

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		91.1 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load		93.1 %	
Altitude	Less than 1,000 meter		100% Load		94.1 %	
Relative Humidity	Less than 80 %		Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)		50% Load		0.670	
Duty Type	Continuous ( S1 )		75% Load		0.770	
Service Factor	1.15		100% Load		0.820	
Mounting	B35		Speed at Full Load	1780 r.p.m		
Bearing	Type	Anti-Friction	Torque			
	DE/N-DE	6313ZC3 / 6212ZC3	Full Load		118.7 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**		170 %	
External Thrust	Not applicable		Breakdown**		220 %	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)		218.553 lb.ft2	
Terminal Box	Main	Cast Iron	Motor		7.121 lb.ft2	
	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 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


### SPARE PARTS


### 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
  - 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

4.72

**CROWN TRITON G2**

**Premium Efficiency AC 3 Phase Motor**

40HP	4P	230/460V	Cat. No.	HES40-18-324TC					
Model	HLS324PR23		INS. Class	F	HD-F1	Amps	97.6/48.8		
Type	HLS	Duty	CONT	Code	K	Amb.	40°C		
Frame	324TC	Encl.	TEFC	S.F.	1.15	RPM	1780		
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 30HP 380V 49.9A 1480rpm S.F.: 1.0 Eff.: 91.6% Code: L								
	50Hz 30HP 400/415V 48.7/48.1A 1485/1485rpm S.F.: 1.0 Eff.: 91.6/91.6% Code: L/L								
CSA Certified for	Model	LATER		Type	PJP	Temp. Code			
	CLASS I, Div. 2, Gr. A, B, C & D		CLASS II, Div. 2 Gr. E, F & G		(sine wave)	Frame	140~320FR	360~400FR	440FR
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC		(Gr. E: Up to 320FR)			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	570 lb		

4M-136024  
**MARINE DUTY IEEE45**
Made in Vietnam H4  
Designed By HYUNDAI, Korea

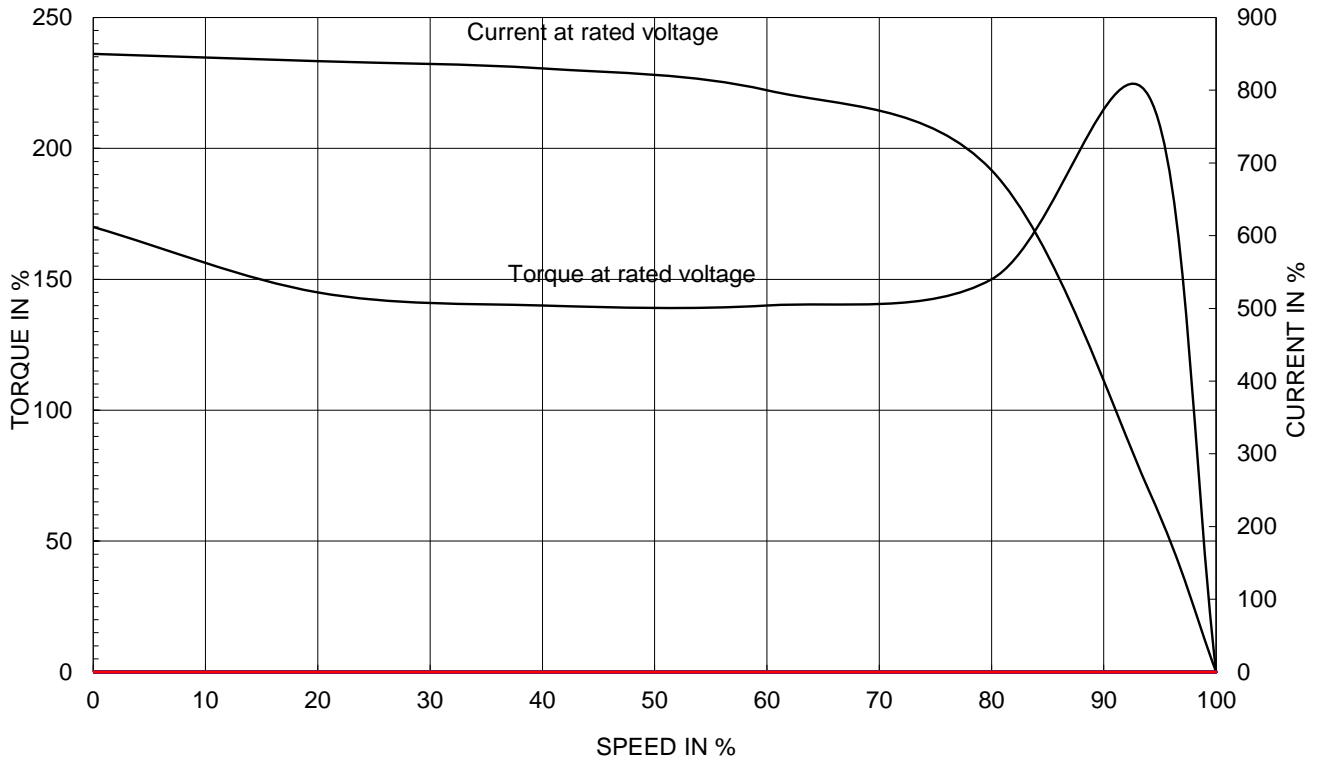
2.36

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	<b>NAMEPLATE DRAWING</b>		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	<b>4M-136024</b>	Sheet No. of	
				DWG NO	<b>NP-HES40-18-324TC</b>	Revision No. <b>0</b>	

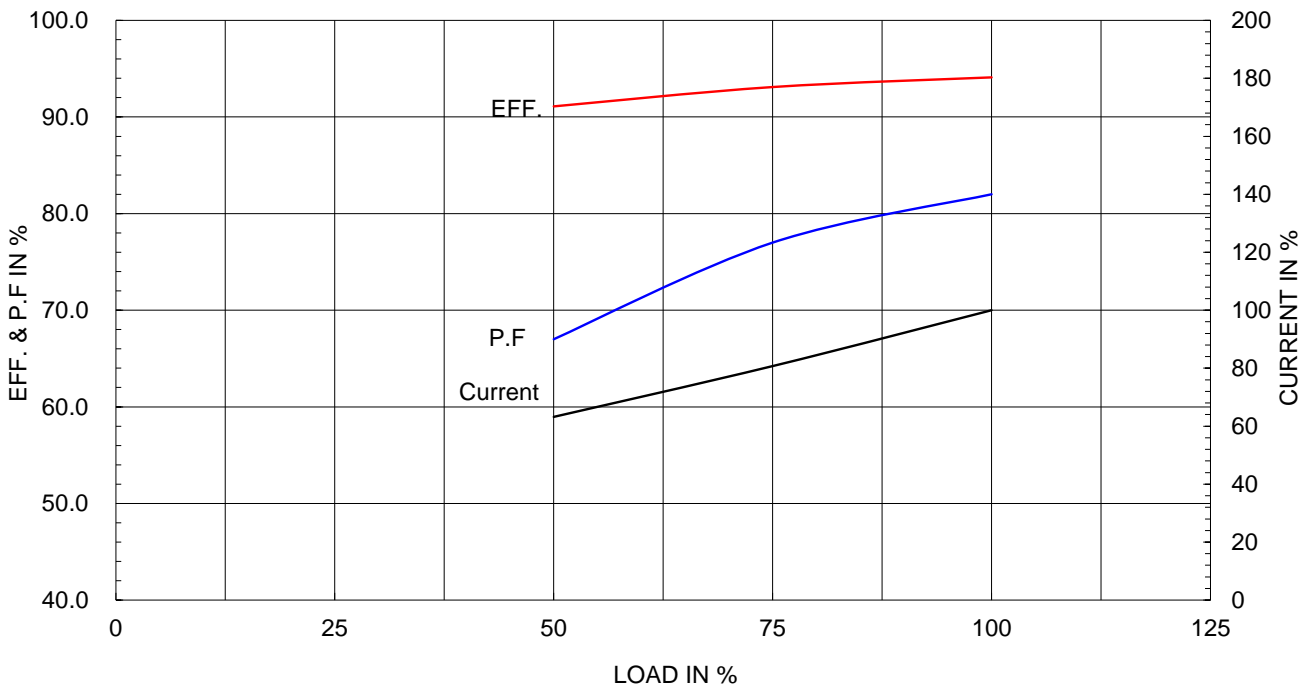
Type :	PJP
Full Load Torque :	118.7 lb.ft
Load moment of Inertia (J) :	218.553 lb.ft2
Motor moment of Inertia (J) :	7.121 lb.ft2

30kW	40HP	4 P	60 Hz
Speed at Full Load :			1780 RPM
Rated Voltage	575V	460V	230V
Full Load Current	39.0A	48.8A	97.6A

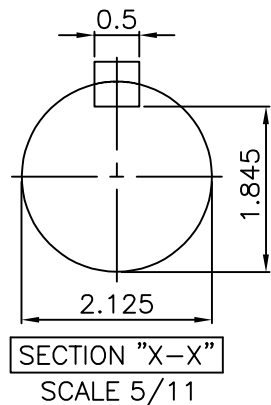
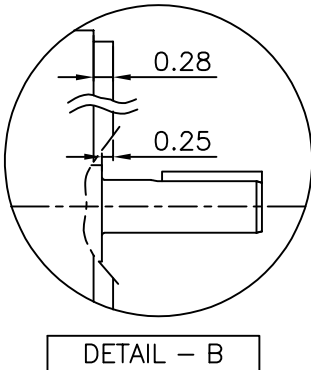
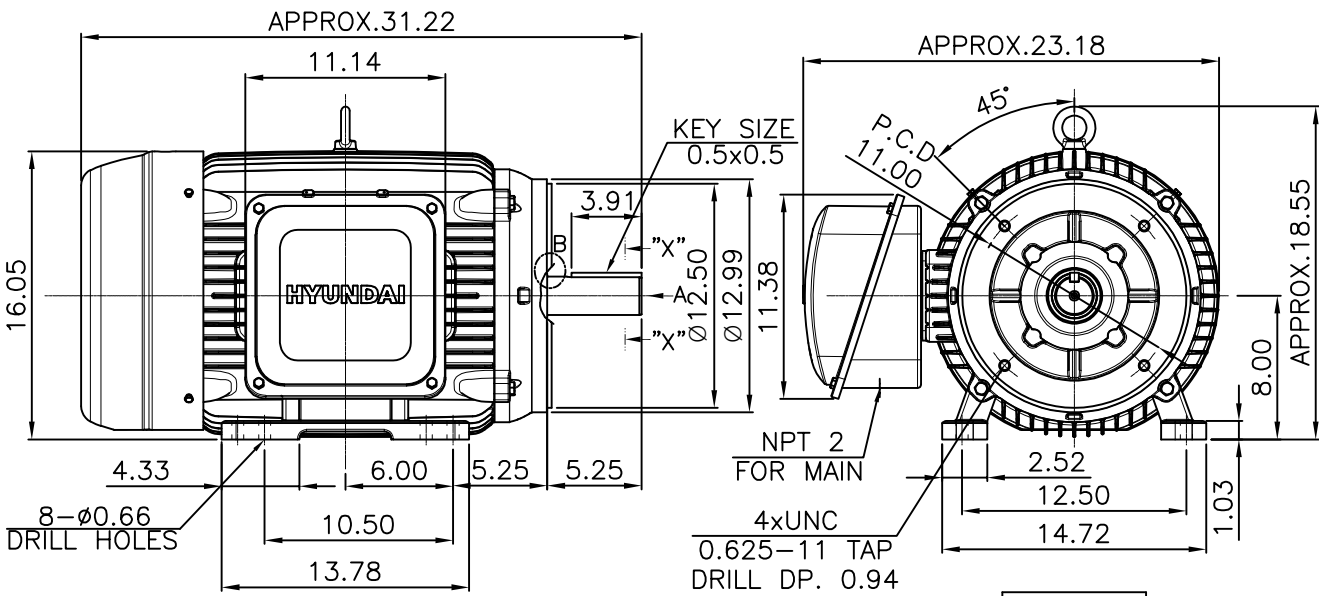
SPEED VS TORQUE & CURRENT CURVE



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**

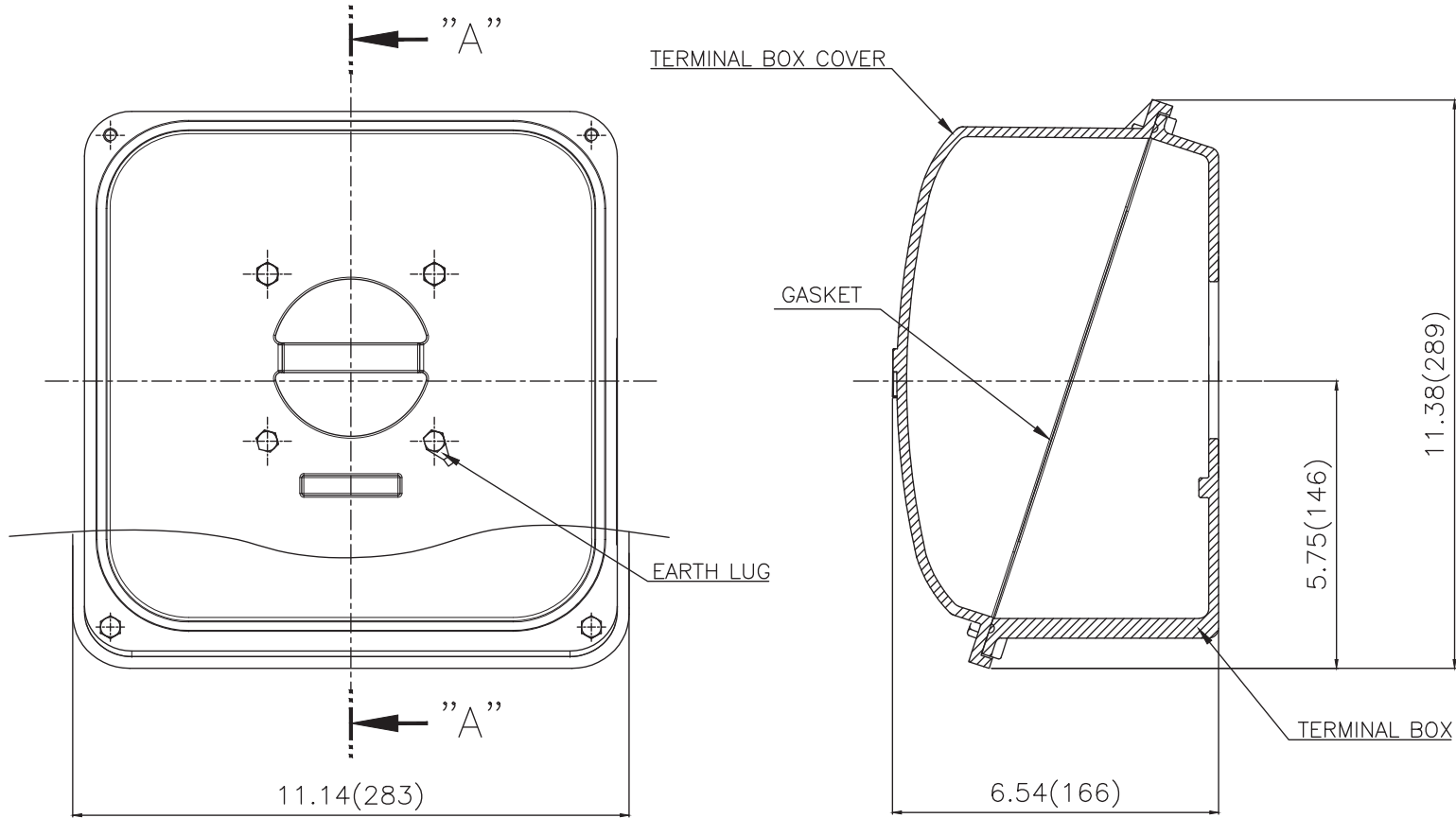
[TOLERANCE]

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	mm	SUBJECT	NEMA 324TC	DWG SIZE	
CHKD BY	R.G.KIM	SCALE	1/11	TITLE	OUTLINE	A4 ( 1:11 )	
CHKD BY		PROJEC'N	3rd Angle				
DSND BY	주유림	DATE	2021-04-29				
				REF. NO		Sheet No.	of
				DWG NO	LM-T2324C4PLV23	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		일반제관공차	
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				

