

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.	HHI200-12-449TC	Item No.				Rev. No.	[]		
Project Name		Project No.				Quantity	sets		
GENERAL SPECIFICATION					PERFORMANCE DATA				
Frame Size	449TC		Rated Output	150 kW		200 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	185.0 A	231.2 A	462.4 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						
Motor Location	☐ Indoor ☐ Outdoor		50% Load		92.8 %				
Altitude	Less than 1,000 meter		75% Load		94.8 %				
Relative Humidity	Less than 80 %		100% Load		95.8 %				
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)						
Duty Type	Continuous (S1)		50% Load		0.700				
Service Factor	1.15		75% Load		0.800				
Mounting	B35		100% Load		0.850				
Bearing	Type	Anti-Friction	Speed at Full Load		1185 r.p.m				
	DE/N-DE	6318C3 / 6316C3	Torque						
	Lubricant	Grease(Polyrex-EM)	Full Load		891.77 lb.ft				
External Thrust	Not applicable		Locked-rotor**		140 %				
Coupling Method	☒ Direct ☐ V-belt		Breakdown**		220 %				
Shaft Extension	Single		Moment of Inertia (J)						
Terminal	Main	Cast Iron	Load(Max.)		5,321.561 lb.ft2				
Box	Aux.	No	Motor		153.550 lb.ft2				
	Location	Refer to Outline Drawing	Sound Pressure Level (No-load & mean value at 1m from motor)						
Application			80 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-T1449C4PL001	2510 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 (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 : T3A(180°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.

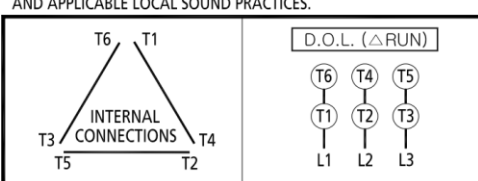
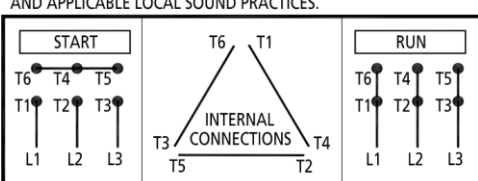
MAIN NAMEPLATE

4.72

2.36

CROWN TRITON											
Premium Efficiency AC 3 Phase Motor										C Energy Verified	
200HP		6P		460V		Cat. No.		HHI200-12-449TC			
Model		HLS449PR0608				INS. Class		F		HD-F1	
Type		HLS		Duty		CONT		Code		G	
Frame		449TC		Encl.		TEFC		S.F.		1.15	
Bearing		Drive		6318C3		S.F.100 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		Amps		231.2A	
		Opp.		6316C3				Hertz		60Hz	
Usable at		50Hz 200HP 380V 281.5A 982rpm S.F.: 1.0 Eff.: 94.7% Code: F									
		50Hz 200HP 400/415V 268.1/259.7A 984/985rpm S.F.: 1.0 Eff.: 95.0/95.2% Code: F/G									
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		(Gr. E: Up to 320FR)		Frame		140~320FR	
		CLASS I, Zone 2, Gr. IIA, IIB, & IIC						Amb. 40°C		T3C (160°C)	
								Amb. 55°C		T3A (180°C)	
No.		-		Date		-		Weight		2510 lb	
4M-135702						Made in Korea H1					
		MARINE DUTY IEEE45									

WIRING DIAGRAM

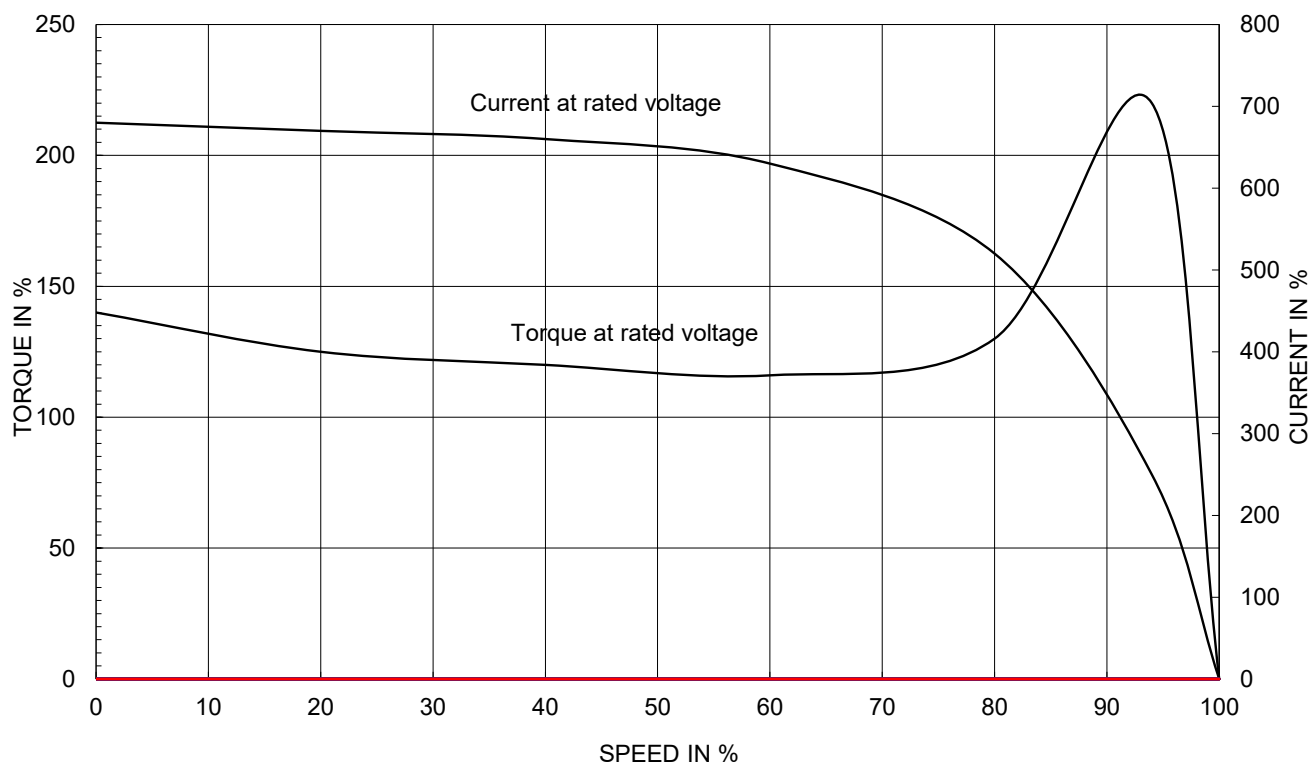
D.O.L (INVERTER & SOFT STARTER)	WYE-DELTA (Y-D)
 WARNING IMPROPER INSTALLATION, CONNECTION, OPERATION, GROUNDING OF THIS MOTOR MAY CAUSE SERIOUS INJURY TO PERSONNEL OR MOTOR FAILURE. READ INSTRUCTIONS CAREFULLY. GROUNDING SHOULD BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE LOCAL SOUND PRACTICES.  KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-129326	 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.  KEEP FINGERS AND FOREIGN OBJECTS AWAY FROM OPENINGS AND ROTATING PARTS DISCONNECT ALL POWER SOURCES BEFORE TOUCHING INTERNAL PARTS TO AVOID ELECTRICAL SHOCK. 4M-128852

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	NAMEPLATE DRAWING			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle				
DSND BY	S.H.LEE	DATE	2024.06.07				
				REF. NO	4M-135702 / 4M-129326	Sheet No.	of
				DWG NO	NP-HHI200-12-449TC	Revision No.	0

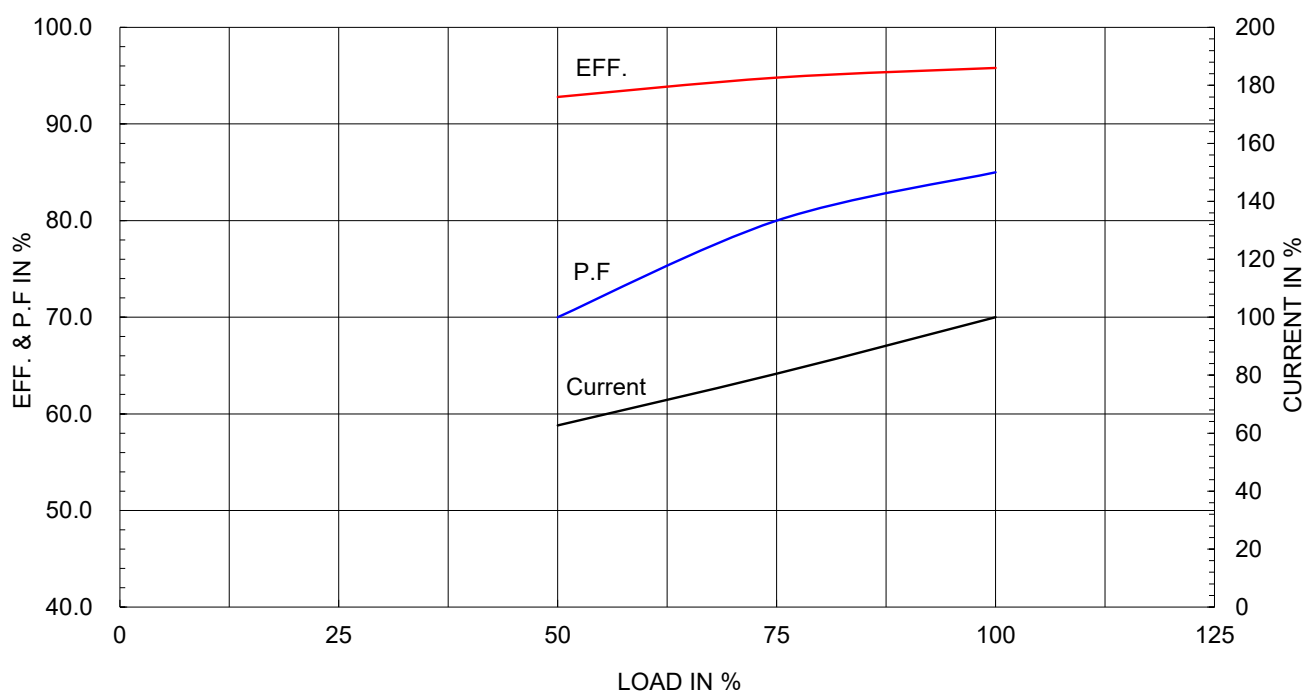
Type :	PJP	
Full Load Torque :	891.77	lb.ft
Load moment of Inertia (J) :	5321.561	lb.ft2
Motor moment of Inertia (J) :	153.550	lb.ft2

150kW	200HP	6 P	60 Hz
Speed at Full Load :			1185 RPM
Rated Voltage	575V	460V	230V
Full Load Current	185.0A	231.2A	462.4A

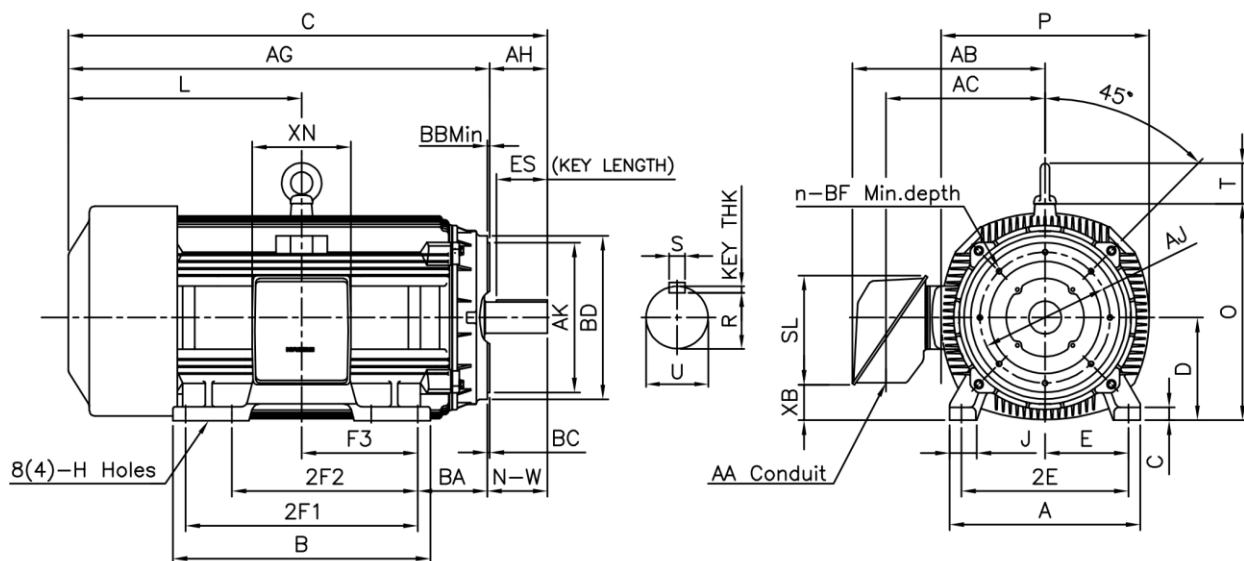
SPEED VS TORQUE & CURRENT CURVE



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									CONDUIT BOX						APPROX. WGT.(LB)
A	B	2E	2F1	2F2	F3	G	J	H	AA	AB	AC	XB	XL	XN	
20.51	27.72	18.00	25.00	(20.00)	12.500	1.42	3.07	0.81	3.00	21.26	18.03	3.83	11.65	10.63	2510

O V E R A L L										S H A F T			KEY	B E A R I N G	
BA	C	D	L	O	P	T	AG	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
										R	ES	S			
7.50	53.83	11.00	25.33	23.19	22.44	4.33	45.33	3.375	8.50	2.880	6.93	0.875	0.875	6318C3	6316C3

C - F A C E									
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH	
14.00	16.00	0.25	0.25	17.48	5/8-11	0.94	8	8.25	

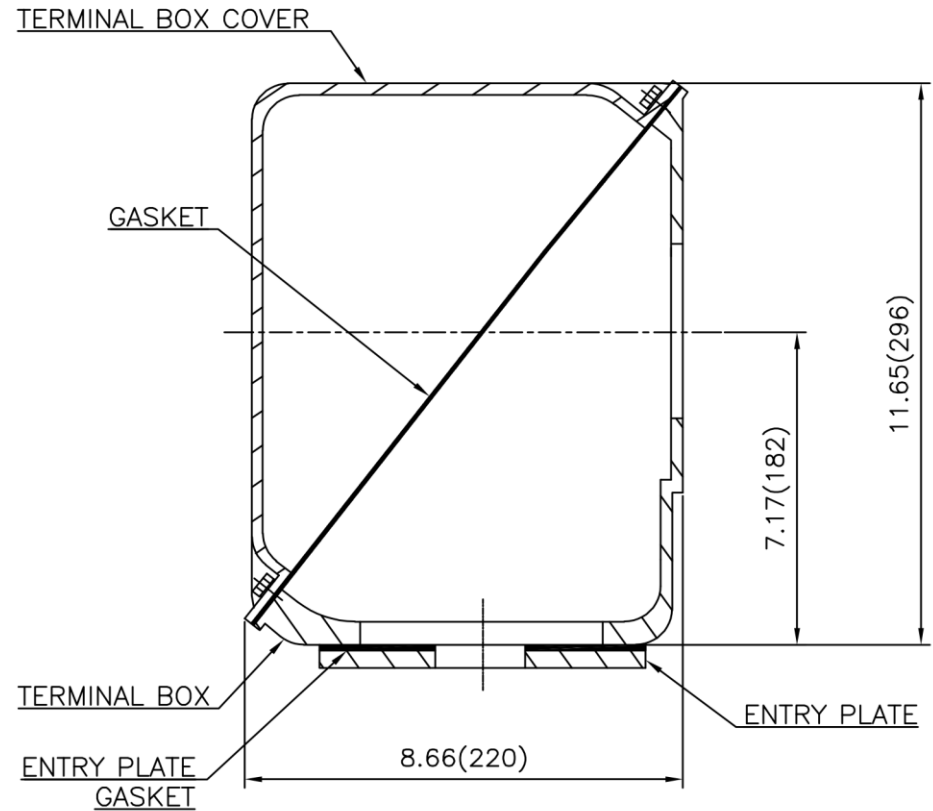
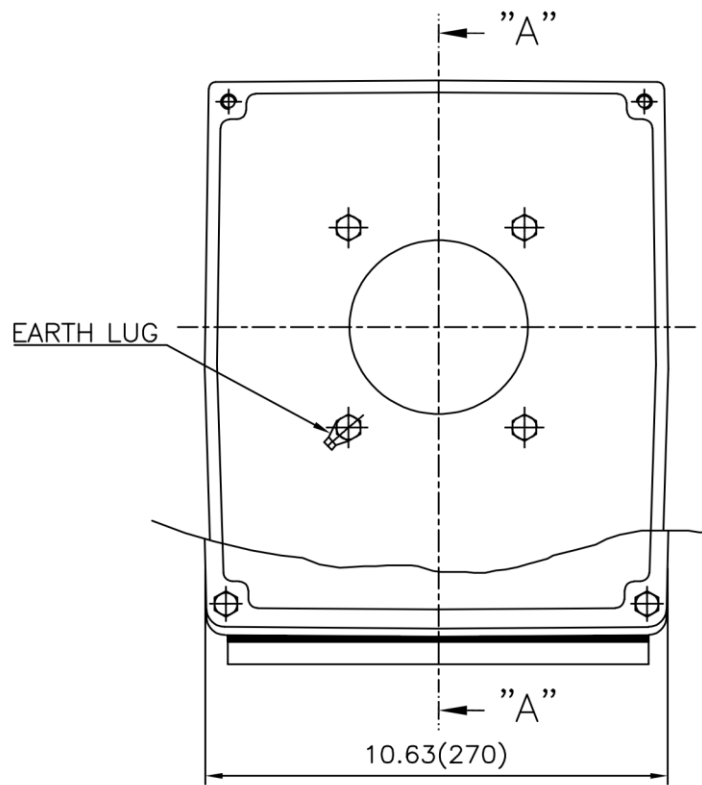
NOTE

- 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 449TC	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	350A1320AA	Sheet No.	of
				DWG NO	LM-T1449C4PL001	Revision No.	0

Cls. I&II, Div. 2

IEEE 841



SEC. "A" - "A"

▽	50S
▽▽	12.5S
▽▽▽	3.2S
▽▽▽▽	0.4S

REV	DATE	CONTENTS	REV'D BY	CHK'D BY	CHK'D BY	APP'D BY	일반기공표	일반계관공표
1							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. 400-440 (CAST IRON)	DWG SIZE	
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	네슬피	DATE	2023-10-19	DWG NO	3M-248451	Revision No. 0	

