

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. | IEEE600-36-5812S-IBSHSP | Item No. | Rev. No. [] |
| Project Name | | Project No. | Quantity sets |

| GENERAL SPECIFICATION | | PERFORMANCE DATA | | |
|--|--|--|--|-------------------------------------|
| Frame Size | 5812S | Rated Output | 450 kW 600 HP | |
| Type | HNE6 | 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 | 529.9 A 662.4 A 1,324.9 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 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 0.740 | | |
| Duty Type | Continuous (S1) | 75% Load 0.840 | | |
| Service Factor | 1.15 | 100% Load 0.890 | | |
| Mounting | B3 | Speed at Full Load | 3570 r.p.m | |
| Bearing | Type | Anti-Friction | Torque | |
| | DE/N-DE | 6316C3 / 6316C3-INS. | Full Load | 888.0 lb.ft |
| | Lubricant | Grease(Polyrex-EM) | Locked-rotor** | 150 % |
| External Thrust | Not applicable | | Breakdown** | 250 % |
| Coupling Method | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt | Moment of Inertia (J) | | |
| Shaft Extension | Single | Load(Max.) | 453.394 lb.ft2 | |
| Terminal Box | Main | Steel | Motor | 121.840 lb.ft2 |
| | Aux. | Yes | Sound Pressure Level (No-load & mean value at 1m from motor) | |
| Location | Refer to Outline Drawing | 89 dB(A) | | |
| Application | | Vibration | 3.8 mm/sec (peak) | |
| Area classification | Hazardous | Permissible number of consecutive starts | Cold | 2 times |
| Type of Ex-Protection | Class I, Division 2 | | Hot | 1 time |
| Applicable Standard | IEEE841, NEMA MG1, CSA C390 | Paint | Munsell No. | 7.5BG6/1.5 |

| ACCESSORIES |
|-----------------------------|
| *. Space Heater : 1EA/Motor |

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

| SUBMITTAL DRAWING | | |
|---------------------------|-----------------------|----------|
| Outline Dimension Drawing | Motor Weight(Approx.) | |
| B3 | LM-I5812B3CE001 | 6730 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
6. 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.

| 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



| | | | |
|-------------------|----------------------------------|---|----------------------|
| 600HP 2P 460V | Cat. No. IEEE600-36-5812S-IBSHSP | | |
| Model LATER | INS. Class F | Amps | 662.4 |
| Type HNE6 | Duty CONT | Code G | Amb. 40°C |
| Frame 5812S | Encl. TEFC | S.F. 1.15 | RPM 3570 |
| Bearing | Drive 6316C3 | S.F.1.00 (2:1 C.T., 10:1 V.T., NEMA-MG1 Part31) | |
| | Opp. 6316C3-INS. | NEMA Design | |
| Usable at | | NEMA Nom. Eff. | 95.8% |
| CSA Certified for | CLASS I, Div. 2, Gr. A, B, C & D | Temp. Code (sine wave) | 3/4 Eff. 94.8% |
| | | Frame 580FR | NEMA Design B Torque |
| No. - | Date - | Maximum Amb. 50°C | T3A (180°C) |
| IEEE Std 841-2021 | | Weight | 6730 lb |
| 4M-136445 | | Made in Korea H1 | |

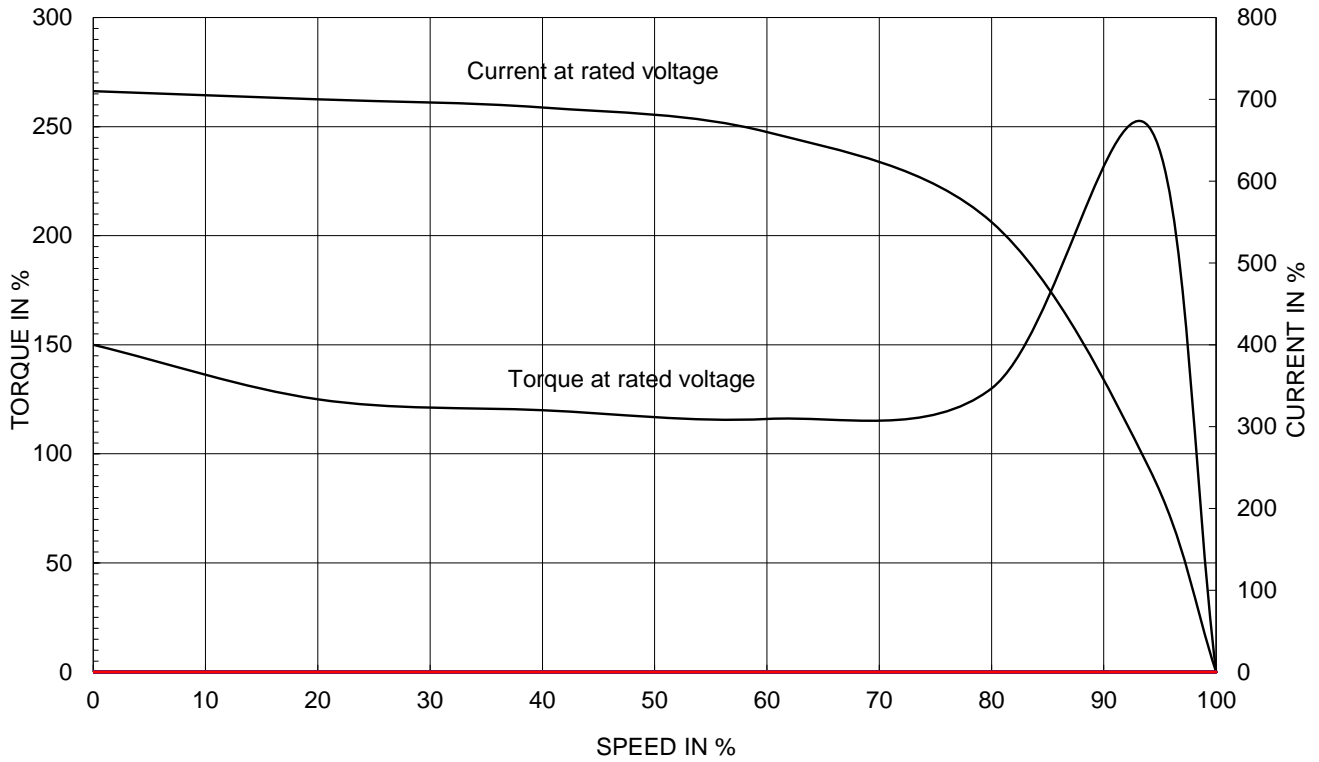
2.36

| | | | | | | | |
|---|---------|----------|------------|---------|-------------------------------------|----------------|------------|
| APPD BY | S.Y.KIM | UNIT | INCH | SUBJECT | CSA Class I, Division2 IEEE841 (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 | | | | |
| DSND BY | S.H.LEE | DATE | 2024.06.07 | | | | |
|  | | | | REF. NO | 4M-136445 | Sheet No. of | |
| | | | | DWG NO | NP-IEEE600-36-5812S-IBSHSP | Revision No. 0 | |

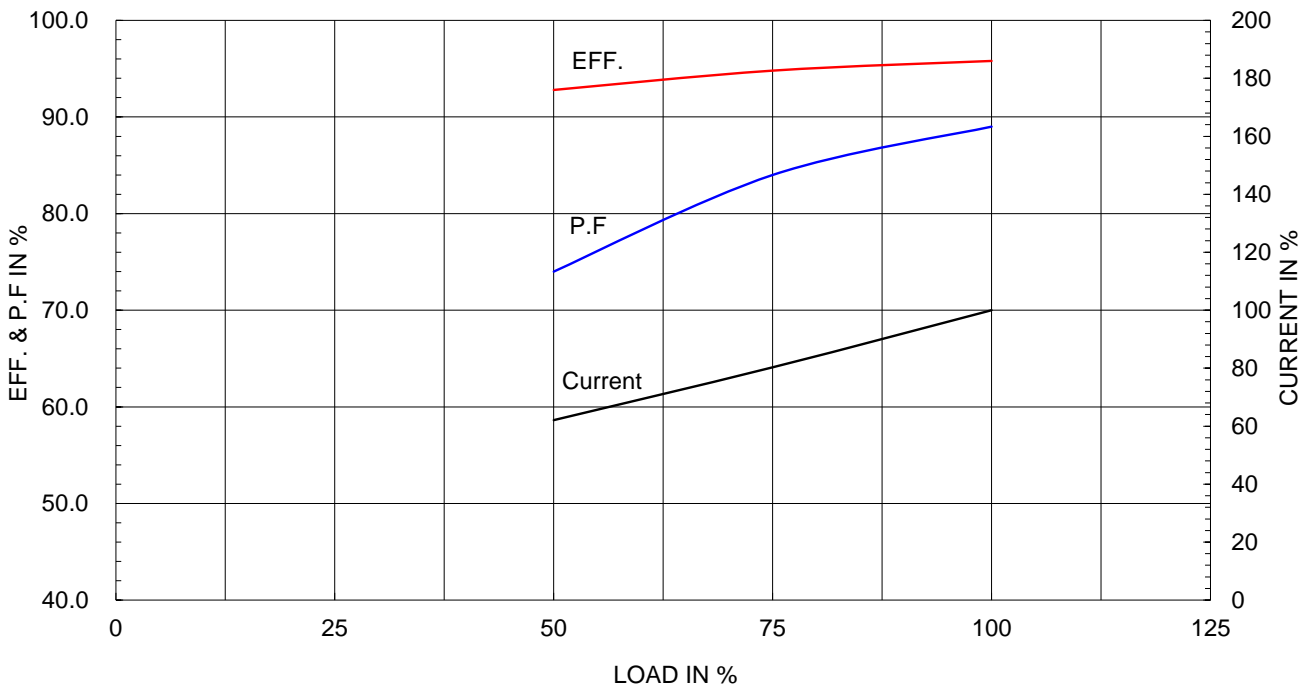
| | |
|-------------------------------|----------------|
| Type : | HNE6 |
| Full Load Torque : | 888.0 lb.ft |
| Load moment of Inertia (J) : | 453.394 lb.ft2 |
| Motor moment of Inertia (J) : | 121.840 lb.ft2 |

| | | |
|----------------------|--------|--------------|
| 450kW 600HP | 2 P | 60 Hz |
| Speed at Full Load : | | 3570 RPM |
| Rated Voltage | 575V | 460V 230V |
| Full Load Current | 529.9A | 662.4A ##### |

SPEED VS TORQUE & CURRENT CURVE

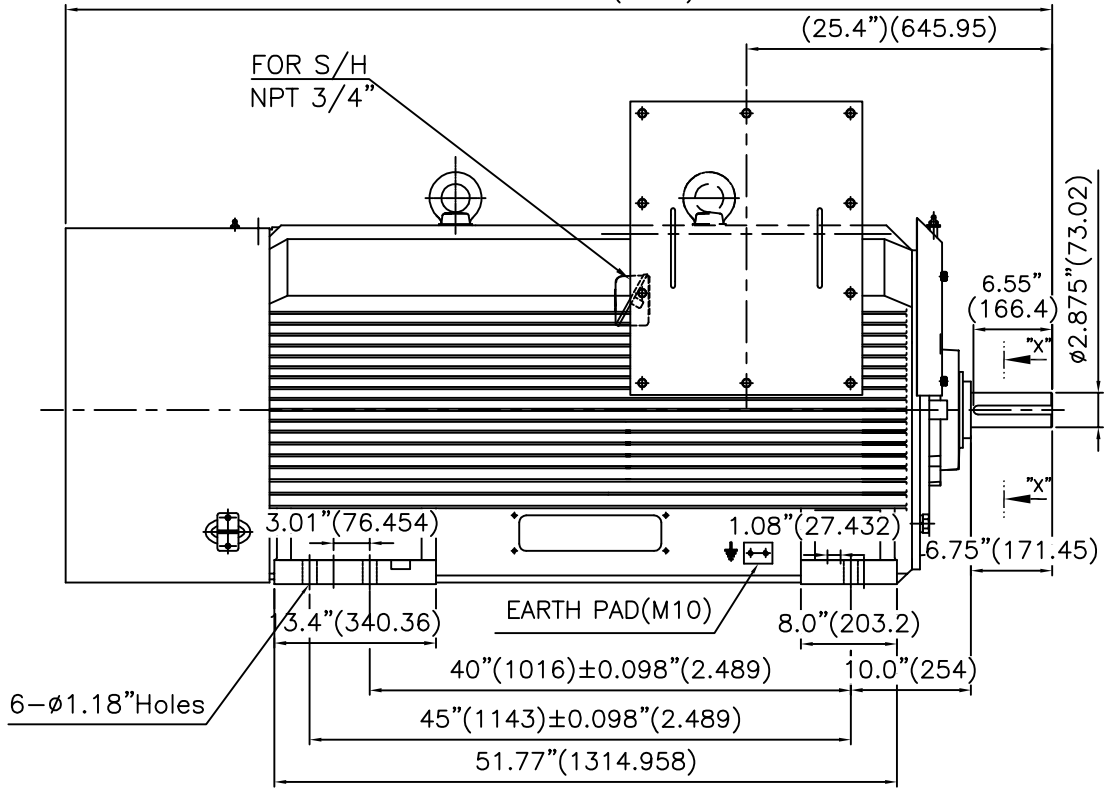


OUTPUT VS EFF., P.F & CURRENT CURVE



IEEE841

APPROX.82.04"(2084)



TECHNICAL INFORMATION

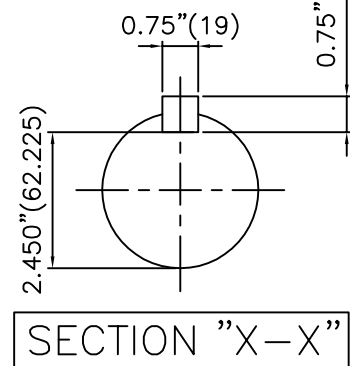
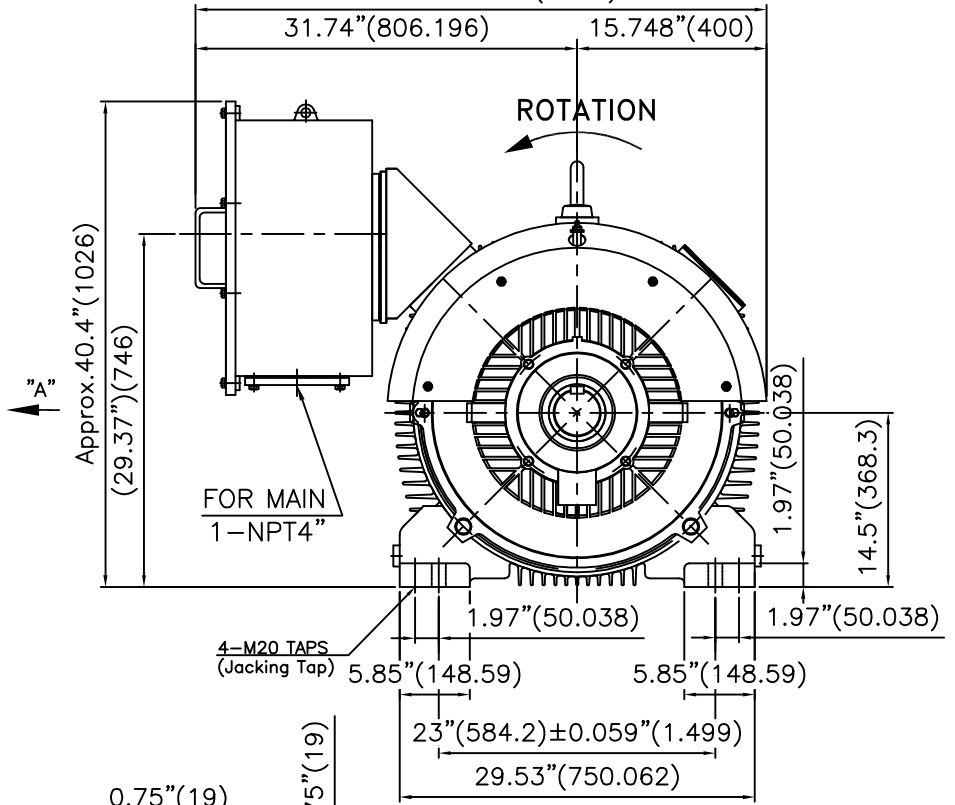
1) BEARING & LUBRICANT LIST

| BEARING | Drive End | Non-Drive End |
|-------------------------|-------------------|-------------------|
| Bearing Type | 6316C3 | 6316C3 |
| Lubricant Type | GREASE | GREASE |
| Grease Type | Mobil(Polyrex-EM) | Mobil(Polyrex-EM) |
| Initial Charge Quantity | 200 g | 200 g |
| Mark-Up | Quantity | 33 g |
| | Interval | 2 MONTHS |

2) TOLERANCE :

| | | | |
|----------------|--------|--------|--------|
| CENTER HEIGHT | 14.5 | +0.000 | -0.060 |
| SHAFT DIAMETER | ø2.875 | +0.000 | -0.001 |
| KEYWAY WIDTH | 0.75 | +0.003 | -0.000 |

APPROX.47.52"(1207)

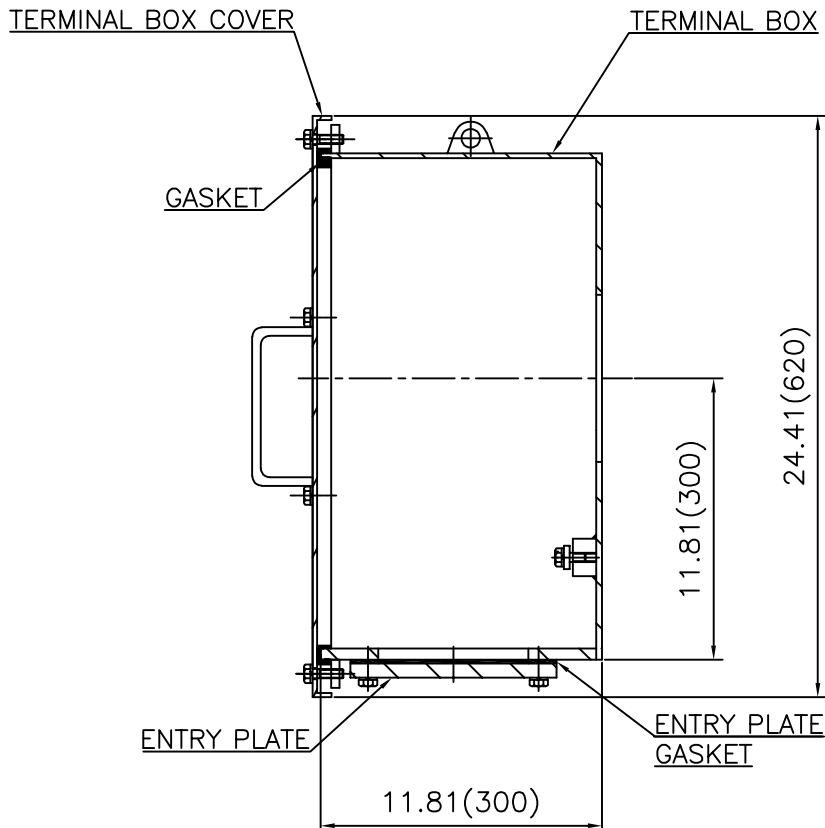
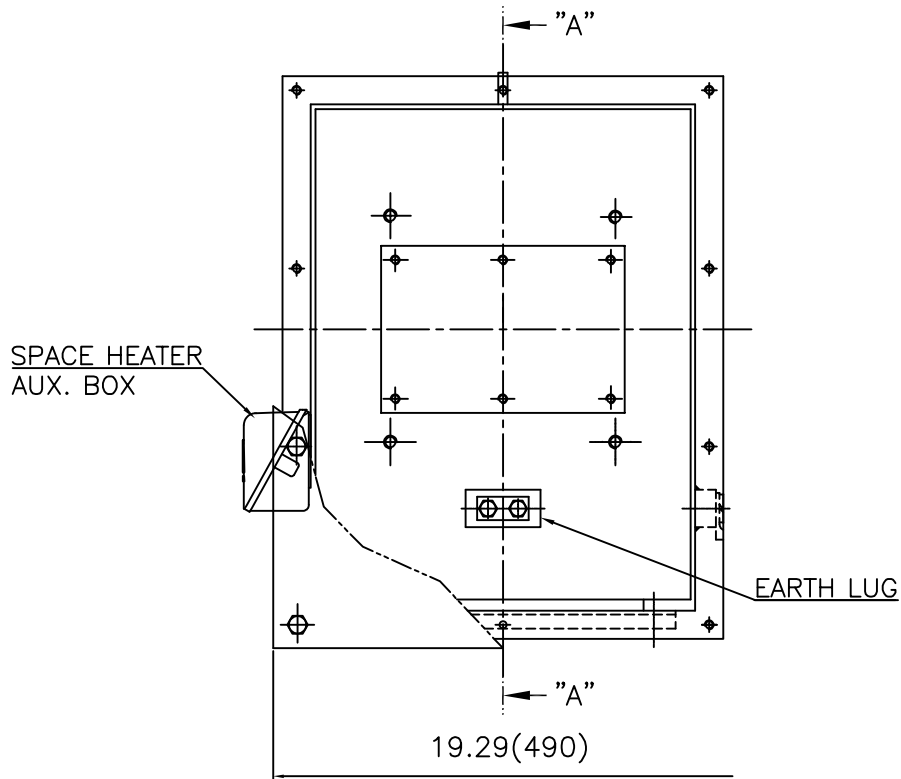


VIEW "A"

| Q'TY | DESCRIPTION | MATERIAL | DIMENSION | WEIGHT | PART NO. | REMARK |
|---------|-------------|----------|-----------------|--------------------|-----------------|--------------|
| APPD BY | S.K.HAN | UNIT | INCH(MM) | SUBJECT Fr.5812-2P | | |
| CHKD BY | S.Y.KIM | SCALE | 1/12 | TITLE | | |
| CHKD BY | R.G.KIM | PROJEC'N | 3각법 (3rd Angle) | OUTLINE | | |
| DSND BY | M.S.HA | DATE | 2019.05.16 | REF. NO | Sheet No. of | |
| | | | | DWG NO | LM-I5812B3CE001 | Revision No. |

| REV | DATE | CONTENTS | REVD BY | CHKD BY | CHKD BY | APPD BY |
|-----|------|----------|---------|---------|---------|---------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

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



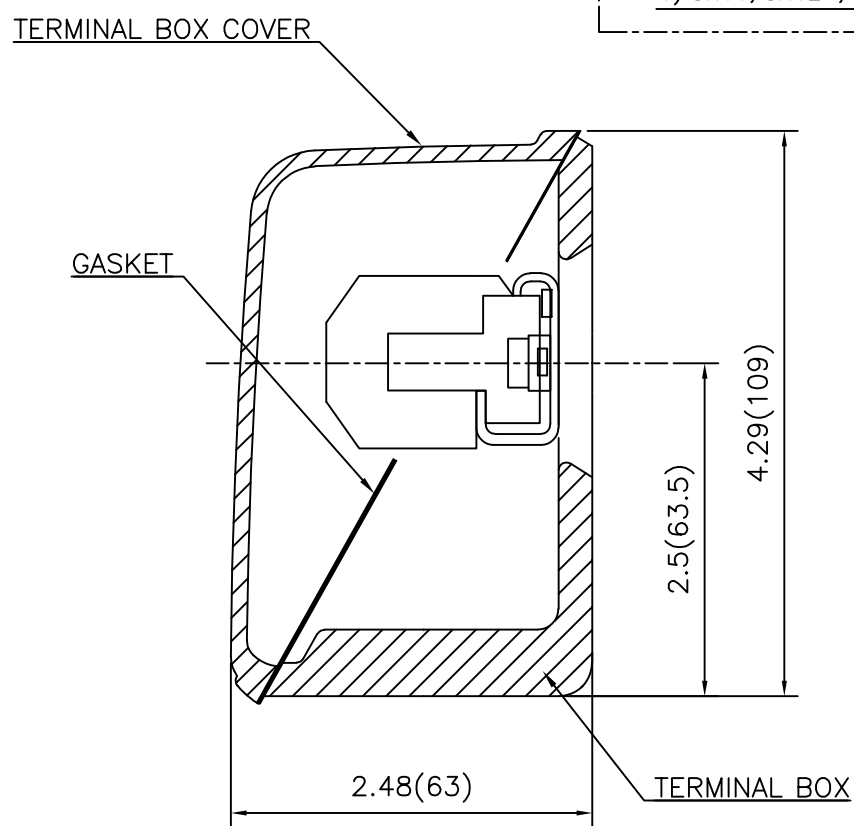
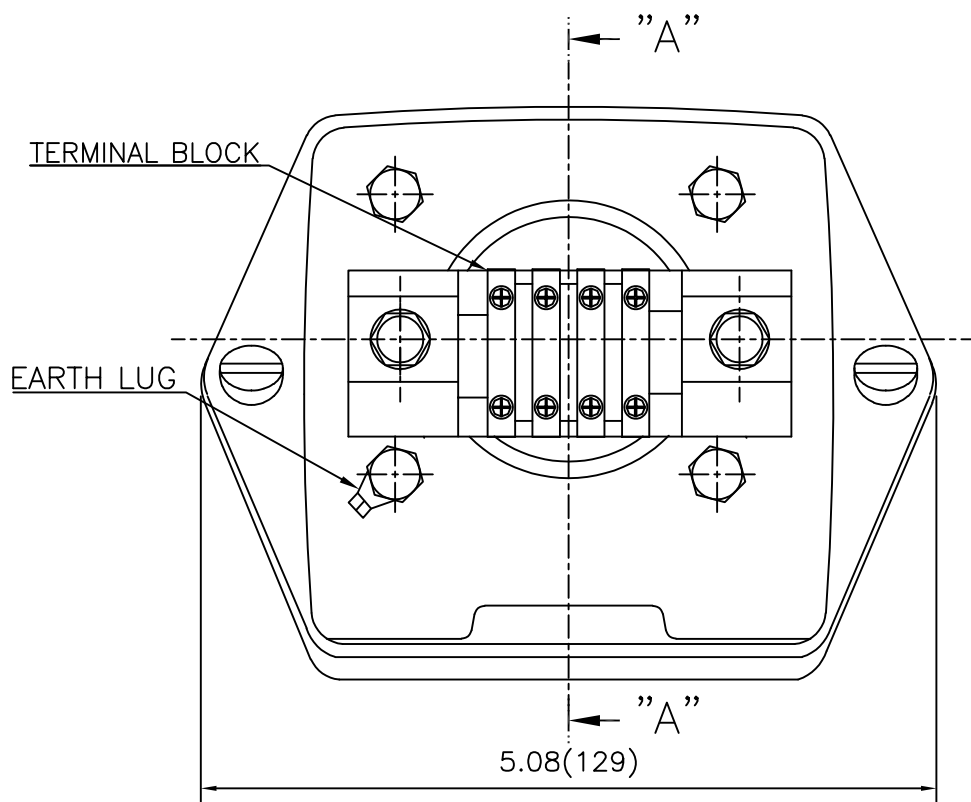
SEC. "A" - "A"

| REV | DATE | CONTENTS | REVD BY | CHKD BY | CHKD BY | APPD BY |
|-----|------|----------|---------|---------|---------|---------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

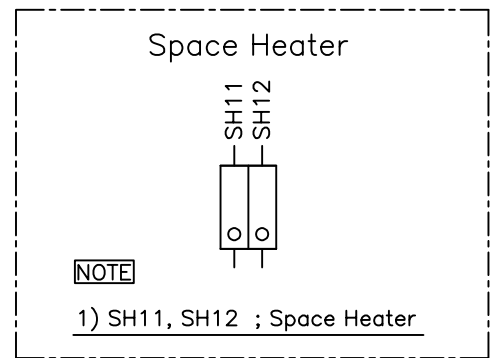
| | | | | | | | |
|---------|---------|----------|------------|---------|-------------------------|--------------|----------|
| APPD BY | S.Y.KIM | UNIT | inch(mm) | SUBJECT | FR.580 (STEEL) | DWG SIZE | A3 (1:6) |
| CHKD BY | | SCALE | 1/6 | TITLE | MAIN TERMINAL BOX ASS'Y | | |
| CHKD BY | R.G.KIM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