

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.	HHI100-18-405T	Item No.	Rev. No.	[]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	405T	Rated Output	75 kW		100 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	91.3 A	114.1 A	
Insulation Class	F		Locked-rotor**	650 %	650 %	650 %
Temp. Rise at full load (by resistance method)		Efficiency				
at 1.0 S.F	80 deg. C	50% Load		92.4 %		
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		94.4 %		
Altitude	Less than 1,000 meter	100% Load		95.4 %		
Relative Humidity	Less than 80 %	Power Factor(p.u)				
Ambient Temp.	40 deg. C (Max.)	50% Load		0.715		
Duty Type	Continuous (S1)	75% Load		0.815		
Service Factor	1.15	100% Load		0.865		
Mounting	B3	Speed at Full Load		1780 r.p.m		
Bearing	Type	Anti-Friction		Torque		
	DE/N-DE	NU316 / 6313C3		Full Load	296.8 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.)		1,337.213 lb.ft2		
Terminal Box	Main	Cast Iron		Motor		
	Aux.	No		35.910 lb.ft2		
Location	Refer to Outline Drawing		Sound Pressure Level (No-load & mean value at 1m from motor)			
			82 dB(A)			
Application		Vibration				
Area classification	Hazardous	Permissible number of consecutive starts		Cold	3 times	
Type of Ex-Protection	Class I&II, Division 2			Hot	2 times	
Applicable Standard	NEMA MG1, CSA C390	Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		

ACCESSORIES	SUBMITTAL DRAWING
	Outline Dimension Drawing \ Motor Weight(Approx.)
	B3 LM-T1405B3PL001 1120 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

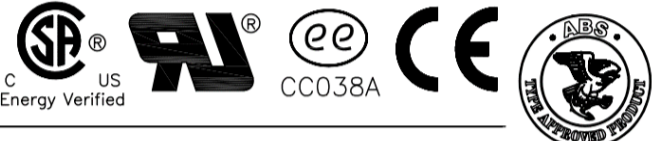
[Note] Others not mentioned in this data sheet shall be in accordance with maker standard.
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.
 Inspection and performance test shall be done according to maker standard, if not mentioned.
 * In case 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 CHKD BY CHKD BY APPD BY


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CROWN TRITON


Premium Efficiency AC 3 Phase Motor



100HP 4P 230/460V	Cat. No. HHI100-18-405T			
Model HLS405SR04	INS. Class F HD-F1 Amps 228.1/114			
Type HLS Duty CONT	Code G Amb. 40°C Hertz 60Hz			
Frame 405T Encl. TEFC	S.F. 1.15 RPM 1780 NEMA Nom. Eff. 95.4%			
Bearing	Drive NU316 S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31) 3/4 Eff. 94.4%			
	Opp. 6313C3 NEMA Design B			
Usable at	50Hz 100HP 380V 137.5A 1475rpm S.F.: 1.0 Eff.: 94.5% Code: E			
	50Hz 100HP 400/415V 132.6/130.6A 1478/1479rpm S.F.: 1.0 Eff.: 94.8/94.9% Code: F/G			
CSA Model LATER	Type PJP			
Certified for	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)	Frame 140~320FR 360~400FR 440FR
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC			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 1120 lb		

4M-135702
Made in Korea H1


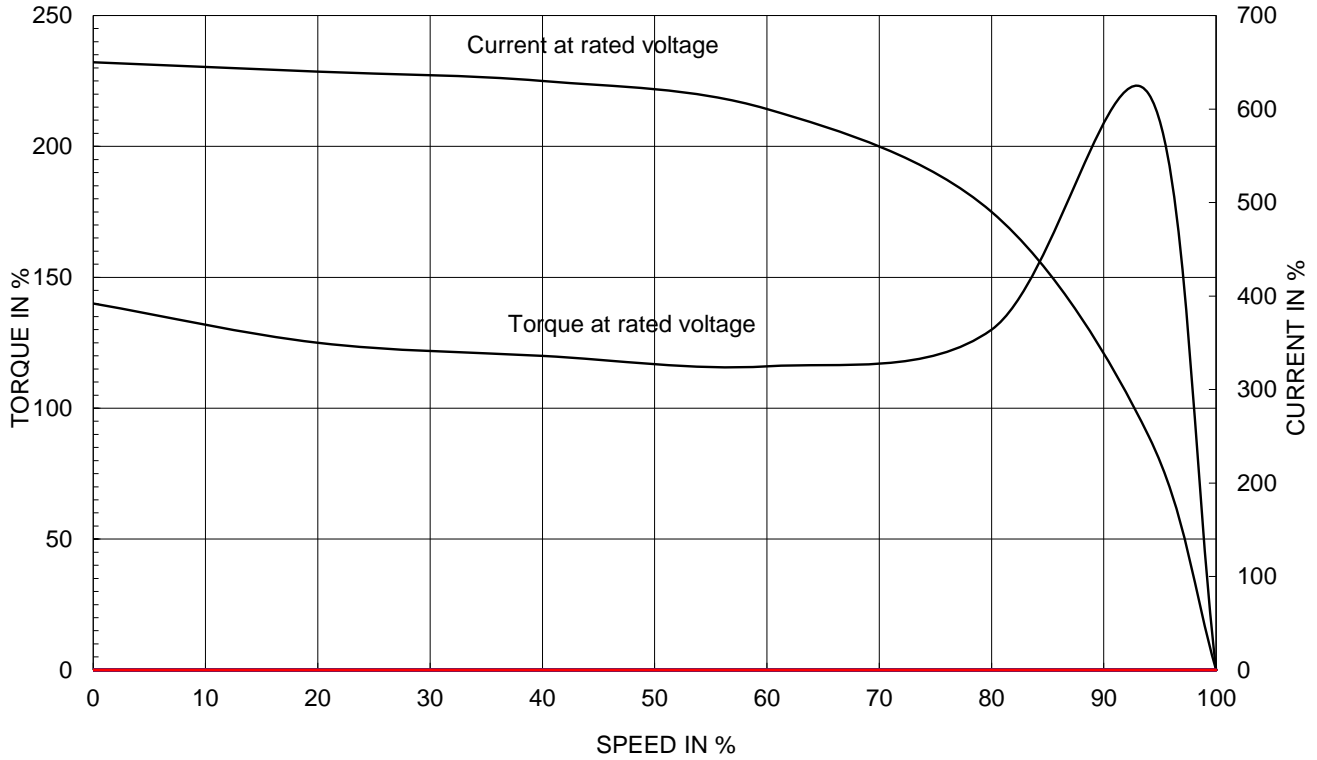
2.36

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-HHI100-18-405T	Revision No. 0

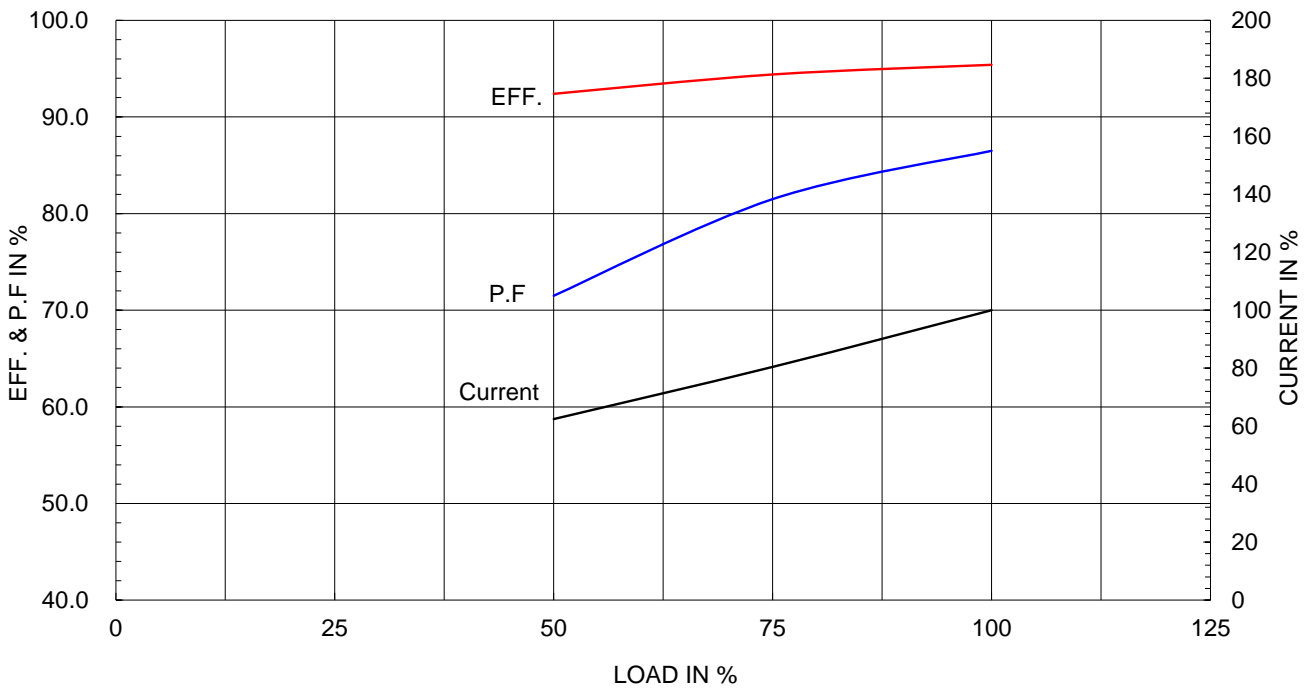
Type :	PJP	
Full Load Torque :	296.8	lb.ft
Load moment of Inertia (J) :	1337.213	lb.ft2
Motor moment of Inertia (J) :	35.910	lb.ft2

75kW	100HP	4 P	60 Hz
Speed at Full Load :			1780 RPM
Rated Voltage	575V	460V	230V
Full Load Current	91.3A	114.1A	228.1A

SPEED VS TORQUE & CURRENT CURVE



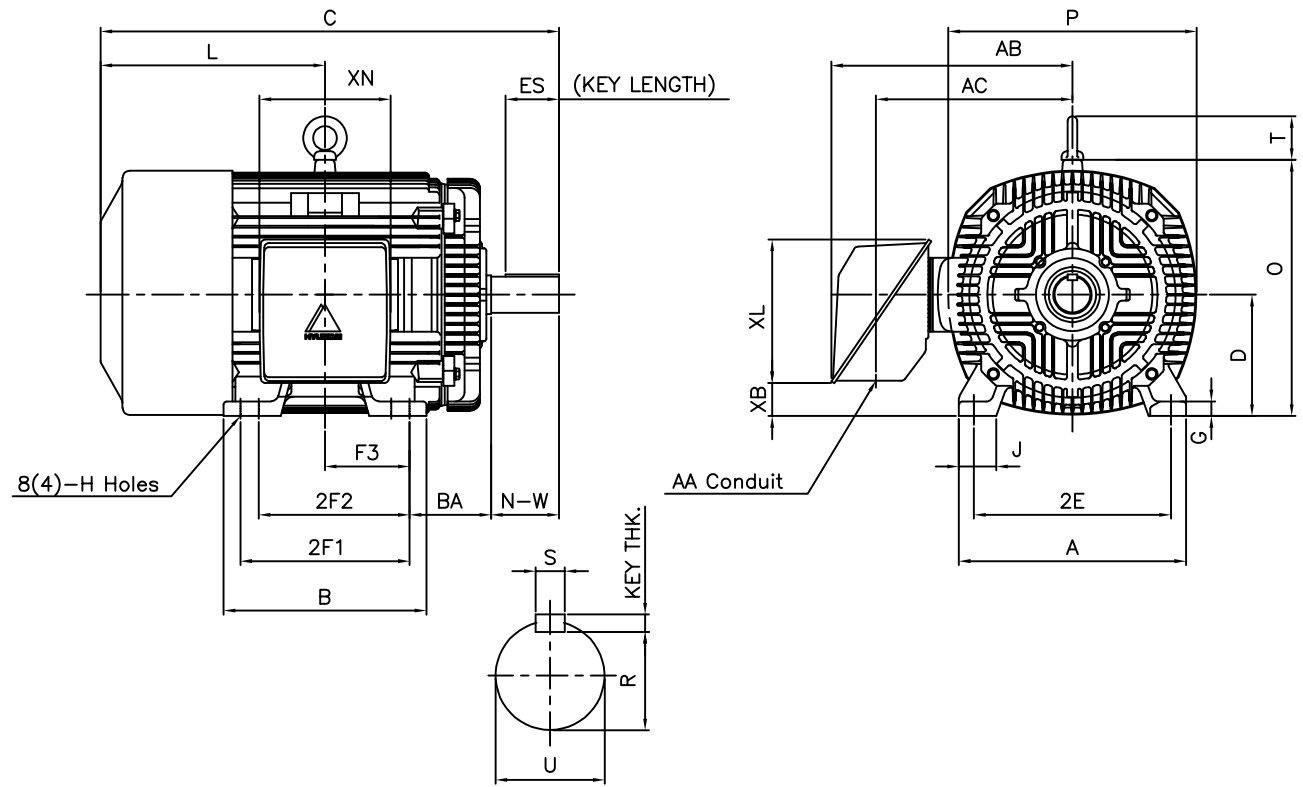
OUTPUT VS EFF., P.F & CURRENT CURVE



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

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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	
18.43	16.46	16.00	13.75	(12.25)	6.870	1.18	3.03	0.81	3.00	20.28	14.85	2.83	11.65	10.63	1120

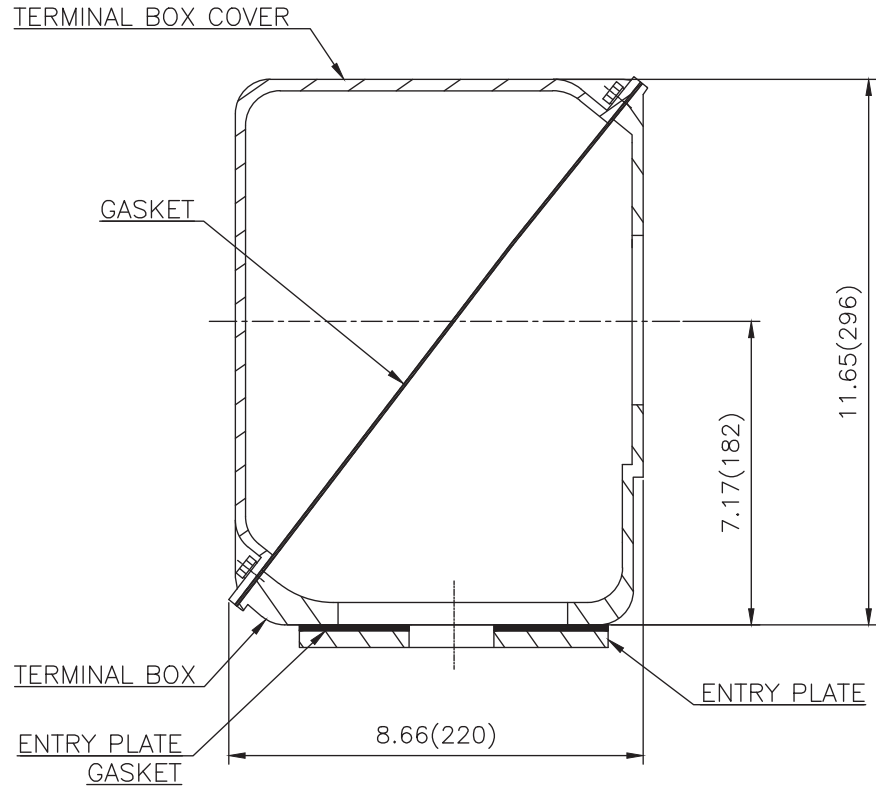
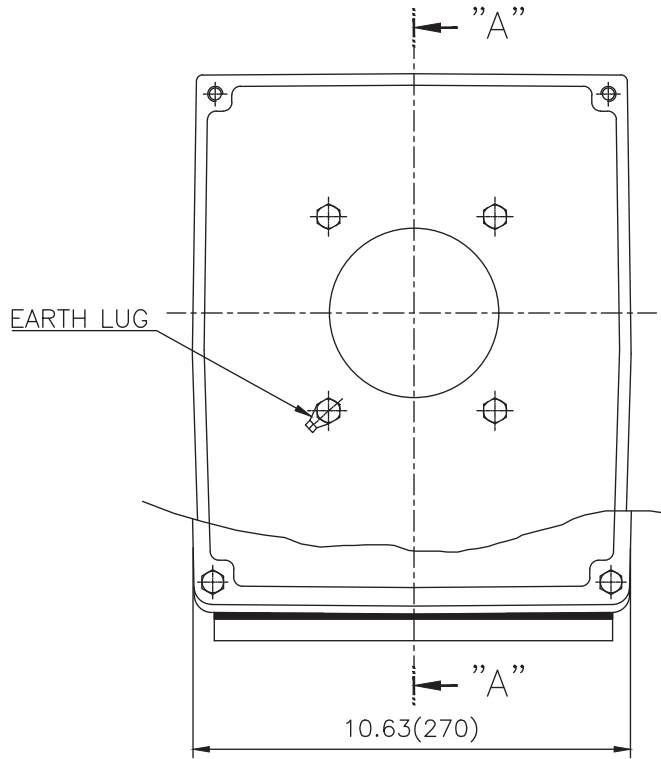
O V E R A L L							S H A F T					KEY	BEARING	
BA	C	D	L	O	P	T	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
									R	ES	S			
6.62	39.42	10.00	18.68	20.79	20.16	3.55	2.875	7.25	2.450	5.65	0.750	0.750	6316C3 or NU316	6313C3

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	405T	DWG SIZE	A4 (1:1)
Q.P CHK	I.K.KIM	SCALE	NONE				
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	TITLE OUTLINE			
DSND BY	B.Y.KIM	DATE	2019.06.05				
				REF. NO	350A1116AA	Sheet No. of	
				DWG NO	LM-T1405B3PL001	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
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

