

Customer :  
Project Name :  
Project No. :  
Revision No. :

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## **SPECIFICATION for INDUCTION MOTOR**



# Contents

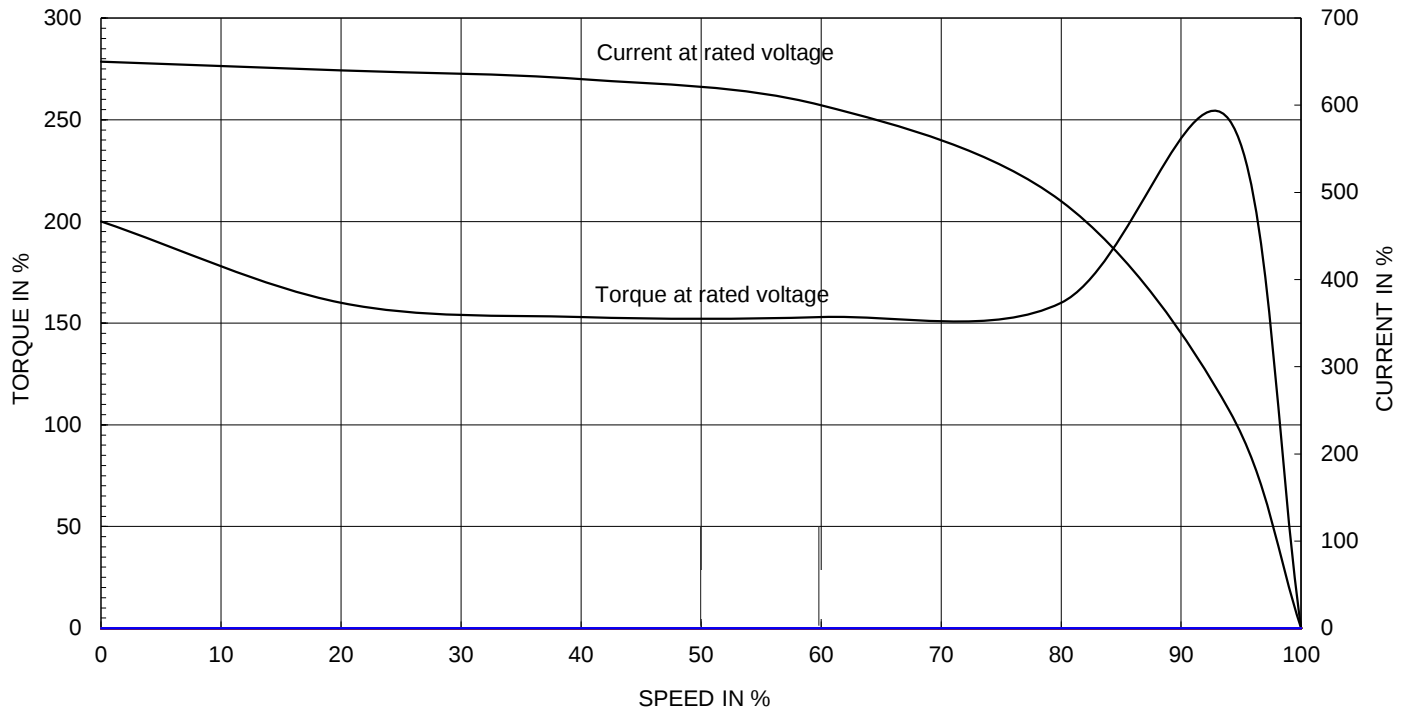
|                                      |           |
|--------------------------------------|-----------|
| 1 . Data Sheet of AC Induction Motor | - 1Sheets |
| 2 . Speed-Torque & Current Curve     | - 1Sheets |
| 3 . Outline Dimension Drawing        | - 1Sheets |
| 4 . Main Terminal Box Drawing        | - 1Sheets |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  |                                                              |  |                                                                        |  |                         |  |          |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------|--|------------------------------------------------------------------------|--|-------------------------|--|----------|--|
|                                                                                                                                                                                                                                                                                                                                                                                                            |  | <h1>AC INDUCTION MOTOR DATA SHEET</h1>                                                                                                                                                             |  |                                                              |  |                                                                        |  |                         |  |          |  |
| Model No.or RFQ No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | 3806KSTD40SSDS1STFE3B51DL0SDS                                                                                                                                                                      |  | Item No.                                                     |  |                                                                        |  | Rev. No.                |  | [      ] |  |
| Project Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                    |  | Project No.                                                  |  |                                                                        |  | Quantity                |  |          |  |
| GENERAL SPECIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                    |  | PERFORMANCE DATA                                             |  |                                                                        |  |                         |  |          |  |
| Frame Size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | 80M                                                                                                                                                                                                |  | Rated Output                                                 |  | 0.75 kW                                                                |  | 1 HP                    |  |          |  |
| Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | HLP-0.75/4                                                                                                                                                                                         |  | Number of Poles                                              |  | 4                                                                      |  |                         |  |          |  |
| Enclosure(Protection)                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | Totally Enclosed ( IP55 )                                                                                                                                                                          |  | Rotor Type                                                   |  | Squirrel Cage                                                          |  |                         |  |          |  |
| Method of Cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | IC411(FC)                                                                                                                                                                                          |  | Starting Method*                                             |  | <input checked="" type="checkbox"/> D.O.L <input type="checkbox"/> Y-Δ |  |                         |  |          |  |
| Rated Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 60 Hz                                                                                                                                                                                              |  | Rated Voltage                                                |  | 380 V                                                                  |  |                         |  |          |  |
| Number of Phases                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | 3                                                                                                                                                                                                  |  | Current                                                      |  | Full Load                                                              |  | 1.9 A                   |  |          |  |
| Insulation Class                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | <input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H                                                                                                        |  |                                                              |  | Locked-rotor**                                                         |  | 750 %                   |  |          |  |
| Temp. Rise at full load (by resistance method)                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                    |  | Efficiency                                                   |  |                                                                        |  |                         |  |          |  |
| at 1.0 S.F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | 80 deg. C                                                                                                                                                                                          |  |                                                              |  | 50% Load                                                               |  | 76.5 %                  |  |          |  |
| Motor Location                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | <input checked="" type="checkbox"/> Indoor <input type="checkbox"/> Outdoor                                                                                                                        |  |                                                              |  | 75% Load                                                               |  | 81.0 %                  |  |          |  |
| Altitude                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Less than 1000                                                                                                                                                                                     |  |                                                              |  | 100% Load                                                              |  | 83.5 %                  |  |          |  |
| Relative Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Less than 80 %                                                                                                                                                                                     |  | Power Factor(p.u)                                            |  |                                                                        |  |                         |  |          |  |
| Ambient Temp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | 40 deg. C (Max.)                                                                                                                                                                                   |  |                                                              |  | 50% Load                                                               |  | 0.485                   |  |          |  |
| Duty Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | Continuous(S1)                                                                                                                                                                                     |  |                                                              |  | 75% Load                                                               |  | 0.610                   |  |          |  |
| Service Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | 1.15                                                                                                                                                                                               |  |                                                              |  | 100% Load                                                              |  | 0.702                   |  |          |  |
| Mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | <input type="checkbox"/> B3 <input checked="" type="checkbox"/> B5 <input type="checkbox"/> V1 <input type="checkbox"/> B3/B5                                                                      |  | Speed at Full Load                                           |  | 1740 r.p.m                                                             |  |                         |  |          |  |
| Bearing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | Type Anti-Friction                                                                                                                                                                                 |  | Torque                                                       |  |                                                                        |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | DE/N-DE 6204ZZ / 6203ZZ                                                                                                                                                                            |  |                                                              |  | Full Load                                                              |  | 0.4 kg·m                |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lubricant Grease(HIFLEX L-3)                                                                                                                                                                       |  |                                                              |  | Locked-rotor**                                                         |  | 260 %                   |  |          |  |
| External Thrust                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Not applicable                                                                                                                                                                                     |  |                                                              |  | Breakdown**                                                            |  | 300 %                   |  |          |  |
| Coupling Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-Belt                                                                                                                         |  | Moment of Inertia (J)                                        |  |                                                                        |  |                         |  |          |  |
| Shaft Extension                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | <input checked="" type="checkbox"/> Single <input type="checkbox"/> Double                                                                                                                         |  |                                                              |  | Load(Max.)                                                             |  | 0.625 kg·m <sup>2</sup> |  |          |  |
| Terminal Box                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | Main <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron<br>Aux. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Location Refer to Outline Drawing |  |                                                              |  | Motor                                                                  |  | 0.002 kg·m <sup>2</sup> |  |          |  |
| Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                    |  | Sound Pressure Level (No-load & mean value at 1m from motor) |  |                                                                        |  | 64 dB(A)                |  |          |  |
| Area classification                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Not applicable                                                                                                                                                                                     |  | Vibration                                                    |  | 1.6 mm/sec (r.m.s)                                                     |  |                         |  |          |  |
| Type of Ex-Protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | Non-Hazardous                                                                                                                                                                                      |  | Permissible number of consecutive starts                     |  | Cold 3 times                                                           |  |                         |  |          |  |
| Applicable Standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | KS, IEC, NEMA MG1 Part30(Vpeak)                                                                                                                                                                    |  |                                                              |  | Hot 2 times                                                            |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  | Paint                                                        |  | Munsell No.                                                            |  | 4.4PB5.5/5.6(VL-451)    |  |          |  |
| ACCESSORIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                    |  | SUBMITTAL DRAWING                                            |  |                                                                        |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  | Outline Dimension Drawing                                    |  | \                                                                      |  | Motor Weight(Approx.)   |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  | B5                                                           |  | LM-A1080B5P1001                                                        |  | 14 kg                   |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  | Main T-Box Ass'y                                             |  | 3M-148548                                                              |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  |                                                              |  |                                                                        |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  |                                                              |  |                                                                        |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  |                                                              |  |                                                                        |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  | REMARK                                                       |  |                                                                        |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  | *.Premium Efficiency(IE3)                                    |  |                                                                        |  |                         |  |          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  | *.For use on PWM VFD 10:1VT,3:1CT@1.0S.F&F Temp.rise         |  |                                                                        |  |                         |  |          |  |
| SPARE PARTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                    |  | Date                                                         |  | DSND                                                                   |  | CHKD                    |  | CHKD     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  | 2018-04-25                                                   |  | R.G. KIM                                                               |  | -                       |  | O.J. KIM |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                    |  |                                                              |  |                                                                        |  |                         |  | S.K. HAN |  |
| Note: Others not mentioned in this data sheet shall be in accordance with maker standard.<br>Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.<br>Inspection and performance test shall be maker standard, if not mentioned.<br>* In case of Inverter-Fed Motor, performance data is based on sine wave tests.<br>** The data are based on rated voltage & frequency, and data are expressed as a percentage of full load value. |  |                                                                                                                                                                                                    |  |                                                              |  |                                                                        |  |                         |  |          |  |

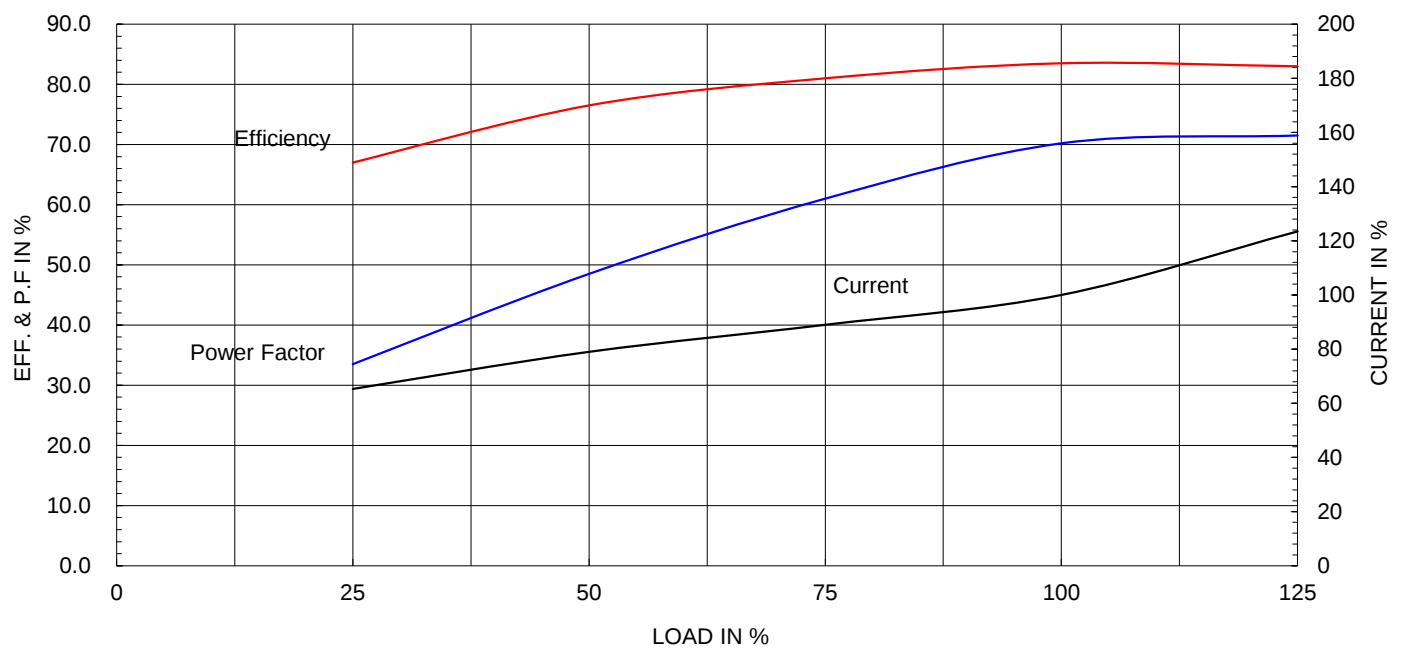
|                               |            |                   |
|-------------------------------|------------|-------------------|
| Type :                        | HLP-0.75/4 |                   |
| Full Load Torque :            | 0.4        | kg.m              |
| Motor moment of Inertia (J) : | 0.002      | kg.m <sup>2</sup> |
| Load moment of Inertia (J) :  | 0.625      | kg.m <sup>2</sup> |

|                               |      |       |
|-------------------------------|------|-------|
| 0.75 kW                       | 4 P  | 60 Hz |
| Speed at Full Load : 1740 RPM |      |       |
| Rated Voltage                 | 380V |       |
| Full Load Current             | 1.9A |       |

SPEED VS TORQUE & CURRENT CURVE

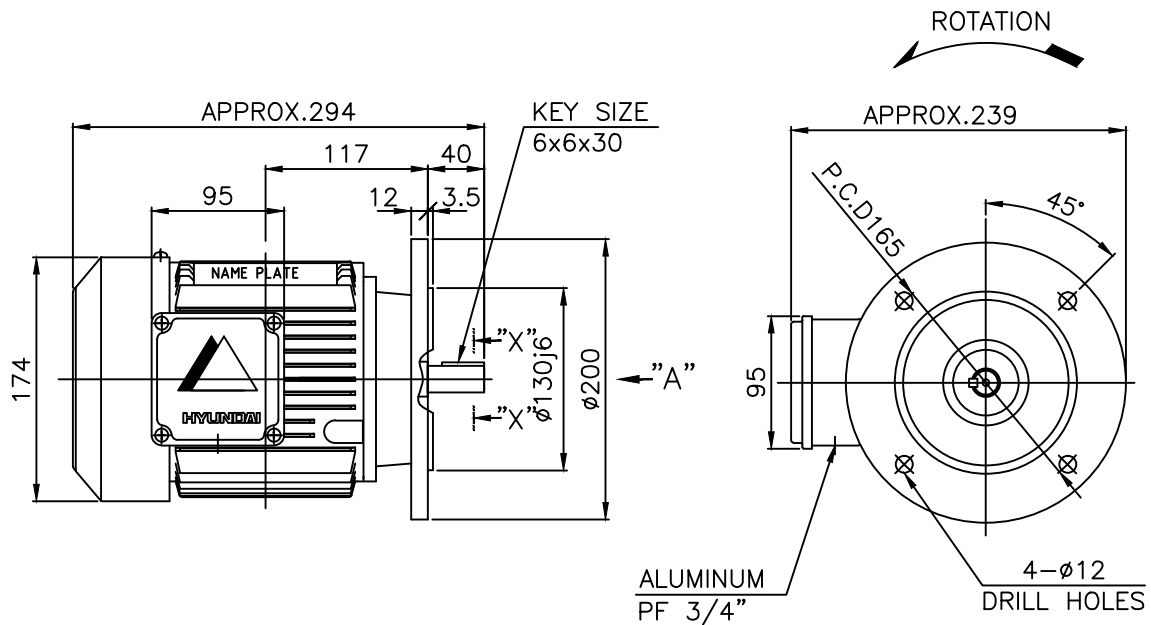


OUTPUT VS EFF., P.F & CURRENT CURVE



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

| REVD BY | CHKD BY | CHKD BY | APPD BY |
|---------|---------|---------|---------|
|---------|---------|---------|---------|

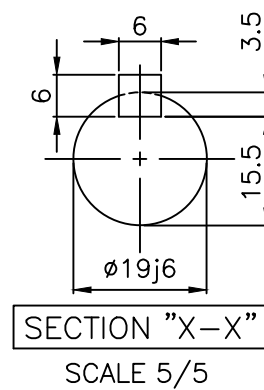


VIEW "A"

### NOTE

1.TOLERANCE :

|                 |            |                      |
|-----------------|------------|----------------------|
| FLANGE HOLES    | $\phi 12$  | $+0.43$<br>0         |
| RABBET DIAMETER | $\phi 130$ | $+0.014$<br>$-0.011$ |
| SHAFT DIAMETER  | $\phi 19$  | $+0.009$<br>$-0.004$ |
| KEYWAY WIDTH    | 6          | 0<br>$-0.030$        |
| KEYWAY DEPTH    | 3.5        | $+0.1$<br>0          |
| KEY WIDTH       | 6          | 0<br>$-0.030$        |
| KEY HEIGHT      | 6          | 0<br>$-0.030$        |



|         |         |          |                 |         |                 |                |
|---------|---------|----------|-----------------|---------|-----------------|----------------|
| APPD BY | S.K.HAN | UNIT     | mm              | SUBJECT | KS, IEC Fr.80M  | DWG SIZE       |
| CHKD BY | S.Y.KIM | SCALE    | 1/5             |         |                 | A4 ( 1:5 )     |
| CHKD BY | R.G.KIM | PROJEC'N | 3각법 (3rd Angle) | TITLE   | OUTLINE         |                |
| DSND BY | S.H.YUN | DATE     | 2018-07-27      | REF. NO |                 | Sheet No. of   |
|         |         |          |                 | DWG NO  | LM-A1080B5P1001 | Revision No. 0 |

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SEC. "A" - "A"

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

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

| 일반가공공차 |      | 일반재관공차   |      |
|--------|------|----------|------|
| 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.K.HAN     |  | UNIT     | mm              |  | SUBJECT                           | FR.71~90 (AL) |        | DWG SIZE       |
| CHKD BY                                                                               | S.Y.KIM     |  | SCALE    | 1/1             |  |                                   |               |        | A3 ( 1:1 )     |
| CHKD BY                                                                               | R.G.KIM     |  | PROJEC'N | 3각법 (3rd Angle) |  | TITLE<br>Terminal Box Arrangement |               |        |                |
| DSND BY                                                                               | 이혜경 R       |  | DATE     | 2011-10-26      |  |                                   |               |        |                |
|  |             |  |          |                 |  | REF. NO                           | 227B1537AA    |        | Sheet No. of   |
|                                                                                       |             |  |          |                 |  | DWG NO                            | 3M-148548     |        | Revision No. 2 |