

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

IEEE841 TYPE

Catalog No.	IEEE600-12-5812-IBSH-F	Item No.	Rev. No.	[]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	5812	Rated Output	450 kW 600 HP			
Type	HNE6	Number of Poles	6			
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	561.5 A	701.9 A	1,403.7 A
Insulation Class	F		Locked-rotor**	675 %	675 %	675 %
Temp. Rise at full load (by resistance method)		Efficiency				
at 1.0 S.F	95 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		0.690		
Duty Type	Continuous (S1)	75% Load		0.790		
Service Factor	1.15	100% Load		0.840		
Mounting	B3	Speed at Full Load		1185 r.p.m		
Bearing	Type	Anti-Friction				
	DE/N-DE	NU324 / 6322C3-INS.				
	Lubricant	Grease(Polyrex-EM)				
External Thrust	Not applicable					
Coupling Method	<input type="checkbox"/> Direct <input type="checkbox"/> V-belt	Torque				
Shaft Extension	Single	Full Load		2,675.3 lb.ft		
Terminal Box	Main	Locked-rotor**		135 %		
	Aux.	Breakdown**		220 %		
Location	Refer to Outline Drawing	Moment of Inertia (J)				
Application		Load(Max.)		6,246.520 lb.ft2		
Area classification	Hazardous	Motor		413.890 lb.ft2		
Type of Ex-Protection	Class I, Division 2	Sound Pressure Level (No-load & mean value at 1m from motor)				
Applicable Standard	IEEE841, NEMA MG1, CSA C390			85 dB(A)		
ACCESSORIES *. Space Heater : 1EA/Motor		Vibration				3.8 mm/sec (peak)
		Permissible number of consecutive starts		Cold	2 times	
				Hot	1 time	
		Paint	Munsell No.	7.5BG6/1.5		
SPARE PARTS		SUBMITTAL DRAWING				
		Outline Dimension Drawing		Motor Weight(Approx.)		
		B3	LM-I5812B3PE001	6019 lb.		
		REMARK				
		1. Premium efficiency according to NEMA MG1				
		2. Inverter Duty @ 1.0 Service Factor & F Temperature rise				
		- 10:1 VT				
		- 2:1 CT				
3. NDE side : Insulated bearing						
4. CSA Certification						
- Class I, Division 2, Group A, B, C & D; Temp code : T3A						
5. Shaft material : AISI4140						
		Date	DSND	CHKD	CHKD	APPD
		2024-09-22	E.J.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.

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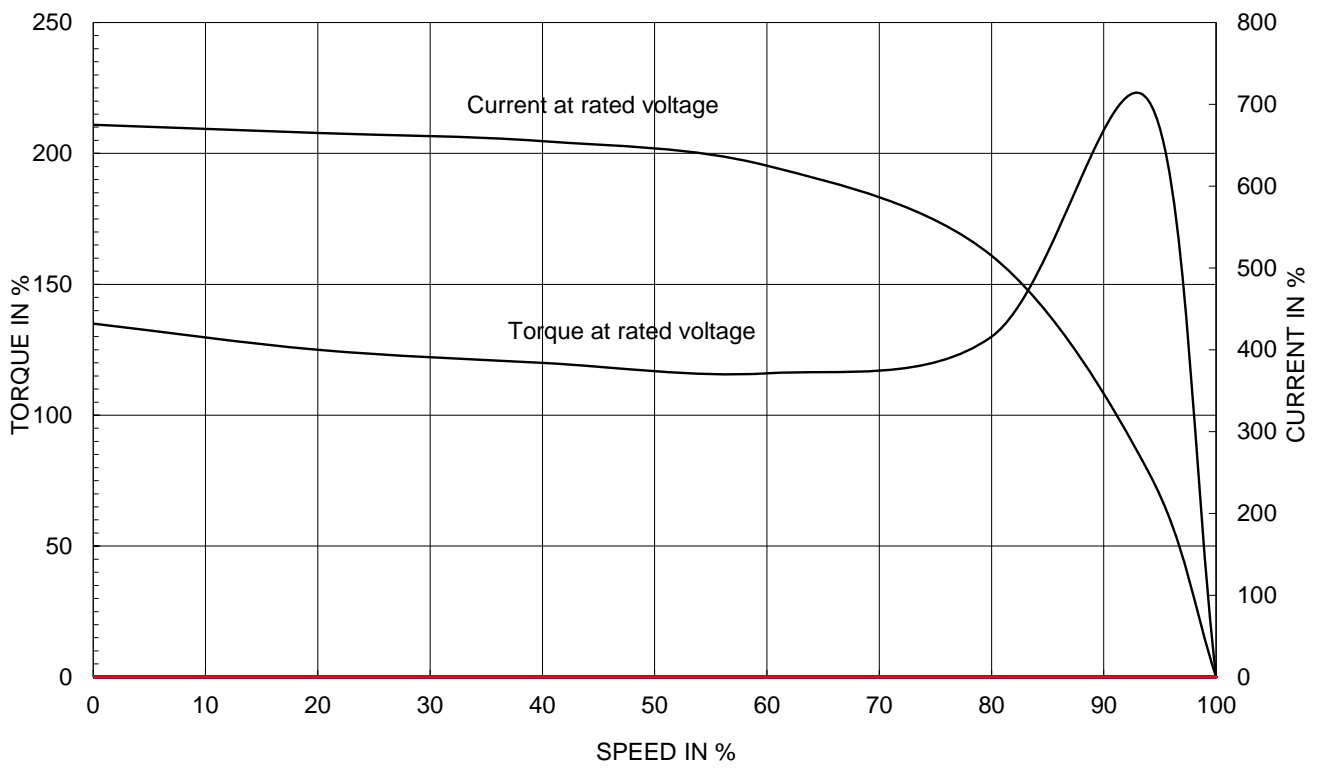
600HP 6P 460V		Cat. No. IEEE600-12-5812-IBSH-F	
Model	LATER	INS. Class	F
Type	HNE6	Duty	CONT
Frame	5812	Encl.	TEFC
Bearing	Drive	NU324	S.F.1.00 (2:1 C.T., 10:1 V.T., NEMA-MG1 Part31)
	Opp.	6322C3-INS.	
Usable at	50Hz 475HP 380V 678.33A 985rpm S.F.: 1.0 Eff.: 95.8% Code: H		
	50Hz 475HP 400/415V 660.32/644.41A 986/987rpm S.F.: 1.0 Eff.: 95.8/95.8% Code: J/J		
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D		Temp. Code (sine wave)
	Frame	580FR	Maximum Amb. 50°C
No.	-	Date	-
IEEE Std 841-2021		Weight 6019 lb	
4M-136445		Made in Korea H1	

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEEE841 (XL)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136445	Sheet No. of
				DWG NO	NP-IEEE600-12-5812-IBSH-F	Revision No. 0

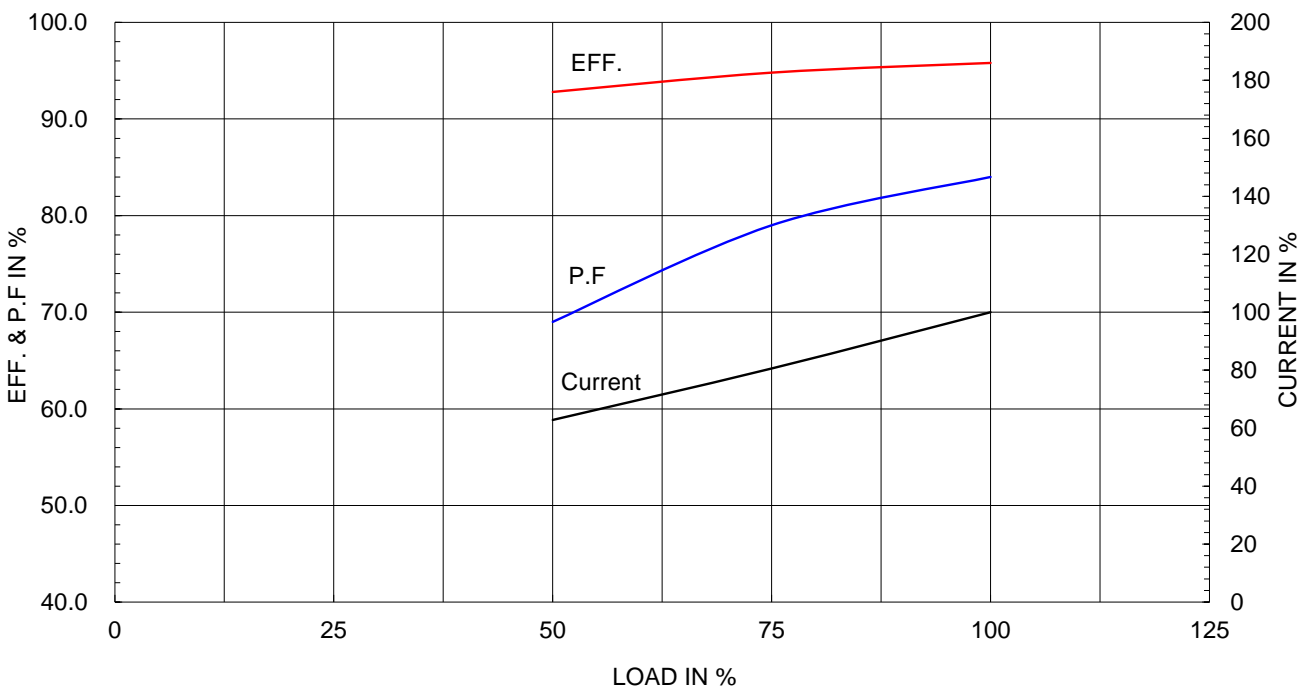
Type :	HNE6
Full Load Torque :	2675.3 lb.ft
Load moment of Inertia (J) :	6246.520 lb.ft ²
Motor moment of Inertia (J) :	413.890 lb.ft ²

450kW 600HP	6 P	60 Hz
Speed at Full Load :		1185 RPM
Rated Voltage	575V	460V 230V
Full Load Current	561.5A	701.9A 1403.7A

SPEED VS TORQUE & CURRENT CURVE



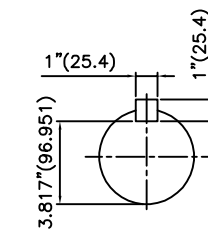
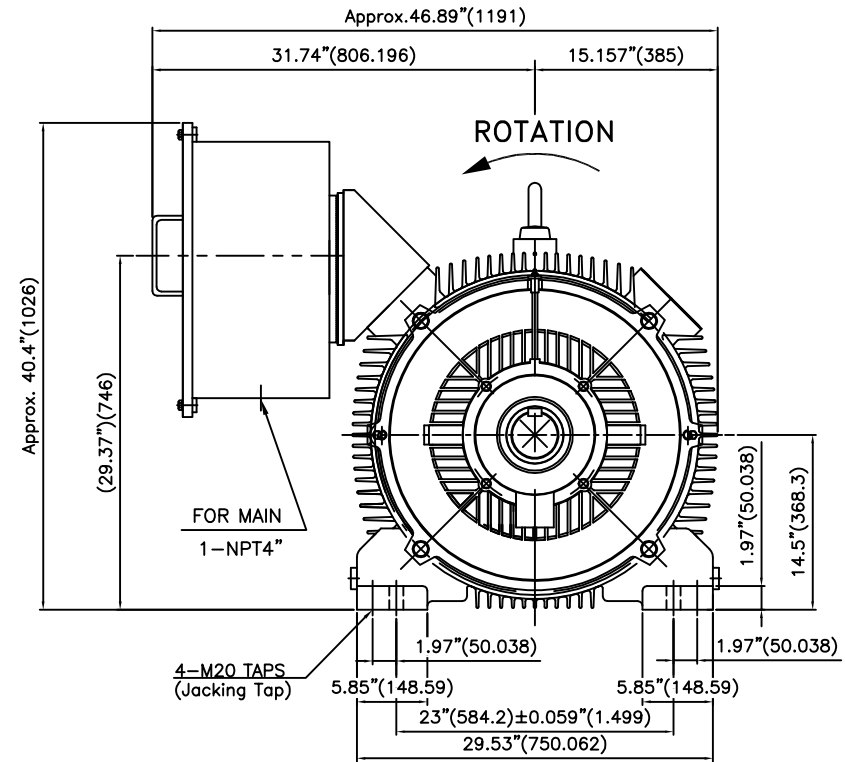
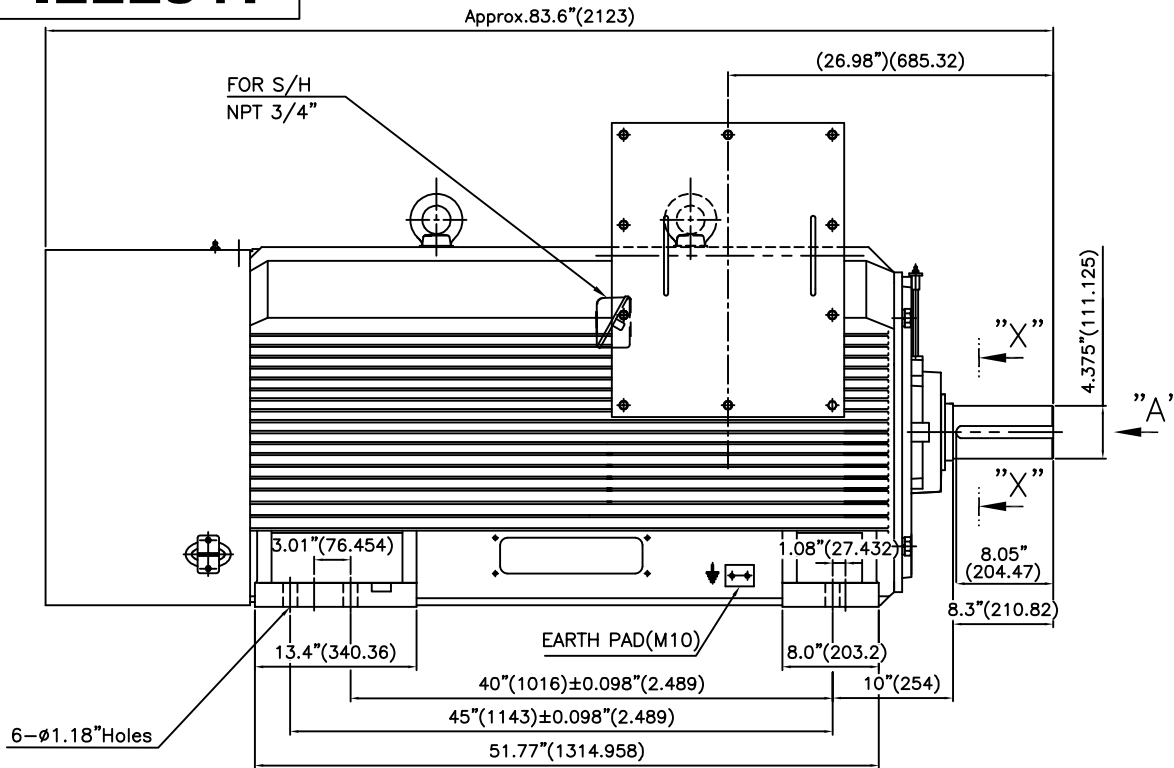
OUTPUT VS EFF., P.F & CURRENT CURVE



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IEEE841



VIEW "A"

SECTION "X-X"

TECHNICAL INFORMATION

1) BEARING & LUBRICANT LIST

BEARING	Drive End	Non-Drive End
Bearing Type	6324C3	6322C3
Lubricant Type	GREASE	GREASE
Grease Type	Shell(Gadus S2 V100 2)	Shell(Gadus S2 V100 2)
Initial Charge Quantity	434 g	334 g
Mark-Up	Quantity	130 g
	Interval	6 MONTHS

2) TOLERANCE :

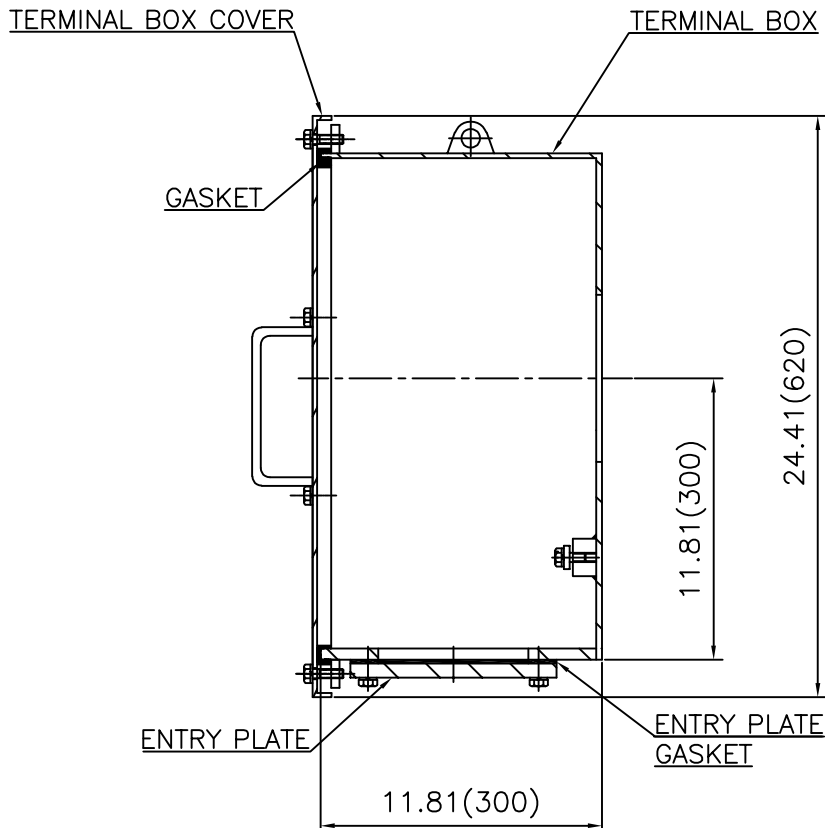
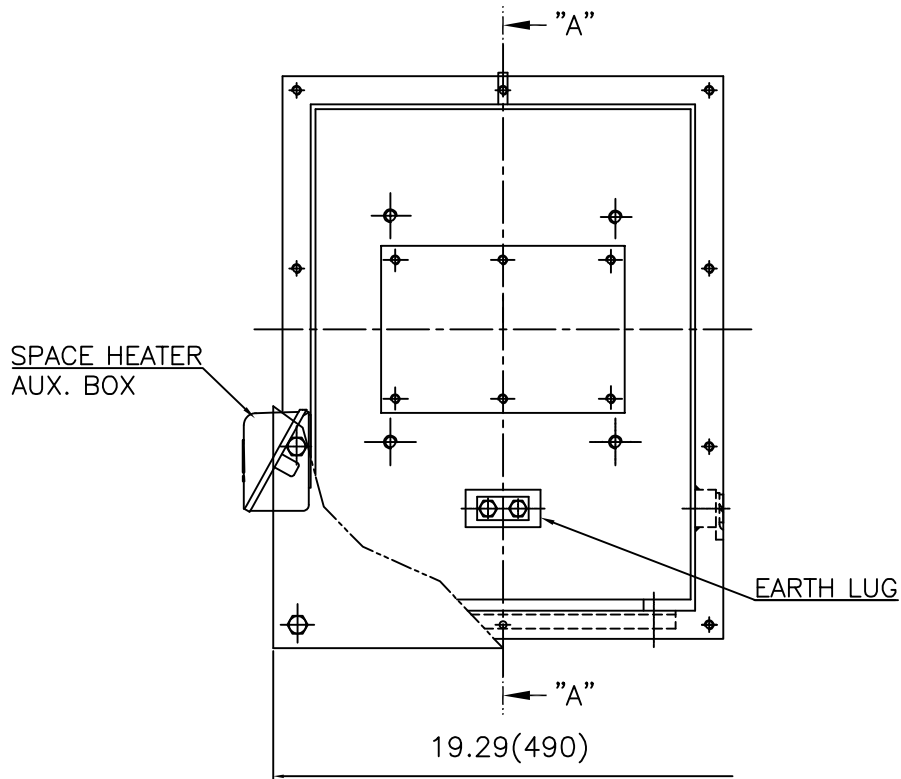
CENTER HEIGHT	14.5	+0.000	-0.060
SHAFT DIAMETER	ø4.375	+0.000	-0.001
KEYWAY WIDTH	1	+0.003	-0.000

Q'TY	DESCRIPTION	MATERIAL	DIMENSION	WEIGHT	PART NO.	REMARK	NO.
APPD BY	S.K.HAN	UNIT	INCH(MM)	SUBJECT	Fr.5812-4~20P		
CHKD BY	S.Y.KIM	SCALE	1/12	TITLE	OUTLINE		
CHKD BY		PROJEC'N	3각법 (3rd Angle)	REF. NO	Sheet No. of		
DSND BY	J.H.LEE	DATE	2016.05.23	DWG NO	LM-I5812B3PE001	Revision No. 0	



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**Cls. I&II, Div. 2
IEEE 841**



SEC. "A" - "A"

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2						
3						
4						

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.580 (STEEL)	DWG SIZE	A3 (1:6)
CHKD BY		SCALE	1/6	TITLE	MAIN TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	박승희	DATE	2023-10-25	DWG NO	3M-248512	Revision No.	0



**Cls. I&II, Div. 2
IEEE 841**



REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR.180 (CAST IRON)	DWG SIZE	A3 (1:1.1)
CHKD BY		SCALE	1/1	TITLE	SUB. TERMINAL BOX ASS'Y		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO		Sheet No.	of
DSND BY	박승희	DATE	2024-01-18	DWG NO	3M-165278	Revision No.	0

