

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. | IEEE600-18-5011C-IBSH | Item No. | | Rev. No. | [] |
| Project Name | | Project No. | | Quantity | sets |

| GENERAL SPECIFICATION | | | PERFORMANCE DATA | | | |
|--|--|----------------------|--|------------------|----------------------------|---------|
| Frame Size | 5011C | | Rated Output | 450 kW | | 600 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 | 527.7 A | 659.7 A |
| Insulation Class | F | | | Locked-rotor** | 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 | 1,776.0 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.) | 2,202.000 lb.ft2 | | |
| Terminal Box | Main | Cast Iron | Motor | 176.332 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 | | 3.8 mm/sec (peak) | |
| Area classification | Hazardous | | Permissible number of consecutive starts | | Cold 2 times Hot 1 time | |
| Type of Ex-Protection | Class I&II, Division 2 | | Paint | Munsell No. | 7.5BG6/1.5 | |
| Applicable Standard | IEEE841, NEMA MG1, CSA C390 | | | | | |

ACCESSORIES

*. Space Heater : 1EA/Motor

SPARE PARTS

SUBMITTAL DRAWING

| | | | |
|---------------------------|-----------------------|----------|--|
| Outline Dimension Drawing | Motor Weight(Approx.) | | |
| B35 | LM-I0511C4PE001 | 5080 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 |
| 2024-09-22 | 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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| | REV | DATE | CONTENTS |
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4.72

CROWN TRITON

Premium Efficiency AC 3 Phase Motor

| | | | |
|-------------------|---|-------------|---|
| 600HP | 4P | 460V | Cat. No. IEE600-18-5011C-IBSH |
| Model | LATER | | INS. Class F |
| Type | PJP | Duty CONT | Amps 659.7 |
| Frame | 5011C | Encl. TEFC | Code H Amb. 40°C Hertz 60Hz |
| Bearing | Drive | 6324C3 | S.F. 1.15 RPM 1785 NEMA Nom. Eff. 96.2% |
| | Opp. | 6320C3-INS. | 3/4 Eff. 95.2% |
| Usable at | 50Hz 475HP 380V 631.28A 1485rpm S.F.: 1.0 Eff.: 96% Code: H | | |
| | 50Hz 475HP 400/415V 605.9/590.71A 1486/1487rpm S.F.: 1.0 Eff.: 96.1/96.1% Code: J/J | | |
| CSA Certified for | CLASS I, Div. 2, Gr. A, B, C & D | | Temp. Code (sine wave) |
| | CLASS I, Zone 2, Gr. IIA, IIB, & IIC | | |
| | CLASS II, Div. 2, Gr. F & G | | |
| No. | - | Date | - |
| | | Weight | 5080 lb |

IEEE Std 841-2021

4M-136054

MARINE DUTY IEE45

Made in Korea H1

2.36

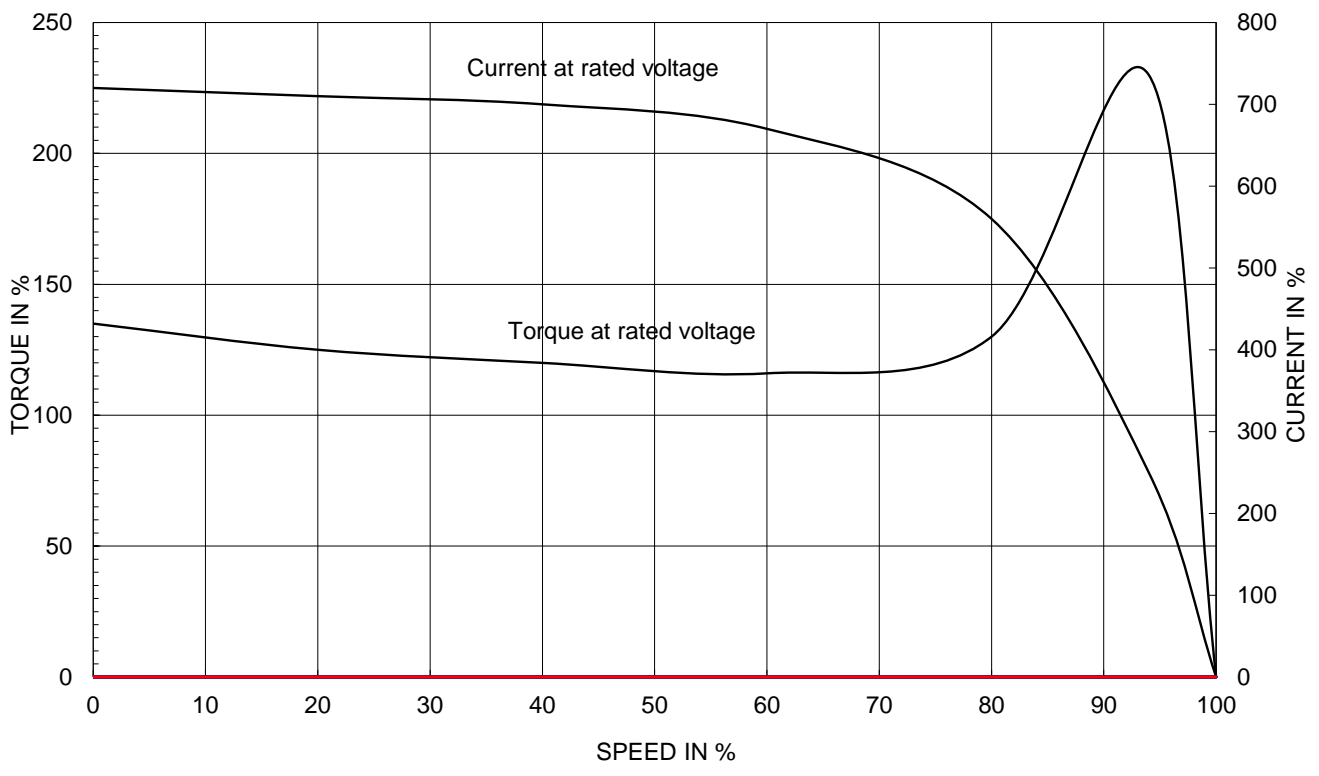
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|---------|---------|----------|------------|---------|------------------------------------|-----------------------|
| APPD BY | S.Y.KIM | UNIT | INCH | SUBJECT | CSA Class I, Division2 IEE841 (XL) | DWG SIZE |
| CHKD BY | I.K.KIM | SCALE | NONE | 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-136054 | Sheet No. of |
| | | | | DWG NO | NP-IEE600-18-5011C-IBSH | Revision No. 0 |

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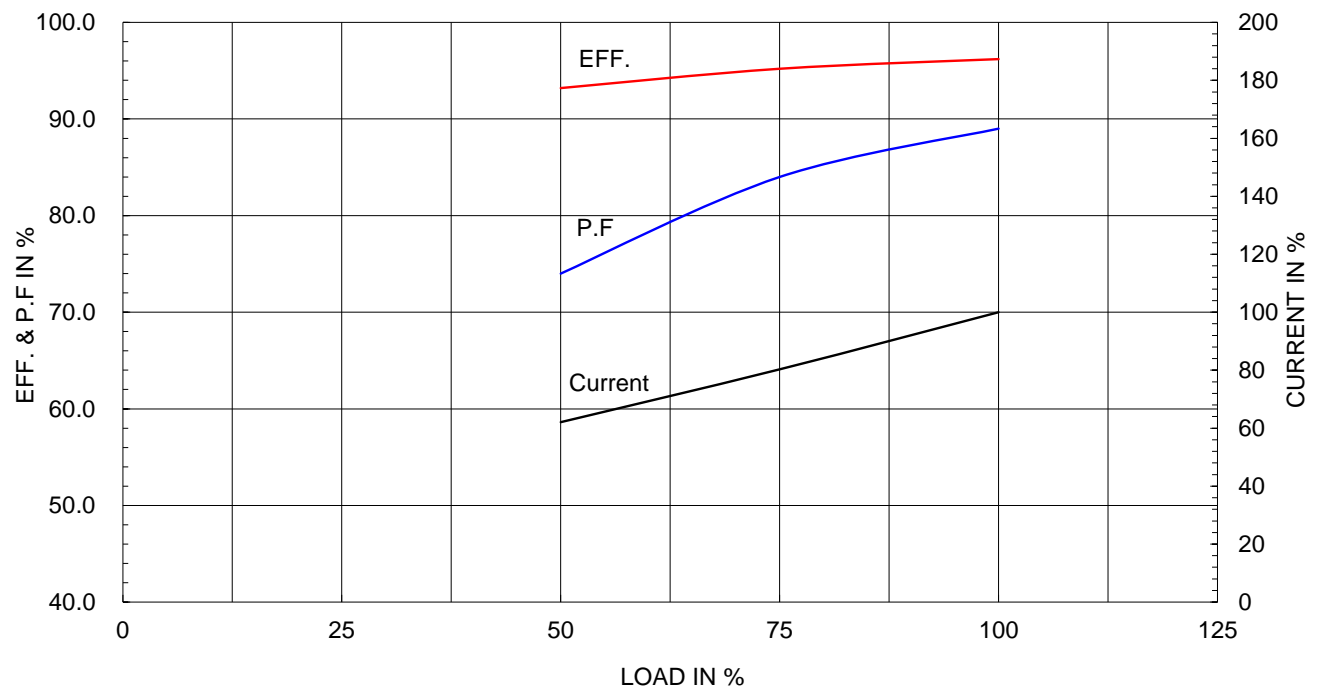
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|-------------------------------|-----------------|
| Type : | PJP |
| Full Load Torque : | 1776.0 lb.ft |
| Load moment of Inertia (J) : | 2202.000 lb.ft2 |
| Motor moment of Inertia (J) : | 176.332 lb.ft2 |

| | | |
|----------------------|--------|----------------|
| 450kW 600HP | 4 P | 60 Hz |
| Speed at Full Load : | | 1785 RPM |
| Rated Voltage | 575V | 460V 230V |
| Full Load Current | 527.7A | 659.7A 1319.3A |

SPEED VS TORQUE & CURRENT CURVE

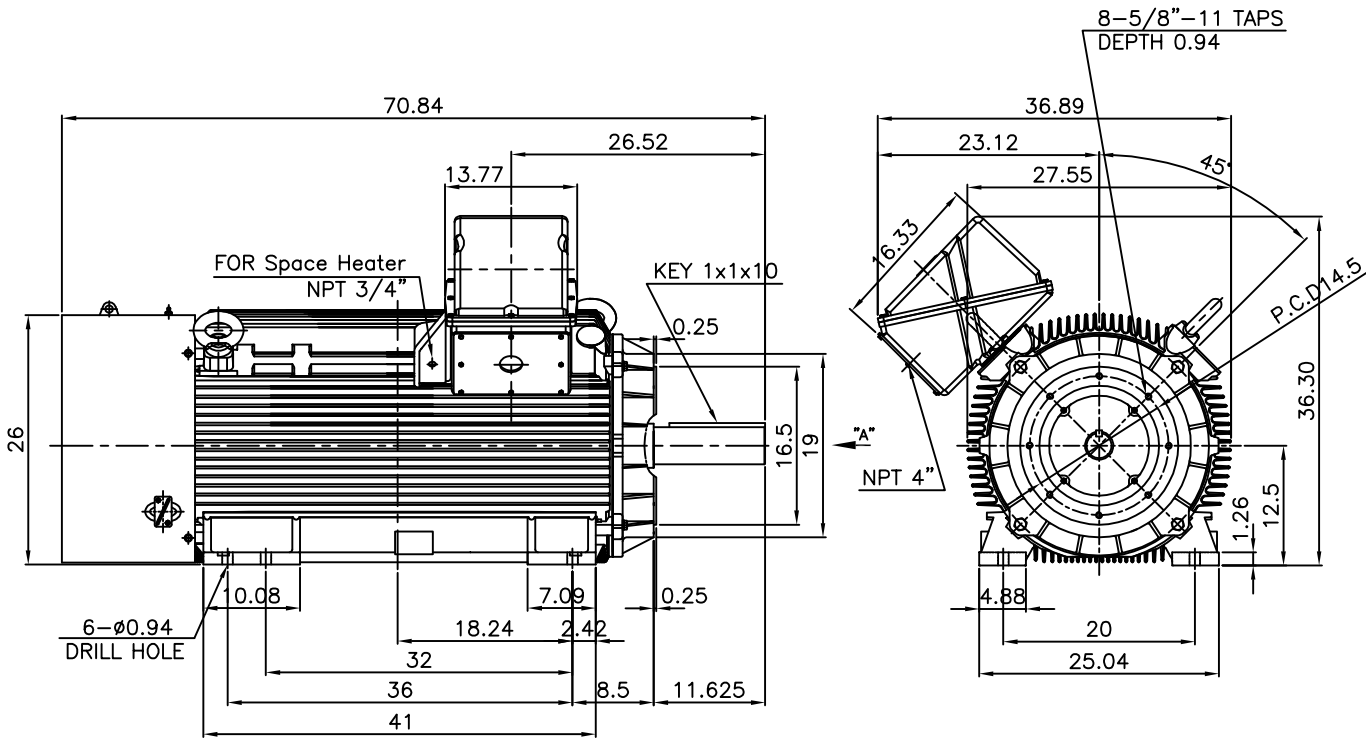


OUTPUT VS EFF., P.F & CURRENT CURVE



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

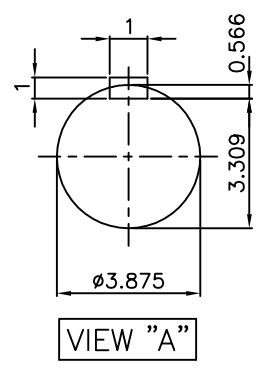
IEEE841



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 |



VIEW "A"

| | | | | | | |
|---------|---------|----------|----------------|-------------------------|---------------|-----------|
| APPD BY | S.Y.KIM | UNIT | INCH | SUBJECT | Fr.5010/5011C | DWG SIZE |
| CHKD BY | O.J.KIM | SCALE | 1/20 | | | A4 (1:20) |
| CHKD BY | R.G.KIM | PROJEC'N | 3각법(3rd Angle) | TITLE OUTLINE | | |
| DSND BY | H.K.LEE | DATE | 2021-04-27 | | | |



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| REF. NO | | Sheet No. | of |
| DWG NO | LM-I0511C4PE001 | Revision No. | 0 |

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IEEE 841**



SEC. "A" - "A"

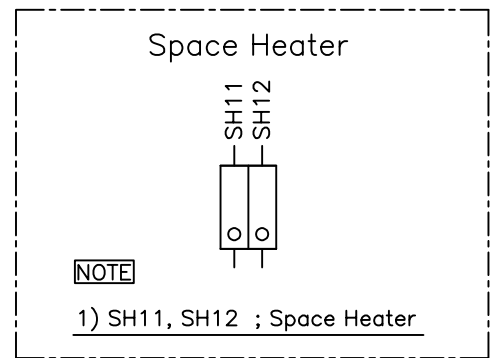
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| APPD BY | S.Y.KIM | UNIT | inch(mm) | SUBJECT | FR. L440 (CAST IRON) | DWG SIZE |
| CHKD BY | | SCALE | 1/3.5 | TITLE | MAIN TERMINAL BOX ASS'Y | A3 (1:3.5) |
| CHKD BY | R.G.KIM | PROJEC'N | 3rd Angle | | | |
| DSND BY | 최승희 | DATE | 2023-10-19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

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



SEC. "A" - "A"



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|---------|---------|----------|------------|---------|-------------------------|----------------|
| 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-165278 | Revision No. 0 |