

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.	HHI150-36-445TSCRD	Item No.	Rev. No. []
Project Name		Project No.	Quantity sets

GENERAL SPECIFICATION		PERFORMANCE DATA				
Frame Size	445TSC	Rated Output	110 kW 150 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	129.2 A	161.5 A 323.0 A	
Insulation Class	F		Locked-rotor**	700 %	700 % 700 %	
Temp. Rise at full load (by resistance method)		Efficiency				
at 1.0 S.F	80 deg. C	50% Load		92.0 %		
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		94.0 %		
Altitude	Less than 1,000 meter	100% Load		95.0 %		
Relative Humidity	Less than 80 %	Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)	50% Load		0.750		
Duty Type	Continuous (S1)	75% Load		0.850		
Service Factor	1.15	100% Load		0.900		
Mounting	B5	Speed at Full Load		3570 r.p.m		
Bearing	Type	Anti-Friction				
	DE/N-DE	6314C3 / 6314C3				
	Lubricant	Grease(Polyrex-EM)				
External Thrust	Not applicable					
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt	Torque				
Shaft Extension	Single	Full Load		217.1 lb.ft		
Terminal Box	Main	Locked-rotor**		120 %		
	Aux.	Breakdown**		220 %		
Box Location	Refer to Outline Drawing	Moment of Inertia (J)				
Application		Load(Max.)		293.072 lb.ft2		
Area classification	Hazardous	Motor		33.660 lb.ft2		
Type of Ex-Protection	Class I&II, Division 2	Sound Pressure Level (No-load & mean value at 1m from motor)				
Applicable Standard	NEMA MG1, CSA C390			92 dB(A)		
ACCESSORIES		Vibration				3.8 mm/sec (peak)
		Permissible number of consecutive starts		Cold	3 times	
				Hot	2 times	
		Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		
SPARE PARTS		SUBMITTAL DRAWING				
		Outline Dimension Drawing		Motor Weight(Approx.)		
		B5	LM-T1445C5CL001	1930 lb.		
REMARK		<ol style="list-style-type: none"> 1. Premium efficiency according to NEMA MG1 2. Inverter Duty @ 1.0 Service Factor & F Temperature rise <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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
Premium Efficiency AC 3 Phase Motor

150HP	2P	460V	Cat. No.	HHI150-36-445TSCRD		
Model	HLS445PR02		INS. Class	F	HD-F1	Amps
Type	HLS	Duty	CONT	Code	G	Amb. 40°C
Frame	445TSC	Encl.	TEFC	S.F.	1.15	RPM
Bearing	Drive	6314C3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff.
	Opp.	6314C3				NEMA Design
Usable at	50Hz 150HP 380V 196.5A 2962rpm S.F.: 1.0 Eff.: 94.7% Code: E					
	50Hz 150HP 400/415V 186.5/179.8A 2966/2969rpm S.F.: 1.0 Eff.: 94.9/95% Code: F/G					
CSA Certified for	Model	LATER		Type	PJP	
	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2 Gr. E, F & G (Gr. E : Up to 320FR)		Temp. Code (sine wave)	Amb. 40°C	Amb. 55°C
				Frame	140~320FR	360~400FR
					T3C (160°C)	T3B (165°C)
					T3A (180°C)	T3A (180°C)
					T3 (200°C)	
No.	-		Date	-		Weight
	4M-135702			Made in Korea H1		

2.36

MARINE DUTY IEEE45

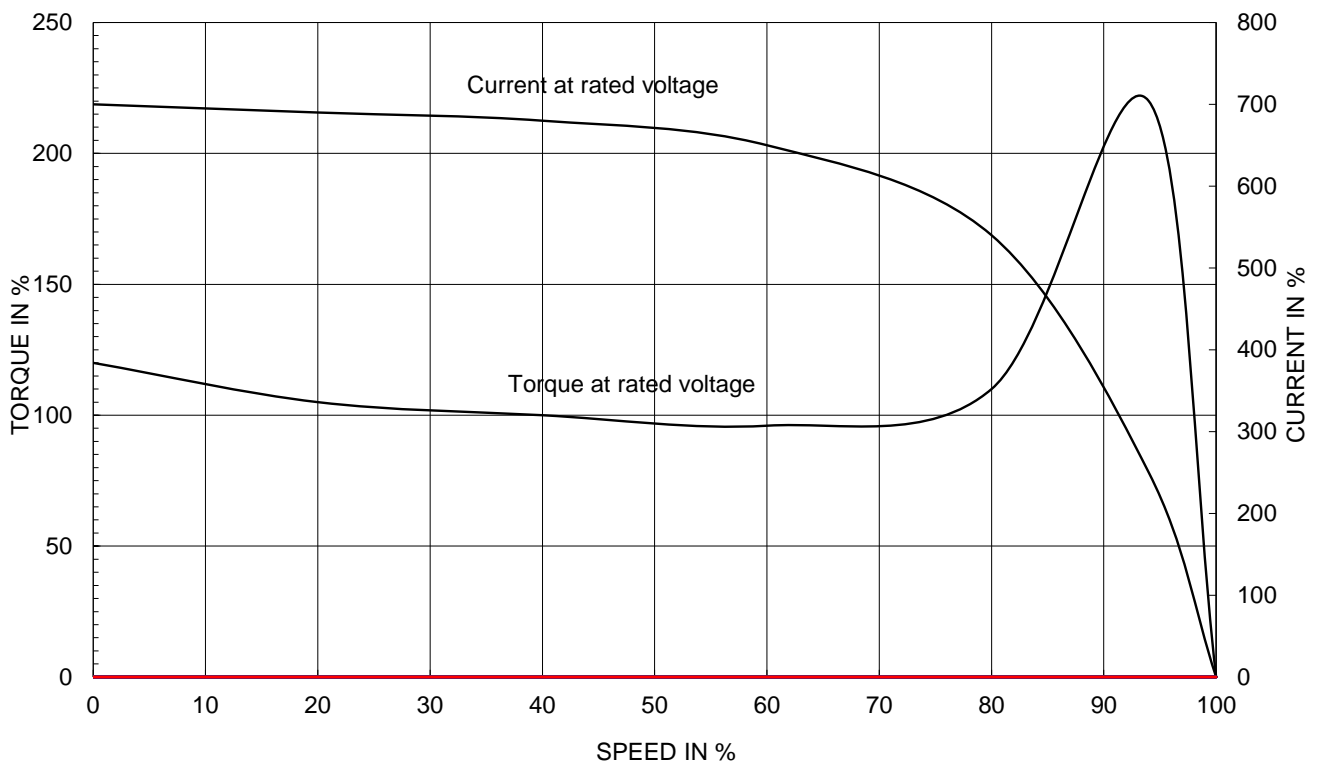


APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HHI, 364-449)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE			A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE NAMEPLATE DRAWING		
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-135702	Sheet No. of
				DWG NO	NP-HHI150-36-445TSCRD	Revision No. 0

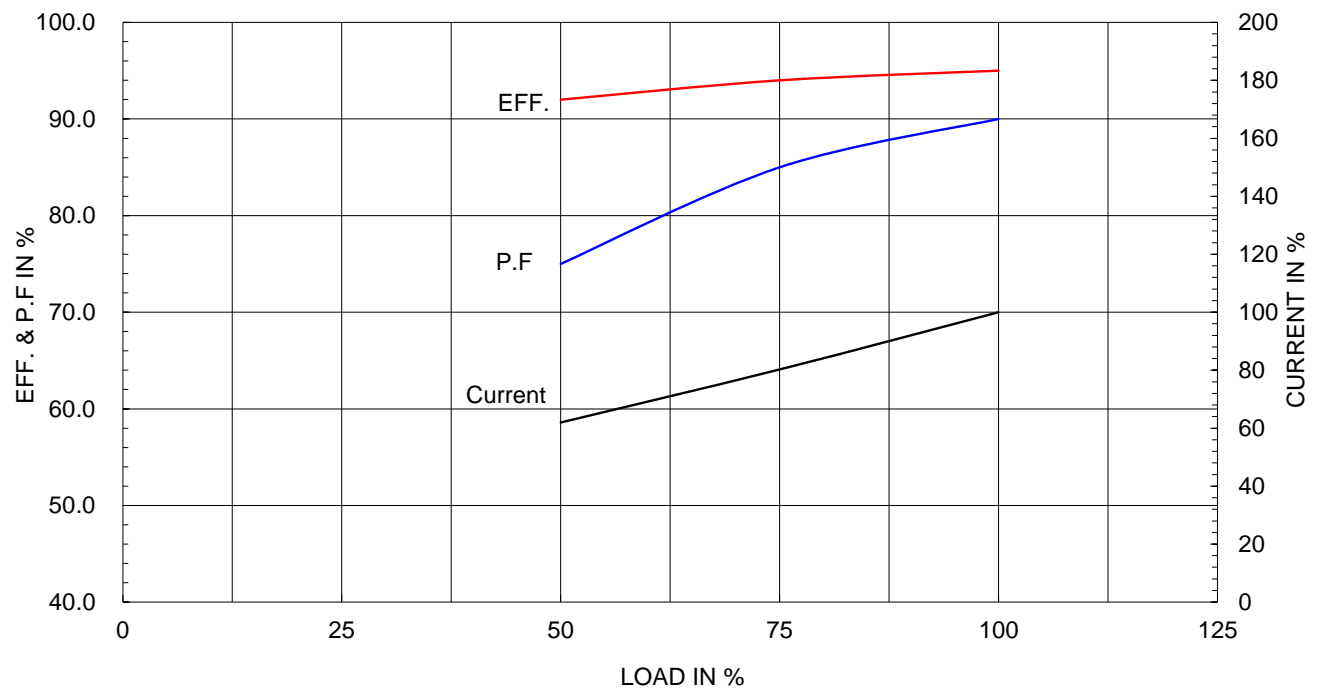
Type :	PJP
Full Load Torque :	217.1 lb.ft
Load moment of Inertia (J) :	293.072 lb.ft2
Motor moment of Inertia (J) :	33.660 lb.ft2

110kW 150HP	2 P	60 Hz
Speed at Full Load :		3570 RPM
Rated Voltage	575V	460V 230V
Full Load Current	129.2A	161.5A 323.0A

SPEED VS TORQUE & CURRENT CURVE



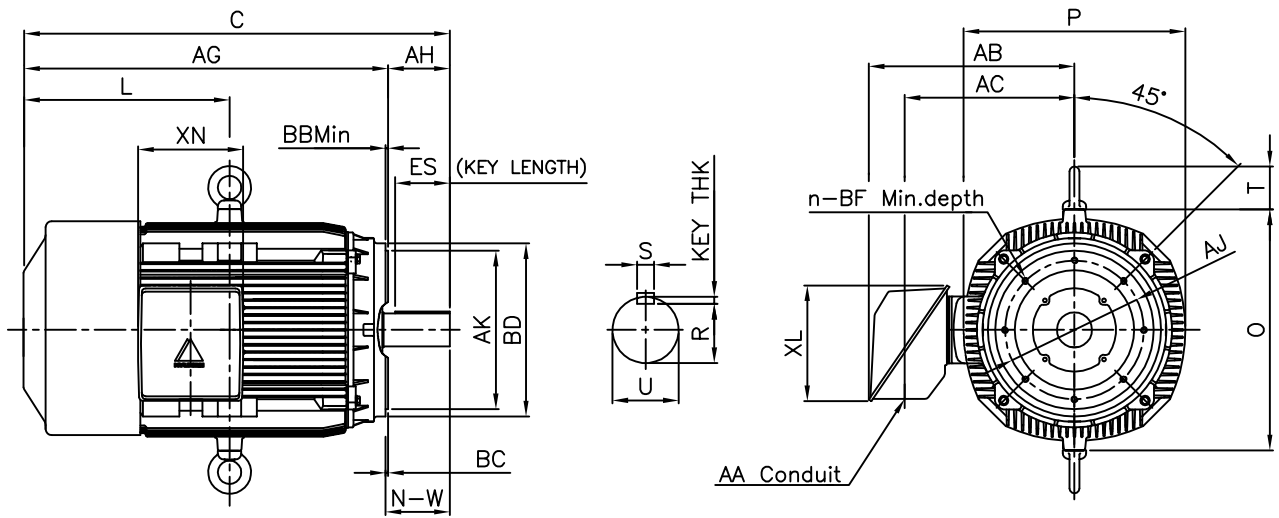
OUTPUT VS EFF., P.F & CURRENT CURVE



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

THIS DRAWING IS PROPRIETARY TO HYUNDAI ELECTRIC. NO PART OF THIS DRAWING MAYBE REPRODUCED WITHOUT THE PERMISSION OF HYUNDAI ELECTRIC.

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



DIMENSIONS

Unit : inch

C - F A C E										CONDUIT BOX					APPROX. WGT.(LB)
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH	AA	AB	AC	XL	XN		
14.00	16.00	0.25	0.25	17.48	5/8-11	0.94	8	4.50	3.00	21.26	18.03	11.65	10.63	1930	

O V E R A L L						S H A F T					KEY	BEARING	
C	L	O	P	T	AG	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
								R	ES	S			
41.46	20.96	24.33	22.44	4.33	36.71	2.375	4.75	2.021	3.03	0.625	0.625	6314C3	6314C3

NOTE

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

APPD BY	S.K.HAN	UNIT	INCH	SUBJECT	NEMA 445TSC	DWG SIZE	A4 (1:1)		
CHKD BY	S.Y.KIM	SCALE	NONE			TITLE	OUTLINE		
CHKD BY	Y.H.BAE	PROJEC'N	3각법(3rd Angle)						
DSND BY	N.R.LEE	DATE	2019-06-03						
				REF. NO	350A1518BA	Sheet No.	of		
				DWG NO	LM-T1445C5CL001	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

일반기준공차		일반재판공차	
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	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	DATE	2023-10-19	REF. NO	Sheet No. of
DSND BY	배승희	DATE	2023-10-19	DWG NO	3M-248451	Revision No.	0

