

# AC INDUCTION MOTOR DATA SHEET

|                                                |                           |                          |                                                              |                                              |                         |          |           |
|------------------------------------------------|---------------------------|--------------------------|--------------------------------------------------------------|----------------------------------------------|-------------------------|----------|-----------|
| Model No.or RFQ No.                            |                           | Item No.                 |                                                              | Rev. No. [ 0 ]                               |                         |          |           |
| Project Name                                   |                           | Project No.              |                                                              | Quantity sets                                |                         |          |           |
| <b>GENERAL SPECIFICATION</b>                   |                           |                          | <b>PERFORMANCE DATA</b>                                      |                                              |                         |          |           |
| Frame Size                                     | 280LL                     |                          | Rated Output                                                 | 200 kW 268 HP                                |                         |          |           |
| Type                                           | HS-200/4                  |                          | Number of Poles                                              | 4                                            |                         |          |           |
| Enclosure(Protection)                          | Totally Enclosed ( IP55 ) |                          | Rotor Type                                                   | Squirrel Cage                                |                         |          |           |
| Method of Cooling                              | IC416(BC)                 |                          | Starting Method*                                             | ■ V.V.V.F.(C.T.:0.06~60Hz or V.T.:0.03~60Hz) |                         |          |           |
| Rated Frequency                                | 60 Hz                     |                          | Rated Voltage                                                | 440 V                                        | 380 V 220 V             |          |           |
| Number of Phases                               | 3                         |                          | Current                                                      | Full Load                                    | 312.1 A 361.4 A 624.3 A |          |           |
| Insulation Class                               | ■ F □ B □ H               |                          | Locked-rotor**                                               | 630 %                                        | 630 % 630 %             |          |           |
| Temp. Rise at full load (by resistance method) |                           |                          | Efficiency                                                   |                                              |                         |          |           |
| at 1.0 S.F 80 deg. C                           |                           |                          | 50% Load 94.5 %                                              |                                              |                         |          |           |
| Motor Location                                 | ■ Indoor □ Outdoor        |                          | 75% Load 95.0 %                                              |                                              |                         |          |           |
| Altitude                                       | Less than 1000 meter      |                          | 100% Load 95.0 %                                             |                                              |                         |          |           |
| Relative Humidity                              | Less than 80 %            |                          | Power Factor(p.u)                                            |                                              |                         |          |           |
| Ambient Temp.                                  | 40 deg. C (Max.)          |                          | 50% Load 0.860                                               |                                              |                         |          |           |
| Duty Type                                      | Continuous ( S1 )         |                          | 75% Load 0.880                                               |                                              |                         |          |           |
| Service Factor                                 | 1.15                      |                          | 100% Load 0.885                                              |                                              |                         |          |           |
| Mounting                                       | ■ B3 □ B5 □ V1 □ B3/B5    |                          | Speed at Full Load 1785 r.p.m                                |                                              |                         |          |           |
| Bearing                                        | Type                      | Anti-Friction            | Torque                                                       |                                              |                         |          |           |
|                                                | DE/N-DE                   | NU320 / 6318C3           | Full Load 109.1 kg·m                                         |                                              |                         |          |           |
|                                                | Lubricant                 | Grease(Gadus S2 V 100 2) | Locked-rotor** 170 %                                         |                                              |                         |          |           |
| External Thrust                                | Not applicable            |                          | Breakdown** 220 %                                            |                                              |                         |          |           |
| Coupling Method                                | ■ Direct □ V-Belt         |                          | Moment of Inertia (J)                                        |                                              |                         |          |           |
| Shaft Extension                                | ■ Single □ Double         |                          | Load(Max.) 139.850 kg·m <sup>2</sup>                         |                                              |                         |          |           |
| Terminal Box                                   | Main                      | □ Steel ■ Cast Iron      | Motor 5.488 kg·m <sup>2</sup>                                |                                              |                         |          |           |
|                                                | Aux.                      | □ Yes ■ No               | Sound Pressure Level (No-load & mean value at 1m from motor) |                                              |                         |          |           |
|                                                | Location                  | Refer to Outline Drawing | 85 dB(A)                                                     |                                              |                         |          |           |
| Application                                    |                           |                          | Vibration 2.2 mm/sec (r.m.s)                                 |                                              |                         |          |           |
| Area classification                            | Non-Hazardous             |                          | Permissible number of consecutive starts                     |                                              |                         |          |           |
| Type of Ex-Protection                          | Not applicable            |                          | Cold 3 times                                                 |                                              |                         |          |           |
| Applicable Standard                            | KS,IEC,NEMA MG1 Part30&31 |                          | Hot 2 times                                                  |                                              |                         |          |           |
| ACCESSORIES                                    |                           |                          | Paint Munsell No. 4.0PB5.4/5.5(VL-451)                       |                                              |                         |          |           |
|                                                |                           |                          | <b>SUBMITTAL DRAWING</b>                                     |                                              |                         |          |           |
|                                                |                           |                          | Outline Dimension Drawing \ Motor Weight(Approx.)            |                                              |                         |          |           |
|                                                |                           |                          | B3(Side-Single)                                              | VJ8XZRWP61                                   | 1180 kg                 |          |           |
|                                                |                           |                          | B3(Top-Single)                                               | VJ8XYRWP61                                   | 1240 kg                 |          |           |
|                                                |                           |                          | B3(Top-Double)                                               | VJ8XYIOP61                                   | 1240 kg                 |          |           |
|                                                |                           |                          | Main T-Box Ass'y                                             | 3M-016882                                    |                         |          |           |
|                                                |                           |                          |                                                              |                                              |                         |          |           |
|                                                |                           |                          |                                                              |                                              |                         |          |           |
|                                                |                           |                          |                                                              |                                              |                         |          |           |
|                                                |                           |                          |                                                              |                                              |                         |          |           |
| SPARE PARTS                                    |                           |                          | REMARK                                                       |                                              |                         |          |           |
|                                                |                           |                          | Inverter Duty&High Efficiency                                |                                              |                         |          |           |
|                                                |                           |                          | *. For use on PWM VFD 2000:1VT, 1000:1CT@1.0S.F&F Temp. rise |                                              |                         |          |           |
|                                                |                           |                          | *. Blower Motor : 2HP-4P, 440V, 60Hz, IP54, B5               |                                              |                         |          |           |
|                                                |                           |                          | Date                                                         | DSND                                         | CHKD                    | CHKD     | APPD      |
|                                                |                           |                          | 2011-03-22                                                   | R. G. KIM                                    | O.J. KIM                | J.H. KIM | K.J. KANG |

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 maker standard, if not mentioned.

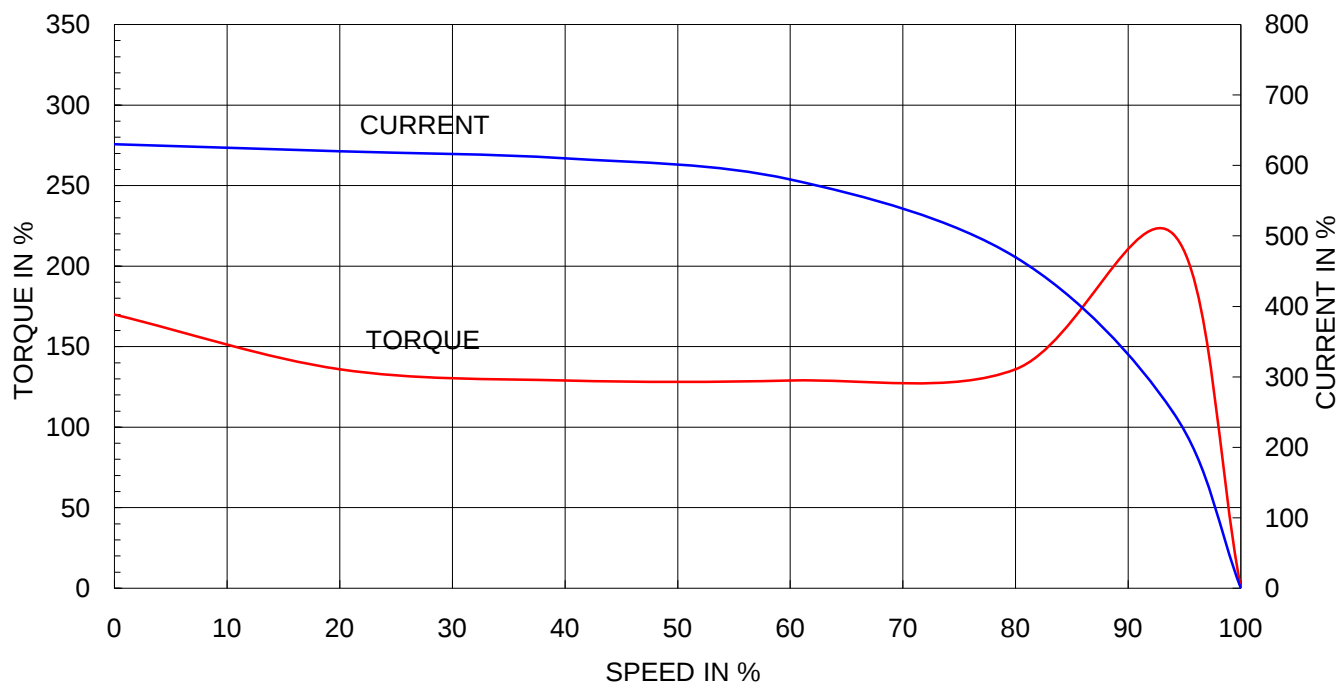
\* In case of Inverter-Fed Motor, performance data is based on sine wave tests.

\*\* Data is based on when the motor is supplied at rated voltage & frequency. and the data is expressed as a percentage of full-load value.

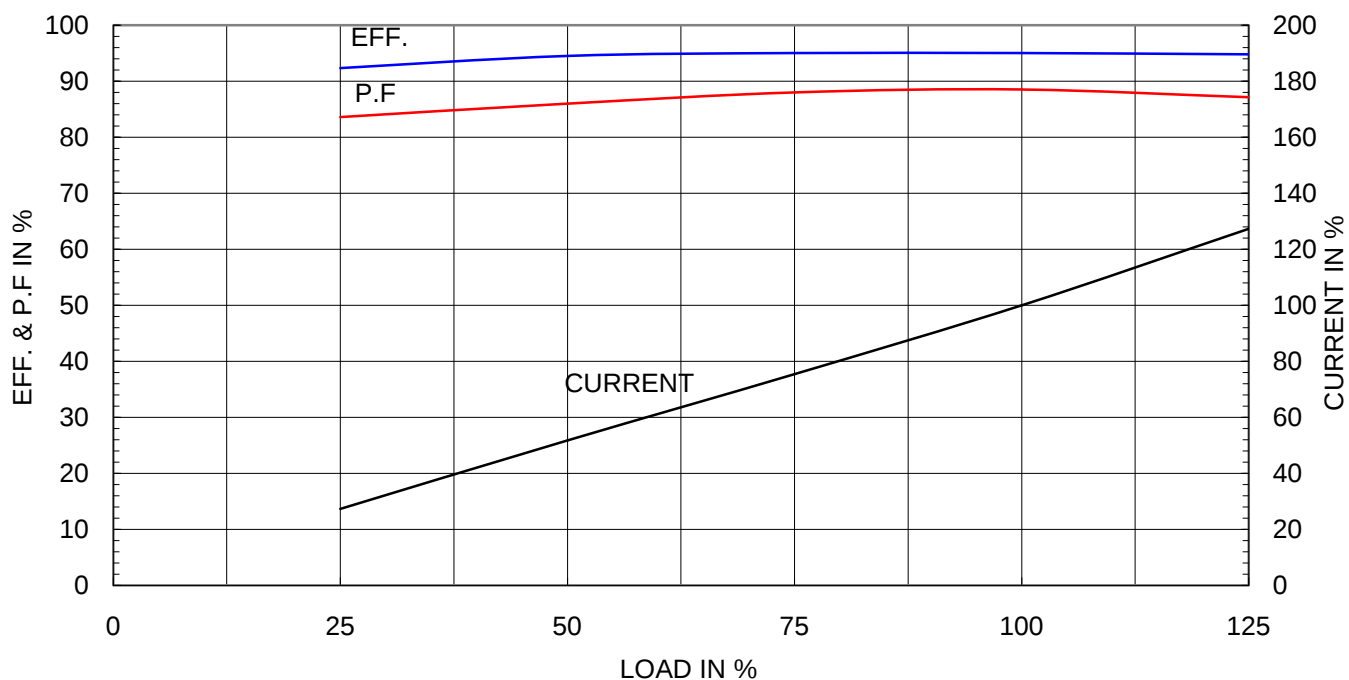
|                             |   |                           |
|-----------------------------|---|---------------------------|
| Type                        | : | HVD                       |
| Full Load Torque            | : | 109.1 Kg.m                |
| Motor moment of Inertia (J) | : | 5.488 Kg.m <sup>2</sup>   |
| Load moment of Inertia (J)  | : | 139.850 Kg.m <sup>2</sup> |

|                      |        |        |        |          |  |
|----------------------|--------|--------|--------|----------|--|
| 200 kW               |        | 4 P    |        | 60 Hz    |  |
| Speed at Full Load : |        |        |        | 1785 RPM |  |
| Rated Voltage        | 440V   | 380V   | 220V   |          |  |
| Full Load Current    | 312.1A | 361.4A | 624.3A |          |  |

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





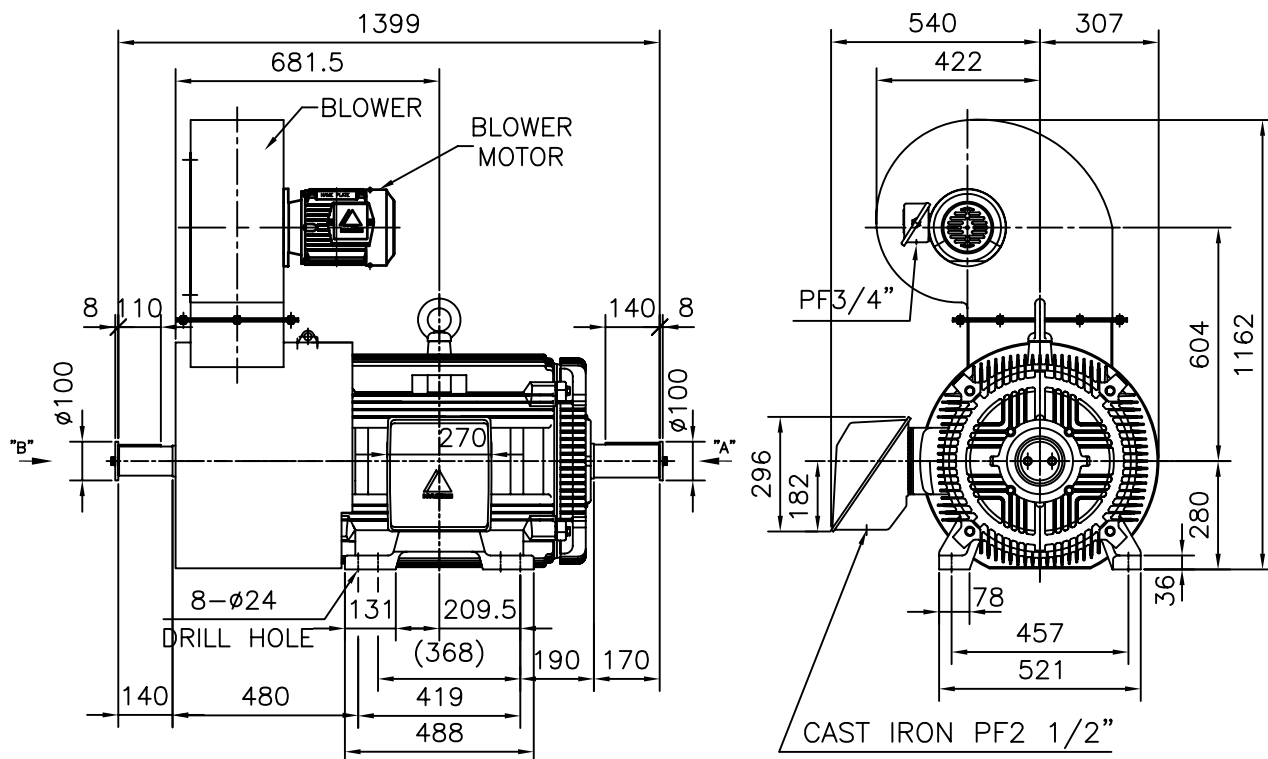
# TEFC

## THREE PHASE INDUCTION MOTOR

**TYPE**

HVD

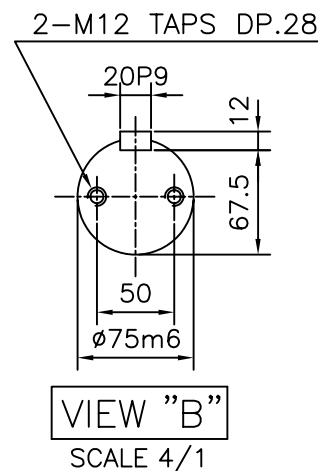
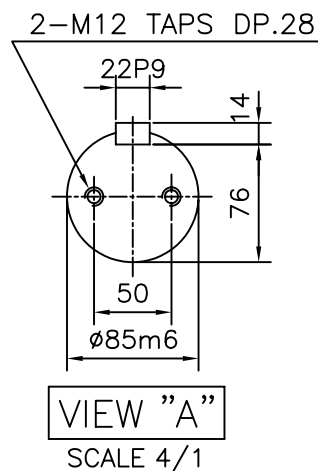
CAST IRON FRAME



### NOTE

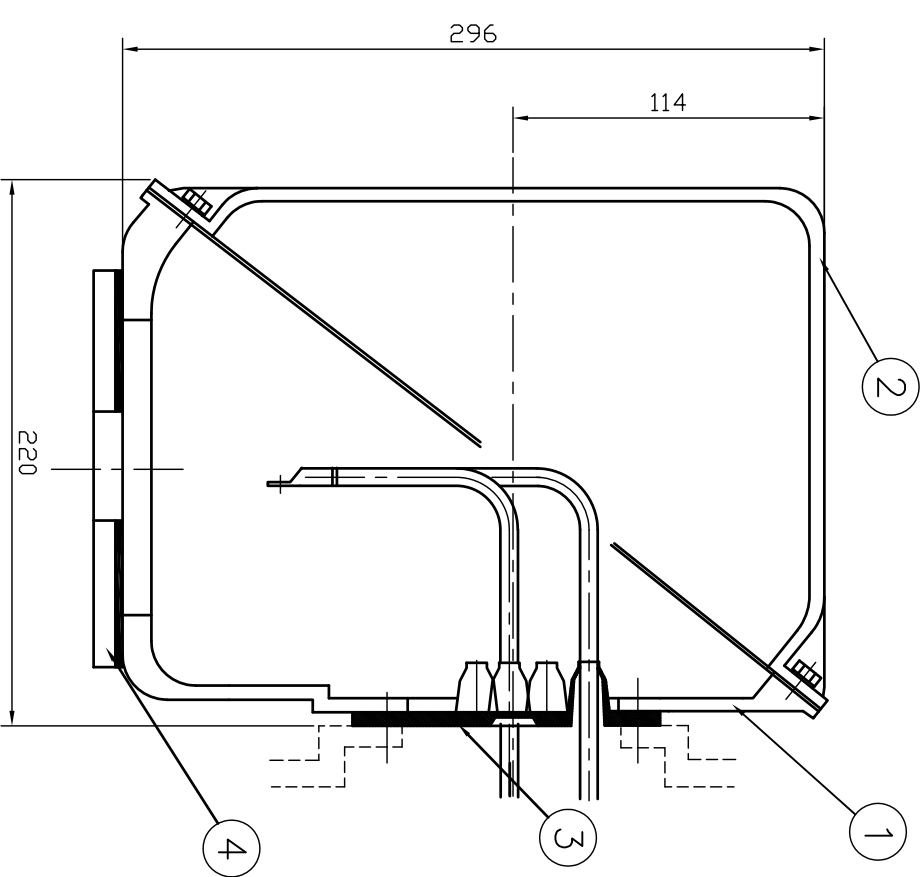
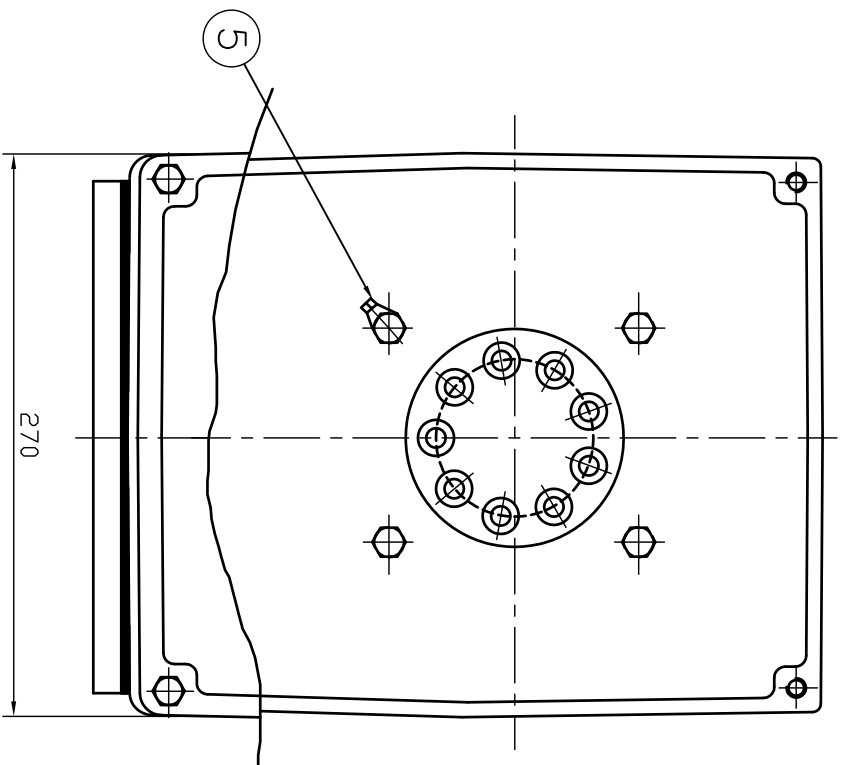
1.TOLERANCE :

|                | DE(VIEW "A")                            | N-DE(VIEW "B")                          |
|----------------|-----------------------------------------|-----------------------------------------|
| CENTER HEIGHT  | 280 <sup>0</sup> <sub>-1.0</sub>        |                                         |
| SHAFT DIAMETER | ø85 <sup>+0.035</sup> <sub>+0.013</sub> | ø75 <sup>+0.030</sup> <sub>+0.011</sub> |
| KEYWAY WIDTH   | 22 <sup>-0.022</sup> <sub>-0.074</sub>  | 20 <sup>-0.022</sup> <sub>-0.074</sub>  |
| KEYWAY DEPTH   | 9 <sup>+0.2</sup> <sub>0</sub>          | 7.5 <sup>+0.2</sup> <sub>0</sub>        |
| KEY WIDTH      | 22 <sup>0</sup> <sub>-0.052</sub>       | 20 <sup>0</sup> <sub>-0.052</sub>       |
| KEY HEIGHT     | 14 <sup>0</sup> <sub>-0.110</sub>       | 12 <sup>0</sup> <sub>-0.110</sub>       |



|         |               |          |            |                             |                         |
|---------|---------------|----------|------------|-----------------------------|-------------------------|
|         |               |          |            | TEBC STANDARD               |                         |
| APPD BY | KIM J.H.      | UNIT     | MM         | SUBJECT                     | L2 Fr.280M-P,TOP DOUBLE |
| CHKD BY | KIM O.J.      | SCALE    | 1/20       | CAD PROJ \ FILE             |                         |
| CHKD BY |               | PROJEC'N | 3rd Angle  | MMSTDMTR/VJ8MYIOP61         |                         |
| DSND BY | KIM RYANG GYU | DATE     | 2005.12.16 | TITLE                       |                         |
|         |               |          |            | OUTLINE                     |                         |
|         |               |          |            | THREE-PHASE INDUCTION MOTOR |                         |
|         |               |          |            | REF. NO                     | L2-Series               |
|         |               |          |            | DWG NO                      | VJ8MYIOP61              |
|         |               |          |            | Sheet No.                   | of                      |
|         |               |          |            | Revision No.                | 0                       |





| REV | DATE | CONTENTS | REV'D BY | CHK'D BY | Q.P. CHK | APP'D BY |
|-----|------|----------|----------|----------|----------|----------|
| 1   |      |          |          |          |          |          |

|          |                    |           |                   |                    |                   |                                       |
|----------|--------------------|-----------|-------------------|--------------------|-------------------|---------------------------------------|
| 1        | EARTH TERMINAL LUG |           |                   |                    |                   | 5                                     |
| 1        | CABLE ENTRY PLATE  |           |                   |                    |                   | 4                                     |
| 1        | GASKET             | NBR       |                   |                    |                   | 3                                     |
| 1        | TERMINAL BOX COVER | CAST IRON |                   |                    |                   | 2                                     |
| 1        | TERMINAL BOX BODY  | CAST IRON |                   |                    |                   | 1                                     |
| QTY      | DESCRIPTION        | MATERIAL  | DIMENSION         | WEIGHT             | PART NO.          | REMARK NO.                            |
| APP'D BY | 김진오                | UNIT      | MM                | SUBJECT            | HLA6 - 250,280Fr. | CAD PROJ. & FILE & T-BOX-M \ 38016882 |
| Q.P. CHK | 주영걸                | SCALE     | NONE              | TITLE              | (CAST IRON)       |                                       |
| CHK'D BY | 권오철                | PROJEC'T  | 3 & 4 (3rd Angle) | TERMINAL BOX ASS'Y |                   |                                       |
| DSND BY  | 김현태                | DATE      | 92.06.05          | REF. NO            |                   | Sheet No. of                          |
|          |                    |           |                   | DWG NO             | 3M-016882         | Revision No.                          |

