

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.	HSDE400-36-L449TSC-IBSHSP	Item No.		Rev. No.	[]
Project Name		Project No.		Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	L449TSC		Rated Output	300 kW 400 HP		
Type	PJP		Number of Poles	2		
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	349.4 A	436.7 A
Insulation Class	F			Locked-rotor**	680 %	680 %
Temp. Rise at full load (by resistance method)			Efficiency			
at 1.0 S.F			80 deg. C			
Motor Location	<input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor		50% Load		92.8 %	
Altitude	Less than 1,000 meter		75% Load		94.8 %	
Relative Humidity	Less than 80 %		100% Load		95.8 %	
Ambient Temp.	40 deg. C (Max.)		Power Factor(p.u)			
Duty Type	Continuous (S1)		50% Load		0.750	
Service Factor	1.15		75% Load		0.850	
Mounting	B35		100% Load		0.900	
Bearing	Type	Anti-Friction	Speed at Full Load			
	DE/N-DE	6315C3 / 6315C3-INS.	3570 r.p.m			
	Lubricant	Grease(Polyrex-EM)	Torque			
External Thrust	Not applicable		Full Load		592.0 lb.ft	
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Locked-rotor**		145 %	
Shaft Extension	Single		Breakdown**		240 %	
Terminal Box	Main	Cast Iron	Moment of Inertia (J)			
	Aux.	Yes	Load(Max.)		315.000 lb.ft2	
Location	Refer to Outline Drawing		Motor		60.755 lb.ft2	
			Sound Pressure Level (No-load & mean value at 1m from motor)			
Application			87 dB(A)			
Area classification	Hazardous		Vibration			
Type of Ex-Protection	Class I&II, Division 2		3.8 mm/sec (peak)			
Applicable Standard	NEMA MG1, CSA C390		Permissible number of consecutive starts		Cold 2 times	
			Hot		1 time	
			Paint	Munsell No.	4.0PB5.4/5.5(VL-451)	

ACCESSORIES
*. Space Heater : 1EA/Motor

SPARE PARTS
1. Spare Axial Fan (C.W Direction)

SUBMITTAL DRAWING			
Outline Dimension Drawing		Motor Weight(Approx.)	
B35	LM-T044XC4CE001	3920 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. NDE side : Insulated bearing 4. CSA Certification -. Class I, Division 2, Group A, B, C & D; Temp code : T3 -. Class II, Division 2 Group F & G; Temp code : T3 5. Uni-directional CCW viewed from drive end.

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.

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


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REV	DATE	CONTENTS	REVD BY

4.72


CROWN TRITON

Premium Efficiency AC 3 Phase Motor



400HP	2P	460V	Cat. No.	HSDE400-36-L449TSC-IBSHSP			
Model	LATER		INS. Class	F	Amps	436.7	
Type	PJP	Duty	CONT	Code	G	Amb. 40°C	
				Hertz		60Hz	
Frame	L449TSC	Encl.	TEFC	S.F.	1.15	RPM	3570
				NEMA Nom. Eff.			95.8%
Bearing	Drive	6315C3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff.	94.8%
	Opp.	6315C3-INS.				NEMA Design	B
Usable at							
CSA Certified for	CLASS I, Div. 2, Gr. A, B, C & D		CLASS II, Div. 2, Gr. F & G		Temp. Code (sine wave)	Frame	L440FR - 500FR
	CLASS I, Zone 2, Gr. IIA, IIB, & IIC					Amb. 40°C	T3 (200°C)
						Amb. 55°C	T3 (200°C)
No.	-	Date	-	Weight	3920 lb		

4M-136053 Made in Korea H1 

MARINE DUTY IEEE45

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					

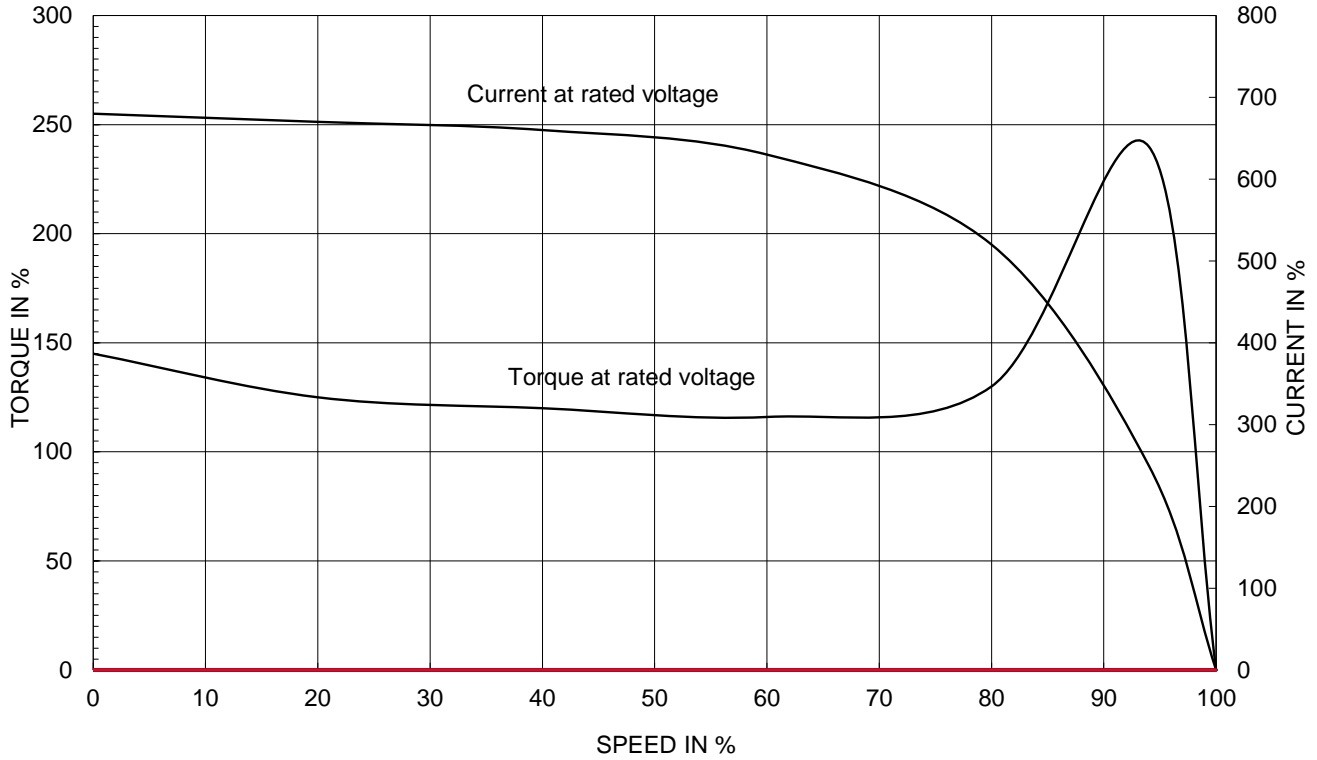


REF. NO	4M-136053	Sheet No.	of
DWG NO	NP-HSDE400-36-L449TSC-IBSHSP	Revision No.	0

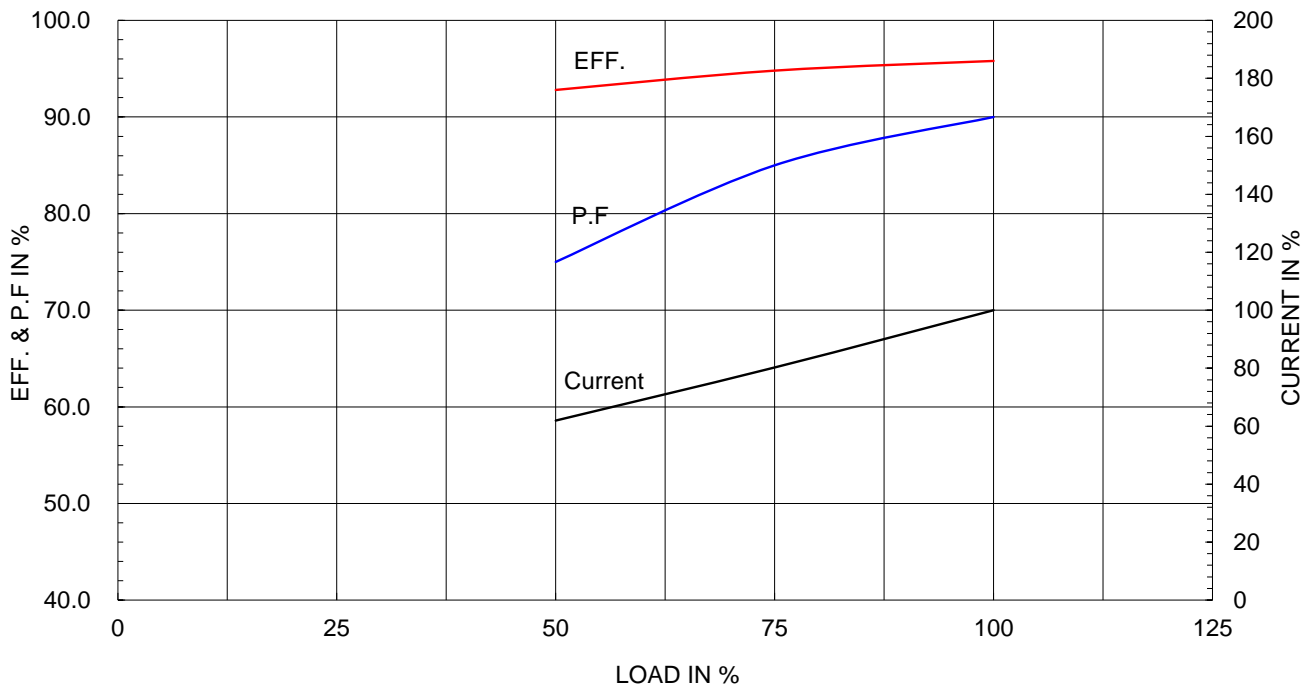
Type :	PJP
Full Load Torque :	592.0 lb.ft
Load moment of Inertia (J) :	315.000 lb.ft2
Motor moment of Inertia (J) :	60.755 lb.ft2

300kW	400HP	2 P	60 Hz
Speed at Full Load :			3570 RPM
Rated Voltage	575V	460V	230V
Full Load Current	349.4A	436.7A	873.4A

SPEED VS TORQUE & CURRENT CURVE



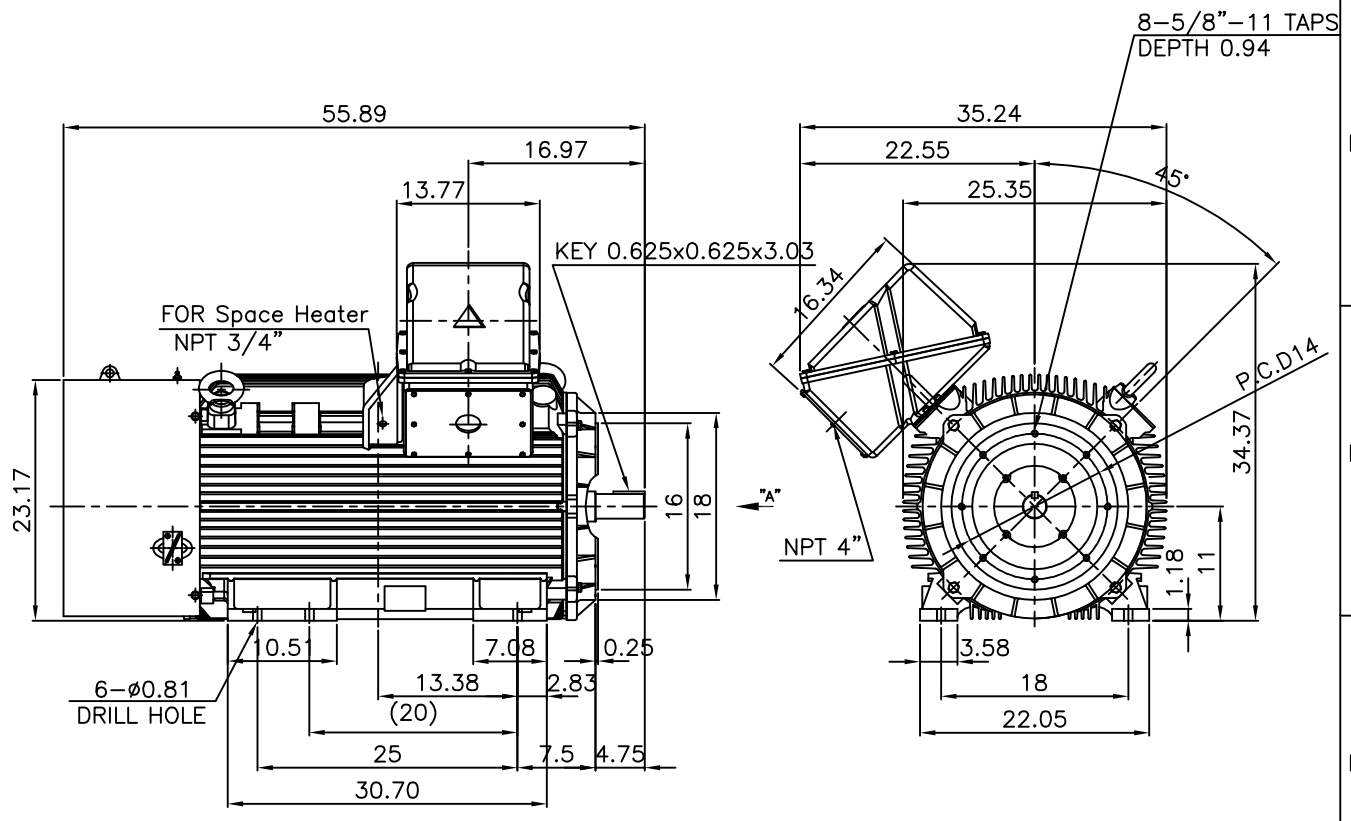
OUTPUT VS EFF., P.F & CURRENT CURVE



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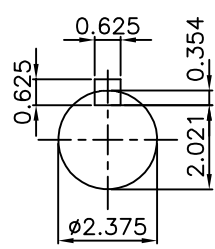
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▽▽	12.5S							
▽▽▽	3.2S							
▽▽▽▽	0.4S							



NOTE

1.TOLERANCE :

CENTER HEIGHT	11	+0.000	-0.060
RABBET DIAMETER	ø16	0	-0.005
SHAFT DIAMETER	ø2.375	+0.000	-0.001
KEYWAY WIDTH	0.625	+0.002	-0.000



VIEW "A"

APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.L449TSC	DWG SIZE	A4 (1:18)
CHKD BY	O.J.KIM	SCALE	1/18			TITLE	NEMA STD SHAFT(AISI 1045 SHAFT)
CHKD BY	R.G.KIM	PROJEC'N	3각법 (3rd Angle)	OUTLINE		REF. NO	Sheet No. of
DSND BY	H.K.LEE	DATE	2021-04-27			DWG NO	LM-T044XC4CE001

**Cls. I&II, Div. 2
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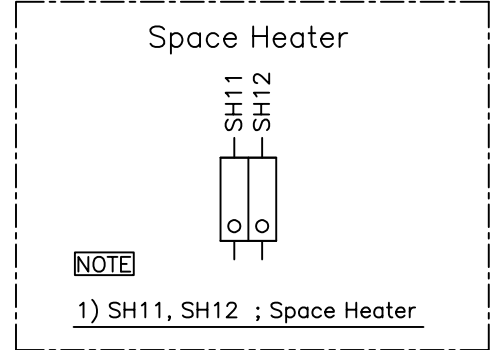
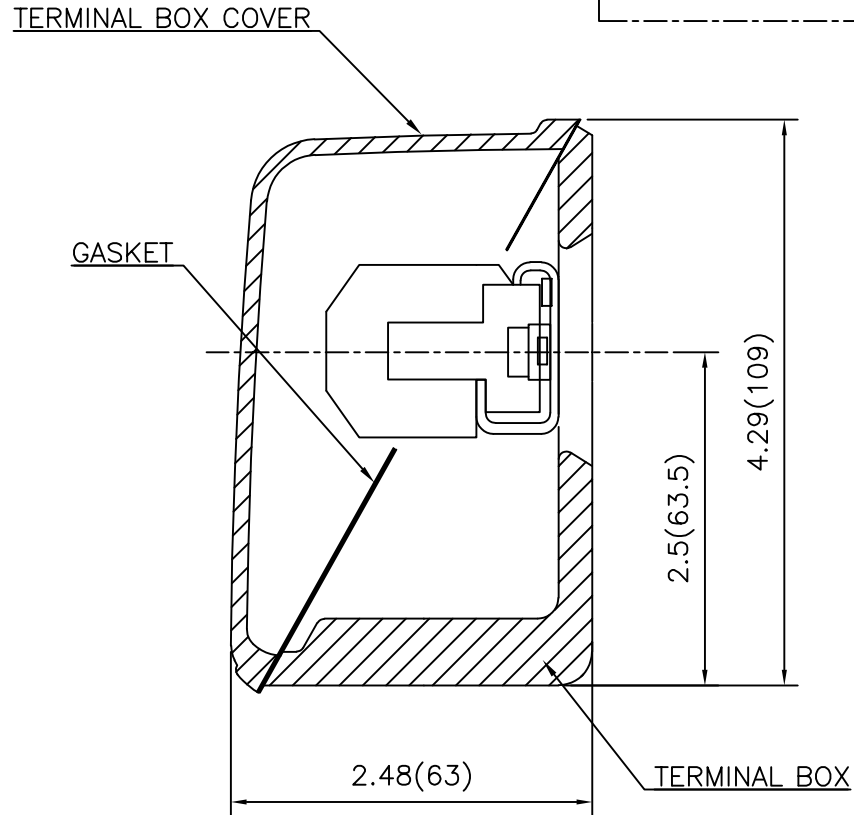
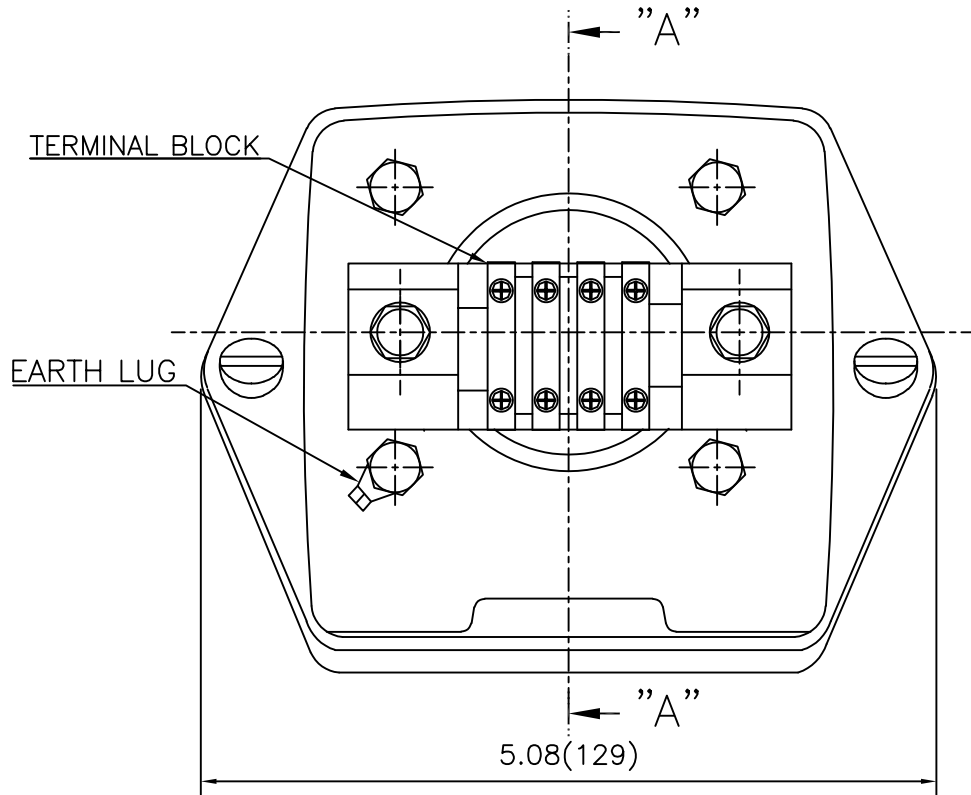


SEC. "A" - "A"

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	A3 (1:1.1)
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle			
DSND BY	배승희	DATE	2024-01-18			
				REF. NO		Sheet No. of
				DWG NO	3M-165277	Revision No. 0