

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.	IEEE450-18-5009C-IBSH	Item No.	Rev. No.	[      ]
Project Name		Project No.	Quantity	sets

GENERAL SPECIFICATION			PERFORMANCE DATA			
Frame Size	5009C		Rated Output	335 kW      450 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	392.9 A	491.1 A      982.2 A
Insulation Class	F			Locked-rotor**	720 %	720 %      720 %
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		0.740	
Duty Type	Continuous ( S1 )		75% Load		0.840	
Service Factor	1.15		100% Load		0.890	
Mounting	B35		Speed at Full Load	1785 r.p.m		
Bearing	Type	Anti-Friction	Torque			
	DE/N-DE	6324C3 / 6320C3-INS.	Full Load	1,322.2 lb.ft		
	Lubricant	Grease(Polyrex-EM)	Locked-rotor**	135 %		
External Thrust	Not applicable		Breakdown**	230 %		
Coupling Method	<input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt		Moment of Inertia (J)			
Shaft Extension	Single		Load(Max.)	1,710.000 lb.ft2		
Terminal Box	Main	Cast Iron	Motor	158.058 lb.ft2		
	Aux.	Yes	Sound Pressure Level (No-load & mean value at 1m from motor)			
	Location	Refer to Outline Drawing	85 dB(A)			
Application			Vibration			
Area classification	Hazardous		3.8 mm/sec (peak)			
Type of Ex-Protection	Class I&II, Division 2		Permissible number of consecutive starts	Cold	2 times	
Applicable Standard	IEEE841, NEMA MG1, CSA C390		Hot	1 time		
			Paint	Munsell No.	7.5BG6/1.5	

ACCESSORIES
*. Space Heater : 1EA/Motor

SPARE PARTS

SUBMITTAL DRAWING		
Outline Dimension Drawing	Motor Weight(Approx.)	
B35	LM-I0509C4PE001	4110 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. 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.

1		2		3		4			
REV	DATE	CONTENTS				REVD BY	CHKD BY	CHKD BY	APPD BY
<div style="display: flex; justify-content: space-between;"> <span>4.72</span> <span>2.36</span> </div> <div style="text-align: center;"> </div>									
450HP 4P 460V		Cat. No. IEE450-18-5009C-IBSH		INS. Class F		Amps 491.1			
Model LATER		Duty CONT		Code G		Amb. 40°C		Hertz 60Hz	
Type PJP		Encl. TEFC		S.F. 1.15		RPM 1785		NEMA Nom. Eff. 96.2%	
Frame 5009C		Drive 6324C3		S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)		3/4 Eff. 95.2%			
Bearing Opp. 6320C3-INS.						NEMA Design B			
Usable at 50Hz 335HP 380V 449.62A 1485rpm S.F.: 1.15 Eff.: 96% Code: H									
Usable at 50Hz 335HP 400/415V 426.69/416A 1486/1487rpm S.F.: 1.15 Eff.: 96.1/96.1% Code: J/K									
CSA Certified for CLASS I, Div. 2, Gr. A, B, C & D CLASS I, Zone 2, Gr. IIA, IIB, & IIC		CLASS II, Div. 2, Gr. F & G		Temp. Code (sine wave)		Frame L440FR - 500FR			
						Amb. 40°C T3 (200°C)			
						Amb. 55°C T3 (200°C)			
No. -		Date -				Weight 4110 lb			
IEEE Std 841-2021 4M-136054		MARINE DUTY IEE45		Made in Korea H1		HD HYUNDAI ELECTRIC			

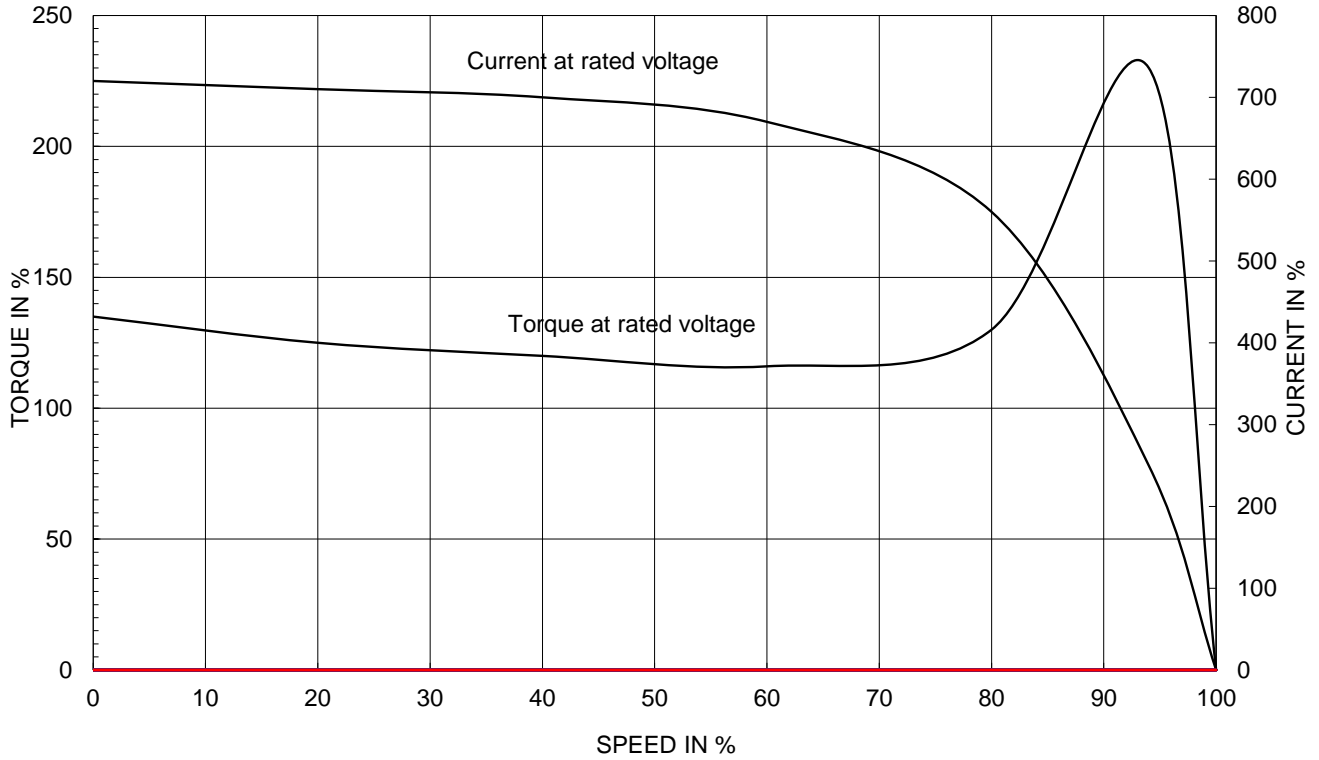
APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	CSA Class I, Division2 IEE451 (XL)	DWG SIZE	A4 ( 1:1 )
CHKD BY	I.K.KIM	SCALE	NONE	TITLE	NAMEPLATE DRAWING		
CHKD BY	R.G.KIM	PROJEC'N	3rd Angle	REF. NO	4M-136054	Sheet No.	of
DSND BY	S.H.LEE	DATE	2024.06.07	DWG NO	NP-IEE450-18-5009C-IBSH	Revision No.	0



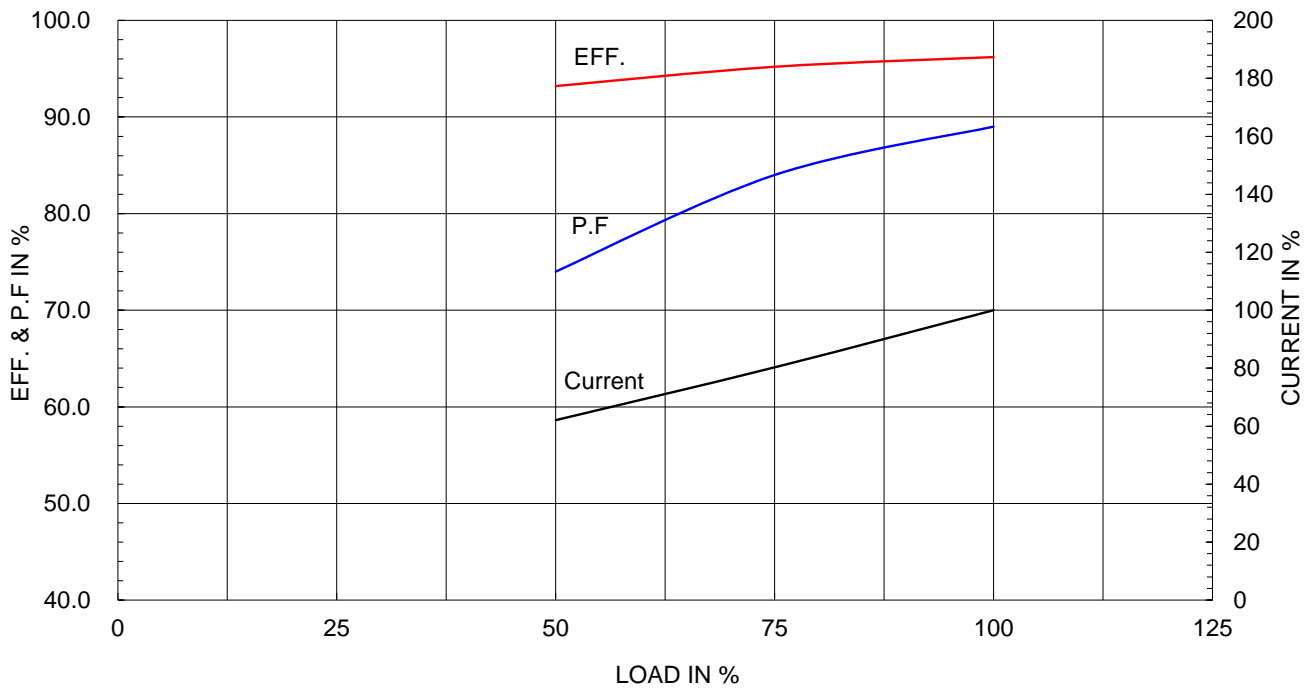
Type :	PJP
Full Load Torque :	1322.2 lb.ft
Load moment of Inertia (J) :	1710.000 lb.ft2
Motor moment of Inertia (J) :	158.058 lb.ft2

335kW 450HP	4 P	60 Hz
Speed at Full Load :		1785 RPM
Rated Voltage	575V	460V 230V
Full Load Current	392.9A	491.1A 982.2A

SPEED VS TORQUE & CURRENT CURVE

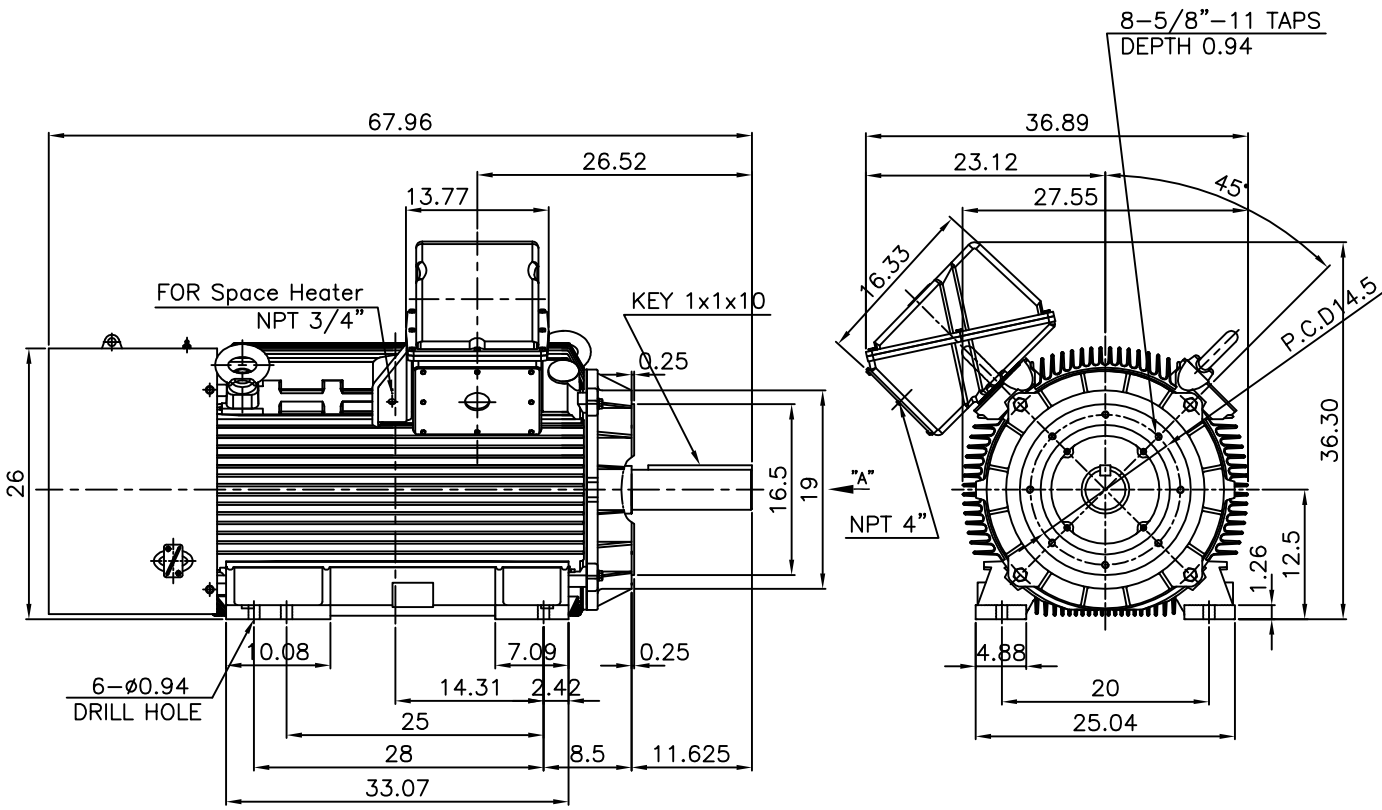


OUTPUT VS EFF., P.F & CURRENT CURVE



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

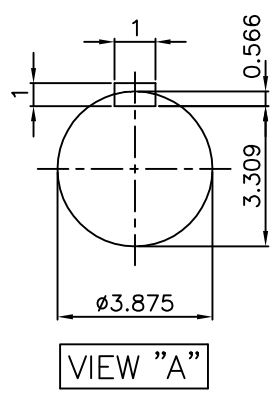
**IEEE841**



**NOTE**

1.TOLERANCE :

CENTER HEIGHT	12.5	+0.000	-0.060
RABBET DIAMETER	ø16.5	+0.000	-0.005
SHAFT DIAMETER	ø3.875	+0.000	-0.001
KEYWAY WIDTH	1	+0.003	-0.000



APPD BY	S.Y.KIM	UNIT	INCH	SUBJECT	Fr.5008/5009C	DWG SIZE	A4 (1:19)
CHKD BY	O.J.KIM	SCALE	1/19			TITLE	OUTLINE
CHKD BY	R.G.KIM	PROJEC'N	3각법(3rd Angle)	REF. NO		Sheet No.	of
DSND BY	H.K.LEE	DATE	2021-04-27	DWG NO	LM-I0509C4PE001	Revision No.	0

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

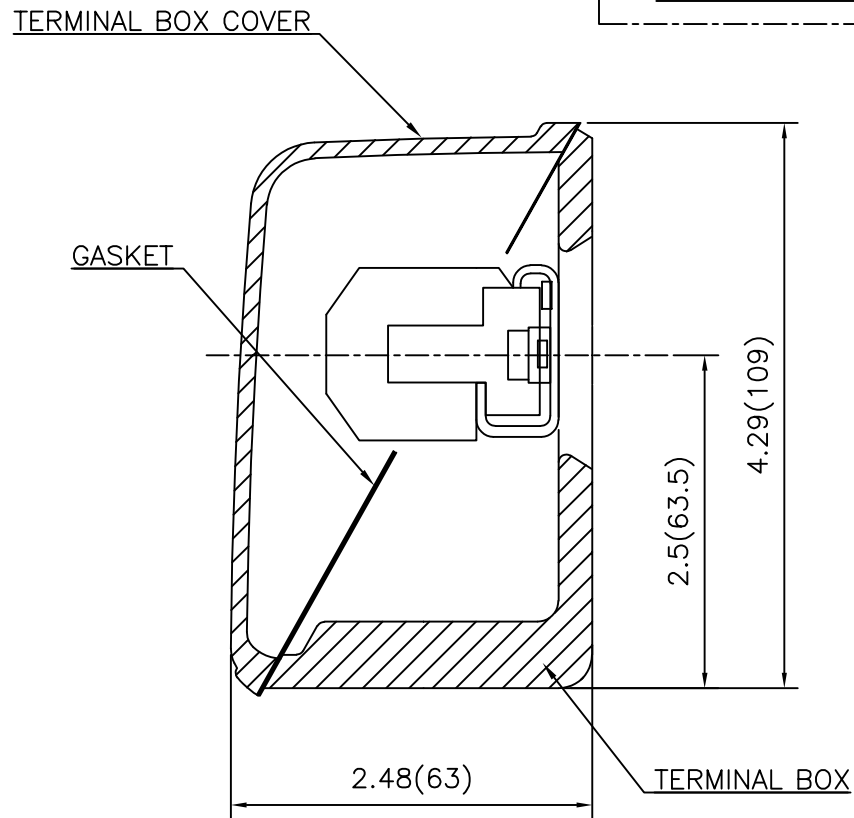
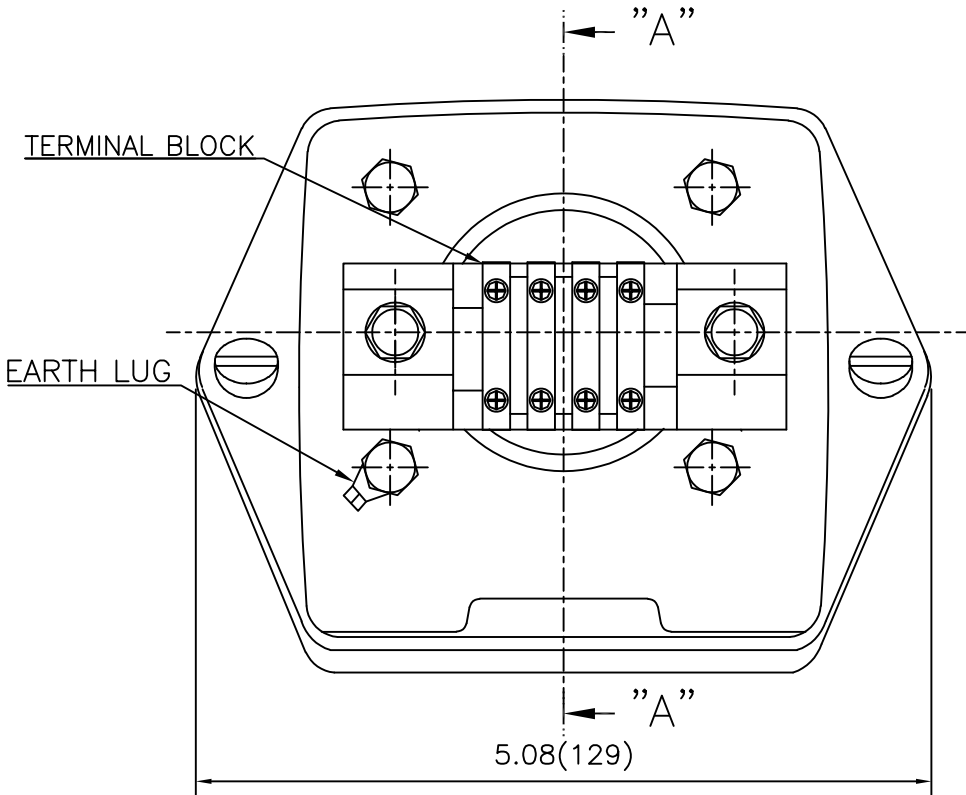


SEC. "A" - "A"

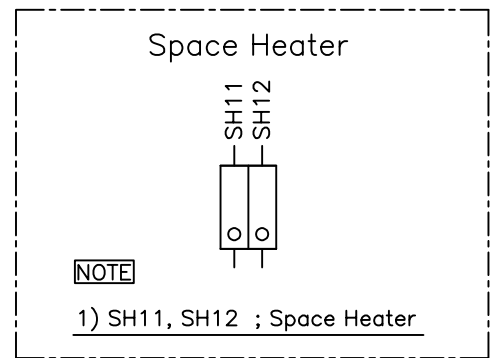
REV	DATE	CONTENTS	REVD BY	CHKD BY	CHKD BY	APPD BY

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**



SEC. "A" - "A"



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	배승희	DATE	2024-01-18	DWG NO	3M-165278	Revision No.	0

