

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. | HSDE350-18-L449TC-IBSH | Item No. | Rev. No. [] |
| Project Name | | Project No. | Quantity sets |

| GENERAL SPECIFICATION | | PERFORMANCE DATA | | | |
|------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------|----------------------|---------|
| Frame Size | L449TC | Rated Output | 260 kW 350 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 | 308.4 A | 385.5 A |
| Insulation Class | F | | Locked-rotor** | 715 % | 715 % |
| 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 | B35 | Speed at Full Load | | 1785 r.p.m | |
| Bearing | Type | Anti-Friction | | | |
| | DE/N-DE | 6322C3 / 6318C3-INS. | | | |
| | Lubricant | Grease(Polyrex-EM) | | | |
| External Thrust | Not applicable | | | | |
| Coupling Method | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt | Torque | | | |
| Shaft Extension | Single | Full Load | | 1,026.2 lb.ft | |
| Terminal Box | Main | Cast Iron | | | |
| | Aux. | Yes | | | |
| | Location | Refer to Outline Drawing | | | |
| Application | | Locked-rotor** | | 135 % | |
| Area classification | Hazardous | Breakdown** | | 225 % | |
| Type of Ex-Protection | Class I&II, Division 2 | Moment of Inertia (J) | | | |
| Applicable Standard | NEMA MG1, CSA C390 | Load(Max.) | | 1,370.000 lb.ft2 | |
| | | Motor | | 118.425 lb.ft2 | |
| | | Sound Pressure Level (No-load & mean value at 1m from motor) | | | |
| | | 85 dB(A) | | | |
| | | Vibration | | | |
| | | 3.8 mm/sec (peak) | | | |
| | | 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 |
|-------------|
| |

| SUBMITTAL DRAWING | | |
|---------------------------|-------------------------|----------|
| Outline Dimension Drawing | \ Motor Weight(Approx.) | |
| B35 | LM-T044XC4UE001 | 3190 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 |
| 2024-07-13 | 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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| | | | | | | |

4.72

CROWN TRITON

Premium Efficiency AC 3 Phase Motor

| | | | | | | | | | |
|-------------------|--------------------------------------|-------------|-----------------------------|--------------------------------------------------|---------------------------|-------------|----------------|----------------|-------|
| 350HP | 4P | 460V | Cat. No. | HSDE350-18-L449TC-IBSH | | | | | |
| Model | LATER | INS. Class | F | Amps | 385.5 | | | | |
| Type | PJP | Duty | CONT | Code | G | Amb. 40°C | Hertz | 60Hz | |
| Frame | L449TC | Encl. | TEFC | S.F. | 1.15 | RPM | 1785 | NEMA Nom. Eff. | 96.2% |
| Bearing | Drive | 6322C3 | | S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31) | | 3/4 Eff. | 95.2% | | |
| | Opp. | 6318C3-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 | 3190 lb | | | | |

4M-136053

MARINE DUTY IEEE45

Made in Korea H1

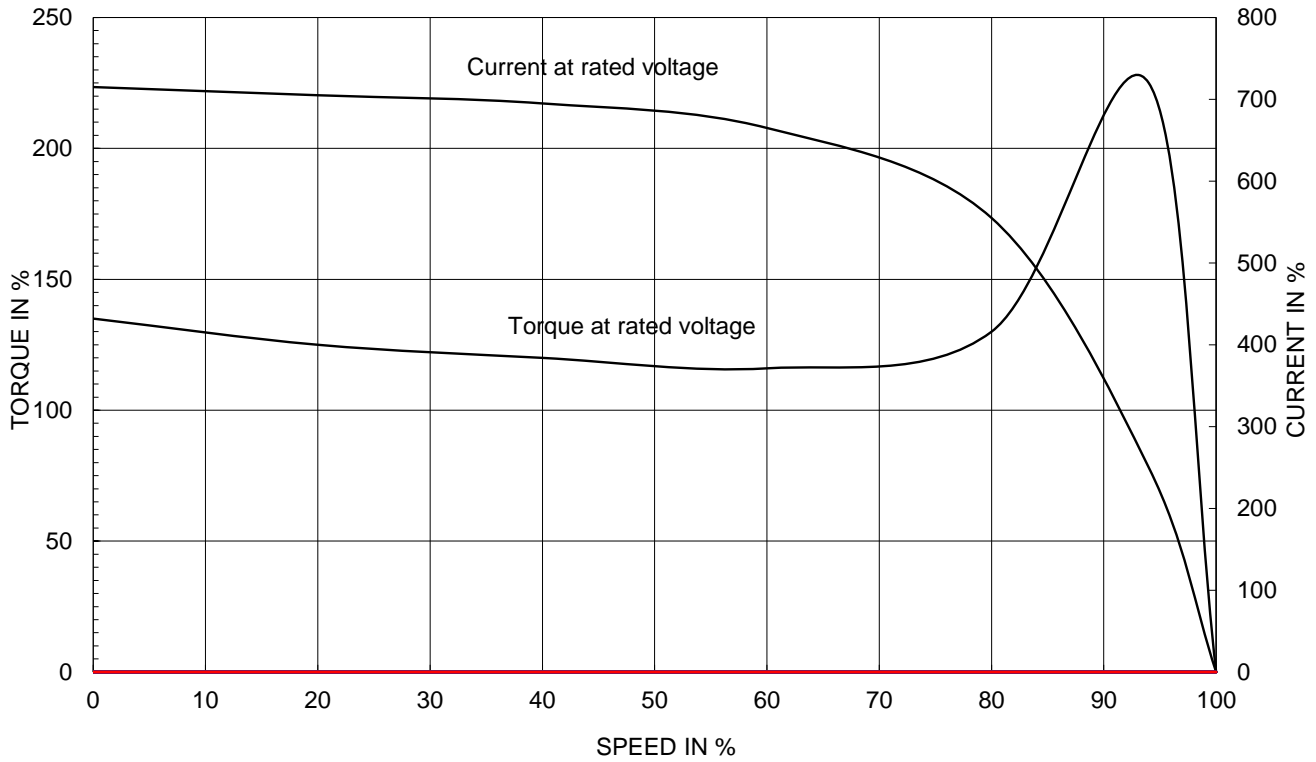
2.36

| | | | | | | | |
|---------|---------|----------|------------|---------|-----------------------------------------------------|--------------|------------|
| APPD BY | S.Y.KIM | UNIT | INCH | SUBJECT | CSA Class I, Division2 Severe Duty (HSDE ,L449-500) | 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-136053 | Sheet No. | of |
| | | | | DWG NO | NP-HSDE350-18-L449TC-IBSH | Revision No. | 0 |

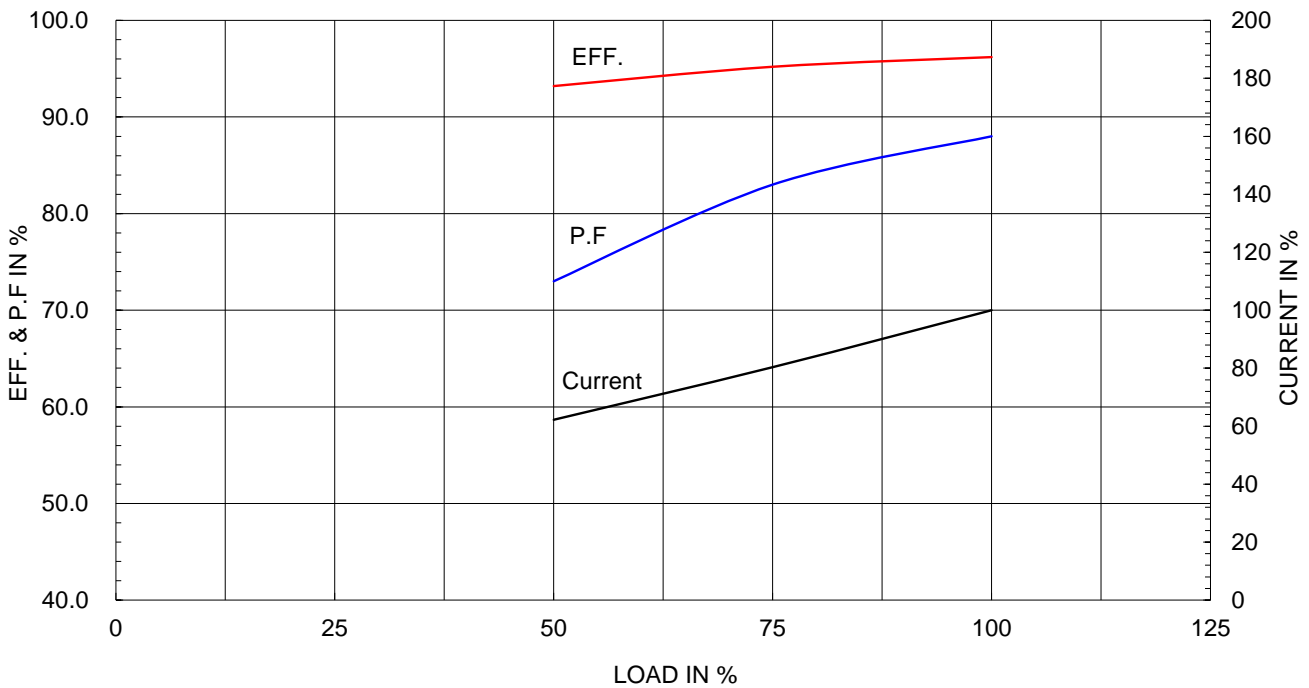
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|-------------------------------|-----------------|
| Type : | PJP |
| Full Load Torque : | 1026.2 lb.ft |
| Load moment of Inertia (J) : | 1370.000 lb.ft2 |
| Motor moment of Inertia (J) : | 118.425 lb.ft2 |

| | | | |
|----------------------|--------|--------|----------|
| 260kW | 350HP | 4 P | 60 Hz |
| Speed at Full Load : | | | 1785 RPM |
| Rated Voltage | 575V | 460V | 230V |
| Full Load Current | 308.4A | 385.5A | 771.0A |

SPEED VS TORQUE & CURRENT CURVE



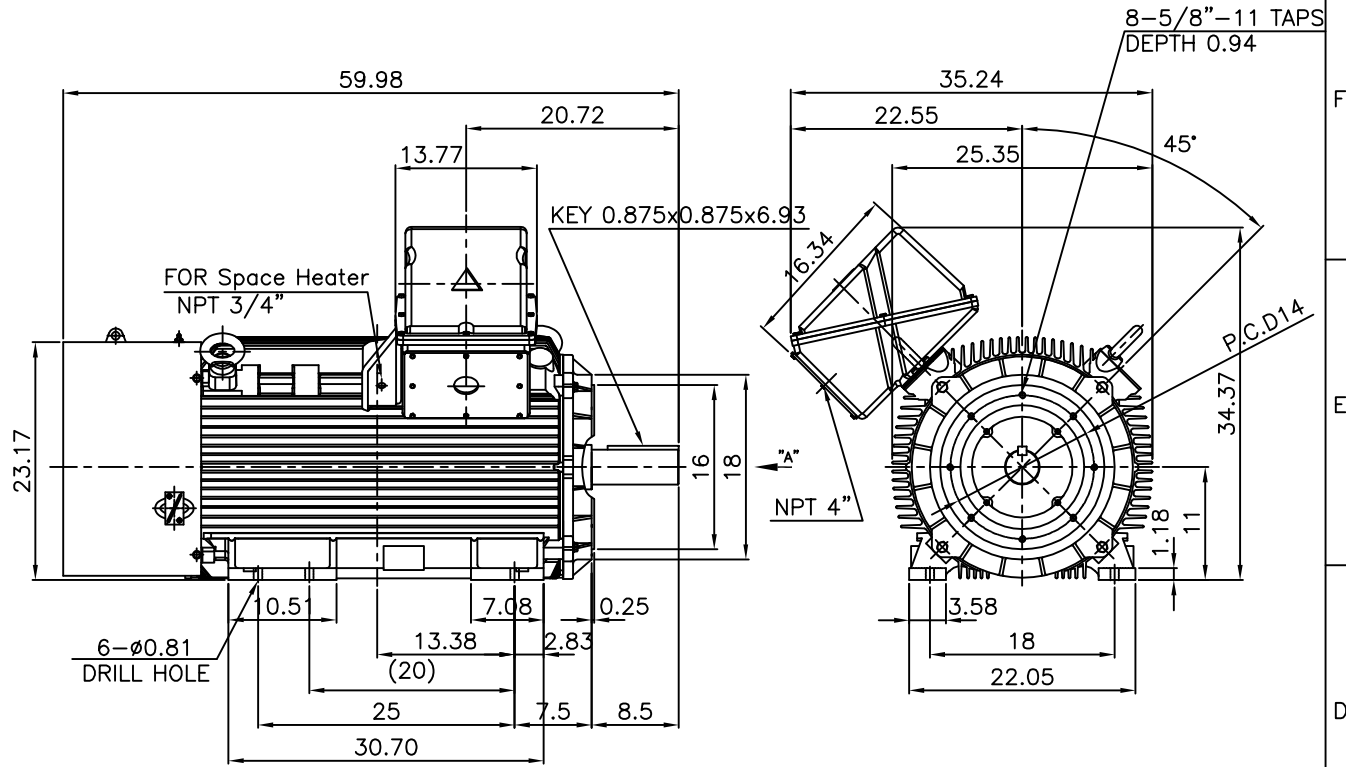
OUTPUT VS EFF., P.F & CURRENT CURVE



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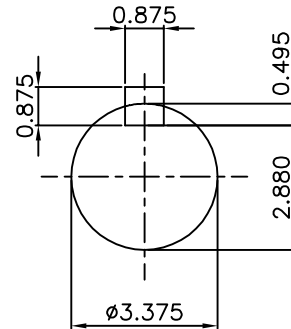
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| ▽ | 50S | REV | DATE |
| ▽▽ | 12.5S | | |
| ▽▽▽ | 3.2S | | |
| ▽▽▽▽ | 0.4S | | |
| REVD BY | CHKD BY | CHKD BY | APPD BY |



NOTE

1.TOLERANCE :

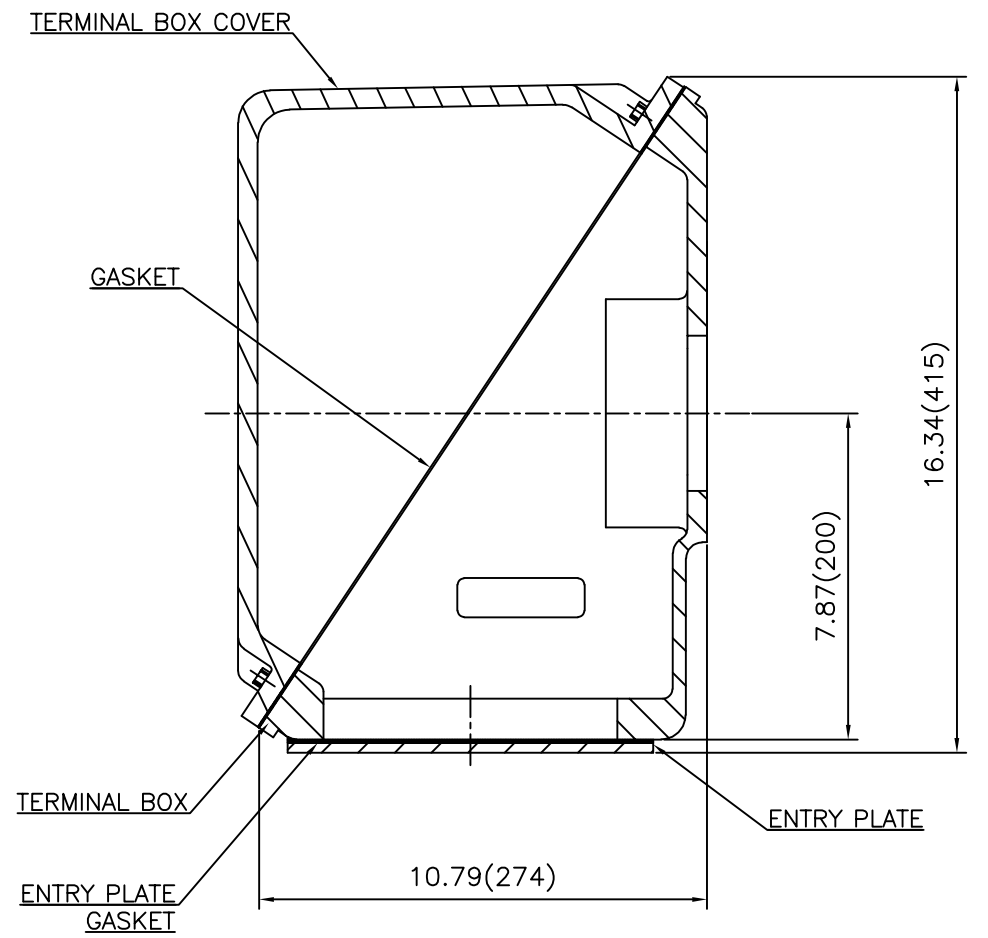
| | | | |
|-----------------|--------|--------|--------|
| CENTER HEIGHT | 11 | +0.000 | -0.060 |
| RABBET DIAMETER | ø16 | 0 | -0.005 |
| SHAFT DIAMETER | ø3.375 | +0.000 | -0.001 |
| KEYWAY WIDTH | 0.875 | +0.003 | -0.000 |



VIEW "A"

| | | | | | | | |
|---------|---------|----------|----------------|---------|---------------------------------------|--------------|-----------|
| APPD BY | S.Y.KIM | UNIT | INCH | SUBJECT | Fr.L449TC | DWG SIZE | A4 (1:18) |
| CHKD BY | O.J.KIM | SCALE | 1/18 | TITLE | NEMA STD SHAFT(4140 SHAFT) 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-T044XC4UE001 | Revision No. | 0 |

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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 |

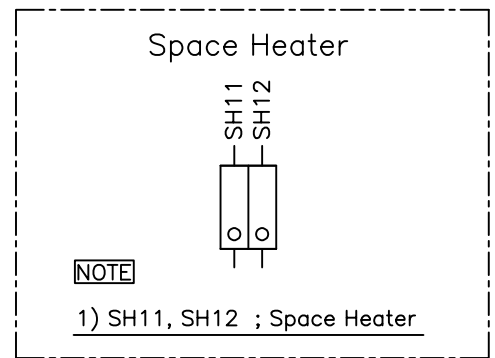
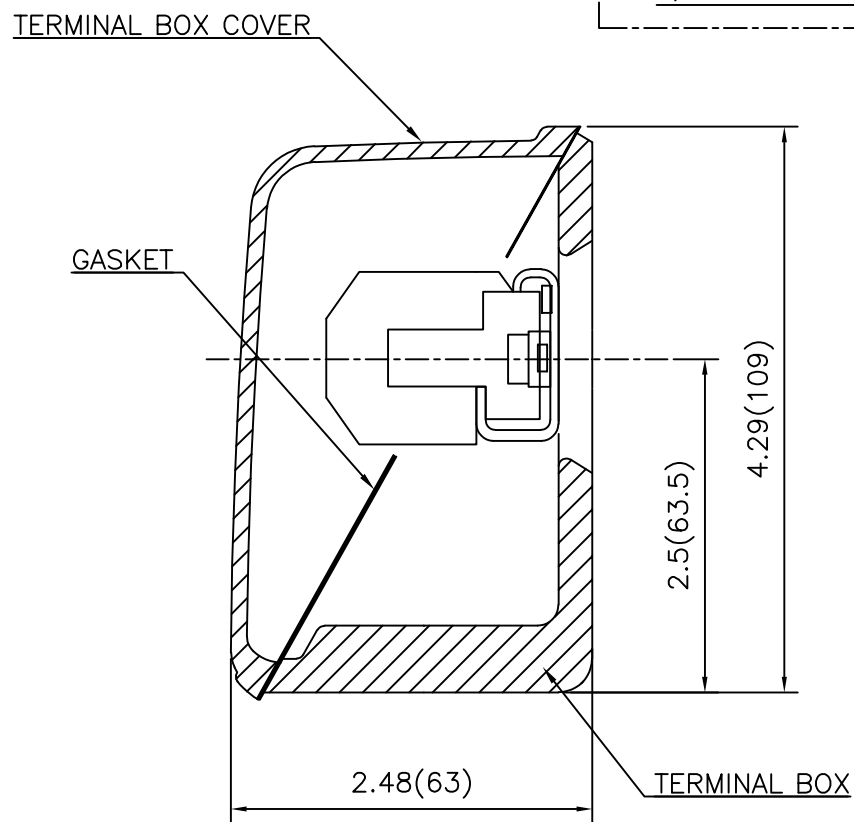
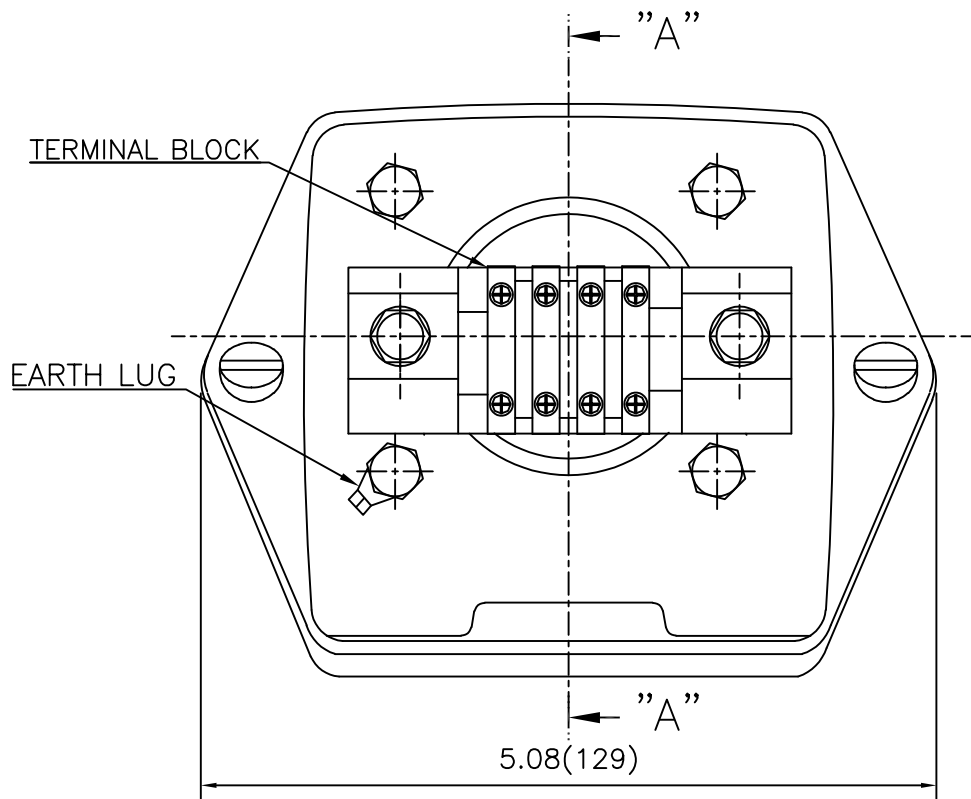
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| APPD BY | S.Y.KIM | UNIT | inch(mm) | SUBJECT | FR.180 (CAST IRON) | DWG SIZE |
| CHKD BY | | SCALE | 1/1 | TITLE | SUB. TERMINAL BOX ASS'Y | A3 (1:1.1) |
| CHKD BY | R.G.KIM | PROJEC'N | 3rd Angle | | | |
| DSND BY | 배승희 | DATE | 2024-01-18 | | | |
| | | | | REF. NO | | Sheet No. of |
| | | | | DWG NO | 3M-165277 | Revision No. 0 |