

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.                                    | HHI75-36-365TSCRD                                                          | Item No.                 |                                                                                                          |                         | Rev. No.             | [      ] |          |
| Project Name                                   |                                                                            | Project No.              |                                                                                                          |                         | Quantity             | sets     |          |
| <b>GENERAL SPECIFICATION</b>                   |                                                                            |                          |                                                                                                          | <b>PERFORMANCE DATA</b> |                      |          |          |
| Frame Size                                     | 365TSC                                                                     |                          | Rated Output                                                                                             | 55 kW                   |                      | 75 HP    |          |
| Type                                           | PJP                                                                        |                          | 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               | 63.9 A               | 79.8 A   | 159.7 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                                                                                                |                         |                      |          |          |
| Motor Location                                 | <input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor           |                          | 50% Load                                                                                                 |                         | 91.5 %               |          |          |
| Altitude                                       | Less than 1,000 meter                                                      |                          | 75% Load                                                                                                 |                         | 93.5 %               |          |          |
| Relative Humidity                              | Less than 80 %                                                             |                          | 100% Load                                                                                                |                         | 94.5 %               |          |          |
| Ambient Temp.                                  | 40 deg. C (Max.)                                                           |                          | Power Factor(p.u)                                                                                        |                         |                      |          |          |
| Duty Type                                      | Continuous ( S1 )                                                          |                          | 50% Load                                                                                                 |                         | 0.765                |          |          |
| Service Factor                                 | 1.15                                                                       |                          | 75% Load                                                                                                 |                         | 0.865                |          |          |
| Mounting                                       | B5                                                                         |                          | 100% Load                                                                                                |                         | 0.915                |          |          |
| Bearing                                        | Type                                                                       | Anti-Friction            | Speed at Full Load                                                                                       |                         | 3570 r.p.m           |          |          |
|                                                | DE/N-DE                                                                    | 6213C3 / 6213C3          | Torque                                                                                                   |                         |                      |          |          |
|                                                | Lubricant                                                                  | Grease(Polyrex-EM)       | Full Load                                                                                                |                         | 108.54 lb.ft         |          |          |
| External Thrust                                | Not applicable                                                             |                          | Locked-rotor**                                                                                           |                         | 140 %                |          |          |
| Coupling Method                                | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt |                          | Breakdown**                                                                                              |                         | 220 %                |          |          |
| Shaft Extension                                | Single                                                                     |                          | Moment of Inertia (J)                                                                                    |                         |                      |          |          |
| Terminal                                       | Main                                                                       | Cast Iron                | Load(Max.)                                                                                               |                         | 136.450 lb.ft2       |          |          |
| Box                                            | Aux.                                                                       | No                       | Motor                                                                                                    |                         | 11.040 lb.ft2        |          |          |
|                                                | Location                                                                   | Refer to Outline Drawing | Sound Pressure Level (No-load & mean value at 1m from motor)                                             |                         |                      |          |          |
| Application                                    |                                                                            |                          | 82 dB(A)                                                                                                 |                         |                      |          |          |
| Area classification                            | Hazardous                                                                  |                          | Vibration                                                                                                |                         | 3.8 mm/sec (peak)    |          |          |
| Type of Ex-Protection                          | Class I&II, Division 2                                                     |                          | Permissible number of consecutive starts                                                                 |                         | Cold                 | 3 times  |          |
| Applicable Standard                            | NEMA MG1, CSA C390                                                         |                          |                                                                                                          |                         | Hot                  | 2 times  |          |
|                                                |                                                                            |                          | Paint                                                                                                    | Munsell No.             | 4.0PB5.4/5.5(VL-451) |          |          |
| <b>ACCESSORIES</b>                             |                                                                            |                          | <b>SUBMITTAL DRAWING</b>                                                                                 |                         |                      |          |          |
|                                                |                                                                            |                          | Outline Dimension Drawing \ Motor Weight(Approx.)                                                        |                         |                      |          |          |
|                                                |                                                                            |                          | B5                                                                                                       |                         | LM-T1365C5CL001      | 910 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.

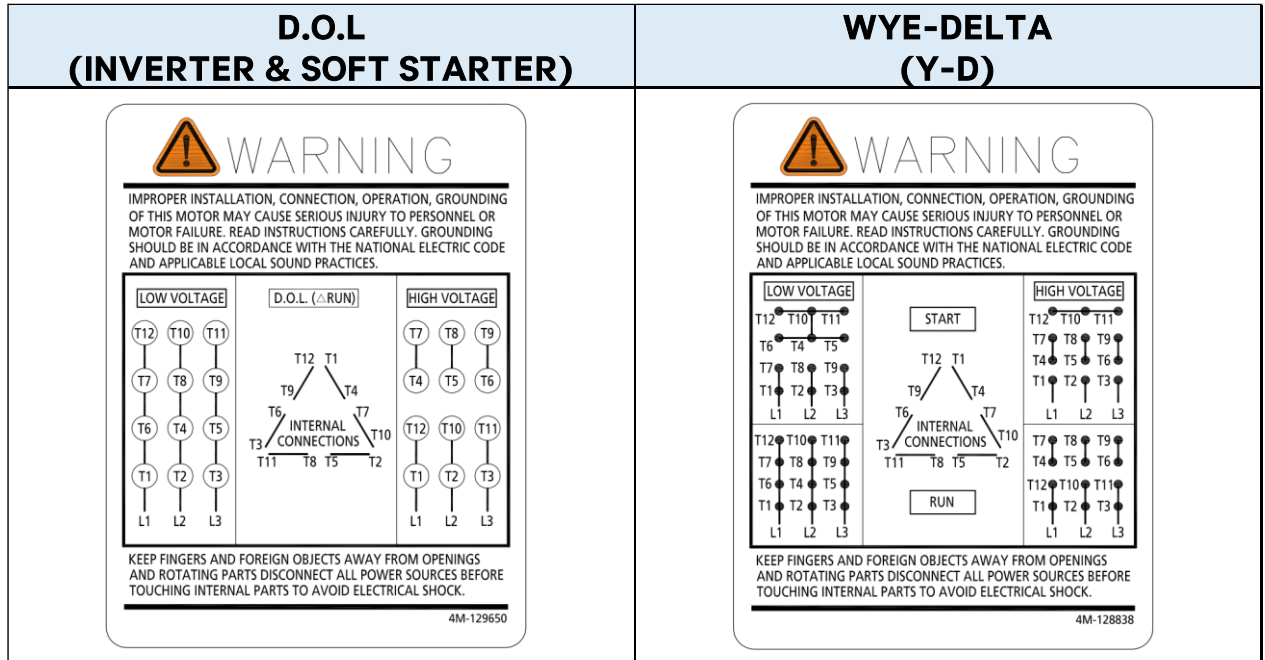
\*\* Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

## MAIN NAMEPLATE

4.72

|                    |                                                                                 |                               |                                                  |                  |                   |             |             |                     |             |
|--------------------|---------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------|------------------|-------------------|-------------|-------------|---------------------|-------------|
| 75HP               |                                                                                 | 2P                            | 230/460V                                         | Cat. No.         | HHI75-36-365TSCRD |             |             |                     |             |
| Model              | HLS365PR02U3                                                                    |                               |                                                  | INS. Class       | F                 | HD-F1       | Amps        | 159.7/79.8A         |             |
| Type               | HLS                                                                             | Duty                          | CONT                                             | Code             | G                 | Amb.        | 40°C        | Hertz               | 60Hz        |
| Frame              | 365TSC                                                                          | Encl.                         | TEFC                                             | S.F.             | 1.15              | RPM         | 3570        | NEMA Nom. Eff.      | 94.5%       |
| Bearing            | Drive                                                                           | 6213C3                        | S.F.1.00 (10:1 C.T., 20:1 V.T., NEMA-MG1 Part31) |                  |                   |             | 3/4 Eff.    | 93.5%               |             |
|                    | Opp.                                                                            | 6213C3                        |                                                  |                  |                   |             | NEMA Design | B                   |             |
| Usable at          | 50Hz 75HP 380V 98.2A 2957rpm S.F.: 1.0 Eff.: 93.5% Code: E                      |                               |                                                  |                  |                   |             |             |                     |             |
|                    | 50Hz 75HP 400/415V 92.7/89.2A 2963/2967rpm S.F.: 1.0 Eff.: 93.9/94.1% Code: F/F |                               |                                                  |                  |                   |             |             |                     |             |
| CSA Certified for  | Model                                                                           | LATER                         | Type                                             | PJP              | Temp. Code        | 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) | T3A (180°C) | T3 (200°C)          |             |
| No.                | -                                                                               | Date                          | -                                                | Weight           | 910 lb            |             |             |                     |             |
| 4M-135702          |                                                                                 |                               |                                                  | Made in Korea H1 |                   |             |             | HD HYUNDAI ELECTRIC |             |
| MARINE DUTY IEEE45 |                                                                                 |                               |                                                  |                  |                   |             |             |                     |             |

## WIRING DIAGRAM

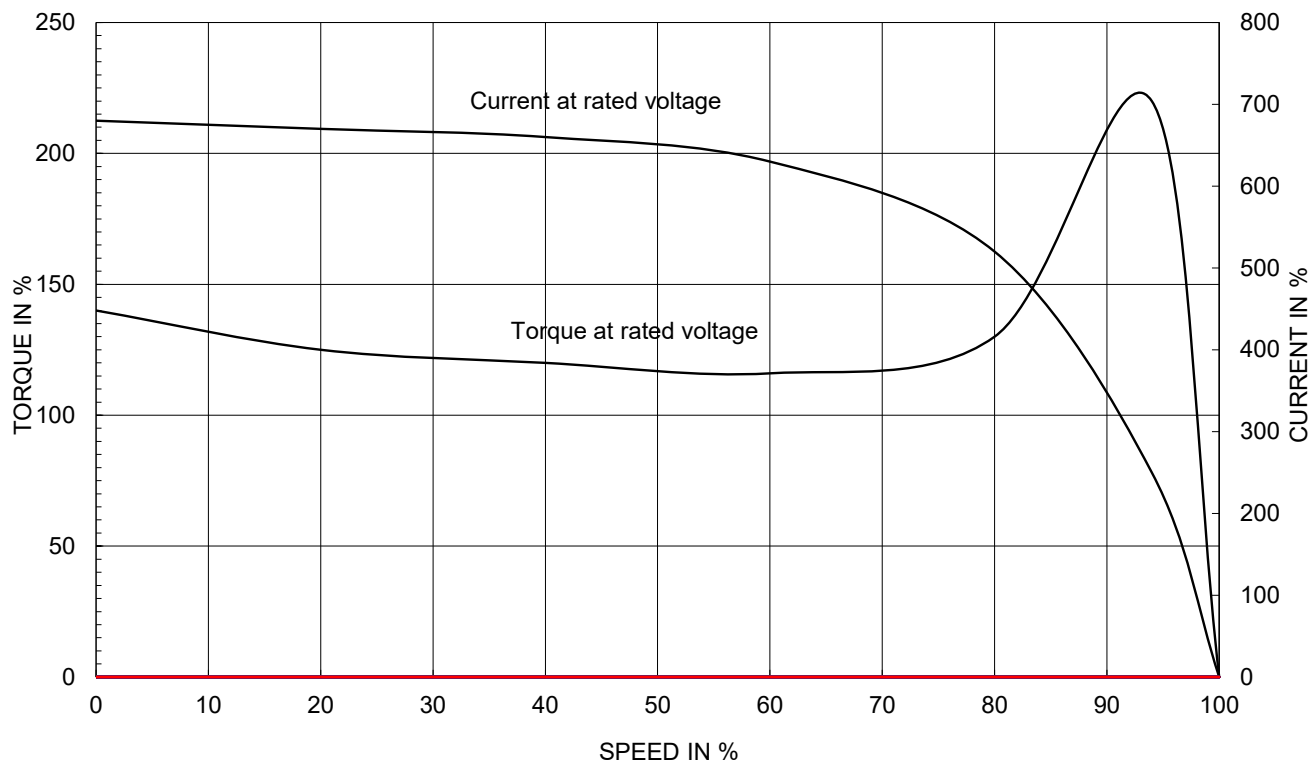


|         |         |          |            |         |                                                   |              |            |
|---------|---------|----------|------------|---------|---------------------------------------------------|--------------|------------|
| APPD BY | S.Y.KIM | UNIT     | INCH       | SUBJECT | CSA Class I, Division2 Severe Duty (HHI, 364-449) | DWG SIZE     | A4 ( 1:1 ) |
| CHKD BY | I.K.KIM | SCALE    | NONE       | TITLE   | NAMEPLATE DRAWING                                 |              |            |
| CHKD BY | R.G.KIM | PROJEC'N | 3rd Angle  | REF. NO | 4M-135702 / 4M-129650                             | Sheet No.    | of         |
| DSND BY | S.H.LEE | DATE     | 2024.06.07 | DWG NO  | NP-HHI75-36-365TSCRD                              | Revision No. | 0          |

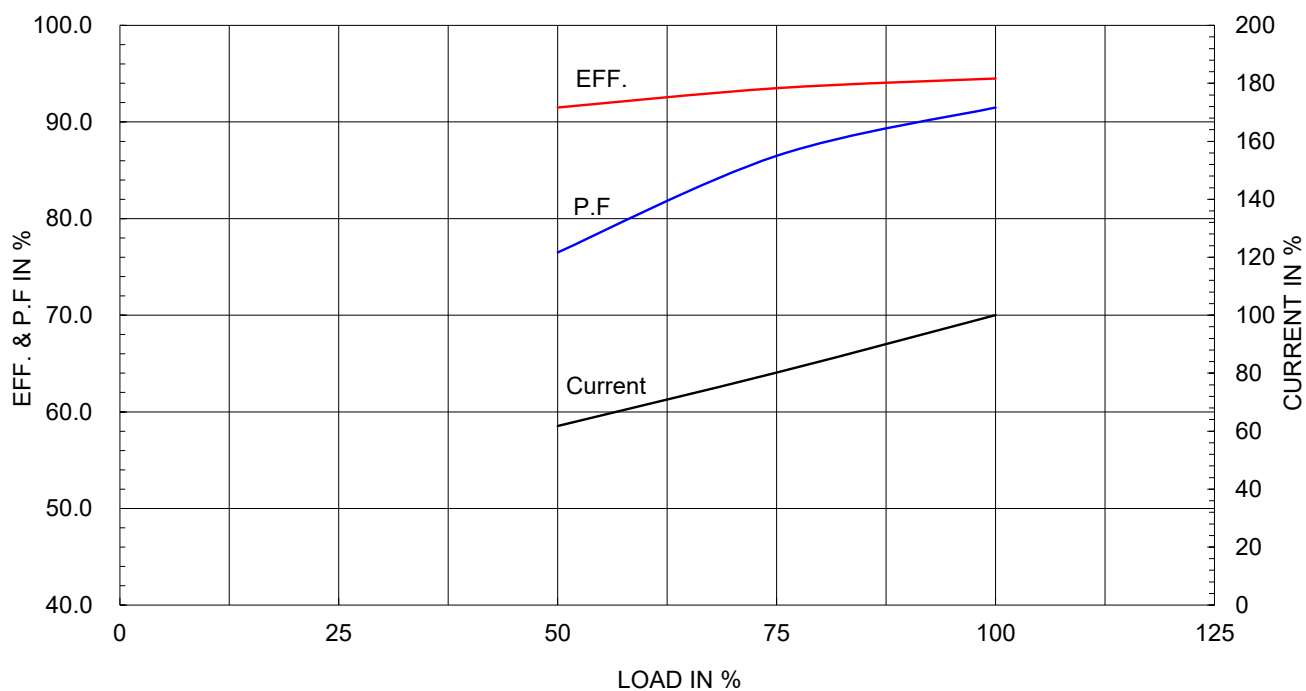
|                               |         |        |
|-------------------------------|---------|--------|
| Type :                        | PJP     |        |
| Full Load Torque :            | 108.54  | lb.ft  |
| Load moment of Inertia (J) :  | 136.450 | lb.ft2 |
| Motor moment of Inertia (J) : | 11.040  | lb.ft2 |

|                      |       |       |          |
|----------------------|-------|-------|----------|
| 55kW                 | 75HP  | 2 P   | 60 Hz    |
| Speed at Full Load : |       |       | 3570 RPM |
| Rated Voltage        | 575V  | 460V  | 230V     |
| Full Load Current    | 63.9A | 79.8A | 159.7A   |

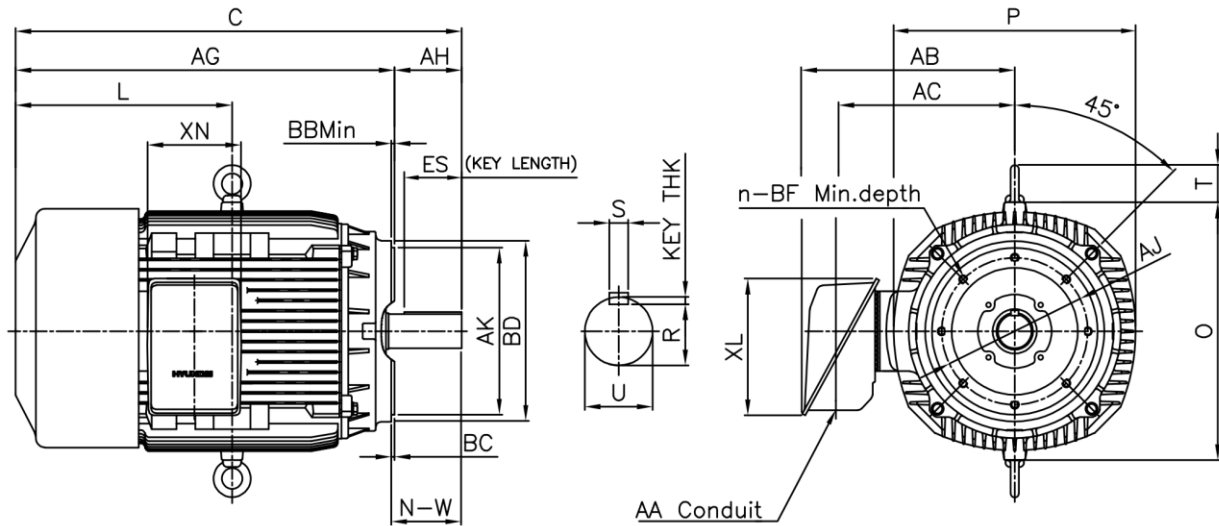
## SPEED VS TORQUE & CURRENT CURVE



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



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



## DIMENSIONS

Unit : inch

| C - F A C E |       |        |      |       |        |          |   | CONDUIT BOX |       |       |       |      | APPROX.<br>WGT.(LB) |
|-------------|-------|--------|------|-------|--------|----------|---|-------------|-------|-------|-------|------|---------------------|
| AJ          | AK    | BB Min | BC   | BD    | BF     | BF depth | n | AA          | AB    | AC    | XL    | XN   |                     |
| 11.00       | 12.50 | 0.25   | 0.25 | 13.54 | 5/8-11 | 0.94     | 8 | 3.00        | 17.13 | 13.82 | 10.24 | 7.09 | 910                 |

| O V E R A L L |       |       |       |      |       | S H A F T |      |        |      |       | KEY   | BEARING      |                      |
|---------------|-------|-------|-------|------|-------|-----------|------|--------|------|-------|-------|--------------|----------------------|
| C             | L     | O     | P     | T    | AG    | U         | N-W  | KEYWAY |      |       | THK.  | DRIVE<br>END | OPP.<br>DRIVE<br>END |
|               |       |       |       |      |       |           |      | R      | ES   | S     |       |              |                      |
| 31.88         | 16.13 | 19.29 | 17.75 | 2.80 | 28.13 | 1.875     | 3.75 | 1.591  | 2.03 | 0.500 | 0.500 | 6213C3       | 6213C3               |

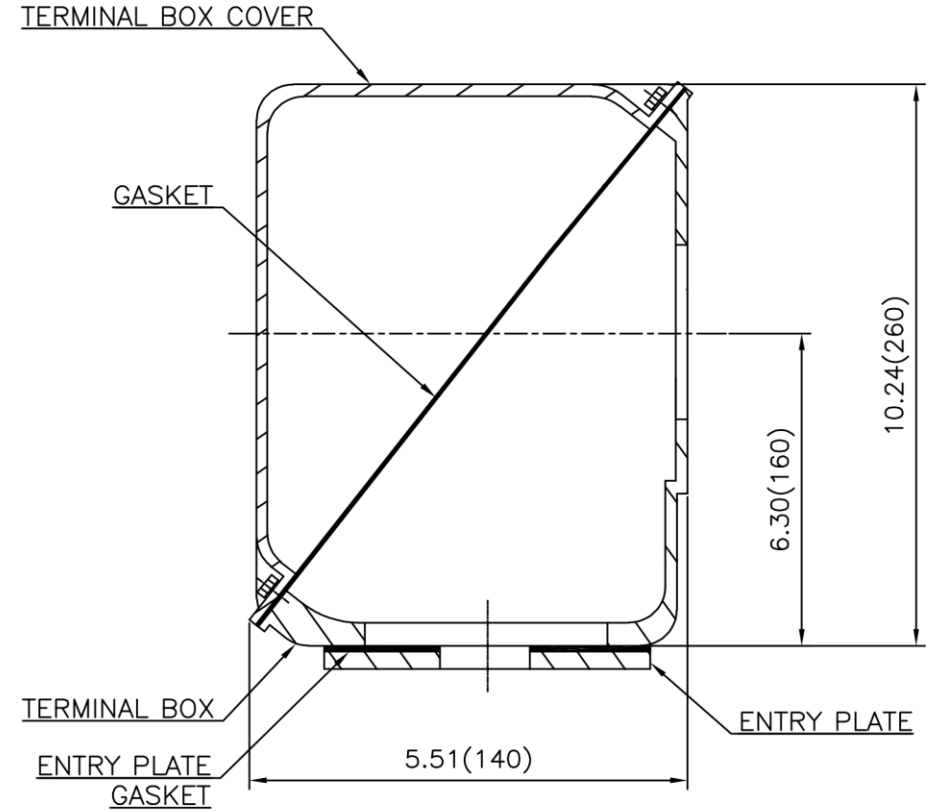
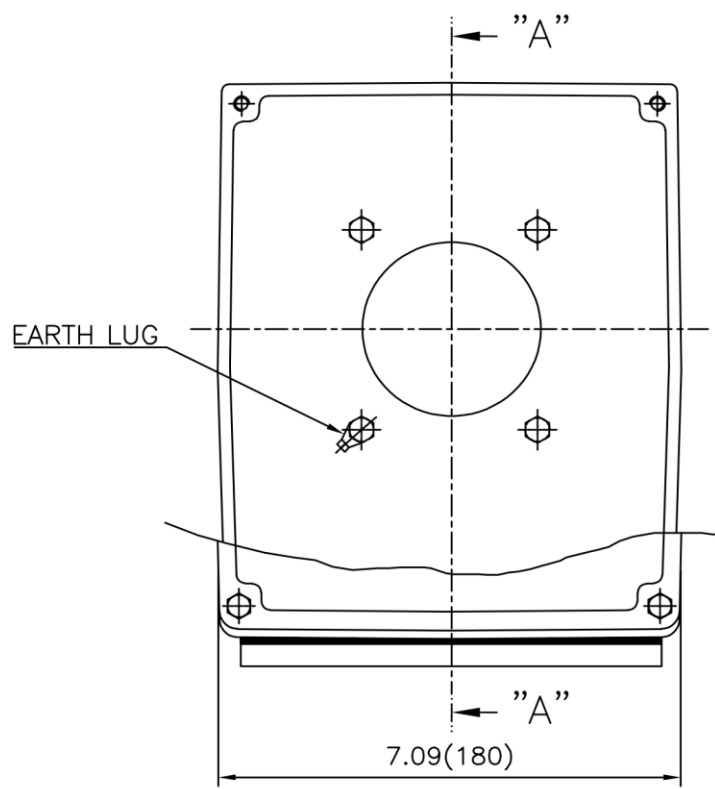
### NOTE

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

|         |         |          |                 |         |                 |                |
|---------|---------|----------|-----------------|---------|-----------------|----------------|
| APPD BY | S.K.HAN | UNIT     | INCH            | SUBJECT | NEMA 365TSC     | DWG SIZE       |
| CHKD BY | S.Y.KIM | SCALE    | NONE            | TITLE   |                 | A4 ( 1:1 )     |
| CHKD BY | Y.H.BAE | PROJEC'N | 3각법 (3rd Angle) |         |                 |                |
| DSND BY | N.R.LEE | DATE     | 2019-06-03      |         |                 |                |
|         |         |          |                 | REF. NO | 350A1514BA      | Sheet No. of   |
|         |         |          |                 | DWG NO  | LM-T1365C5CL001 | Revision No. 0 |

# Cls. I&II, Div. 2

## IEEE 841



SEC. "A" - "A"

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

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

