

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.	HHI150-18-445TCRD	Item No.	Rev. No.	[]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	445TC		Rated Output	110 kW		150 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	131.0 A	163.8 A
Insulation Class	F			Locked-rotor**	700 %	700 %
Temp. Rise at full load (by resistance method)			Efficiency			
at 1.0 S.F	80 deg. C		50% Load		92.8 %	
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load		94.8 %	
Altitude	Less than 1,000 meter		100% Load		95.8 %	
Relative Humidity	Less than 80 %		Power Factor(p.u)			
Ambient Temp.	40 deg. C (Max.)		50% Load		0.730	
Duty Type	Continuous (S1)		75% Load		0.830	
Service Factor	1.15		100% Load		0.880	
Mounting	B5		Speed at Full Load	1785 r.p.m		
Bearing	Type	Anti-Friction	Torque			
	DE/N-DE	6318C3 / 6316C3	Full Load		434.1 lb.ft	
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**		140 %	
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.)		1,855.724 lb.ft2	
Terminal Box	Main	Cast Iron	Motor		67.430 lb.ft2	
	Aux.	No	Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing	85 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

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B5	LM-T1445C5PL001	1800 lb.

SPARE PARTS

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

CROWN TRITON
Premium Efficiency AC 3 Phase Motor

150HP	4P	460V	Cat. No.	HHI150-18-445TCRD				
Model	HLS445PR04		INS. Class	F	HD-F1	Amps	163.8	
Type	HLS	Duty	CONT	Code	G	Amb.	40°C	
Hertz	60Hz							
Frame	445TC	Encl.	TEFC	S.F.	1.15	RPM	1785	
NEMA Nom. Eff.	95.8%							
Bearing	Drive	6318C3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)			3/4 Eff.	94.8%
	Opp.	6316C3					NEMA Design	B
Usable at	50Hz 150HP 380V 197.9A 1480rpm S.F.: 1.0 Eff.: 95.2% Code: E							
	50Hz 150HP 400/415V 189.1/184.4A 1482/1484rpm S.F.: 1.0 Eff.: 95.5/95.6% Code: F/G							
CSA Certified for	Model	LATER		Type	PJP			
	CLASS I, Div. 2, Gr. A, B, C & D CLASS I, Zone 2, Gr. IIA, IIB, & IIC	CLASS II, Div. 2 Gr. E, F & G (Gr. E : Up to 320FR)		Temp. Code (sine wave)	Frame	140~320FR	360~400FR	440FR
		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	1800 lb	

4M-135702
Made in Korea H1

2.36

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			

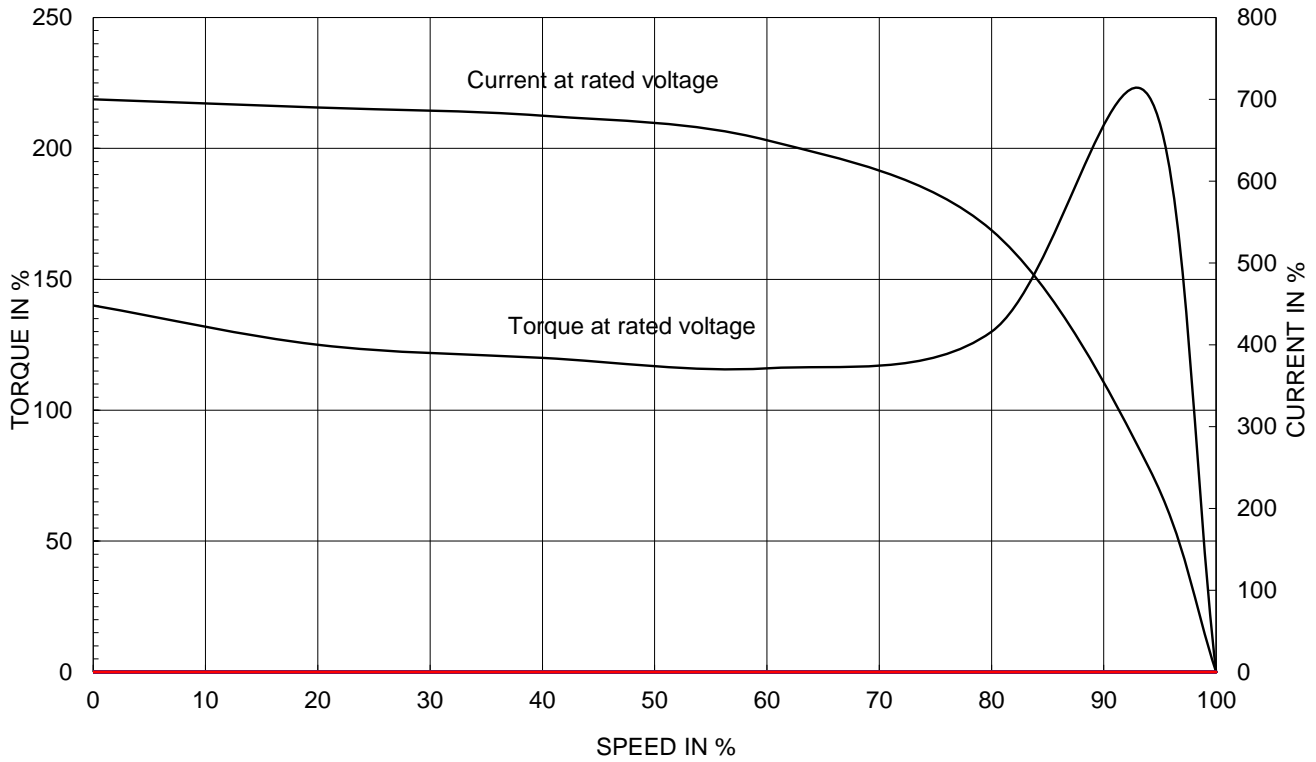


REF. NO	4M-135702	Sheet No.	of
DWG NO	NP-HHI150-18-445TCRD	Revision No.	0

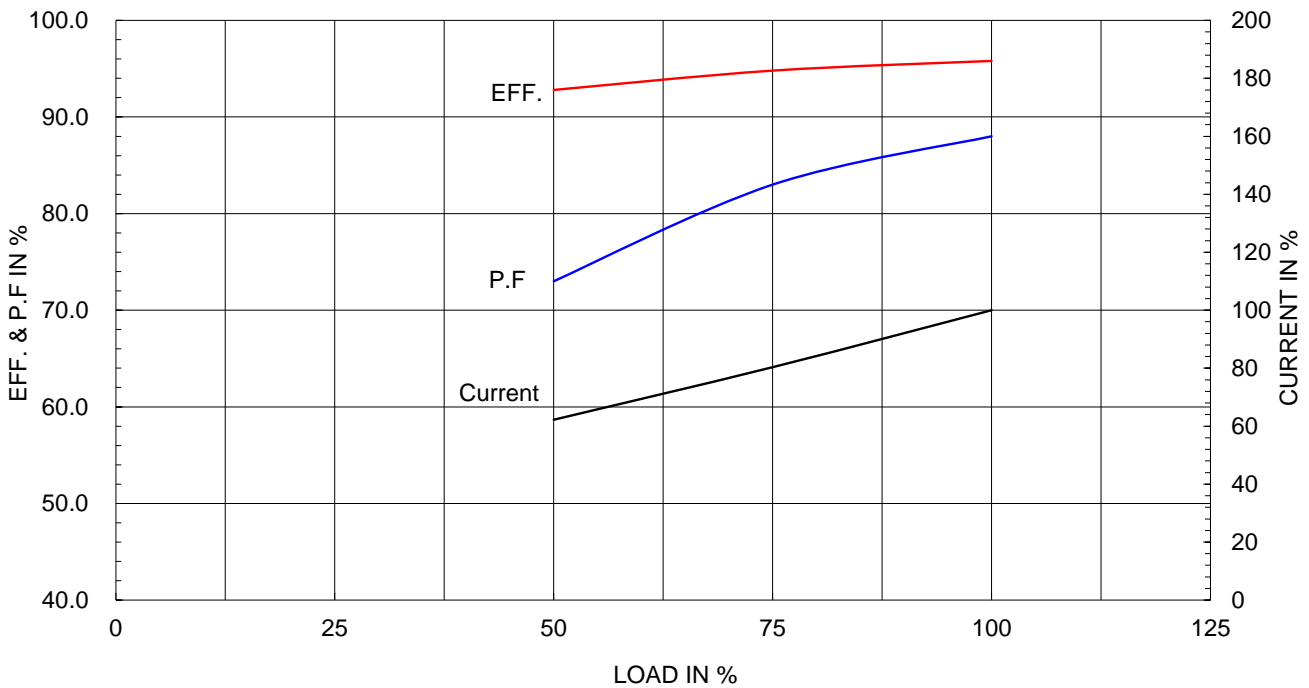
Type :	PJP
Full Load Torque :	434.1 lb.ft
Load moment of Inertia (J) :	1855.724 lb.ft2
Motor moment of Inertia (J) :	67.430 lb.ft2

110kW 150HP	4 P	60 Hz
Speed at Full Load :		1785 RPM
Rated Voltage	575V	460V 230V
Full Load Current	131.0A	163.8A 327.5A

SPEED VS TORQUE & CURRENT CURVE



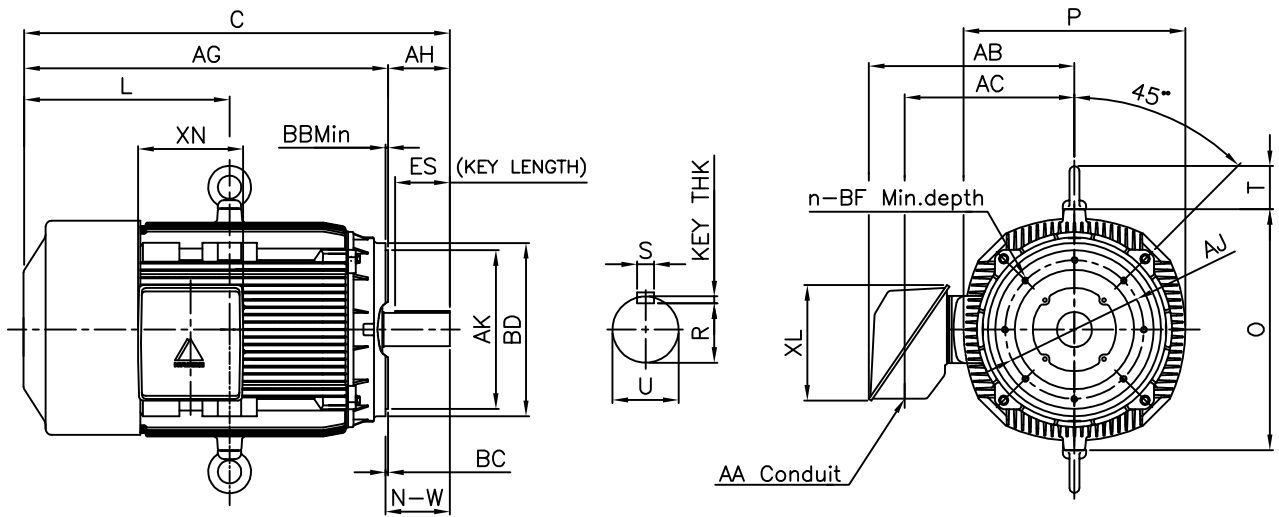
OUTPUT VS EFF., P.F & CURRENT CURVE



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

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▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	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	8.25	3.00	21.26	18.03	11.65	10.63	1800

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				
45.21	20.96	24.33	22.44	4.33	36.71	3.375	8.50	2.880	6.93	0.875	0.875	6318C3	6316C3	

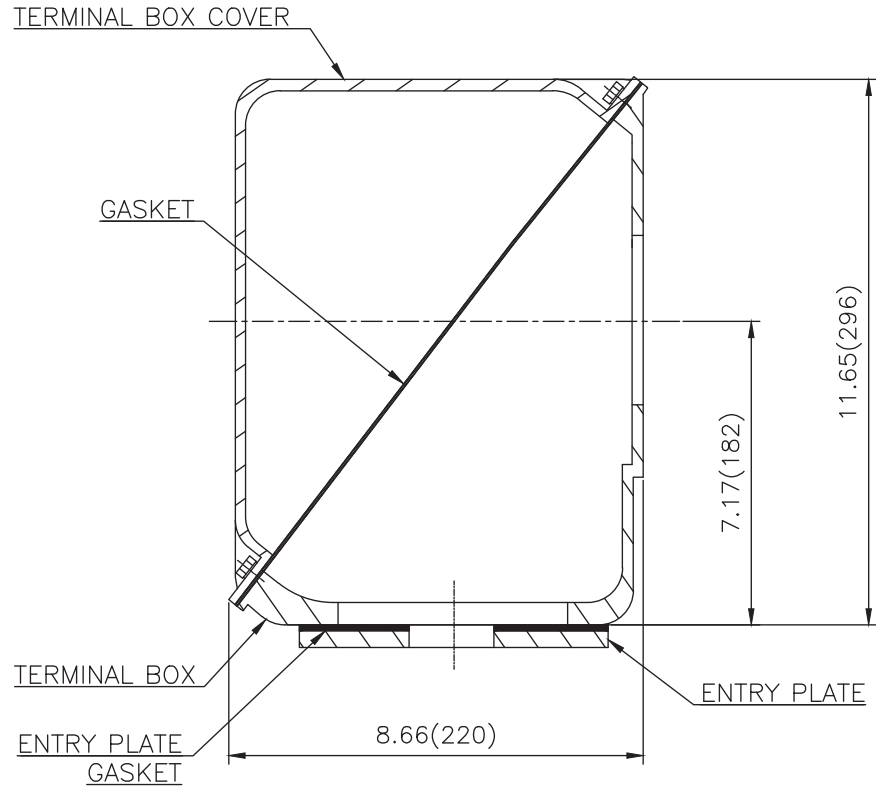
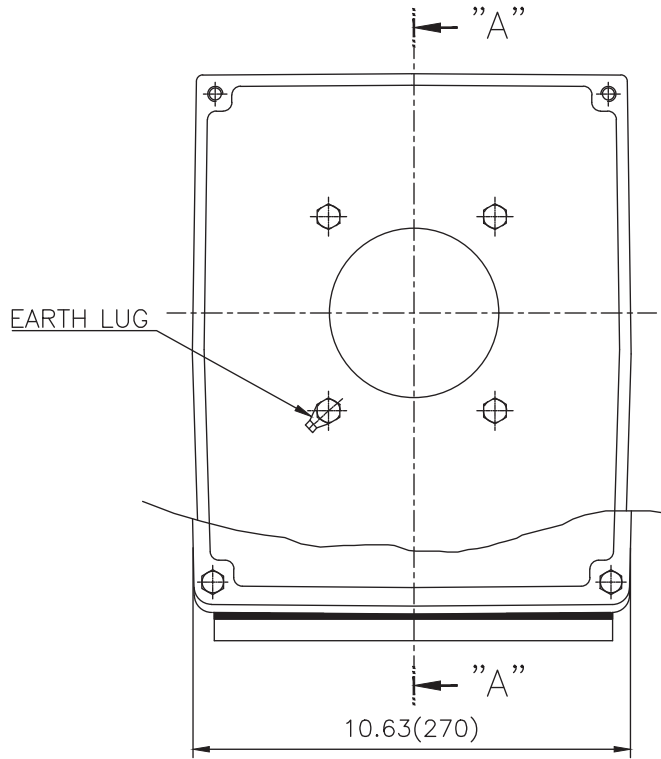
NOTE

- 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 445TC	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				350A1518AA	Sheet No.		of		
DWG NO				LM-T14.45C5PL001	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	REF. NO		Sheet No.	of
DSND BY	배승희	DATE	2023-10-19	DWG NO	3M-248451	Revision No.	0

