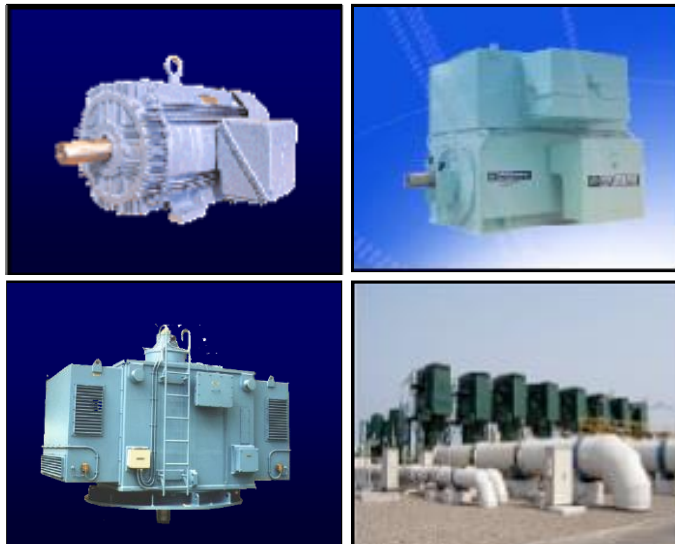


Customer :  
Project Name :  
Project No. :  
Revision No. :

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## **SPECIFICATION for INDUCTION MOTOR**



# Contents

|                                      |           |
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|                                                                                 |           |                                                                                                                               |  |                                                      |  |                                                              |          |                              |          |          |  |          |  |
|---------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------|--|--------------------------------------------------------------|----------|------------------------------|----------|----------|--|----------|--|
|  |           | <h1>AC INDUCTION MOTOR DATA SHEET</h1>                                                                                        |  |                                                      |  |                                                              |          |                              |          |          |  |          |  |
| Model No.or RFQ No.                                                             |           | 4606KSTD40SSDS1STFE3B31DL0SD3                                                                                                 |  | Item No.                                             |  |                                                              | Rev. No. |                              | [      ] |          |  |          |  |
| Project Name                                                                    |           |                                                                                                                               |  | Project No.                                          |  |                                                              | Quantity |                              |          |          |  |          |  |
| GENERAL SPECIFICATION                                                           |           |                                                                                                                               |  | PERFORMANCE DATA                                     |  |                                                              |          |                              |          |          |  |          |  |
| Frame Size                                                                      |           | 160M                                                                                                                          |  | Rated Output                                         |  | 11 kW                                                        |          | 15 HP                        |          |          |  |          |  |
| Type                                                                            |           | HLP-11/2                                                                                                                      |  | Number of Poles                                      |  | 2                                                            |          |                              |          |          |  |          |  |
| 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                                                    |          | 17.1 A                       |          |          |  |          |  |
| Insulation Class                                                                |           | <input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H                                   |  |                                                      |  | Locked-rotor**                                               |          | 895 %                        |          |          |  |          |  |
| Temp. Rise at full load (by resistance method)                                  |           |                                                                                                                               |  | Efficiency                                           |  |                                                              |          |                              |          |          |  |          |  |
| at 1.0 S.F                                                                      |           | 80 deg. C                                                                                                                     |  |                                                      |  | 50% Load                                                     |          | 89.6 %                       |          |          |  |          |  |
| Motor Location                                                                  |           | <input checked="" type="checkbox"/> Indoor <input type="checkbox"/> Outdoor                                                   |  |                                                      |  | 75% Load                                                     |          | 90.9 %                       |          |          |  |          |  |
| Altitude                                                                        |           | Less than 1000                                                                                                                |  |                                                      |  | 100% Load                                                    |          | 91.0 %                       |          |          |  |          |  |
| Relative Humidity                                                               |           | Less than 80 %                                                                                                                |  | Power Factor(p.u)                                    |  |                                                              |          |                              |          |          |  |          |  |
| Ambient Temp.                                                                   |           | 40 deg. C (Max.)                                                                                                              |  |                                                      |  | 50% Load                                                     |          | 0.815                        |          |          |  |          |  |
| Duty Type                                                                       |           | Continuous(S1)                                                                                                                |  |                                                      |  | 75% Load                                                     |          | 0.872                        |          |          |  |          |  |
| Service Factor                                                                  |           | 1.15                                                                                                                          |  |                                                      |  | 100% Load                                                    |          | 0.890                        |          |          |  |          |  |
| Mounting                                                                        |           | <input checked="" type="checkbox"/> B3 <input type="checkbox"/> B5 <input type="checkbox"/> V1 <input type="checkbox"/> B3/B5 |  | Speed at Full Load                                   |  | 3535 r.p.m                                                   |          |                              |          |          |  |          |  |
| Bearing                                                                         | Type      | Anti-Friction                                                                                                                 |  | Torque                                               |  |                                                              |          |                              |          |          |  |          |  |
|                                                                                 | DE/N-DE   | 6309ZZC3 / 6309ZZC3                                                                                                           |  |                                                      |  | Full Load                                                    |          | 3.0 kg·m                     |          |          |  |          |  |
|                                                                                 | Lubricant | Grease(Polyrex-EM)                                                                                                            |  |                                                      |  | Locked-rotor**                                               |          | 180 %                        |          |          |  |          |  |
| External Thrust                                                                 |           | Not applicable                                                                                                                |  |                                                      |  | Breakdown**                                                  |          | 250 %                        |          |          |  |          |  |
| 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.)                                                   |          | 2.000 kg·m²                  |          |          |  |          |  |
| Terminal Box                                                                    | Main      | <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron                                                  |  |                                                      |  | Motor                                                        |          | 0.039 kg·m²                  |          |          |  |          |  |
|                                                                                 | 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                                                                                                      |  |                                                      |  | 79 dB(A)                                                     |          |                              |          |          |  |          |  |
| 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-T1163B3PL001                                              |          | 118 kg                       |          |          |  |          |  |
|                                                                                 |           |                                                                                                                               |  | Main T-Box Ass'y                                     |  | 3M-145860                                                    |          |                              |          |          |  |          |  |
|                                                                                 |           |                                                                                                                               |  |                                                      |  |                                                              |          |                              |          |          |  |          |  |
|                                                                                 |           |                                                                                                                               |  |                                                      |  |                                                              |          |                              |          |          |  |          |  |
|                                                                                 |           |                                                                                                                               |  |                                                      |  |                                                              |          |                              |          |          |  |          |  |
|                                                                                 |           |                                                                                                                               |  | 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     |  | 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.

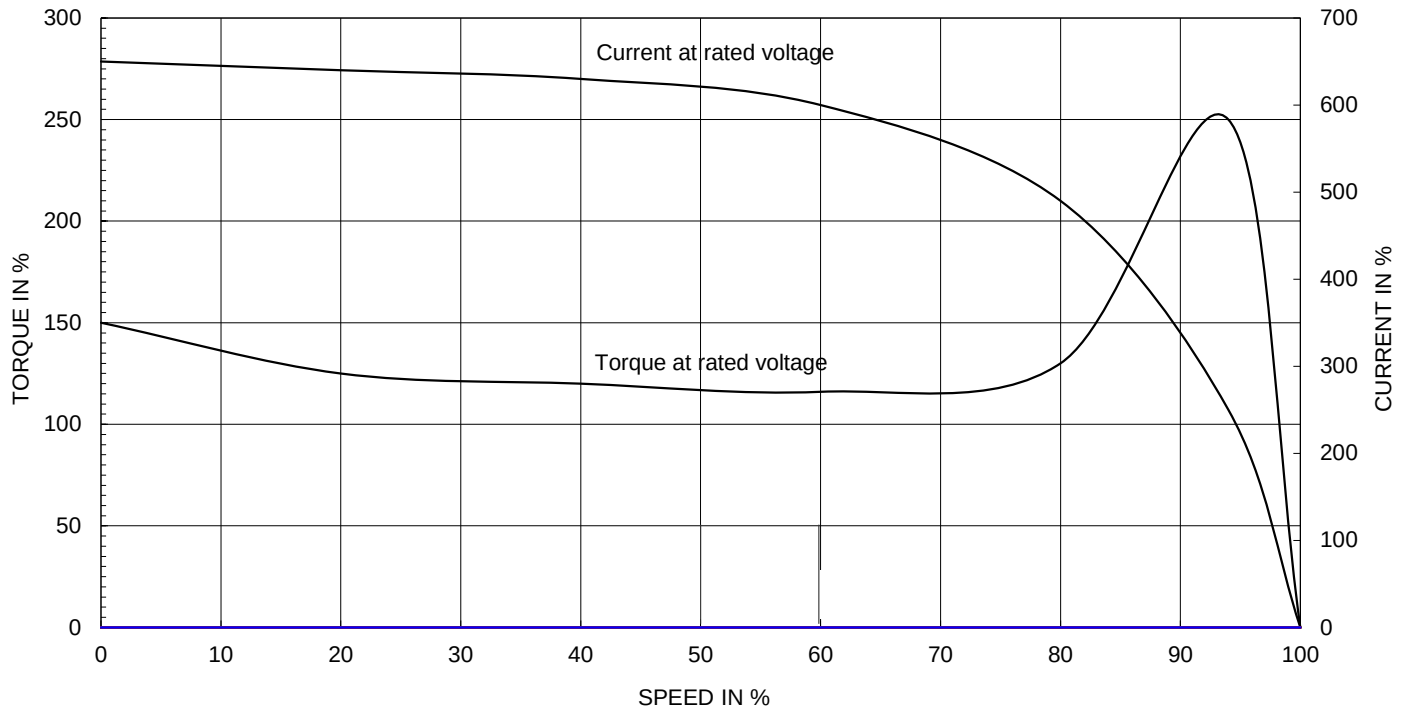
\* In case of Inverter-Fed Motor, performance data is based on sine wave tests.

\*\* The data are based on rated voltage & frequency, and data are expressed as a percentage of full load value.

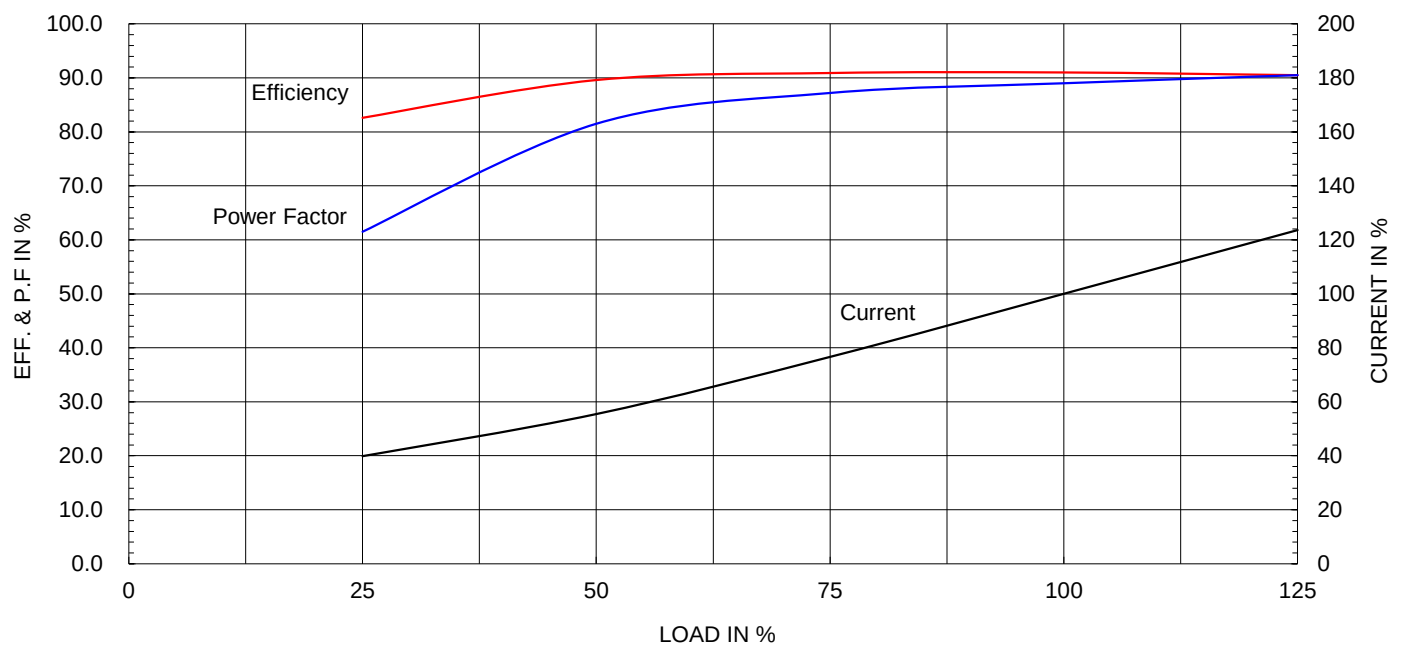
|                               |          |                   |
|-------------------------------|----------|-------------------|
| Type :                        | HLP-11/2 |                   |
| Full Load Torque :            | 3.0      | kg.m              |
| Motor moment of Inertia (J) : | 0.039    | kg.m <sup>2</sup> |
| Load moment of Inertia (J) :  | 2.000    | kg.m <sup>2</sup> |

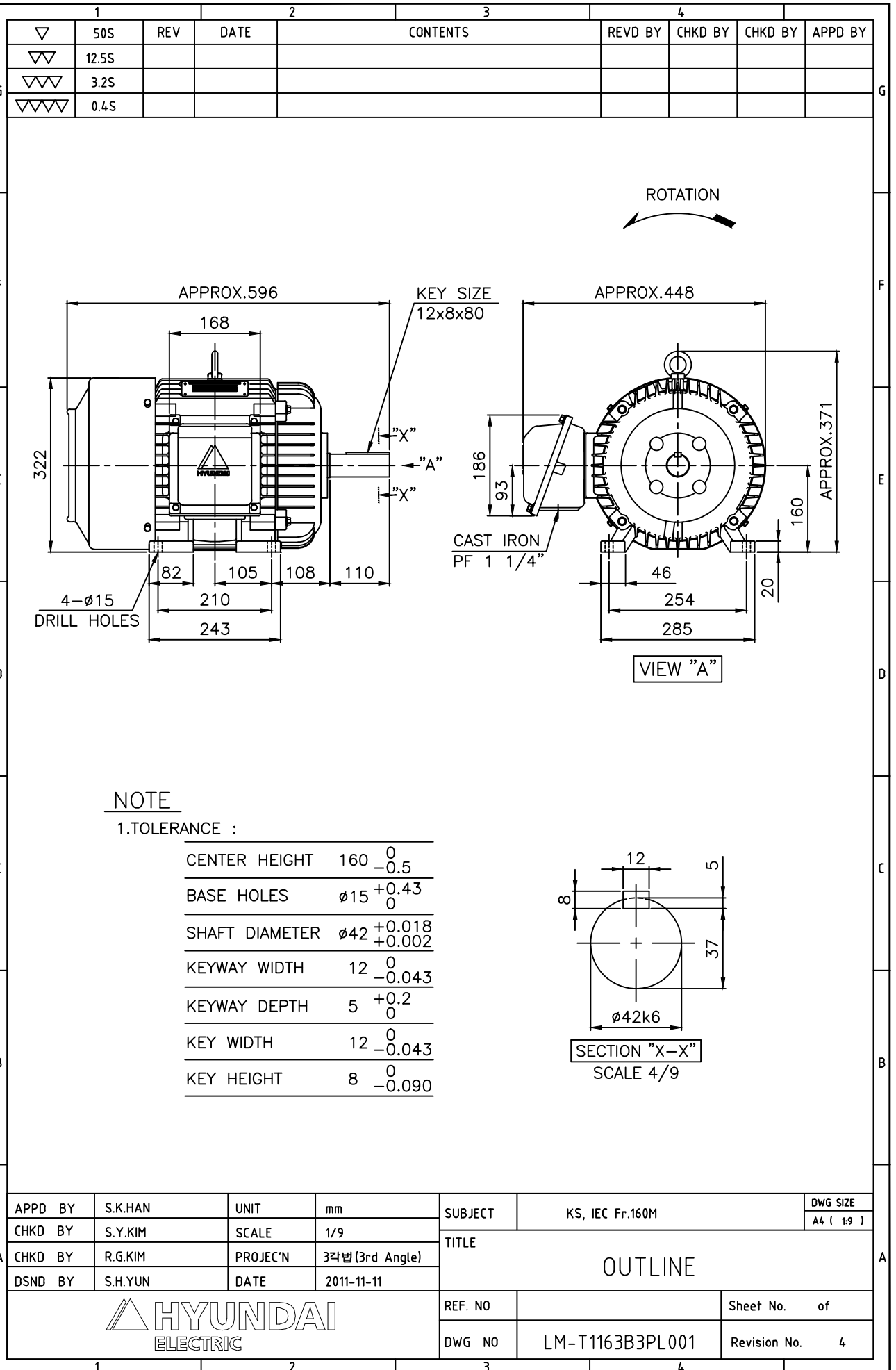
|                               |       |       |
|-------------------------------|-------|-------|
| 11 kW                         | 2 P   | 60 Hz |
| Speed at Full Load : 3535 RPM |       |       |
| Rated Voltage                 | 460V  |       |
| Full Load Current             | 17.0A |       |

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

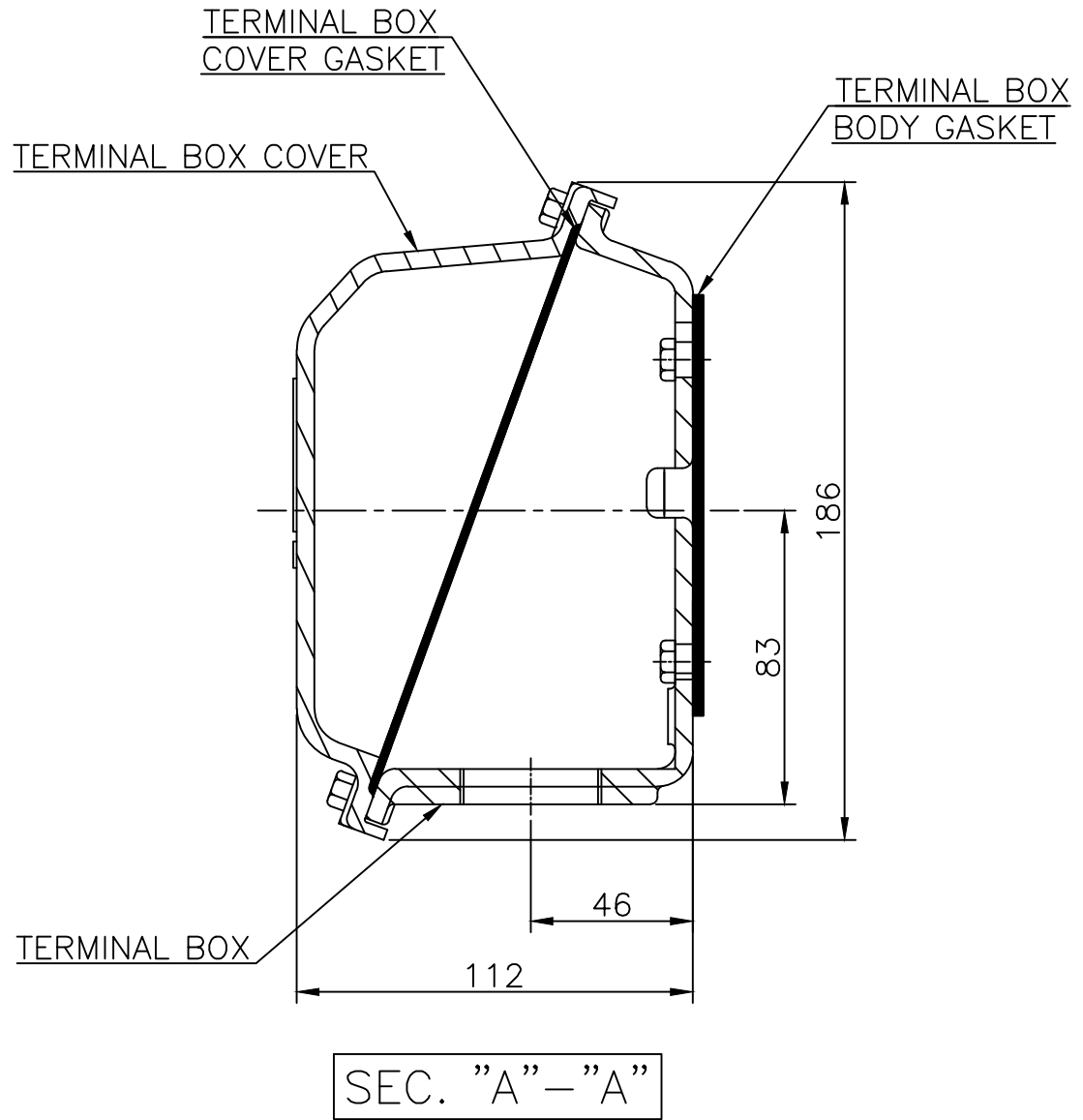
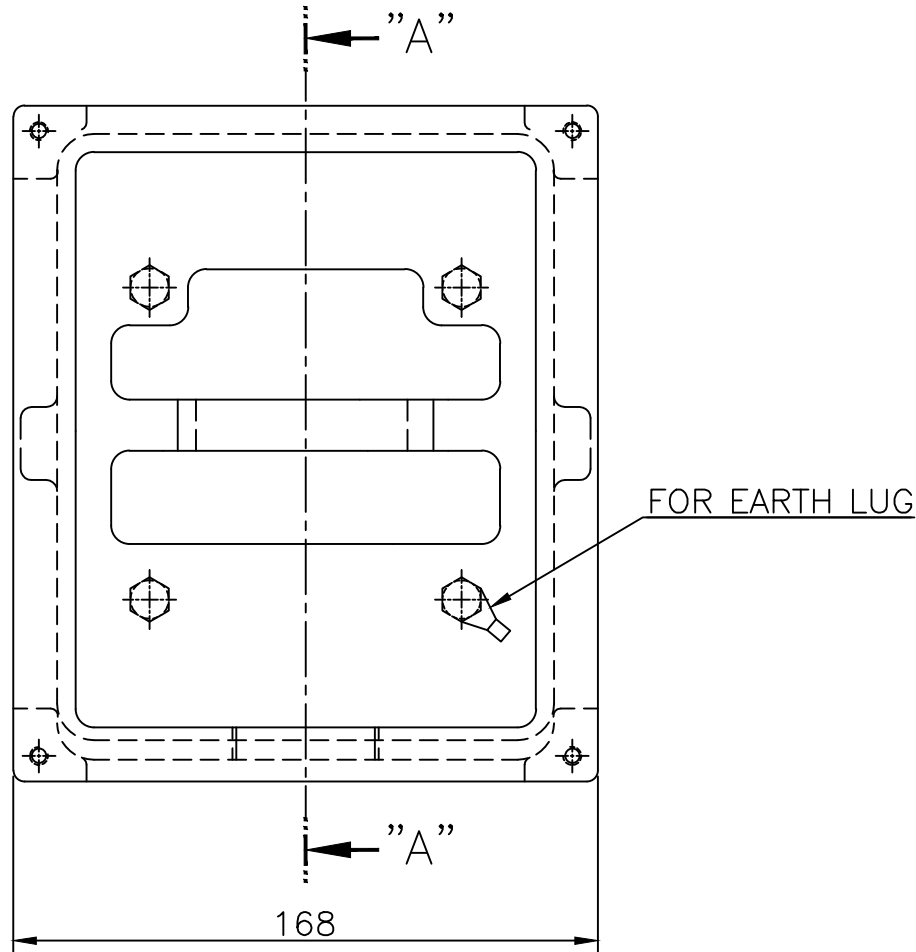




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|------|-------|
| ▽    | 50S   |
| ▽▽   | 12.5S |
| ▽▽▽  | 3.2S  |
| ▽▽▽▽ | 0.4S  |

| 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.160~180 (CAST IRON) |        | DWG SIZE          |
| CHKD BY                                                                               | S.Y.KIM     |  | SCALE    | 1/2             |                                     |                        |        | A3 ( 1:2 )        |
| CHKD BY                                                                               | R.G.KIM     |  | PROJEC'N | 3각법 (3rd Angle) | TITLE<br>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 |
| 6                                                                                     |             |  | 7        |                 | 8                                   |                        | 9      |                   |