

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

Model No. or RFQ No.	Item No.	Rev. No. []	
Project Name	Project No.	Quantity	sets

GENERAL SPECIFICATION		PERFORMANCE DATA			
Frame Size	405TC	Rated Output	75 kW	100.0 HP	
Type	PJP	Number of Poles	4		
Enclosure(Protection)	Totally Enclosed / IP55	Rotor Type	Squirrel Cage		
Method of Cooling	IC411(FC)	Starting Method*	<input checked="" type="checkbox"/> D.O.L <input type="checkbox"/> Y-Δ		
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 228.1 A
Insulation Class	<input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H		Locked-rotor**	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 checked="" type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		75% Load		94.4 %	
Altitude Less than 1000 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		100% Load		0.865	
Mounting B35		Speed at Full Load		1780 r.p.m	
Bearing	Type Anti-Friction	Torque			
	DE/N-DE 6316C3 or NU316 / 6313C3	Full Load		296.8 lb.ft	
	Lubricant Grease	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 <input checked="" type="checkbox"/> Single <input type="checkbox"/> Double		Load(Max.)		1,337.213 lb.ft ²	
Terminal Box	Main <input type="checkbox"/> Aluminum <input checked="" type="checkbox"/> Cast Iron	Motor		35.910 lb.ft ²	
	Aux. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sound Pressure Level (No-load & mean value at 1m from motor)			
Location Refer to Outline Drawing				82 dB(A)	
Application		Vibration		3.8 mm/sec (peak)	
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.)
	B35 LM-T1405C4PL001 1165 lb.

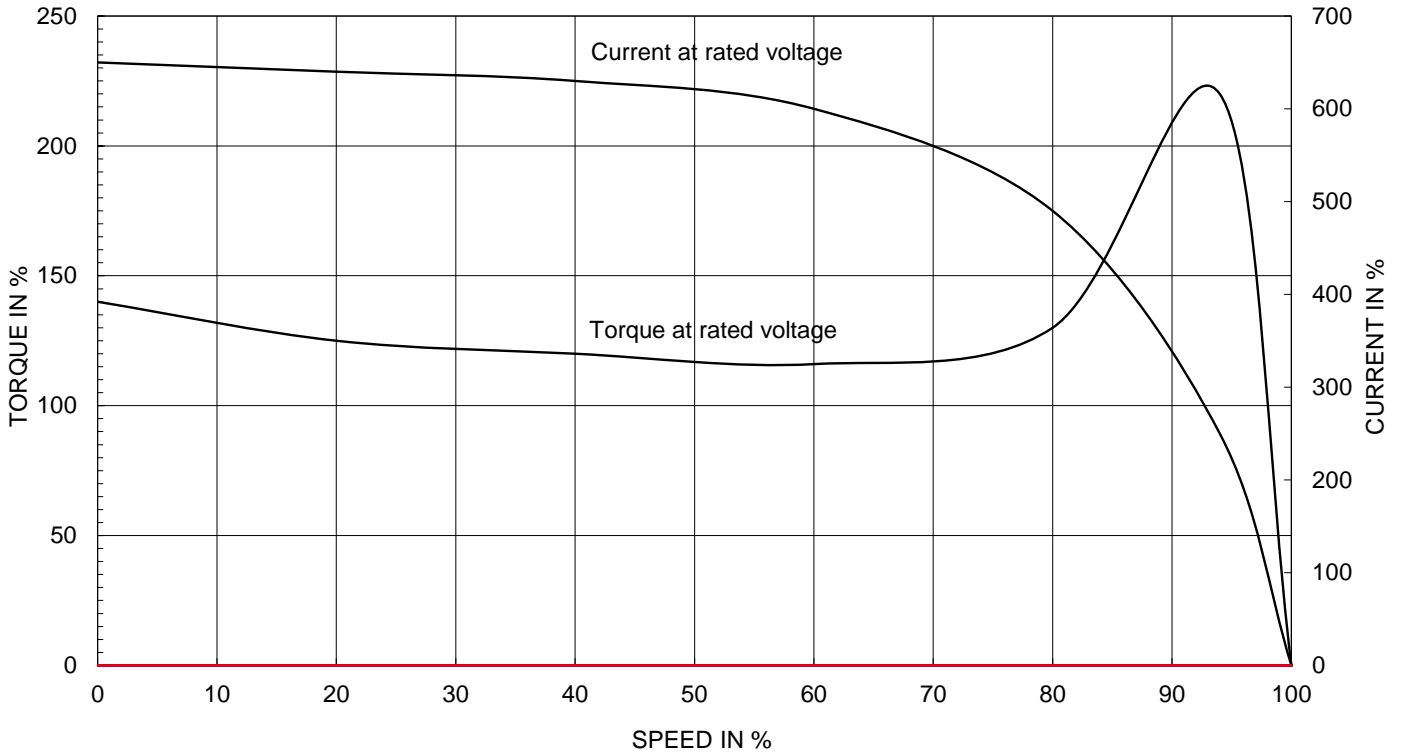
REMARK										
1. Premium efficiency according to NEMA MG1 2. Inverter Duty @ 1.0 Service Factor & F Temperature rise - 10:1 VT (20:1 VT at 50% load) - 10:1 CT - CHP up to 1.5 times base speed 3. CSA Certification - Class I, Division 2, Group A, B, C & D - Class II, Division 2 Group E, F & G (Group 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.										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Date</td> <td style="width: 15%;">DSND</td> <td style="width: 15%;">CHKD</td> <td style="width: 15%;">CHKD</td> <td style="width: 15%;">APPD</td> </tr> <tr> <td>2023-11-13</td> <td>I.S. Ko</td> <td>S.H. Lee</td> <td>Y.K. Kim</td> <td>S.Y. Kim</td> </tr> </table>	Date	DSND	CHKD	CHKD	APPD	2023-11-13	I.S. Ko	S.H. Lee	Y.K. Kim	S.Y. Kim
Date	DSND	CHKD	CHKD	APPD						
2023-11-13	I.S. Ko	S.H. Lee	Y.K. Kim	S.Y. 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.

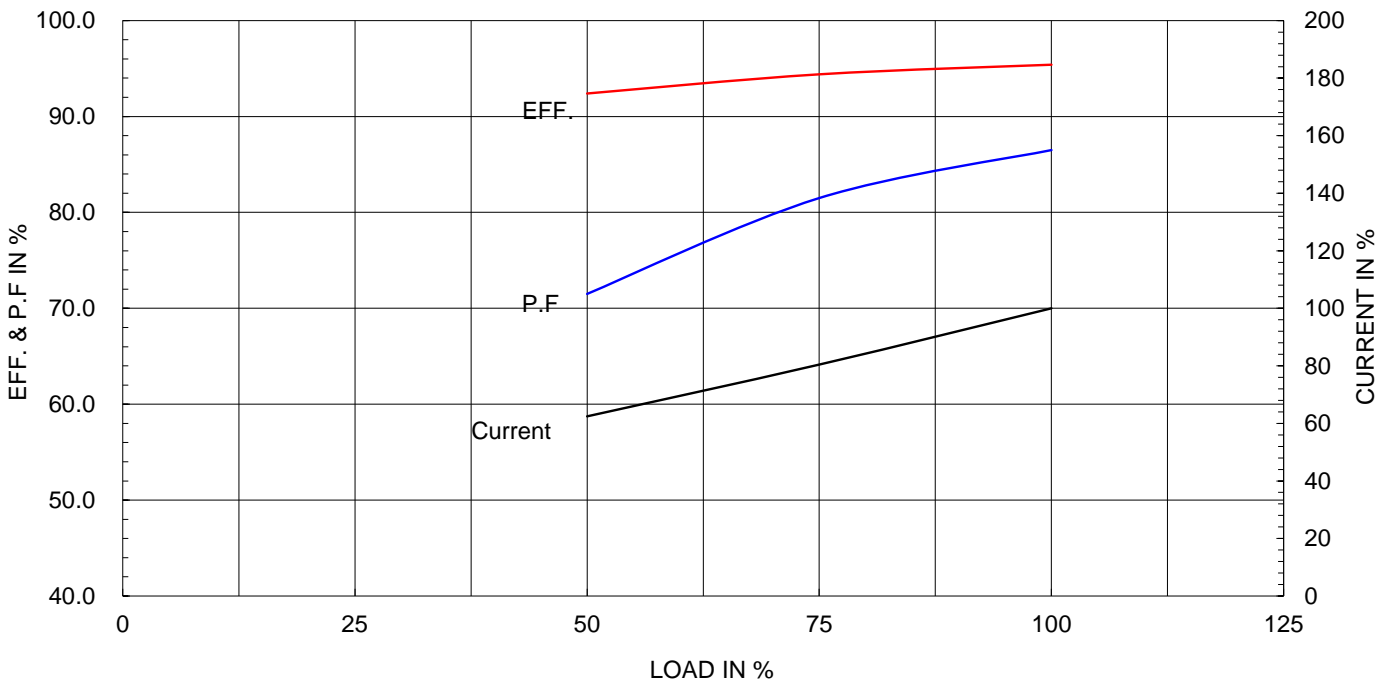
Type :	PJP
Full Load Torque :	296.8 lb.ft
Load moment of Inertia (J) :	- lb.ft ²
Motor moment of Inertia (J) :	35.910 lb.ft ²

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

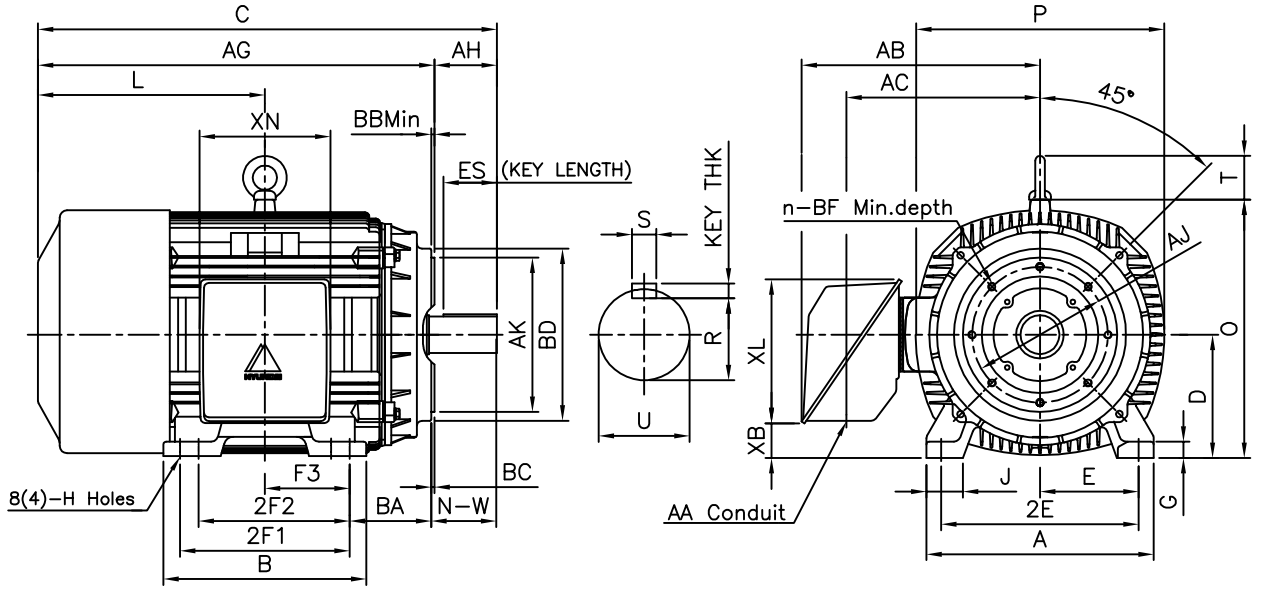
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE



▽	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	1165

O V E R A L L								S H A F T					KEY	BEARING	
BA	C	D	L	O	P	T	AG	U	N-W	KEYWAY			THK.	DRIVE END	OPP. DRIVE END
										R	ES	S			
6.62	39.42	10.00	18.68	20.79	19.69	3.55	32.17	2.875	7.25	2.450	5.65	0.750	0.750	6316C3	6313C3

C - F A C E								
AJ	AK	BB Min	BC	BD	BF	BF depth	n	AH
11.00	12.50	0.25	0.25	13.94	5/8-11	0.94	8	7.00

NOTE

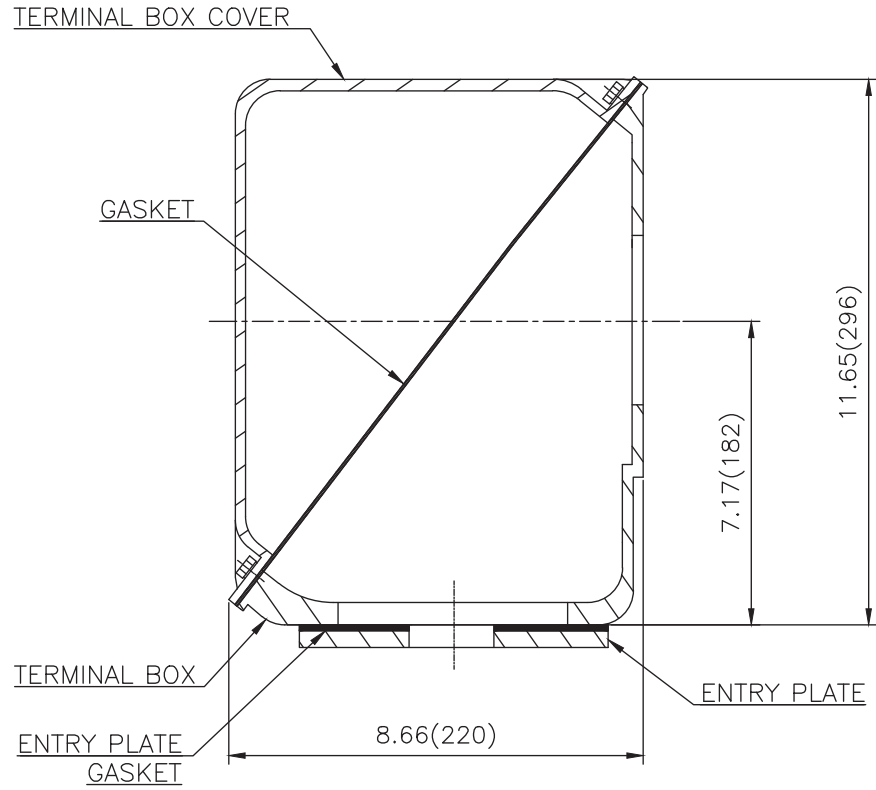
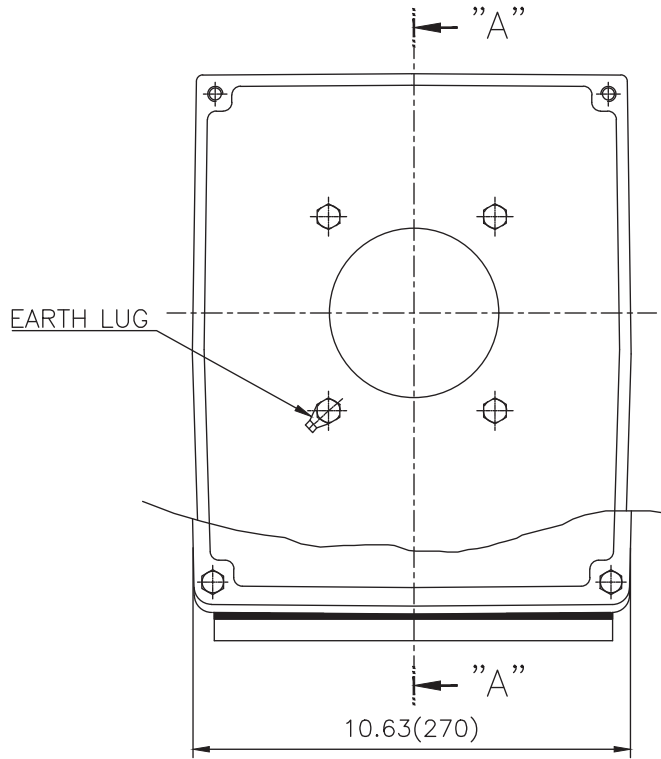
- 1.Dimension "D" tolerance : +0.00inch ~ -0.03inch (143TC-365TC) : +0.000inch ~ -0.06inch (404TC-449TC)
- 2.Dimension "U" tolerance : +0.000inch ~ -0.0005inch (143TC-215TC): +0.000inch ~ -0.001inch (254TC-449TC)
- 3.Dimension "R" tolerance : +0.000inch ~ - 0.015inch
- 4.Dimension "AK" tolerance : +0.000inch ~ -0.003inch (143TC-286TC): +0.000inch ~ -0.005inch (324TC-449TC)

APPD BY	S.K.HAN	UNIT	inch	SUBJECT	NEMA 405TC	DWG SIZE	A4 (11)
CHKD BY	S.Y.KIM	SCALE	None				
CHKD BY	Y.H.BAE	PROJEC'N	3rd Angle	TITLE OUTLINE			
DSND BY	H.C.LIM	DATE	2019-06-05				



REF. NO	350A1316AA	Sheet No.	of
DWG NO	LM-T1405C4PL001	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		A3 (1:1.2)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	DATE	2023-10-19		
DSND BY	배승희						
REF. NO		Sheet No.	of				
DWG NO	3M-248451	Revision No.	0				

