

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

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	445T	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 %	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	B3	Speed at Full Load		1785 r.p.m		
Bearing	Type	Anti-Friction		Torque		
	DE/N-DE	NU318 / 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		
	Aux.	No		67.430 lb.ft2		
	Location	Refer to Outline Drawing				
Application		Sound Pressure Level (No-load & mean value at 1m from motor)				
Area classification	Hazardous	85 dB(A)				
Type of Ex-Protection	Class I&II, Division 2	Vibration				
Applicable Standard	NEMA MG1, CSA C390	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)		

ACCESSORIES

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing		Motor Weight(Approx.)	
B3		LM-T1445B3PL001	1640 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
Premium Efficiency AC 3 Phase Motor

150HP	4P	460V	Cat. No.	HHI150-18-445T			
Model	HLS445SR04		INS. Class	F	HD-F1	Amps	163.8
Type	HLS	Duty	CONT	Code	G	Amb.	40°C
Hertz	60Hz						
Frame	445T	Encl.	TEFC	S.F.	1.15	RPM	1785
NEMA Nom. Eff.	95.8%						
Bearing	Drive	NU318		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		
	Temp. Code (sine wave)	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)		Frame	140~320FR
				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	1640 lb

4M-135702
Made in Korea H1

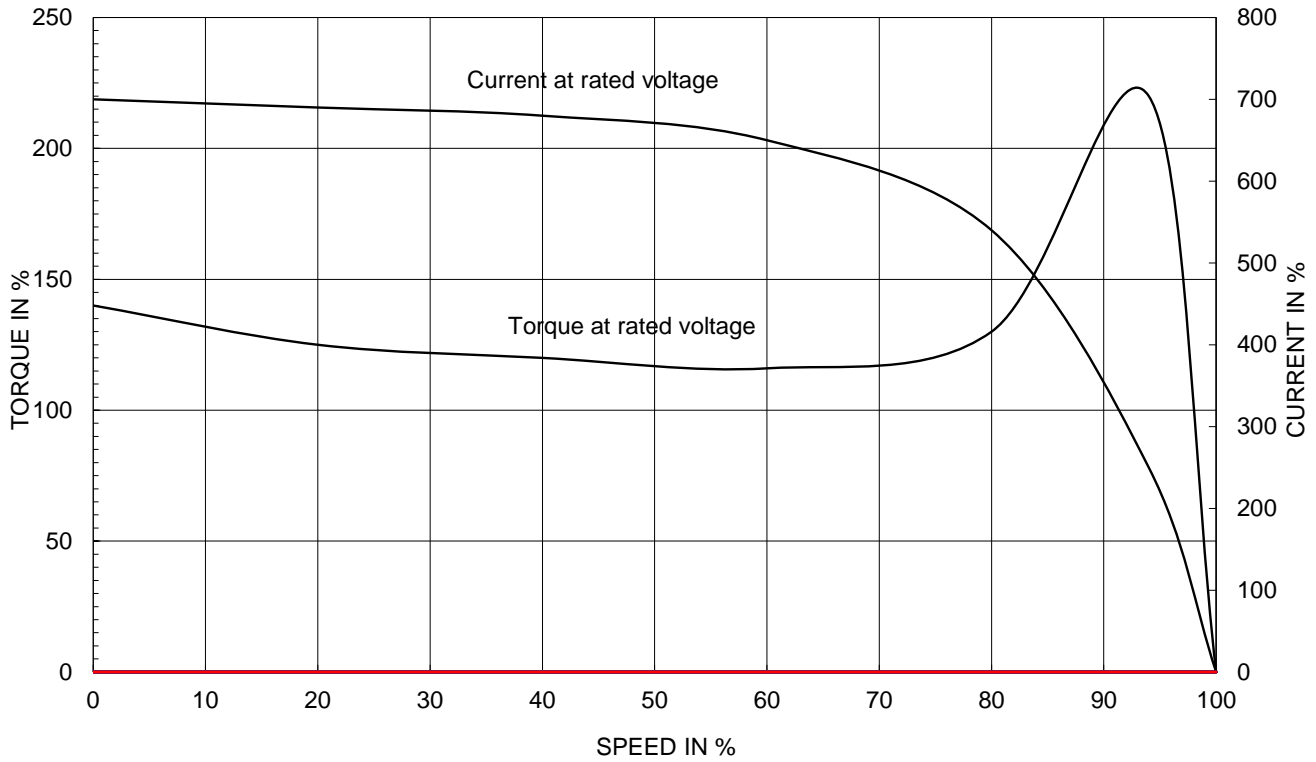
2.36

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-HHI150-18-445T	Revision No. 0

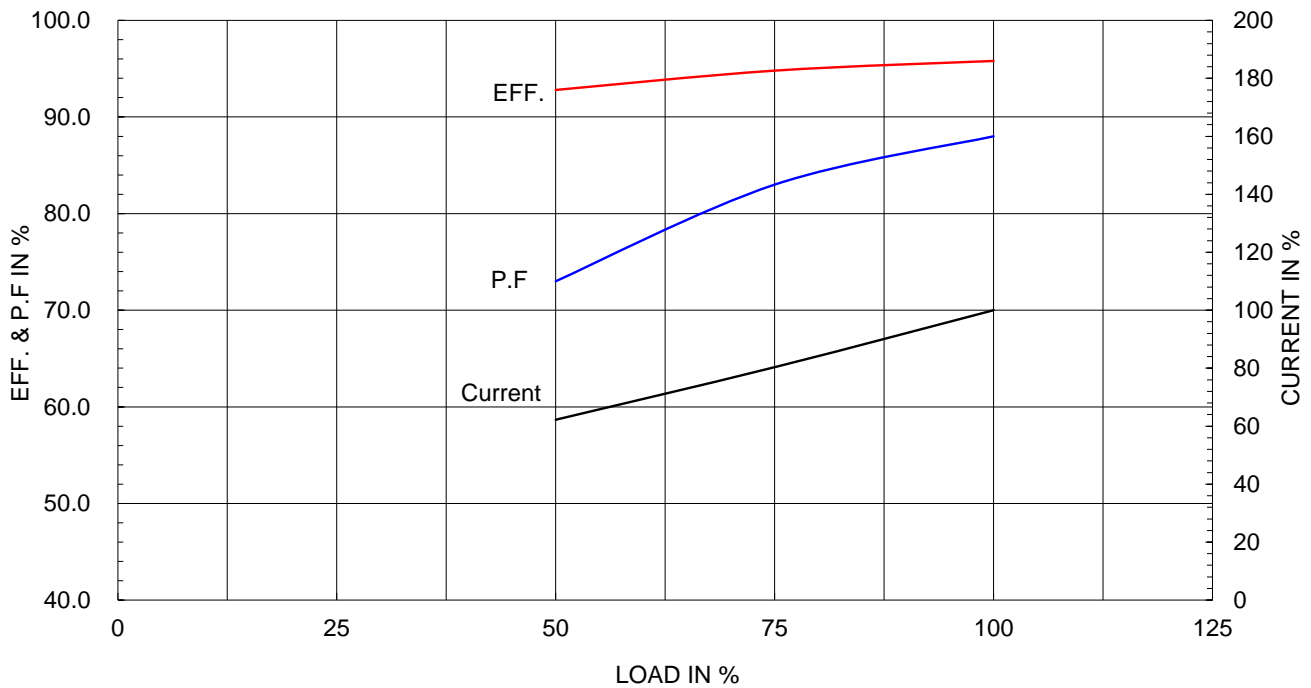
Type :	PJP
Full Load Torque :	434.1 lb.ft
Load moment of Inertia (J) :	1855.724 lb.ft ²
Motor moment of Inertia (J) :	67.430 lb.ft ²

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



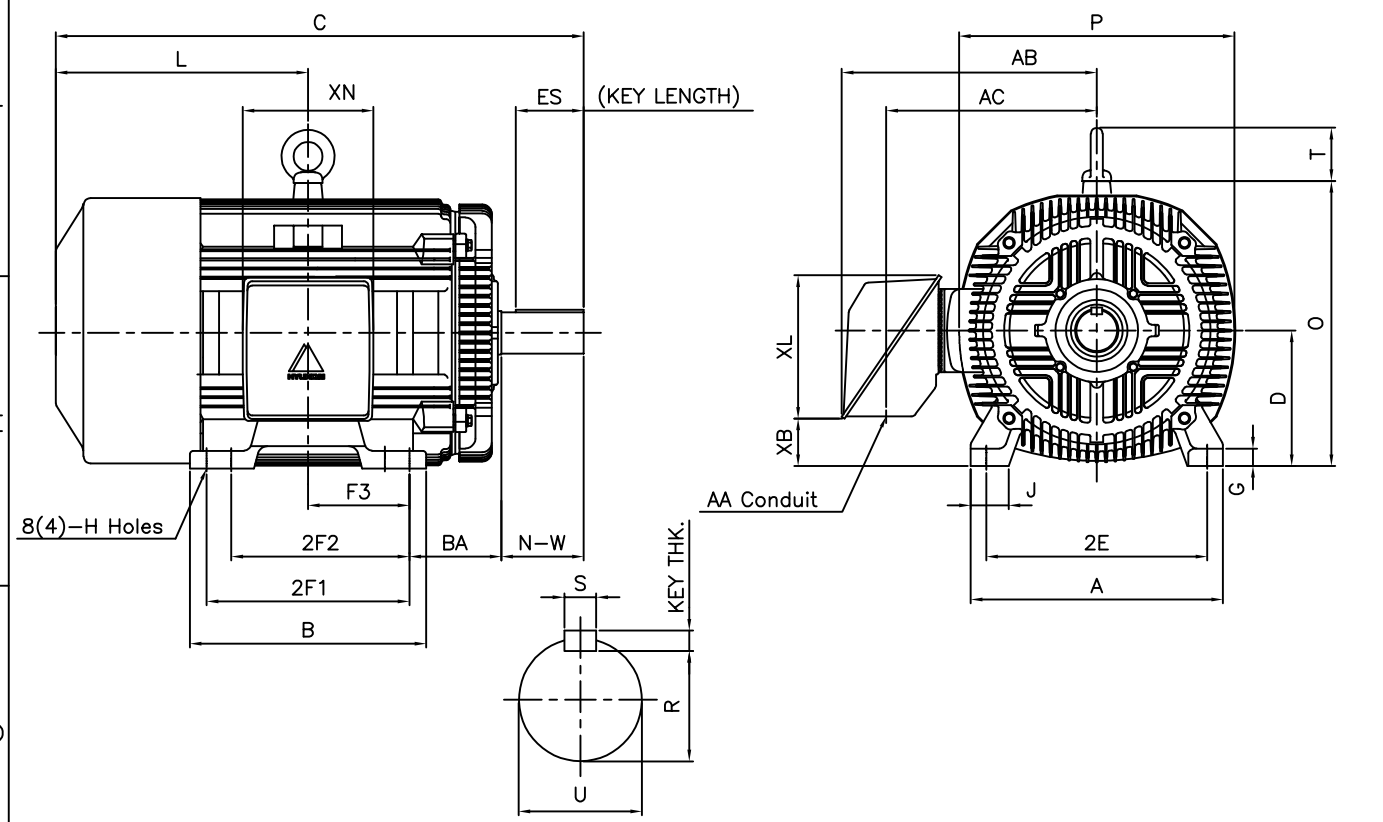
OUTPUT VS EFF., P.F & CURRENT CURVE



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

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	
20.51	19.21	18.00	16.50	(14.50)	8.248	1.42	3.07	0.81	3.00	21.26	18.03	3.83	11.65	10.63	1640

O V E R A L L							S H A F T					KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
7.50	45.21	11.00	20.96	23.19	22.40	4.33	3.375	8.50	2.880	6.93	0.875	0.875	6318C3 or NU318	6316C3

NOTE

1. Dimension "D" tolerance : +0.00inch - 0.03inch (143T-365T) ; +0.000inch - 0.06inch (404T-449T)
2. Dimension "U" tolerance : +0.000inch - 0.005inch (143T-215T), +0.000inch - 0.001inch (254T-449T)
3. Dimension "R" tolerance : +0.000inch - 0.015inch

APPD BY	S.K.HAN	UNIT	INCH	SUBJECT	445T	DWG SIZE	A4 (1:1)		
Q.P CHK	I.K.KIM	SCALE	NONE	TITLE	OUTLINE	REF. NO	350A1118AA		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle					Sheet No.	of
DSND BY	B.Y.KIM	DATE	2019.06.05					DWG NO	LM-T1445B3PL001
				REF. NO	350A1118AA	Sheet No.	of		
				DWG NO	LM-T1445B3PL001	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			
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	MAIN TERMINAL BOX ASS'Y			
DSND BY	배승희	DATE	2023-10-19	REF. NO		Sheet No.	of
				DWG NO	3M-248451	Revision No.	0

