

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.	HHI50-12-365TC	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	365TC	Rated Output	37 kW 50 HP		
Type	PJP	Number of Poles	6		
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	48.1 A	60.2 A 120.4 A
Insulation Class	F		Locked-rotor**	680 %	680 % 680 %
Temp. Rise at full load (by resistance method)		Efficiency			
at 1.0 S.F	80 deg. C	50% Load 91.1 %			
Motor Location	☐ Indoor ☐ 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	1185 r.p.m		
Bearing	Type	Anti-Friction	Torque		
	DE/N-DE	6314C3 / 6213C3	Full Load 219.97 lb.ft		
	Lubricant	Grease(Polyrex-EM)	Locked-rotor** 150 %		
External Thrust	Not applicable		Breakdown** 220 %		
Coupling Method	☒ Direct ☐ V-belt	Moment of Inertia (J)			
Shaft Extension	Single	Load(Max.) 1,500.593 lb.ft2			
Terminal	Main	Cast Iron	Motor 32.000 lb.ft2		
Box	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)		
	Location	Refer to Outline Drawing	73 dB(A)		
Application		Vibration 3.8 mm/sec (peak)			
Area classification	Hazardous	Permissible number of			
Type of Ex-Protection	Class I&II, Division 2	Cold 3 times			
Applicable Standard	NEMA MG1, CSA C390	consecutive starts Hot 2 times			
		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	

ACCESSORIES	SUBMITTAL DRAWING
	Outline Dimension Drawing \ Motor Weight(Approx.)
	B35 LM-T1365C4PL001 865 lb.
	REMARK
SPARE PARTS	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 : T3B(165°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		6P	230/460V		Cat. No.	HHI50-12-365TC					
Model	HLS365PR06U3				INS. Class	F	HD-F1	Amps	120.4/60.2A		
Type	HLS	Duty	CONT		Code	H	Amb.	40°C	Hertz	60Hz	
Frame	365TC		Encl.	TEFC	S.F.	1.15	RPM	1185	NEMA Nom. Eff.	94.1%	
Bearing	Drive	6314C3				S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)				3/4 Eff.	93.1%
	Opp.	6213C3								NEMA Design	B Torque
Usable at	50Hz 50HP 380V 72.5A 981rpm S.F.: 1.0 Eff.: 92.9% Code: F										
	50Hz 50HP 400/415V 69.6/68.1A 983/984rpm S.F.: 1.0 Eff.: 93.2/93.4% Code: G/H										
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	865 lb		
4M-135702					Made in Korea H1					HD HYUNDAI ELECTRIC	
MARINE DUTY IEEE45											

WIRING DIAGRAM

D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES. LOW VOLTAGE D.O.L (Δ-RUN) HIGH VOLTAGE KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-129650	WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES. LOW VOLTAGE START INTERNAL CONNECTIONS RUN HIGH VOLTAGE KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-128838

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)	DWG SIZE	A4 (1:1)		
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	REF. NO	4M-135702 / 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 6 P 60 Hz

Full Load Torque : 219.97 lb.ft

Speed at Full Load : 1185 RPM

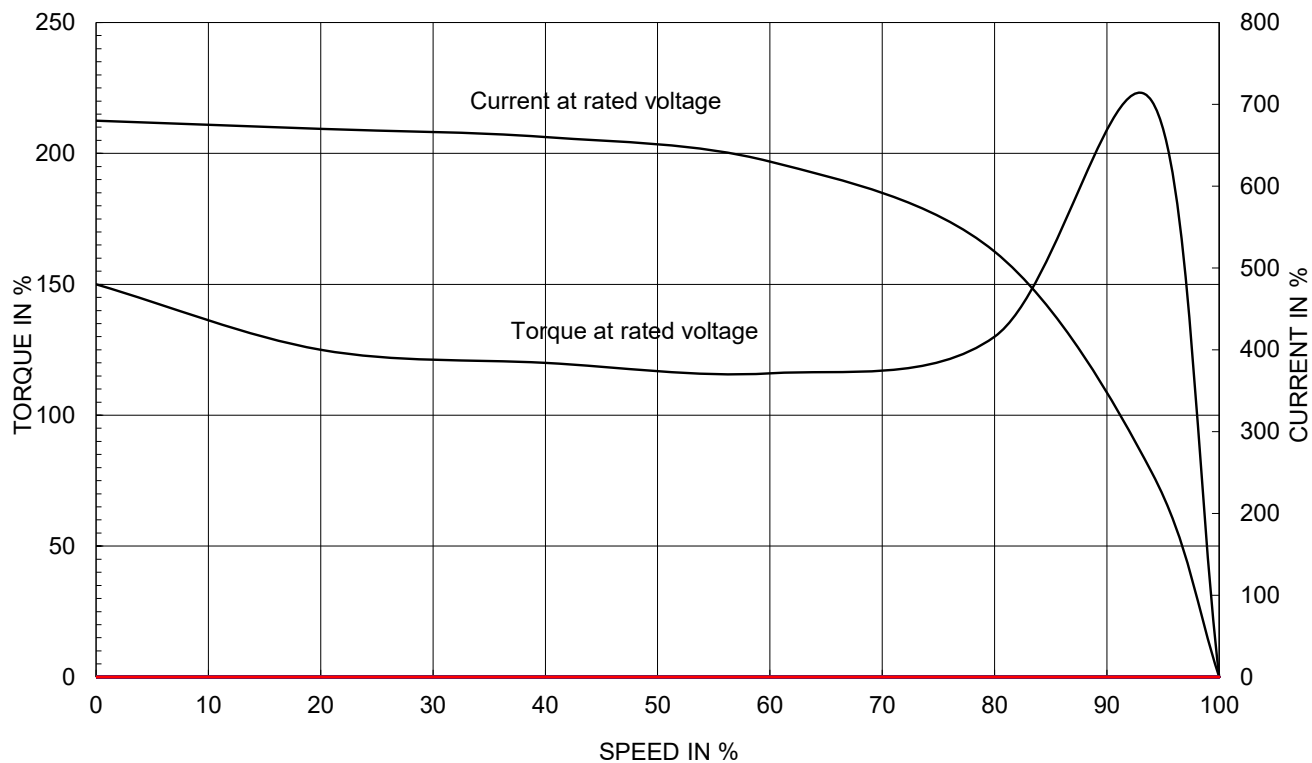
Load moment of Inertia (J) : 1500.593 lb.ft2

Rated Voltage	575V	460V	230V
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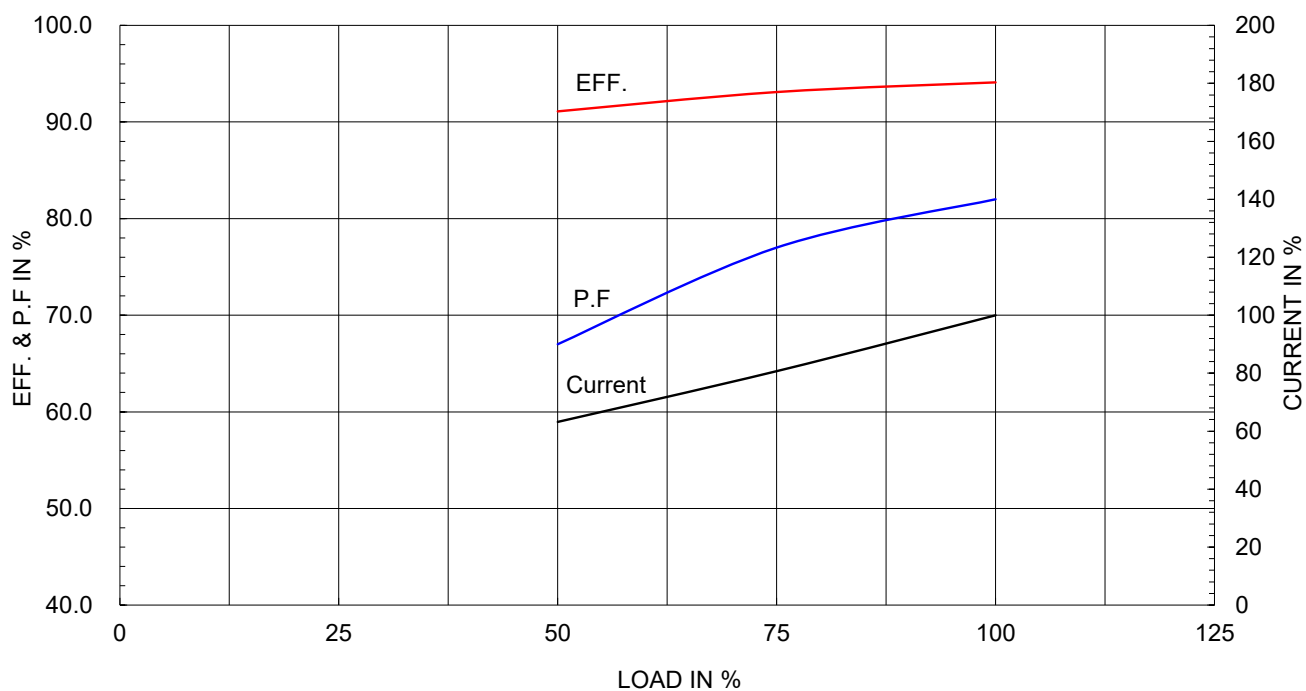
Motor moment of Inertia (J) : 32.000 lb.ft2

Full Load Current	48.1A	60.2A	120.4A
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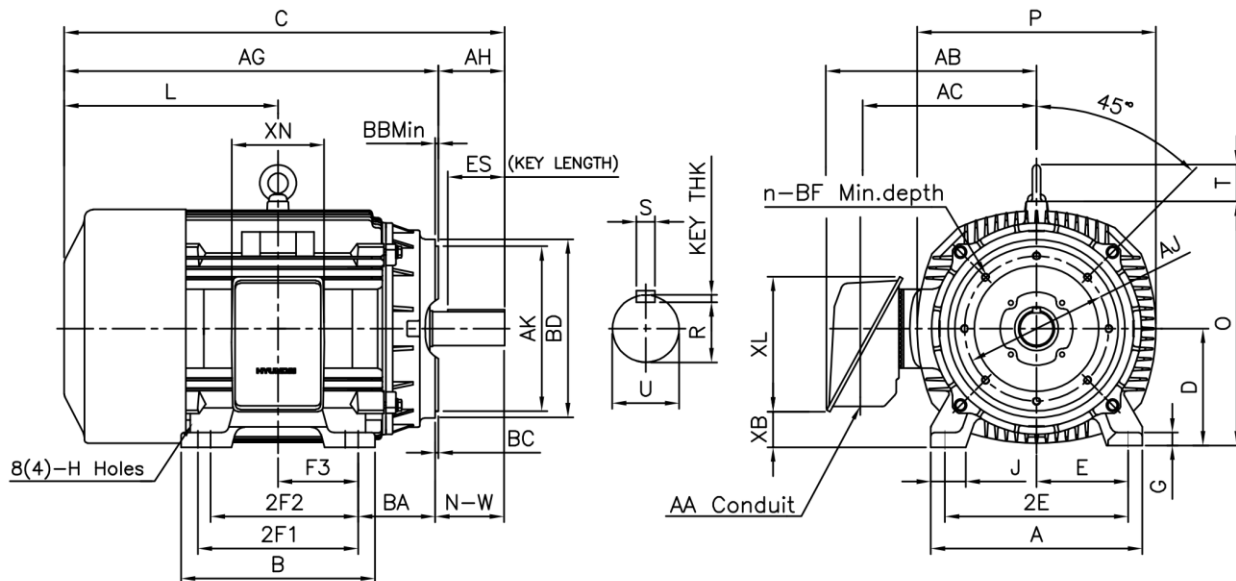
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



1	2	3	4
▽	50S	REV	DATE
▽▽	12.5S		
▽▽▽	3.2S		
▽▽▽▽	0.4S		



DIMENSIONS

Unit:inch

M O U N T I N G									C O N D U I T B O X						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
16.14	14.92	14.00	12.25	(11.25)	6.122	0.98	2.72	0.66	3.00	17.13	13.82	2.70	10.24	7.09	865

O V E R A L L								S H A F T				KEY	BEARING	
BA	C	D	L	O	P	T	AG	U	N-W	KEYWAY			THK.	DRIVE END
										R	ES	S		OPP. DRIVE END
5.88	34.01	9.00	16.13	18.50	17.75	2.80	28.13	2.375	5.88	2.021	4.28	0.625	0.625	6314C3

C - F A C E								
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH
11.00	12.50	0.25	0.25	13.54	5/8-11	0.94	8	5.62

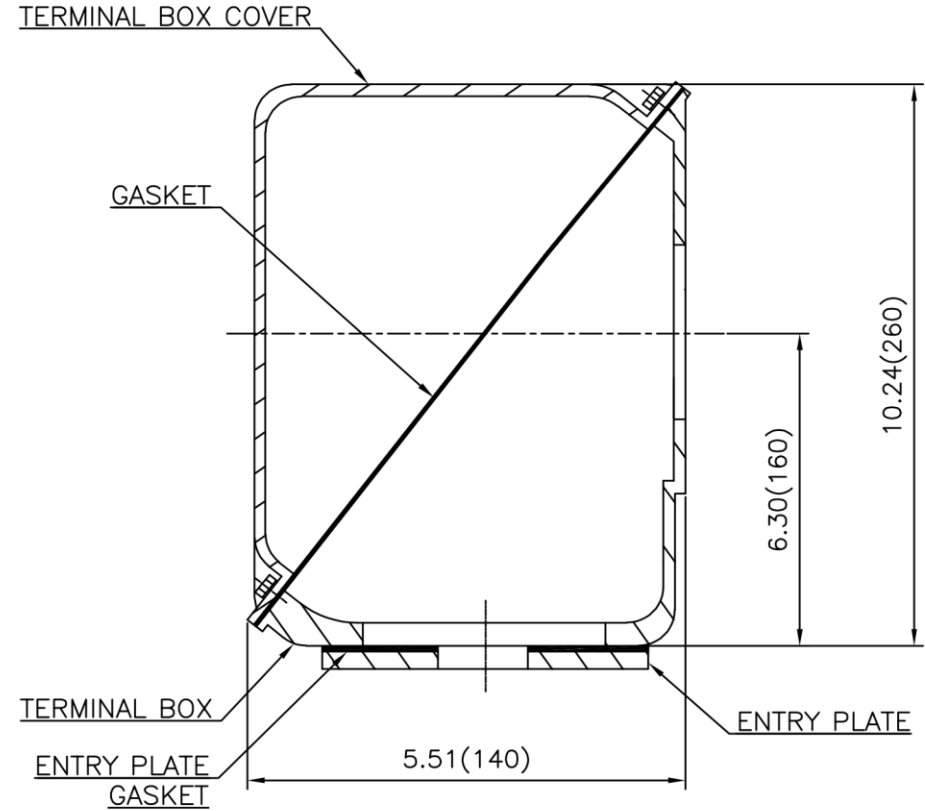
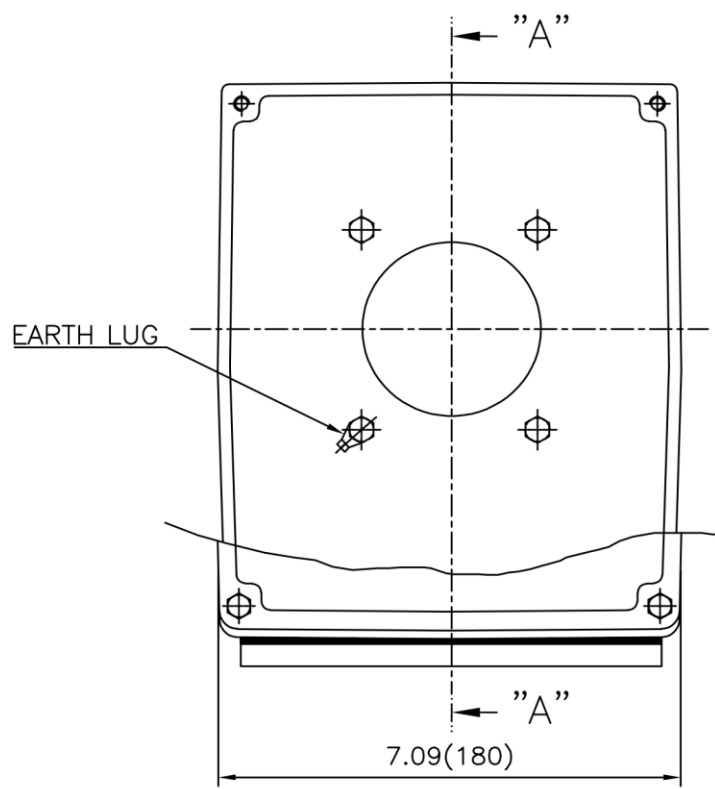
NOTE

- 1.Dimension "D" tolerance : +0.00inch ~ -0.03inch (143TC-365TC) : +0.000inch ~ -0.06inch (404TC-449TC)
- 2.Dimension "U" tolerance : +0.000inch ~ -0.0005inch (143TC-215TC): +0.000inch ~ -0.001inch (254TC-449TC)
- 3.Dimension "R" tolerance : +0.000inch ~ - 0.015inch
- 4.Dimension "AK" tolerance : +0.000inch ~ -0.003inch (143TC-286TC): +0.000inch ~ -0.005inch (324TC-449TC)

APPD BY	S.K.HAN	UNIT	inch	SUBJECT	NEMA 365TC	DWG SIZE	A4 < 1:1 >
CHKD BY	S.Y.KIM	SCALE	None	TITLE OUTLINE			
CHKD BY	Y.H.BAE	PROJEC'N	3rd Angle				
DSND BY	H.C.LIM	DATE	2019-06-05				
				REF. NO	350A1314AA	Sheet No.	of
				DWG NO	LM-T1365C4PL001	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		일반계관공차	
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.360 (CAST IRON)	DWG SIZE	A3 (1:1.2)
CHKD BY		SCALE	1/1.2	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	네슬의	DATE	2023-10-19	DWG NO	3M-248450	Revision No.	0

