

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.                                    | HHI40-12-364TC                                                             | Item No.                 |                                                                                                          |                |                         | Rev. No. | [      ] |  |  |
| Project Name                                   |                                                                            |                          | Project No.                                                                                              |                |                         | Quantity | sets     |  |  |
| <b>GENERAL SPECIFICATION</b>                   |                                                                            |                          |                                                                                                          |                | <b>PERFORMANCE DATA</b> |          |          |  |  |
| Frame Size                                     | 364TC                                                                      |                          | Rated Output                                                                                             | 30 kW          |                         | 40 HP    |          |  |  |
| Type                                           | PJP                                                                        |                          | Number of Poles                                                                                          | 6              |                         |          |          |  |  |
| 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      | 39.0 A                  | 48.8 A   | 97.6 A   |  |  |
| Insulation Class                               | F                                                                          |                          |                                                                                                          | Locked-rotor** | 680 %                   | 680 %    | 680 %    |  |  |
| Temp. Rise at full load (by resistance method) |                                                                            |                          | Efficiency                                                                                               |                |                         |          |          |  |  |
|                                                | at 1.0 S.F                                                                 | 80 deg. C                | 50% Load 91.1 %                                                                                          |                |                         |          |          |  |  |
| Motor Location                                 | <input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor           |                          | 75% Load 93.1 %                                                                                          |                |                         |          |          |  |  |
| Altitude                                       | Less than 1,000 meter                                                      |                          | 100% Load 94.1 %                                                                                         |                |                         |          |          |  |  |
| Relative Humidity                              | Less than 80 %                                                             |                          | Power Factor(p.u)                                                                                        |                |                         |          |          |  |  |
| Ambient Temp.                                  | 40 deg. C (Max.)                                                           |                          | 50% Load 0.670                                                                                           |                |                         |          |          |  |  |
| Duty Type                                      | Continuous ( S1 )                                                          |                          | 75% Load 0.770                                                                                           |                |                         |          |          |  |  |
| Service Factor                                 | 1.15                                                                       |                          | 100% Load 0.820                                                                                          |                |                         |          |          |  |  |
| Mounting                                       | B35                                                                        |                          | Speed at Full Load                                                                                       |                | 1185 r.p.m              |          |          |  |  |
| Bearing                                        | Type                                                                       | Anti-Friction            | Torque                                                                                                   |                |                         |          |          |  |  |
|                                                | DE/N-DE                                                                    | 6314C3 / 6213C3          | Full Load 178.35 lb.ft                                                                                   |                |                         |          |          |  |  |
|                                                | Lubricant                                                                  | Grease(Polyrex-EM)       | Locked-rotor** 150 %                                                                                     |                |                         |          |          |  |  |
| External Thrust                                | Not applicable                                                             |                          | Breakdown** 220 %                                                                                        |                |                         |          |          |  |  |
| Coupling Method                                | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt |                          | Moment of Inertia (J)                                                                                    |                |                         |          |          |  |  |
| Shaft Extension                                | Single                                                                     |                          | Load(Max.) 1,186.524 lb.ft2                                                                              |                |                         |          |          |  |  |
| Terminal                                       | Main                                                                       | Cast Iron                | Motor 26.650 lb.ft2                                                                                      |                |                         |          |          |  |  |
| Box                                            | Aux.                                                                       | No                       | Sound Pressure Level (No-load & mean value at 1m from motor)                                             |                |                         |          |          |  |  |
|                                                | Location                                                                   | Refer to Outline Drawing | 73 dB(A)                                                                                                 |                |                         |          |          |  |  |
| Application                                    |                                                                            |                          | Vibration 3.8 mm/sec (peak)                                                                              |                |                         |          |          |  |  |
| Area classification                            | Hazardous                                                                  |                          | Permissible number of Cold 3 times                                                                       |                |                         |          |          |  |  |
| Type of Ex-Protection                          | Class I&II, Division 2                                                     |                          | consecutive starts Hot 2 times                                                                           |                |                         |          |          |  |  |
| Applicable Standard                            | NEMA MG1, CSA C390                                                         |                          | Paint                                                                                                    | Munsell No.    | 4.0PB5.4/5.5(VL-451)    |          |          |  |  |
| <b>ACCESSORIES</b>                             |                                                                            |                          | <b>SUBMITTAL DRAWING</b>                                                                                 |                |                         |          |          |  |  |
|                                                |                                                                            |                          | Outline Dimension Drawing \ Motor Weight(Approx.)                                                        |                |                         |          |          |  |  |
|                                                |                                                                            |                          | B35                                                                                                      |                | LM-T1364C4PL001         |          | 825 lb.  |  |  |
|                                                |                                                                            |                          |                                                                                                          |                |                         |          |          |  |  |
|                                                |                                                                            |                          |                                                                                                          |                |                         |          |          |  |  |
| <b>SPARE PARTS</b>                             |                                                                            |                          | <b>REMARK</b>                                                                                            |                |                         |          |          |  |  |
|                                                |                                                                            |                          | 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 (1 hour duty, 4:1 continuous)                                                                 |                |                         |          |          |  |  |
|                                                |                                                                            |                          | -. CHP up to 1.5 times base speed, NEMA MG1 Part31                                                       |                |                         |          |          |  |  |
|                                                |                                                                            |                          | 3. CSA Certification                                                                                     |                |                         |          |          |  |  |
|                                                |                                                                            |                          | -. Class I, Division 2, Group A, B, C & D                                                                |                |                         |          |          |  |  |
|                                                |                                                                            |                          | -. Class II, Division 2 Group E, F & G (Group E : up to 320Fr.)                                          |                |                         |          |          |  |  |
|                                                |                                                                            |                          | 4. Service Factor 1.15 and Temperature rise B are applicable under the condition of sine wave power.     |                |                         |          |          |  |  |
|                                                |                                                                            |                          | 5. Service Factor 1.25 is applicable to motors of 100HP or less with temperature rise F & Non-Hazardous. |                |                         |          |          |  |  |
|                                                |                                                                            |                          | 6. Temp. code : T3B(165°C) at sine wave                                                                  |                |                         |          |          |  |  |
|                                                |                                                                            |                          | Date                                                                                                     | DSND           | CHKD                    | CHKD     | APPD     |  |  |
|                                                |                                                                            |                          | 2025-07-22                                                                                               | 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.

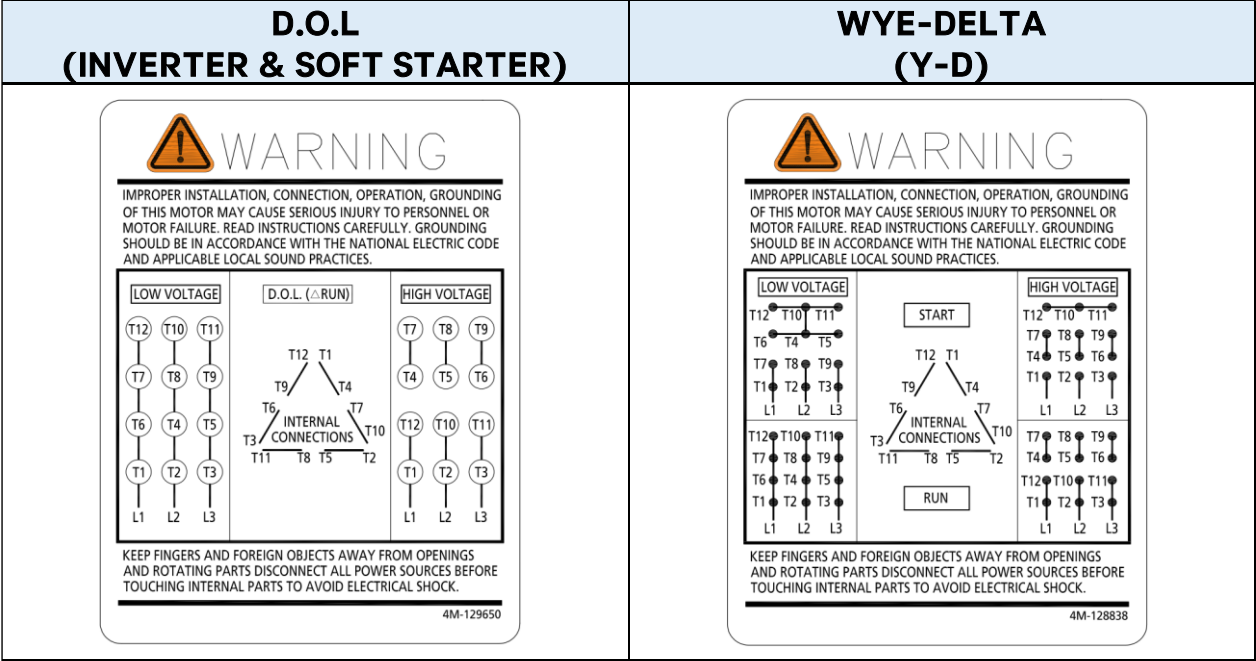
\*\* Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

MAIN NAMEPLATE

4.72

|                                     |  |                                                                                   |  |                                                                                   |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |
|-------------------------------------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|
| <b>CROWN TRITON</b>                 |  |  |  |  |  |   |  |  |  |  |  |
| Premium Efficiency AC 3 Phase Motor |  |                                                                                   |  |                                                                                   |  |                                                                                     |  |                                                                                     |  | C Energy Verified                                                                   |  |
| 40HP 6P 230/460V                    |  |                                                                                   |  | Cat. No. HHI40-12-364TC                                                           |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |
| Model HLS364PR06U3                  |  | Duty CONT                                                                         |  | INS. Class F                                                                      |  | HD-F1                                                                               |  | Amps 97.6/48.8A                                                                     |  |                                                                                     |  |
| Type HLS                            |  | Encl. TEFC                                                                        |  | Code H                                                                            |  | Amb. 40°C                                                                           |  | Hertz 60Hz                                                                          |  |                                                                                     |  |
| Frame 364TC                         |  | S.F. 1.15                                                                         |  | RPM 1185                                                                          |  | NEMA Nom. Eff. 94.1%                                                                |  |                                                                                     |  |                                                                                     |  |
| Bearing                             |  | Drive 6314C3                                                                      |  | Opp. 6213C3                                                                       |  | S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31)                                    |  | 3/4 Eff. 93.1%                                                                      |  |                                                                                     |  |
| Usable at                           |  | 50Hz 40HP 380V 58.5A 981rpm S.F.: 1.0 Eff.: 92.9% Code: F                         |  |                                                                                   |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |
|                                     |  | 50Hz 40HP 400/415V 56.4/55.2A 983/984rpm S.F.: 1.0 Eff.: 93.2/93.4% Code: G/H     |  |                                                                                   |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |
| CSA Certified for                   |  | Model LATER                                                                       |  | Type PJP                                                                          |  | Temp. Code (sine wave)                                                              |  | Frame 140~320FR                                                                     |  | 360~400FR 440FR                                                                     |  |
|                                     |  | CLASS I, Div. 2, Gr. A, B, C & D                                                  |  | CLASS II, Div. 2, Gr. E, F & G (Gr. E: Up to 320FR)                               |  | Amb. 40°C                                                                           |  | T3C (160°C)                                                                         |  | T3B (165°C) T3A (180°C)                                                             |  |
|                                     |  | CLASS I, Zone 2, Gr. IIA, IIB, & IIC                                              |  |                                                                                   |  | Amb. 55°C                                                                           |  | T3A (180°C)                                                                         |  | T3 (200°C)                                                                          |  |
| No. -                               |  | Date -                                                                            |  | Weight 825 lb                                                                     |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |
| 4M-135702                           |  | MARINE DUTY IEEE45                                                                |  | Made in Korea H1                                                                  |  |  |  |                                                                                     |  |                                                                                     |  |

WIRING DIAGRAM



|                                                                                     |         |          |            |                   |                                                   |              |            |
|-------------------------------------------------------------------------------------|---------|----------|------------|-------------------|---------------------------------------------------|--------------|------------|
| APPD BY                                                                             | S.Y.KIM | UNIT     | INCH       | SUBJECT           | CSA Class I, Division2 Severe Duty (HHI, 364-449) | DWG SIZE     | A4 ( 1:1 ) |
| CHKD BY                                                                             | I.K.KIM | SCALE    | NONE       | NAMEPLATE DRAWING |                                                   |              |            |
| CHKD BY                                                                             | R.G.KIM | PROJEC'N | 3rd Angle  |                   |                                                   |              |            |
| DSND BY                                                                             | S.H.LEE | DATE     | 2024.06.07 |                   |                                                   |              |            |
|  |         |          |            | REF. NO           | 4M-135702 / 4M-129650                             | Sheet No.    | of         |
|                                                                                     |         |          |            | DWG NO            | NP-HHI40-12-364TC                                 | Revision No. | 0          |

Type : PJP

30kW 40HP 6 P 60 Hz

Full Load Torque : 178.35 lb.ft

Speed at Full Load : 1185 RPM

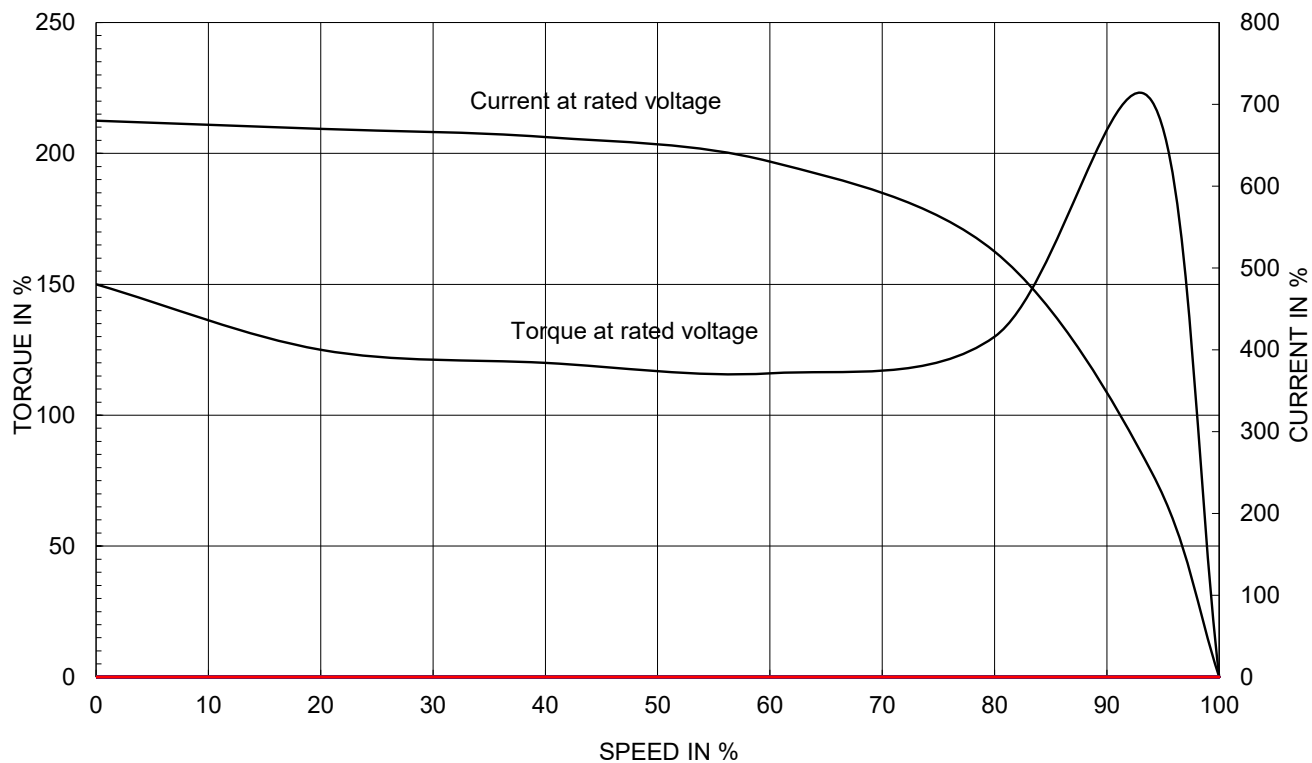
Load moment of Inertia (J) : 1186.524 lb.ft2

|               |      |      |      |
|---------------|------|------|------|
| Rated Voltage | 575V | 460V | 230V |
|---------------|------|------|------|

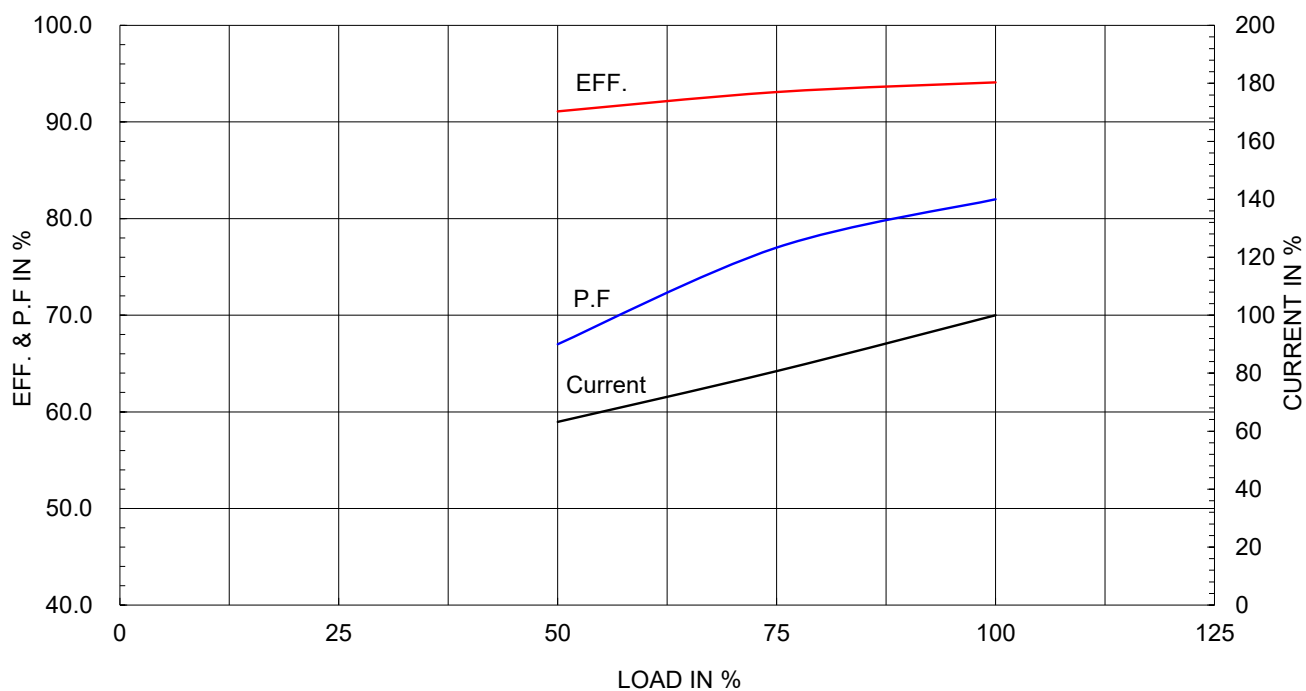
Motor moment of Inertia (J) : 26.650 lb.ft2

|                   |       |       |       |
|-------------------|-------|-------|-------|
| Full Load Current | 39.0A | 48.8A | 97.6A |
|-------------------|-------|-------|-------|

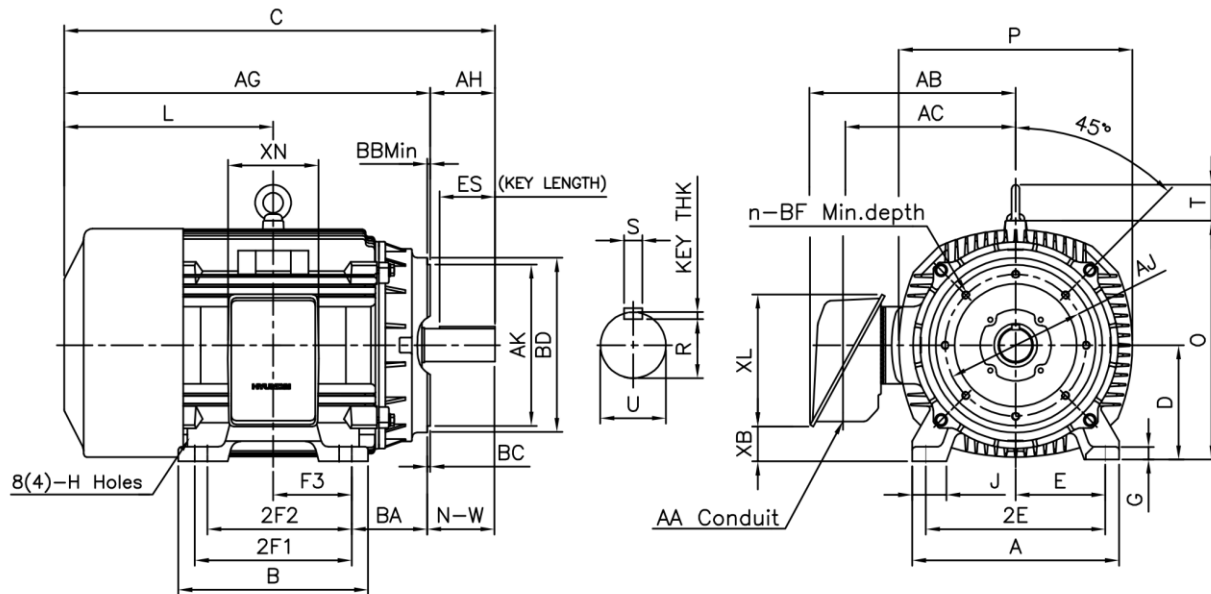
## SPEED VS TORQUE & CURRENT CURVE



## OUTPUT VS EFF., P.F & CURRENT CURVE



| 1    | 2     | 3   | 4    |
|------|-------|-----|------|
| ▽    | 50S   | REV | DATE |
| ▽▽   | 12.5S |     |      |
| ▽▽▽  | 3.2S  |     |      |
| ▽▽▽▽ | 0.4S  |     |      |



## DIMENSIONS

Unit:inch

| M O U N T I N G |       |       |         |       |       |      |      |      | C O N D U I T   B O X |       |       |      |       |      | APPROX.<br>WGT.(LB) |
|-----------------|-------|-------|---------|-------|-------|------|------|------|-----------------------|-------|-------|------|-------|------|---------------------|
| A               | B     | 2E    | 2F1     | 2F2   | F3    | G    | J    | H    | AA                    | AB    | AC    | XB   | XL    | XN   |                     |
| 16.14           | 14.92 | 14.00 | (12.25) | 11.25 | 6.122 | 0.98 | 2.72 | 0.66 | 3.00                  | 17.13 | 13.82 | 2.70 | 10.24 | 7.09 | 825                 |

| O V E R A L L |       |      |       |       |       |      |       |       | S H A F T |        |      | KEY   | BEARING |                      |
|---------------|-------|------|-------|-------|-------|------|-------|-------|-----------|--------|------|-------|---------|----------------------|
| BA            | C     | D    | L     | O     | P     | T    | AG    | U     | N-W       | KEYWAY |      |       | THK.    | DRIVE<br>END         |
|               |       |      |       |       |       |      |       |       |           | R      | ES   | S     |         | OPP.<br>DRIVE<br>END |
| 5.88          | 34.01 | 9.00 | 16.13 | 18.50 | 17.75 | 2.80 | 28.13 | 2.375 | 5.88      | 2.021  | 4.28 | 0.625 | 0.625   | 6314C3               |

| C - F A C E |       |        |      |       |        |          |   |      |
|-------------|-------|--------|------|-------|--------|----------|---|------|
| AJ          | AK    | BB Min | BC   | BD    | BF     | BF depth | n | AH   |
| 11.00       | 12.50 | 0.25   | 0.25 | 13.54 | 5/8-11 | 0.94     | 8 | 5.62 |

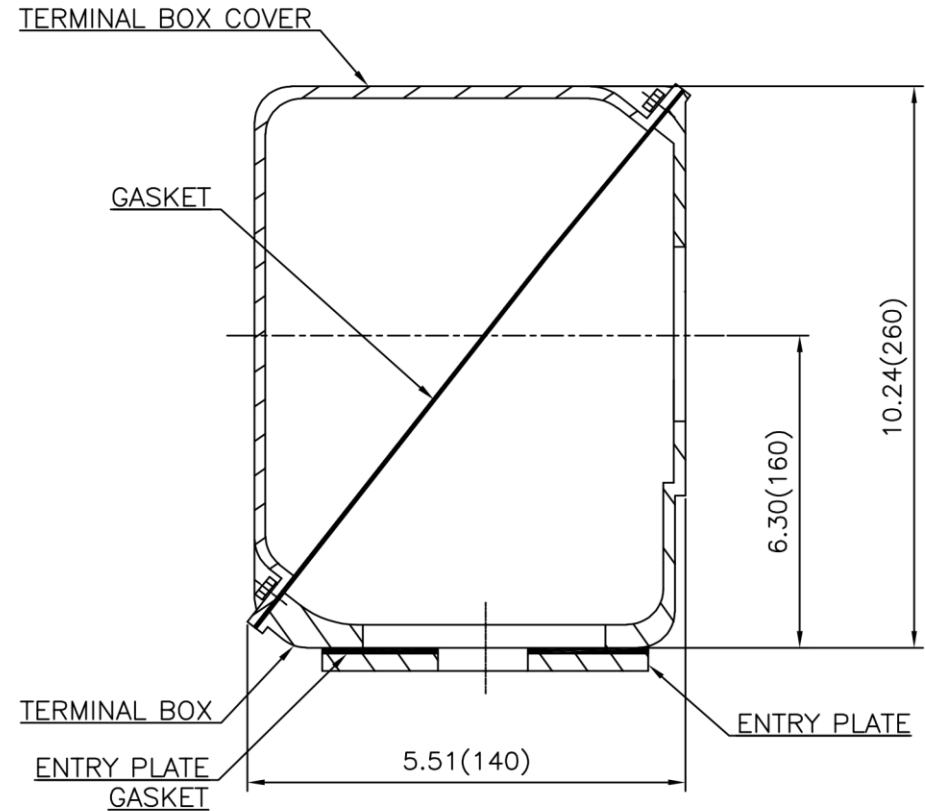
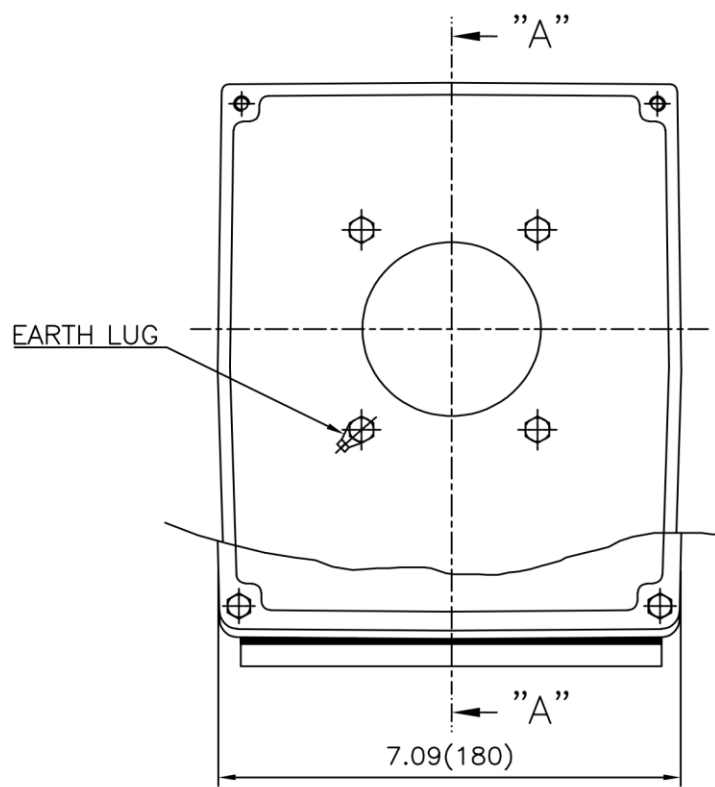
### NOTE

- 1.Dimension "D" tolerance : +0.00inch ~ -0.03inch (143TC-365TC) : +0.000inch ~ -0.06inch (404TC-449TC)
- 2.Dimension "U" tolerance : +0.000inch ~ -0.0005inch (143TC-215TC): +0.000inch ~ -0.001inch (254TC-449TC)
- 3.Dimension "R" tolerance : +0.000inch ~ - 0.015inch
- 4.Dimension "AK" tolerance : +0.000inch ~ -0.003inch (143TC-286TC): +0.000inch ~ -0.005inch (324TC-449TC)

| APPD BY | S.K.HAN | UNIT     | inch       | SUBJECT                    | NEMA 364TC      | DWG SIZE     | A4 < 1:1 > |
|---------|---------|----------|------------|----------------------------|-----------------|--------------|------------|
| CHKD BY | S.Y.KIM | SCALE    | None       | TITLE<br><br>O U T L I N E |                 |              |            |
| CHKD BY | Y.H.BAE | PROJEC'N | 3rd Angle  |                            |                 |              |            |
| DSND BY | H.C.LIM | DATE     | 2019-06-05 |                            |                 |              |            |
|         |         |          |            | REF. NO                    | 350A1313AA      | Sheet No.    | of         |
|         |         |          |            | DWG NO                     | LM-T1364C4PL001 | Revision No. | 0          |

# Cls. I&II, Div. 2

## IEEE 841



SEC. "A" - "A"

|      |       |
|------|-------|
| ▽    | 50S   |
| ▽▽   | 12.5S |
| ▽▽▽  | 3.2S  |
| ▽▽▽▽ | 0.4S  |

| REV | DATE | CONTENTS | REV'D BY | CHK'D BY | CHK'D BY | APP'D BY |
|-----|------|----------|----------|----------|----------|----------|
|     |      |          |          |          |          |          |

| 일반가공공차 |      | 일반계관공차   |      |
|--------|------|----------|------|
| 1-4    | ±0.1 | 6-30     | ±0.5 |
| 4-18   | ±0.2 | 30-120   | ±0.8 |
| 18-63  | ±0.3 | 120-315  | ±1.2 |
| 63-250 | ±0.5 | 315-1000 | ±2.0 |
| 250-   | ±0.8 | 1000-    | ±3.0 |

| Q'TY    | DESCRIPTION | MATERIAL | DIMENSION  | WEIGHT  | PART NO.                | REMARK       | NO.        |
|---------|-------------|----------|------------|---------|-------------------------|--------------|------------|
| APPD BY | S.Y.KIM     | UNIT     | inch(mm)   | SUBJECT | FR.360 (CAST IRON)      | DWG SIZE     | A3 (1:1.2) |
| CHKD BY |             | SCALE    | 1/1.2      | TITLE   | MAIN TERMINAL BOX ASS'Y |              |            |
| CHKD BY | R.G.KIM     | PROJEC'N | 3rd Angle  | REF. NO |                         | Sheet No.    | of         |
| DSND BY | 네슬의         | DATE     | 2023-10-19 | DWG NO  | 3M-248450               | Revision No. | 0          |

