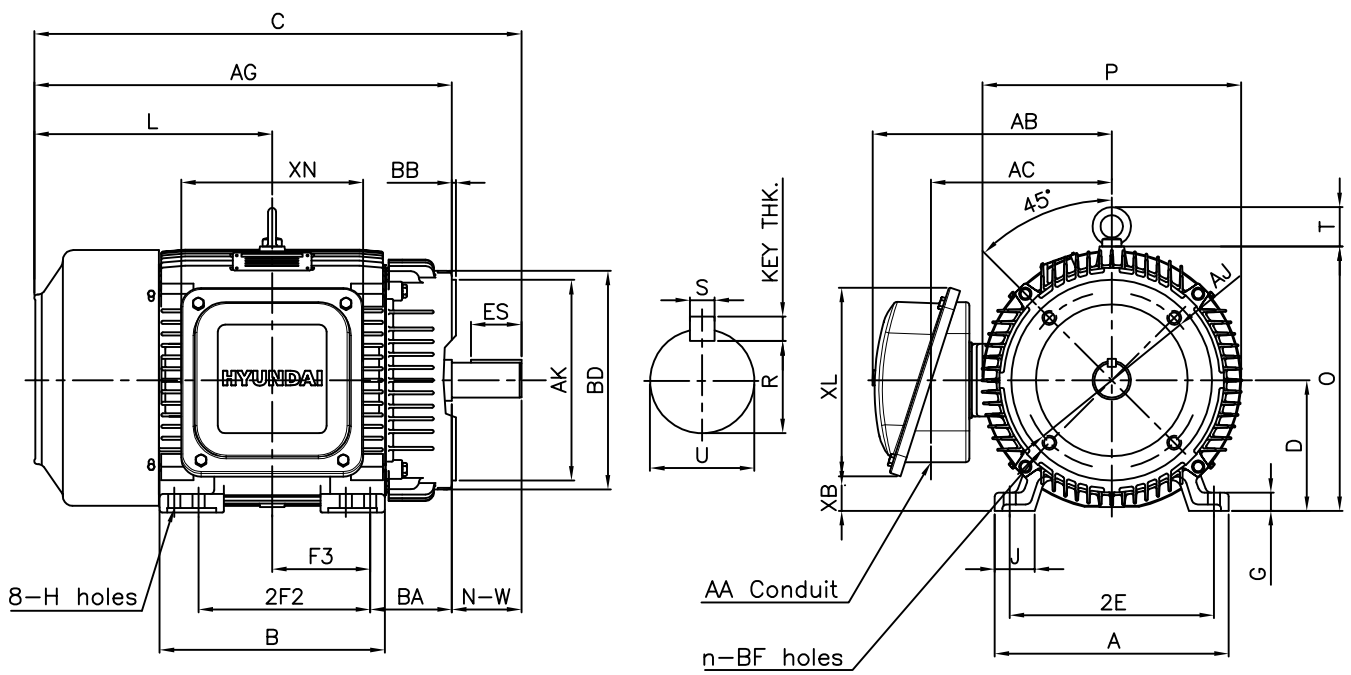


본 도면은 HD현대일렉트릭(주) 재산이며 허가없이 복사할 수 없음 (취급주의)

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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						M O U N T I N G								
AJ	AK	BD	BB	BF	n	A	B	2E	-	2F2 ⁴⁾	F3	G	J	H
11.0	12.50	13.27	0.25	5/8-11	4	14.33	13.78	12.50	-	10.50	6.00	1.11	2.44	0.66

C O N D U I T B O X						O V E R A L L								APPROX. WGT.(LB)
AA	AB	AC	XB	XL	XN	AG	BA	C	D	L	O	P	T	324TS
2.00	15.31	11.14	2.13	11.38	11.14	26.21	5.25	29.96	8.00	14.60	16.19	15.84	2.41	530

S H A F T					KEY THK.	B E A R I N G	
U	N-W	KEYWAY				DRIVE END	OPP. DRIVE END
1.875	3.75	R	ES	S	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

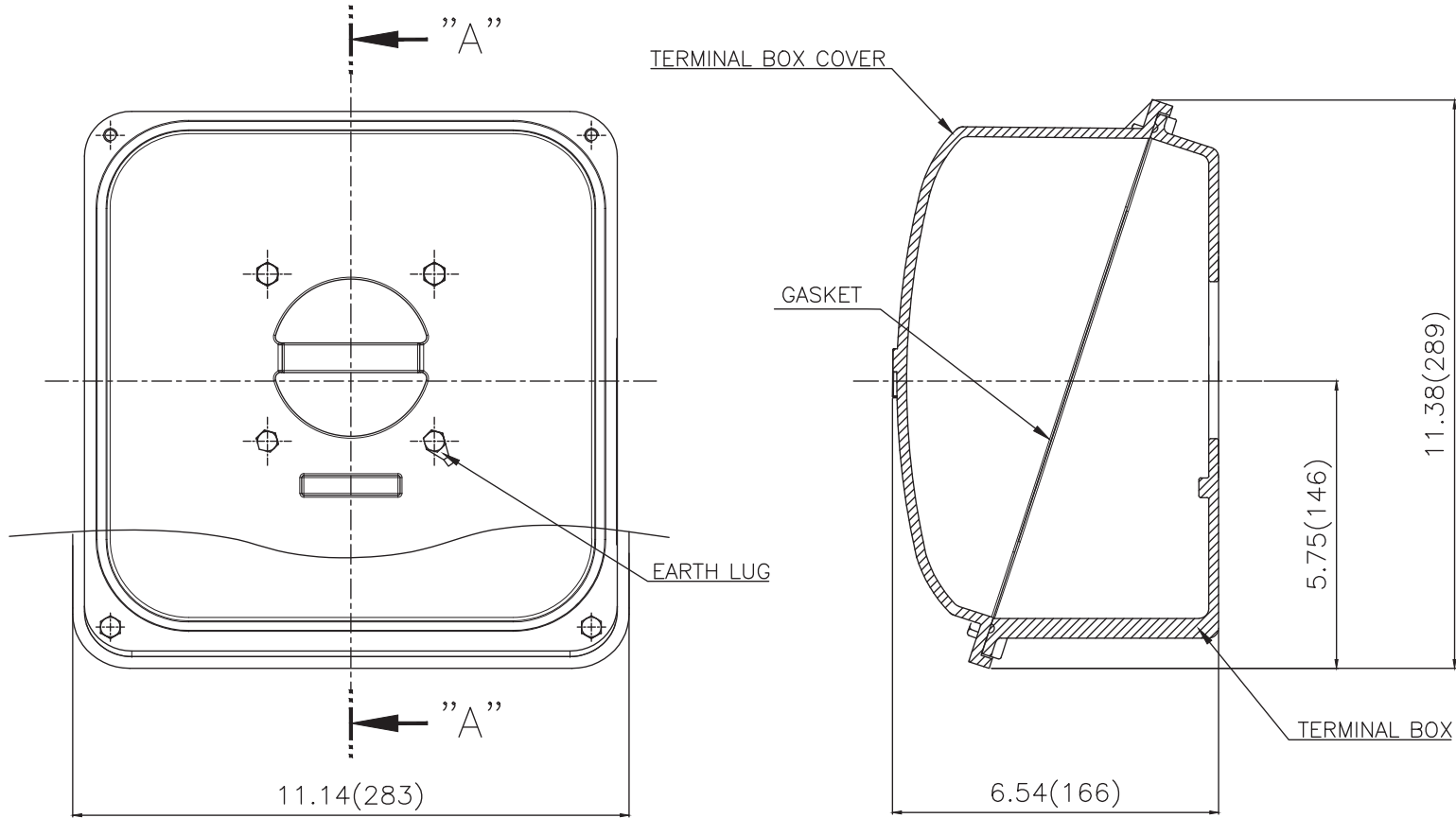
APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	NEMA 324TSC	DWG SIZE	A4 (1:1)
CHKD BY	R.G.KIM	SCALE	NONE				
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)	TITLE OUTLINE			
DSND BY	H.K.LEE	DATE	2021-05-06				



REF. NO	350A8311BA	Sheet No.	of
DWG NO	LM-I1324C4CL001	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				

