

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.	HSDE400-18-L449T-IBSH	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	L449T	Rated Output	300 kW			400 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	355.8 A	444.8 A	889.6 A
Insulation Class	F	Locked-rotor**	710 %	710 %	710 %	
Temp. Rise at full load (by resistance method)		Efficiency				
at 1.0 S.F	80 deg. C	50% Load		93.2 %		
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor	75% Load		95.2 %		
Altitude	Less than 1,000 meter	100% Load		96.2 %		
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	NU322 / 6318C3-INS.		Full Load	1,184.0 lb.ft	
	Lubricant	Grease(Polyrex-EM)		Locked-rotor**	135 %	
External Thrust	Not applicable		Breakdown**	225 %		
Coupling Method	<input type="checkbox"/> Direct <input type="checkbox"/> V-belt	Moment of Inertia (J)				
Shaft Extension	Single	Load(Max.)		1,550.000 lb.ft2		
Terminal Box	Main	Cast Iron		Motor		
	Aux.	Yes		129.342 lb.ft2		
	Location	Refer to Outline Drawing		Sound Pressure Level (No-load & mean value at 1m from motor)		
Application		Vibration		85 dB(A)		
Area classification	Hazardous	Permissible number of consecutive starts		Cold 2 times		
Type of Ex-Protection	Class I&II, Division 2			Hot 1 time		
Applicable Standard	NEMA MG1, CSA C390	Paint	Munsell No.	4.0PB5.4/5.5(VL-451)		

ACCESSORIES

*. Space Heater : 1EA/Motor

SPARE PARTS

SUBMITTAL DRAWING

Outline Dimension Drawing		Motor Weight(Approx.)	
B3	LM-T044XB3UE001	3620 lb.	

REMARK

- Premium efficiency according to NEMA MG1
- 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
- NDE side : Insulated bearing
- CSA Certification
 - Class I, Division 2, Group A, B, C & D; Temp code : T3
 - Class II, Division 2 Group F & G; Temp code : T3
- Shaft material : AISI4140

Date	DSND	CHKD	CHKD	APPD
2024-09-10	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

400HP	4P	460V	Cat. No. HSDE400-18-L449T-IBSH
Model	LATER	INS. Class	F
Type	PJP	Duty	CONT
Frame	L449T	Encl.	TEFC
Bearing	Drive	NU322	S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)
	Opp.	6318C3-INS.	
Usable at	50Hz 335HP 380V 449.62A 1485rpm S.F.: 1.0 Eff.: 96% Code: G		
	50Hz 335HP 400/415V 437.07/430.85A 1486/1487rpm S.F.: 1.0 Eff.: 96/96.1% Code: H/J		
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D	CLASS II, Div. 2, Gr. F & G	Temp. Code (sine wave)
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC		
No.	-	Date	-
	4M-136053		Weight 3620 lb

MARINE DUTY IEEE45

Made in Korea H1

2.36

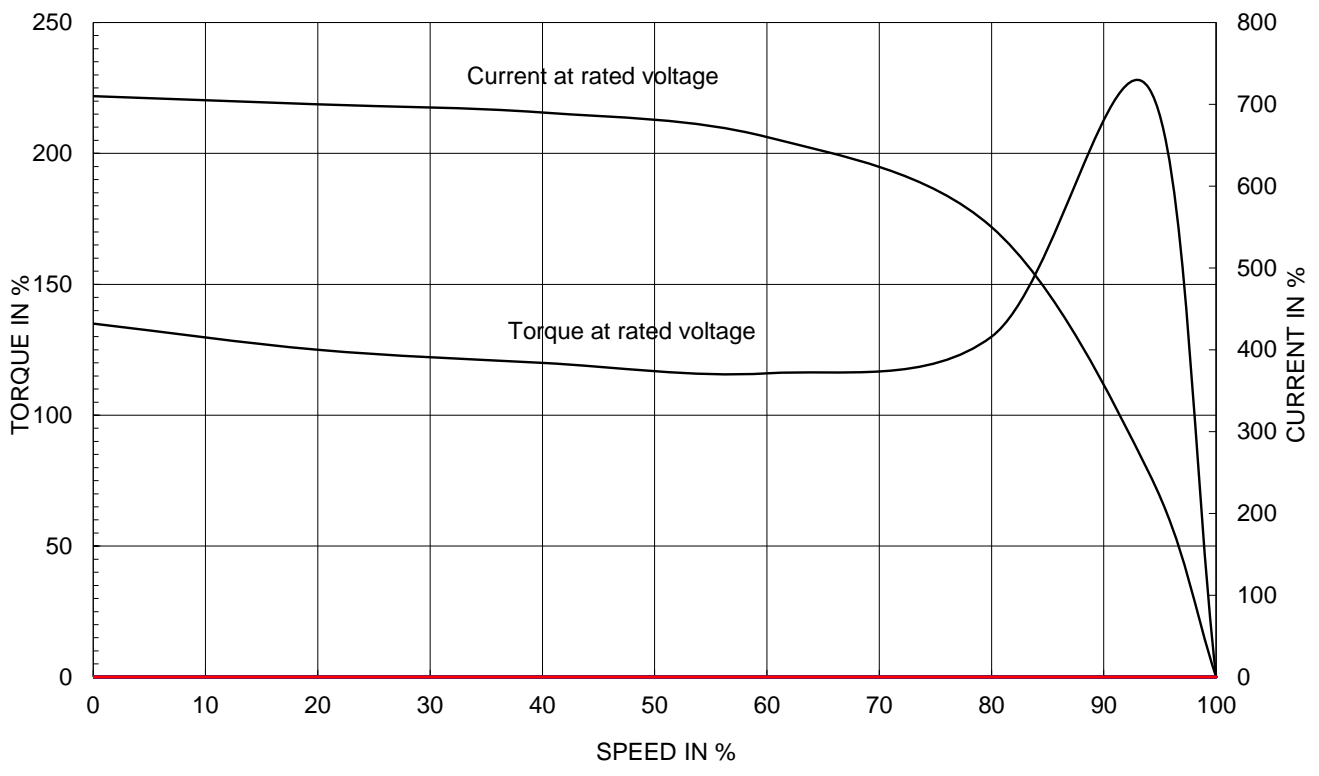
APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 Severe Duty (HSDE ,L449-500)	DWG SIZE
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING	A4 (1:1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	S.H.LEE	DATE	2024.06.07			
				REF. NO	4M-136053	Sheet No. of
				DWG NO	NP-HSDE400-18-L449T-IBSH	Revision No. 0

1
2
3
4

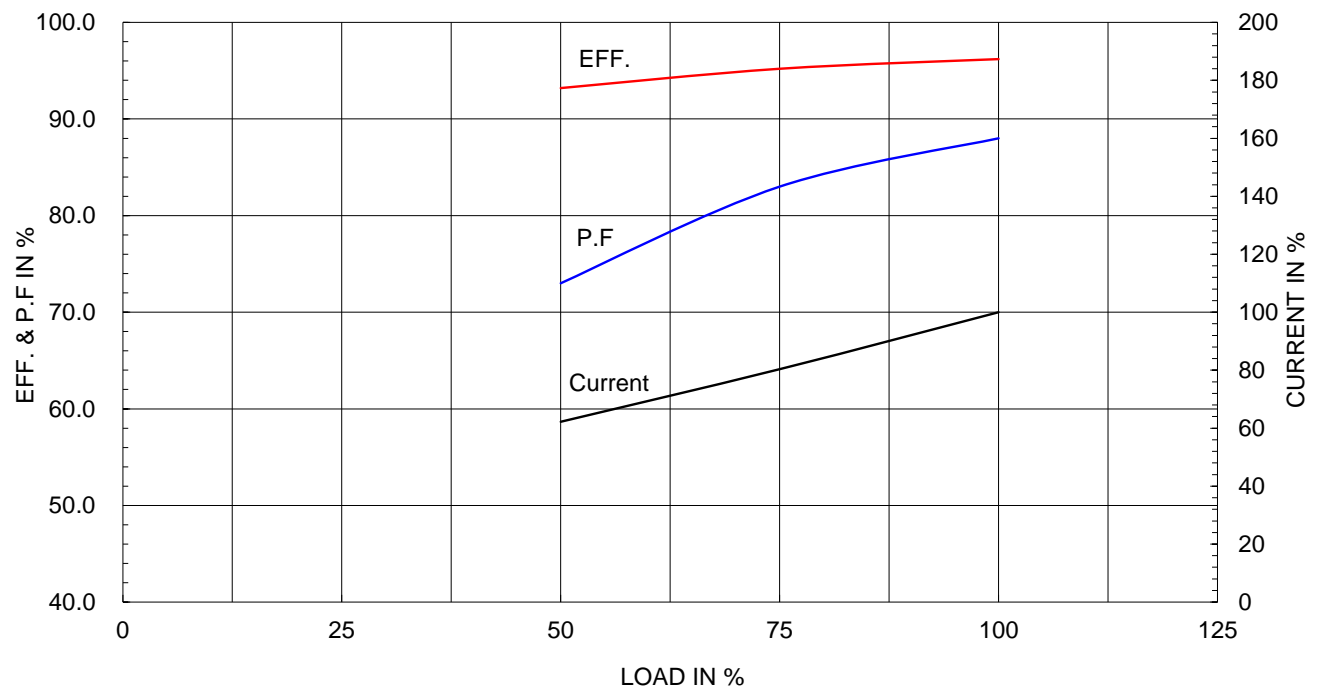
Type :	PJP
Full Load Torque :	1184.0 lb.ft
Load moment of Inertia (J) :	1550.000 lb.ft2
Motor moment of Inertia (J) :	129.342 lb.ft2

300kW 400HP	4 P	60 Hz
Speed at Full Load :		1785 RPM
Rated Voltage	575V	460V 230V
Full Load Current	355.8A	444.8A 889.6A

SPEED VS TORQUE & CURRENT CURVE



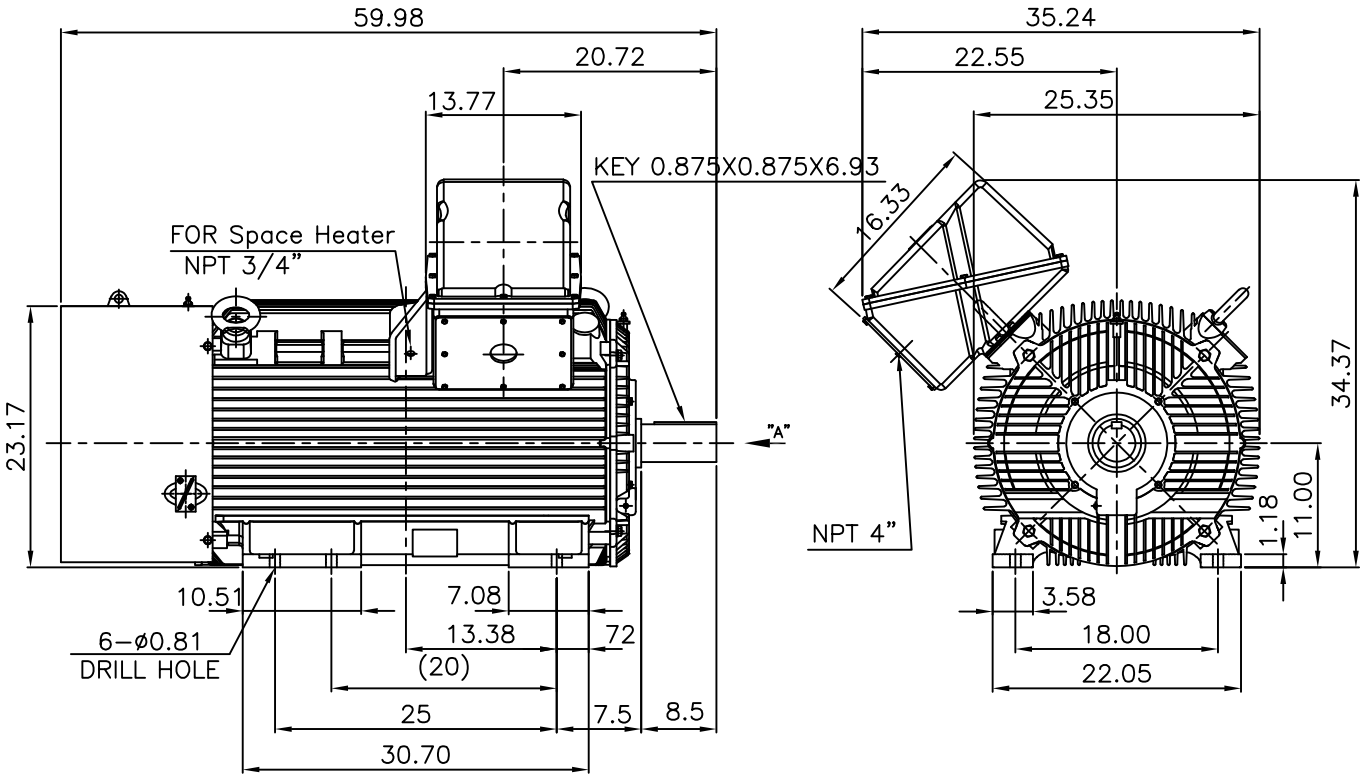
OUTPUT VS EFF., P.F & CURRENT CURVE



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

THIS DRAWING IS PROPRIETARY TO HYUNDAI ELECTRIC. NO PART OF THIS DRAWING MAYBE REPRODUCED WITHOUT THE PERMISSION OF HYUNDAI ELECTRIC.

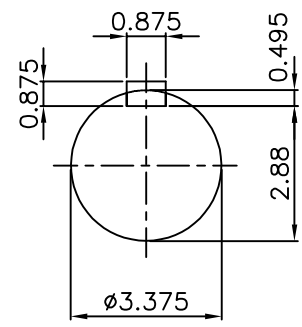
▽	50S	REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY
▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



NOTE

1.TOLERANCE :

CENTER HEIGHT	11	+0.000	-0.060
SHAFT DIAMETER	ø3.375	+0.000	-0.001
KEYWAY WIDTH	0.875	+0.003	-0.000



VIEW "A"

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.L449T	DWG SIZE	A4 (1:18)
CHKD BY	O.J.KIM	SCALE	1/18	TITLE	OUTLINE	REF. NO	Sheet No. of
CHKD BY	R.G.KIM	PROJEC'N	3각법(3rd Angle)				
DSND BY	H.K.LEE	DATE	2021-04-27				
				DWG NO	LM-T044XB3UE001	Revision No. 0	

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

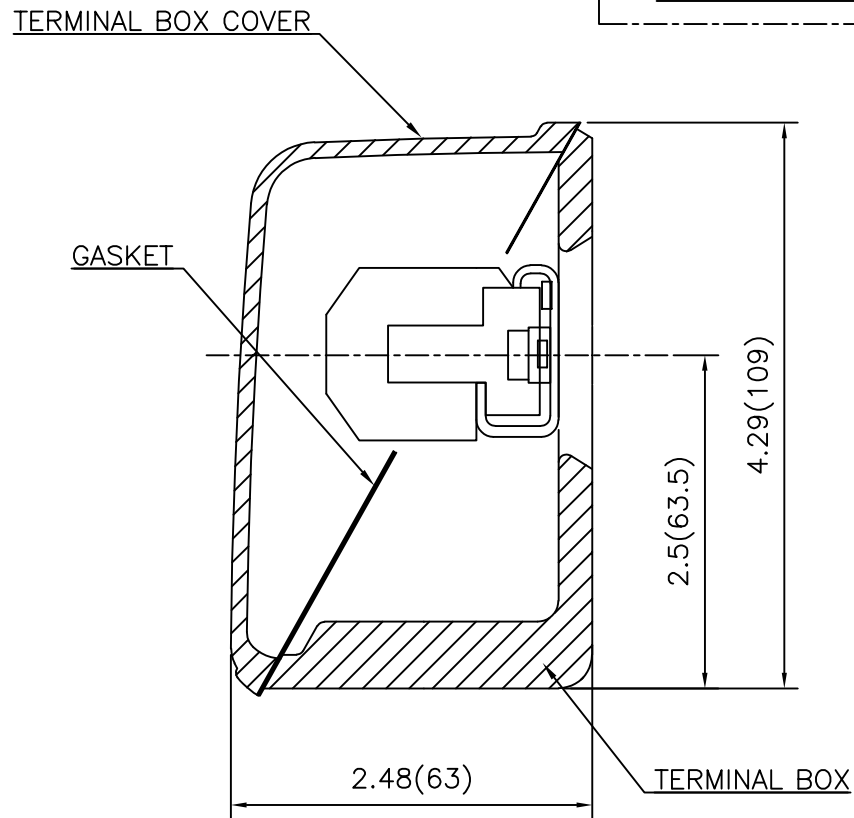


SEC. "A" - "A"

REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

APPD BY	S.Y.KIM	UNIT	inch(mm)	SUBJECT	FR. L440 (CAST IRON)	DWG SIZE
CHKD BY		SCALE	1/3.5	TITLE	MAIN TERMINAL BOX ASS'Y	A3 (1:3.5)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	최승희	DATE	2023-10-19			
				REF. NO		Sheet No. of
				DWG NO	3M-248452	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
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	배승희	DATE	2024-01-18	DWG NO	3M-165277	Revision No. 0

