

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

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# SPECIFICATION for INDUCTION MOTOR



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# AC INDUCTION MOTOR DATA SHEET

| Model No.or RFQ No.   | 4606KSTD40SSDS1STFE3B31DL0SD3   | Item No.   |  | Rev. No.                     | [     ]                 |  |  |
|---|---|--|--|------------------------------|-------------------------|--|--|
| Project Name  |   | Project No.  |  | Quantity                     |                         |  |  |
| GENERAL SPECIFICATION   |   |  | PERFORMANCE DATA   |                              |                         |  |  |
| Frame Size  | 180L  | Rated Output   | 22 kW  | 30 HP                        |                         |  |  |
| Type  | HLP-22/6  | Number of Poles  | 6  |                              |                         |  |  |
| 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  | 460 V  |                              |                         |  |  |
| Number of Phases  | 3   | Current  | Full Load  | 37.7 A                       |                         |  |  |
| Insulation Class  | <input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H                                   |  | Locked-rotor**   | 770 %                        |                         |  |  |
| Temp. Rise at full load (by resistance method)                                    |   | Efficiency   |  |                              |                         |  |  |
| at 1.0 S.F  | 80 deg. C   | 50% Load   |  | 90.0 %                       |                         |  |  |
| Motor Location  | <input checked="" type="checkbox"/> Indoor <input type="checkbox"/> Outdoor   | 75% Load   |  | 92.1 %                       |                         |  |  |
| Altitude  | Less than 1000  | 100% Load  |  | 93.0 %                       |                         |  |  |
| Relative Humidity   | Less than 80 %  | Power Factor(p.u)  |  |                              |                         |  |  |
| Ambient Temp.   | 40 deg. C (Max.)  | 50% Load   |  | 0.613                        |                         |  |  |
| Duty Type   | Continuous(S1)  | 75% Load   |  | 0.728                        |                         |  |  |
| Service Factor  | 1.15  | 100% Load  |  | 0.787                        |                         |  |  |
| Mounting  | <input checked="" type="checkbox"/> B3 <input type="checkbox"/> B5 <input type="checkbox"/> V1 <input type="checkbox"/> B3/B5 | Speed at Full Load   |  | 1175 r.p.m                   |                         |  |  |
| Bearing   | Type  | Anti-Friction  |  |                              |                         |  |  |
|   | DE/N-DE   | 6312ZZC3 / 6310ZZC3  |  |                              |                         |  |  |
|   | Lubricant   | Grease(Polyrex-EM)   |  |                              |                         |  |  |
| External Thrust   | Not applicable  |  |  |                              |                         |  |  |
| 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.)   |  | 42.000 kg·m <sup>2</sup>     |                         |  |  |
| Terminal Box  | Main  | <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron | Motor  |                              | 0.270 kg·m <sup>2</sup> |  |  |
|   | Aux.  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          | Sound Pressure Level (No-load & mean value at 1m from motor) |                              |                         |  |  |
|   | Location  | Refer to Outline Drawing   |  |                              |                         |  |  |
| Application   |   | Vibration  |  | 2.2 mm/sec (r.m.s)           |                         |  |  |
| Area classification   | Not applicable  | Permissible number of consecutive starts                                     |  | Cold                         | 3 times                 |  |  |
| Type of Ex-Protection   | Non-Hazardous   |  |  | Hot                          | 2 times                 |  |  |
| Applicable Standard   | KS, IEC, NEMA MG1 Part30(Vpeak)   | Paint  | Munsell No.  | 4.4PB5.5/5.6(VL-451)         |                         |  |  |
| ACCESSORIES   |   |  | SUBMITTAL DRAWING  |                              |                         |  |  |
|   |   |  | Outline Dimension Drawing                                    |                              | Motor Weight(Approx.)   |  |  |
|   |   |  | B3   | LM-T1185B3PL001              | 186 kg                  |  |  |
|   |   |  | Main T-Box Ass'y   |                              | 3M-145860               |  |  |
|   |   |  |  |                              |                         |  |  |
|   |   |  |  |                              |                         |  |  |
| REMARK  |   |  |  |                              |                         |  |  |
| *.Premium Efficiency(IE3)<br>*.For use on PWM VFD 10:1VT,3:1CT@1.0S.F&F Temp.rise |   |  |  |                              |                         |  |  |
| SPARE PARTS   |   |  |  |                              |                         |  |  |
|   |   |  |  |                              |                         |  |  |
| Date  |   | DSND   | CHKD   | CHKD                         | APPD                    |  |  |
| 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.  
 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.  
 \*\* The data are based on rated voltage & frequency, and data are expressed as a percentage of full load value.

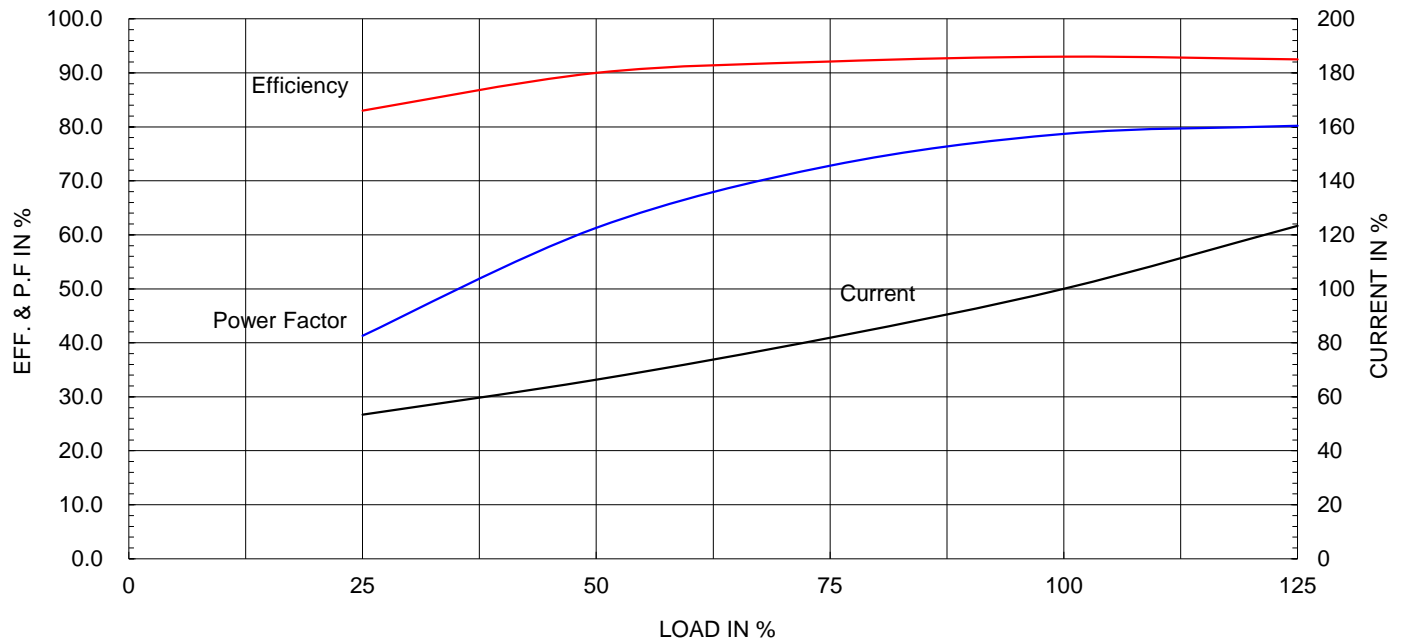
|                               |          |                   |
|-------------------------------|----------|-------------------|
| Type :                        | HLP-22/6 |                   |
| Full Load Torque :            | 18.2     | kg.m              |
| Motor moment of Inertia (J) : | 0.270    | kg.m <sup>2</sup> |
| Load moment of Inertia (J) :  | 42.000   | kg.m <sup>2</sup> |

|                      |       |          |
|----------------------|-------|----------|
| 22 kW                | 6 P   | 60 Hz    |
| Speed at Full Load : |       | 1175 RPM |
| Rated Voltage        | 460V  |          |
| Full Load Current    | 37.7A |          |

SPEED VS TORQUE & CURRENT CURVE



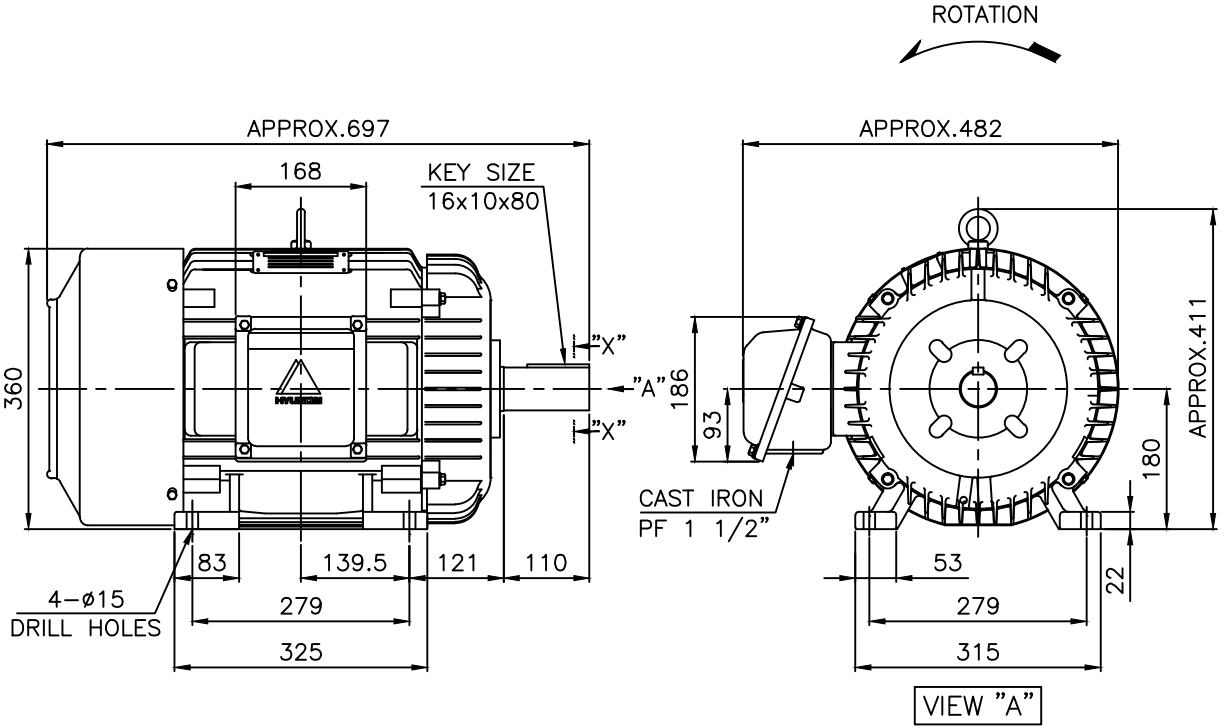
OUTPUT VS EFF., P.F & CURRENT CURVE



본 도면은 현대일렉트릭(주) 재산이므로  
허가없이 복사할 수 없음 (취급주의)

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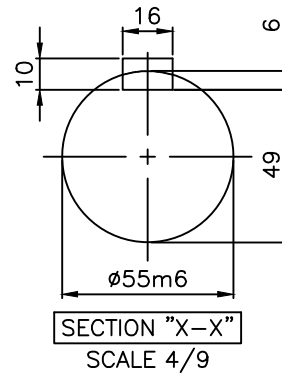
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|------|-------|-----|------|----------|---------|---------|---------|---------|
|      | 1     | 2   | 3    | 4        |         |         |         |         |
| ▽    | 50S   | REV | DATE | CONTENTS | REVD BY | CHKD BY | CHKD BY | APPD BY |
| ▽▽   | 12.5S |     |      |          |         |         |         |         |
| ▽▽▽  | 3.2S  |     |      |          |         |         |         |         |
| ▽▽▽▽ | 0.4S  |     |      |          |         |         |         |         |



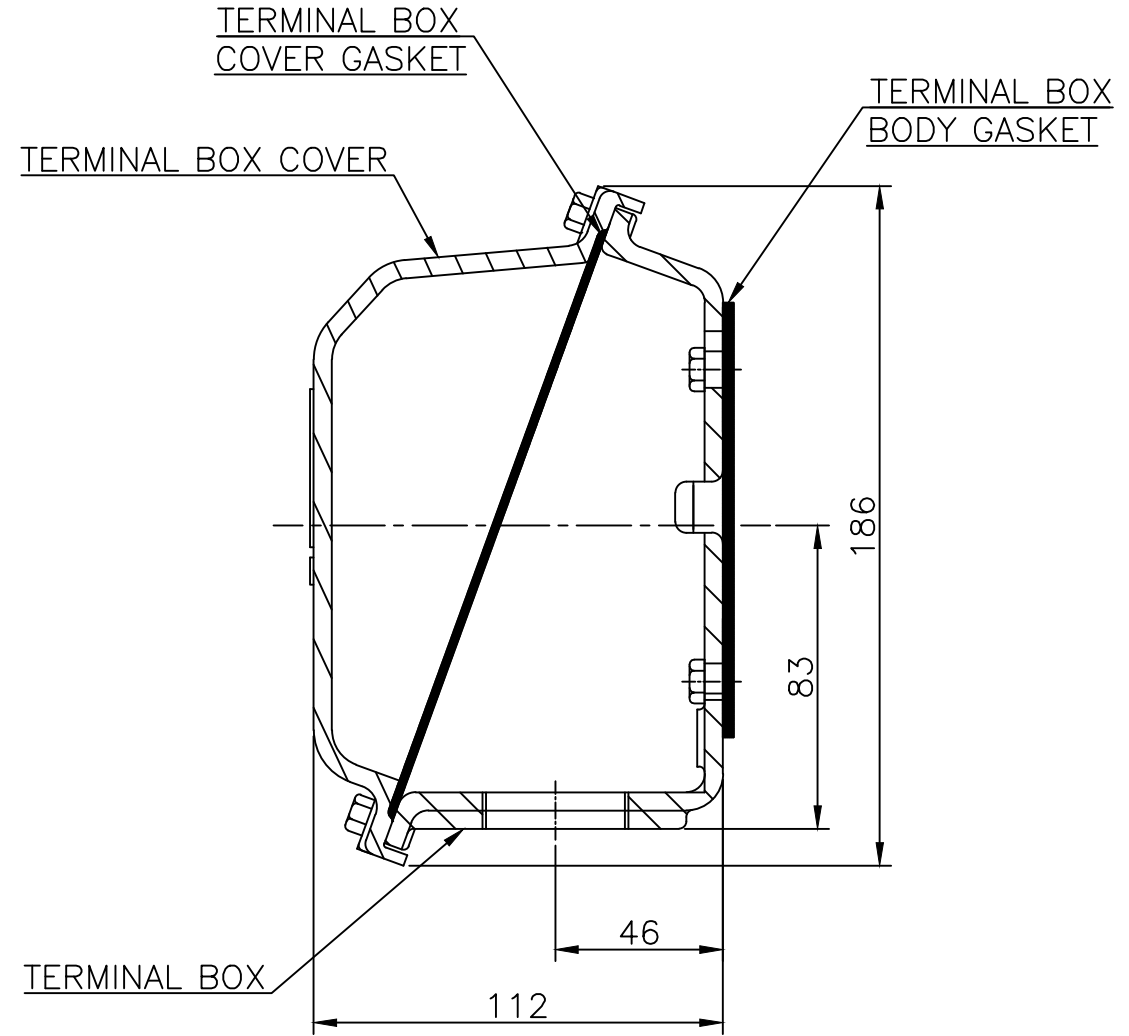
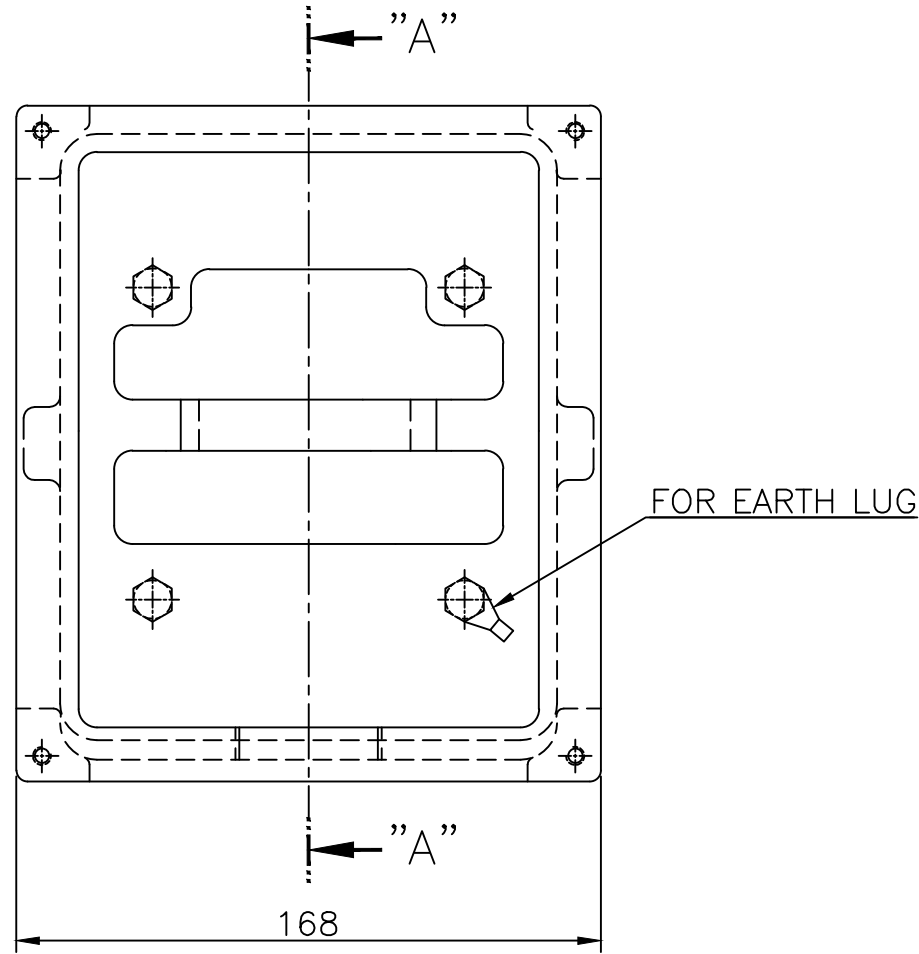
NOTE

1.TOLERANCE :

|                |     |                                       |
|----------------|-----|---------------------------------------|
| CENTER HEIGHT  | 180 | <sup>0</sup> / <sub>-0.5</sub>        |
| BASE HOLES     | ø15 | <sup>+0.43</sup> / <sub>0</sub>       |
| SHAFT DIAMETER | ø55 | <sup>+0.030</sup> / <sub>+0.011</sub> |
| KEYWAY WIDTH   | 16  | <sup>0</sup> / <sub>-0.043</sub>      |
| KEYWAY DEPTH   | 6   | <sup>+0.2</sup> / <sub>0</sub>        |
| KEY WIDTH      | 16  | <sup>0</sup> / <sub>-0.043</sub>      |
| KEY HEIGHT     | 10  | <sup>0</sup> / <sub>-0.090</sub>      |



|         |         |          |                |         |                 |              |            |
|---------|---------|----------|----------------|---------|-----------------|--------------|------------|
| APPD BY | S.K.HAN | UNIT     | mm             | SUBJECT | KS, IEC Fr.180L | DWG SIZE     | A4 ( 1:9 ) |
| CHKD BY | S.Y.KIM | SCALE    | 1/9            | TITLE   | OUTLINE         |              |            |
| CHKD BY | R.G.KIM | PROJEC'N | 3각법(3rd Angle) | REF. NO |                 | Sheet No.    | of         |
| DSND BY | S.H.YUN | DATE     | 2011-10-22     | DWG NO  | LM-T1185B3PL001 | Revision No. | 3          |
|         |         |          |                |         |                 |              |            |



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

| REV | DATE | CONTENTS | REVD BY | CHKD BY | CHKD BY | APPD BY | 일반가공차  |      | 일반제관공차   |      |
|-----|------|----------|---------|---------|---------|---------|--------|------|----------|------|
|     |      |          |         |         |         |         |        |      |          |      |
|     |      |          |         |         |         |         | 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.160~180 (CAST IRON) |              | DWG SIZE |
| CHKD BY | S.Y.KIM     | SCALE    | 1/2            | TITLE                      |                        |              | A3 (1:2) |
| CHKD BY | R.G.KIM     | PROJEC'N | 3각법(3rd Angle) | Main Terminal Box Assembly |                        |              |          |
| DSND BY | H.K.LEE     | DATE     | 2011-08-30     | REF. NO.                   | 227B8008LA2            | Sheet No.    | of       |
|         |             |          |                | DWG NO.                    | 3M-145860              | Revision No. | 2        |