

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. | HSDE700-18-5812-IBSH | Item No. | | Rev. No. | [] |
| Project Name | | Project No. | | Quantity | sets |

| GENERAL SPECIFICATION | | | PERFORMANCE DATA | | | |
|--|--|---------------------|--|--|-------------------|------------------------|
| Frame Size | 5812 | | Rated Output | 520 kW 700 HP | | |
| Type | HNE6 | | 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 | 616.8 A | 771.0 A 1,541.9 A |
| Insulation Class | F | | | Locked-rotor** | 650 % | 650 % 650 % |
| 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 | NU324 / 6322C3-INS. | | Full Load | 2,052.3 lb.ft | |
| | Lubricant | Grease(Polyrex-EM) | | Locked-rotor** | 120 % | |
| External Thrust | Not applicable | | Breakdown** | 220 % | | |
| Coupling Method | <input type="checkbox"/> Direct <input type="checkbox"/> V-belt | | Moment of Inertia (J) | | | |
| Shaft Extension | Single | | Load(Max.) | | 2,557.532 lb.ft2 | |
| Terminal Box | Main | Steel | | Motor | | 242.400 lb.ft2 |
| | Aux. | Yes | | Sound Pressure Level (No-load & mean value at 1m from motor) | | |
| Location | Refer to Outline Drawing | | 87 dB(A) | | | |
| Application | | | Vibration | | | |
| Area classification | Hazardous | | 3.8 mm/sec (peak) | | | |
| Type of Ex-Protection | Class I, Division 2 | | Permissible number of consecutive starts | | Cold 2 times | |
| Applicable Standard | NEMA MG1, CSA C390 | | Hot | | 1 time | |
| | Paint | Munsell No. | 4.0PB5.4/5.5(VL-451) | | | |

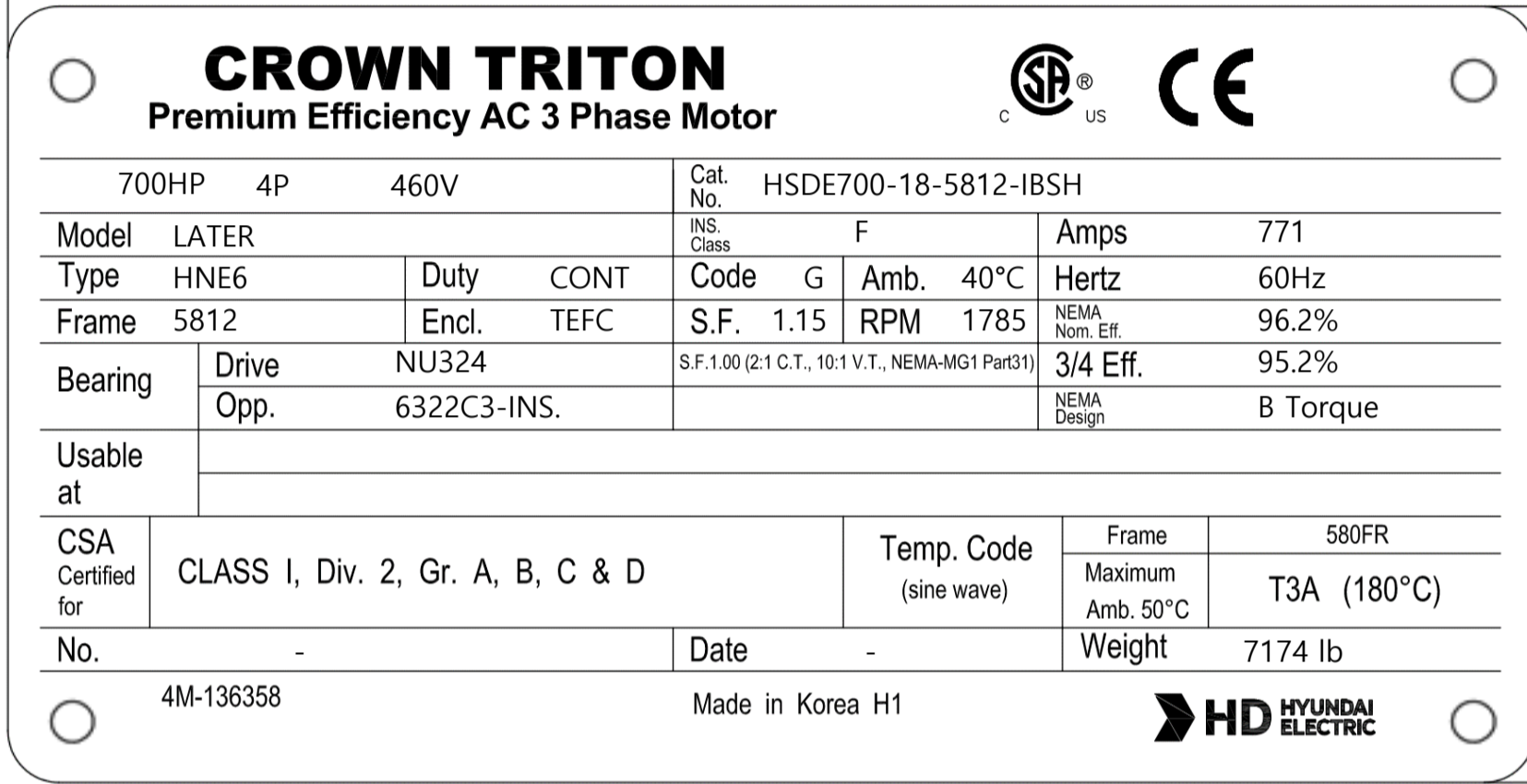
| ACCESSORIES | SUBMITTAL DRAWING |
|-----------------------------|---|
| *. Space Heater : 1EA/Motor | Outline Dimension Drawing \ Motor Weight(Approx.) |
| | B3 LM-T5812B3PE001 7174 lb. |
| | |

| 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 | | | | |
| 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.

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| REV | DATE | CONTENTS | REVD BY CHKD BY CHKD BY APPD BY |
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| | | | |

4.72




CROWN TRITON
Premium Efficiency AC 3 Phase Motor


700HP 4P 460V Cat. No. HSDE700-18-5812-IBSH

| | | | | | |
|-------------------|----------------------------------|-------------|------------------------|-------------------|-------------|
| Model | LATER | INS. Class | F | Amps | 771 |
| Type | HNE6 | Duty | CONT | Code | G |
| Frame | 5812 | Encl. | TEFC | Amb. | 40°C |
| Bearing | Drive | NU324 | S.F. 1.15 | | RPM 1785 |
| | Opp. | 6322C3-INS. | NEMA Nom. Eff. | | 96.2% |
| Usable at | 3/4 Eff. | | NEMA Design | | 95.2% |
| | B Torque | | | | |
| CSA Certified for | CLASS I, Div. 2, Gr. A, B, C & D | | Temp. Code (sine wave) | Frame | 580FR |
| No. | - | Date | - | Maximum Amb. 50°C | T3A (180°C) |
| 4M-136358 | | Date | | Weight | 7174 lb |

Made in Korea H1



2.36

| | | | | | | |
|---|---------|----------|------------|-----------------------------------|---|-----------------------|
| APPD BY | S.Y.KIM | UNIT | INCH | SUBJECT | CSA Class I, Division2 Severe Duty (HSDE ,5812) | DWG SIZE |
| CHKD BY | I.K.KIM | SCALE | NONE | | | A4 (1:1) |
| CHKD BY | R.G.KIM | PROJEC'N | 3rd Angle | TITLE NAMEPLATE DRAWING | | |
| DSND BY | S.H.LEE | DATE | 2024.06.07 | | | |
|  | | | | REF. NO | 4M-136358 | Sheet No. of |
| | | | | DWG NO | NP-HSDE700-18-5812-IBSH | Revision No. 0 |



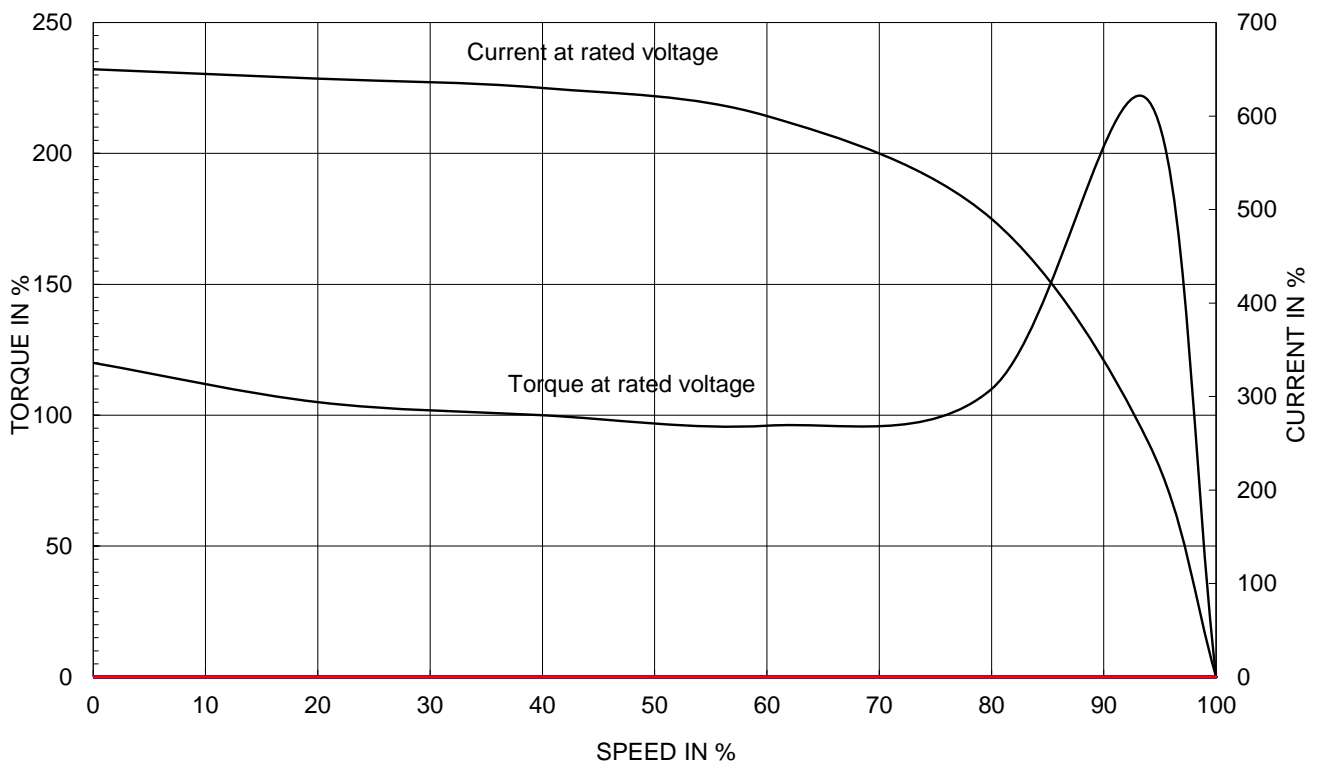
PERFORMANCE CURVE

CURVE NO.
PC-HSDE700-18-5812-IBSH

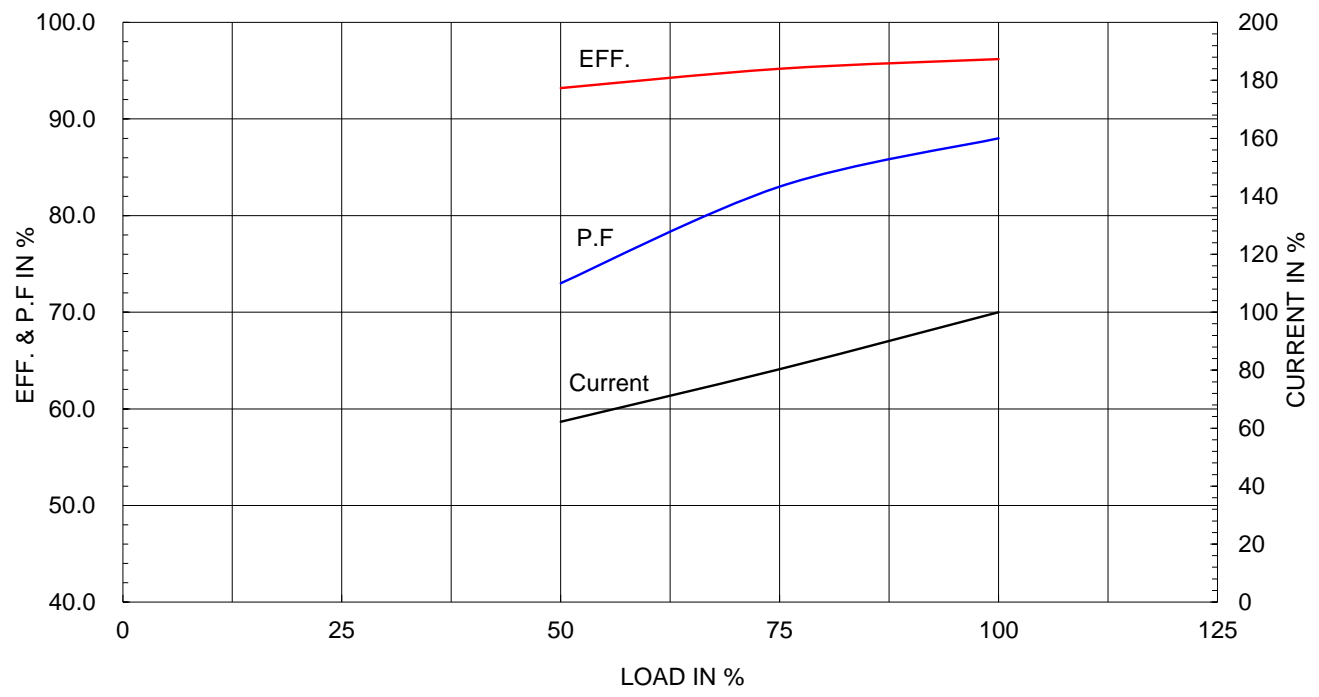
| | |
|-------------------------------|-----------------|
| Type : | HNE6 |
| Full Load Torque : | 2052.3 lb.ft |
| Load moment of Inertia (J) : | 2557.532 lb.ft2 |
| Motor moment of Inertia (J) : | 242.400 lb.ft2 |

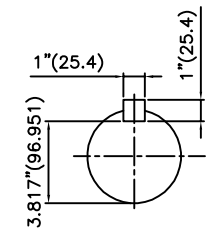
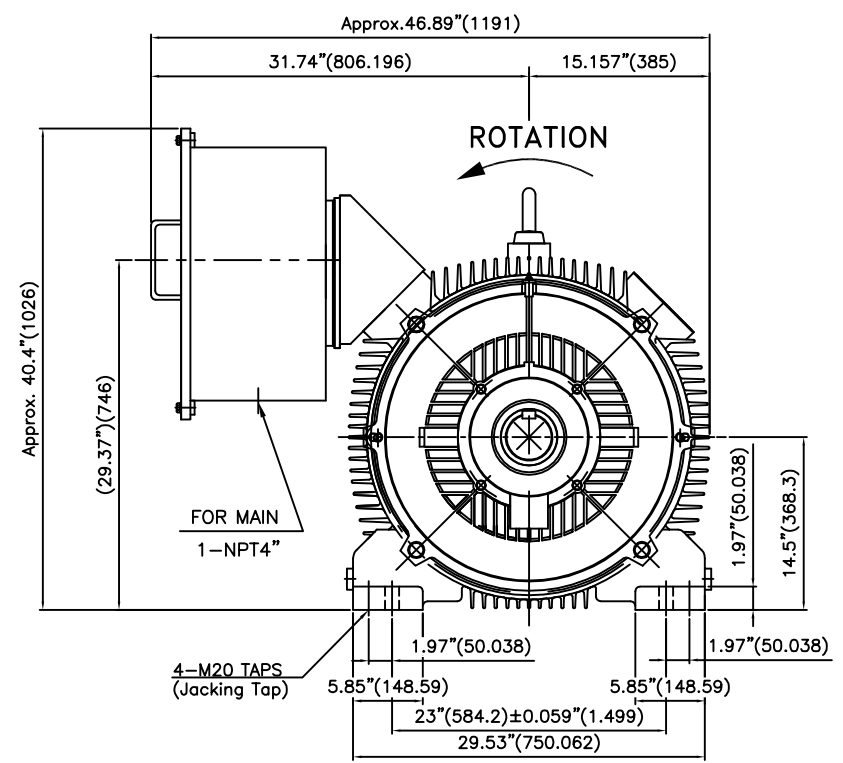
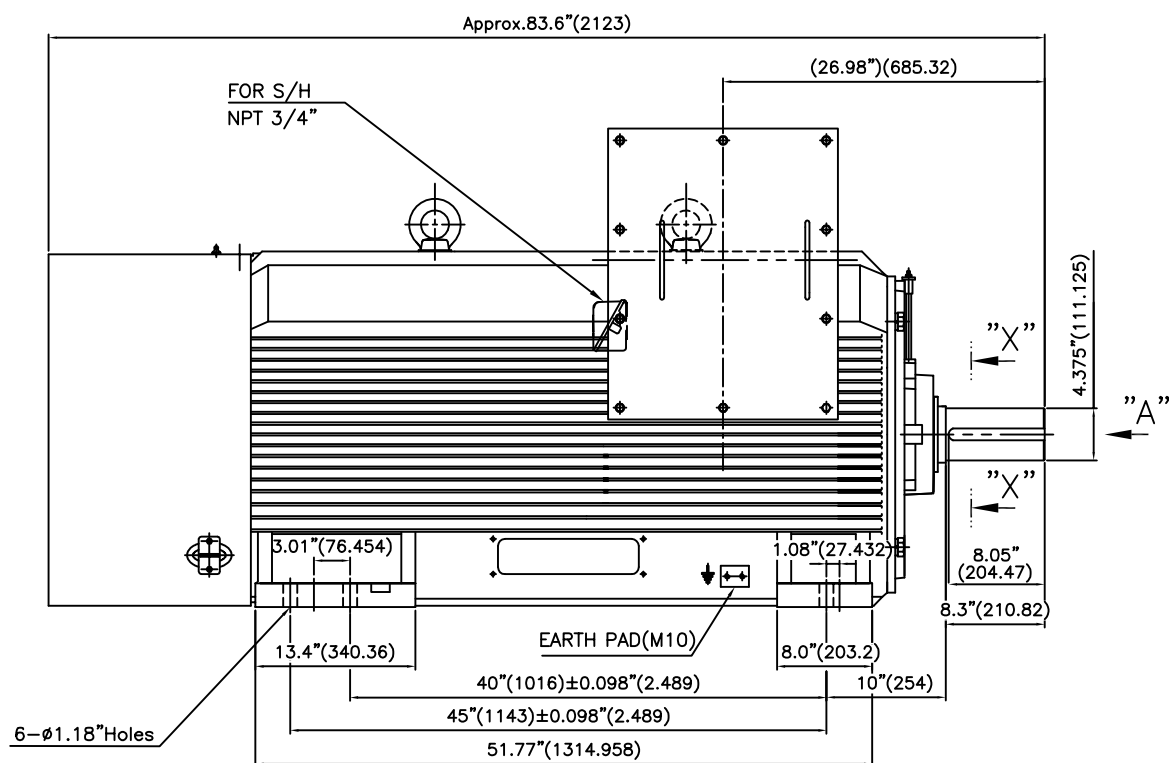
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|----------------------|--------|--------------|
| 520kW 700HP | 4 P | 60 Hz |
| Speed at Full Load : | | 1785 RPM |
| Rated Voltage | 575V | 460V 230V |
| Full Load Current | 616.8A | 771.0A ##### |

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





VIEW "A"

TECHNICAL INFORMATION

1) BEARING & LUBRICANT LIST

| BEARING | Drive End | Non-Drive End |
|-------------------------|------------------------|------------------------|
| Bearing Type | 6324C3 | 6322C3 |
| Lubricant Type | GREASE | GREASE |
| Grease Type | Shell(Gadus S2 V100 2) | Shell(Gadus S2 V100 2) |
| Initial Charge Quantity | 434 g | 334 g |
| Mark-Up | Quantity | 130 g |
| | Interval | 6 MONTHS |
| | | 6 MONTHS |

2) TOLERANCE :

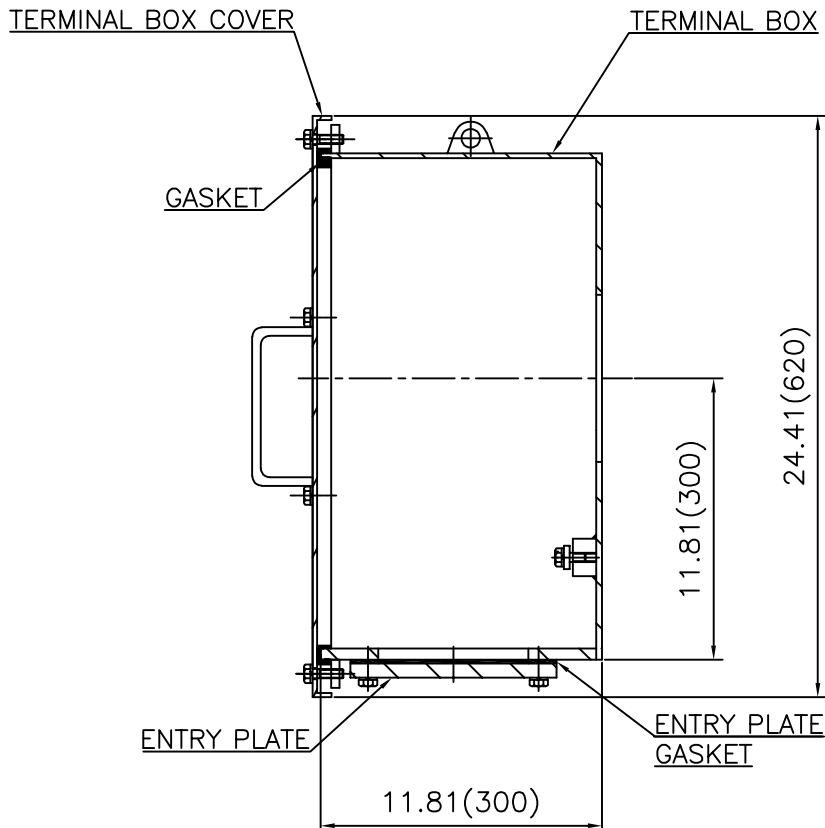
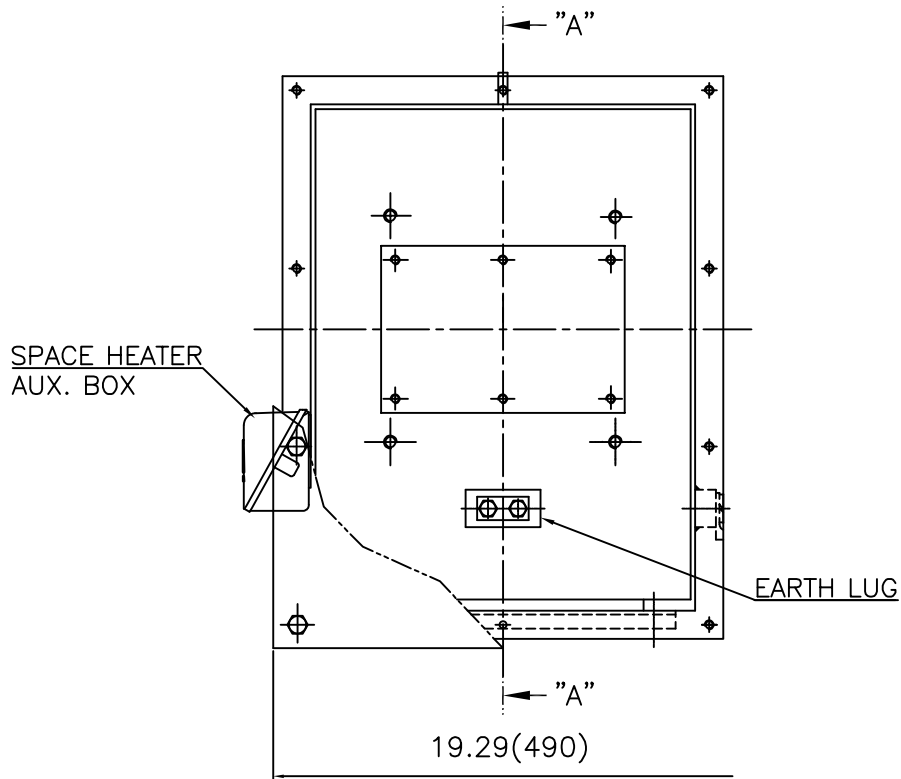
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|----------------|--------|--------|--------|
| CENTER HEIGHT | 14.5 | +0.000 | -0.060 |
| SHAFT DIAMETER | Ø4.375 | +0.000 | -0.001 |
| KEYWAY WIDTH | 1 | +0.003 | -0.000 |

| Q'TY | DESCRIPTION | MATERIAL | DIMENSION | WEIGHT | PART NO. | REMARK | NO. |
|---------|-------------|----------|-----------------|---------|-----------------|--------------|-----|
| APPD BY | S.K.HAN | UNIT | INCH(MM) | SUBJECT | Fr.5812-4~20P | DWG SIZE | |
| CHKD BY | S.Y.KIM | SCALE | 1/12 | TITLE | OUTLINE | A3 (1:12) | |
| CHKD BY | | PROJEC'N | 3각법 (3rd Angle) | REF. NO | | Sheet No. | of |
| DSND BY | J.H.LEE | DATE | 2016.05.23 | DWG NO | LM-T5812B3PE001 | Revision No. | 0 |



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IEEE 841**



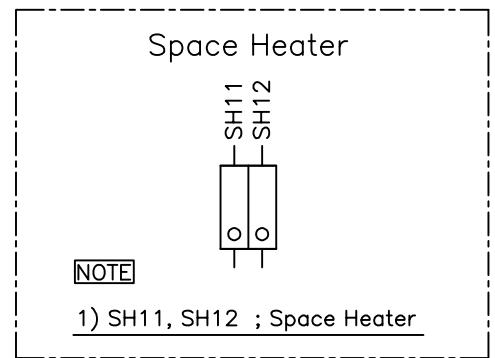
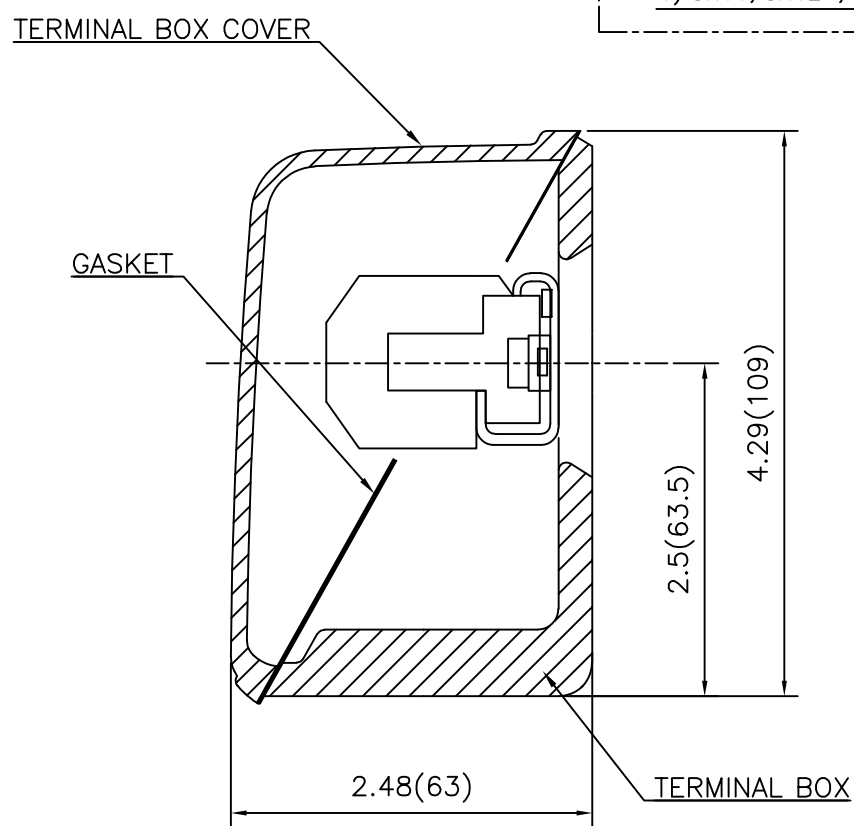
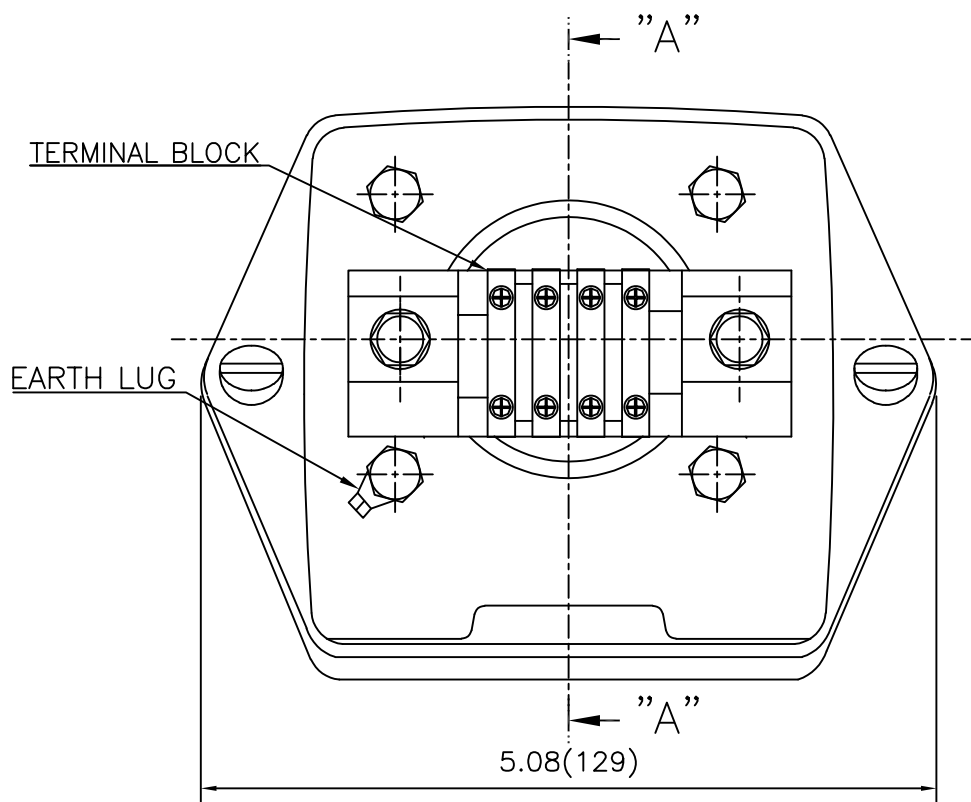
SEC. "A" - "A"

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| APPD BY | S.Y.KIM | UNIT | inch(mm) | SUBJECT | FR.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 | 박승희 | DATE | 2023-10-25 | DWG NO | 3M-248512 | Revision No. | 0 |



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| 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 |

