

## AC INDUCTION MOTOR DATA SHEET

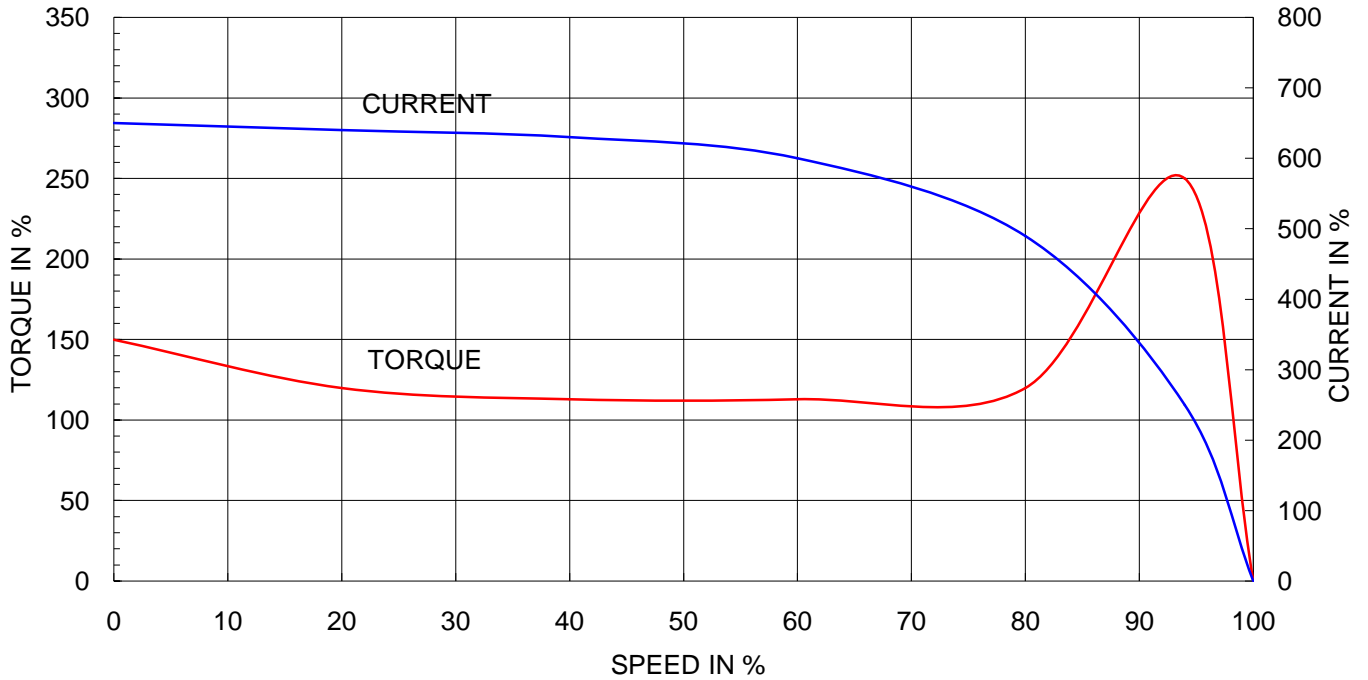
| Model No. or RFQ No.                           |   | Item No.   |  | Rev. No. [ 0 ]  |                         |     |    |
|--|---|--|--|---|-------------------------|-----|----|
| Project Name                                   |   | Project No.  |  | Quantity sets   |                         |     |    |
| GENERAL SPECIFICATION                          |   |  | PERFORMANCE DATA   |   |                         |     |    |
| Frame Size                                     | 280S  |  | Rated Output   | 110 kW 150 HP   |                         |     |    |
| Type   | HS-110/2  |  | Number of Poles  | 2   |                         |     |    |
| Enclosure(Protection)                          | Explosion Proof ( 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  | 440 V   | 380 V 220 V             |     |    |
| Number of Phases                               | 3   |  | Current  | Full Load   | 169.7 A 196.5 A 339.4 A |     |    |
| Insulation Class                               | <input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H                                   |  |  | Locked-rotor**  | 650 % 650 % 650 %       |     |    |
| Temp. Rise at full load (by resistance method) |   |  | Efficiency   |   |                         |     |    |
| at 1.0 S.F      80 deg. C                      |   |  | 50% Load      92.6 %   |   |                         |     |    |
| Motor Location                                 | <input type="checkbox"/> Indoor <input checked="" type="checkbox"/> Outdoor   |  | 75% Load      94.0 %   |   |                         |     |    |
| Altitude                                       | Less than 1000 meter  |  | 100% Load     94.5 %   |   |                         |     |    |
| Relative Humidity                              | Less than 80 %  |  | Power Factor(p.u)  |   |                         |     |    |
| Ambient Temp.                                  | 40 deg. C (Max.)  |  | 50% Load      0.896  |   |                         |     |    |
| Duty Type                                      | Continuous ( S1 )   |  | 75% Load      0.900  |   |                         |     |    |
| Service Factor                                 | 1.00  |  | 100% Load     0.900  |   |                         |     |    |
| Mounting                                       | <input type="checkbox"/> B3 <input type="checkbox"/> B5 <input checked="" type="checkbox"/> V1 <input type="checkbox"/> B3/B5 |  | Speed at Full Load   |   |                         |     |    |
| Bearing  | Type  | Anti-Friction  |  | 3570 r.p.m  |                         |     |    |
|  | DE/N-DE   | 6314C3 / 6314C3  |  | Torque  |                         |     |    |
|  | Lubricant   | Grease(Gadus S2 V 100 2)   |  | Full Load   | 30.0 kg·m               |     |    |
| External Thrust                                |   |  | Not applicable   |   | Locked-rotor**          |     |    |
| Coupling Method                                | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-Belt  |  | Breakdown**  |   | 250 %                   |     |    |
| Shaft Extension                                | <input checked="" type="checkbox"/> Single <input type="checkbox"/> Double  |  | Moment of Inertia (J)  |   |                         |     |    |
| Terminal Box                                   | Main  | <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron |  | Load(Max.)      12.350 kg·m²  |                         |     |    |
|  | Aux.  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          |  | Motor            2.100 kg·m²  |                         |     |    |
| Location                                       |   |  | Refer to Outline Drawing                                     |   |                         |     |    |
| Application                                    |   |  | Sound Pressure Level (No-load & mean value at 1m from motor) |   |                         |     |    |
| Area classification                            | Hazardous   |  | 90 dB(A)   |   |                         |     |    |
| Type of Ex-Protection                          | Ex d II T4  |  | Vibration  |   |                         |     |    |
| Applicable Standard                            | KS,IEC  |  | 2.2 mm/sec (r.m.s)   |   |                         |     |    |
| ACCESSORIES                                    |   |  | SUBMITTAL DRAWING  |   |                         |     |    |
|  |   |  | Outline Dimension Drawing                                    |   | Motor Weight(Approx.)   |     |    |
|  |   |  | B3   |   |                         |     | kg |
|  |   |  | B5   |   | 0                       | 0   | kg |
|  |   |  | V1   |   | GJ80PC01                | 980 | kg |
|  |   |  | B3/B5  |   | 0                       | 0   | kg |
|  |   |  | Main T-Box Ass'y   |   | 3M-036962               |     |    |
|  |   |  |  |   |                         |     |    |
| SPARE PARTS                                    |   |  | REMARK   |   |                         |     |    |
|  |   |  | High Efficiency  |   |                         |     |    |
|  |   |  |  |   |                         |     |    |
|  |   |  |  |   |                         |     |    |
|  |   |  | Date   | DSND  | CHKD                    |     |    |
|  |   |  | 2010-05-28   | R.G. KIM  | O.J. KIM                |     |    |
|  |   |  | CHKD   | CHKD  | APPD                    |     |    |
|  |   |  | 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.

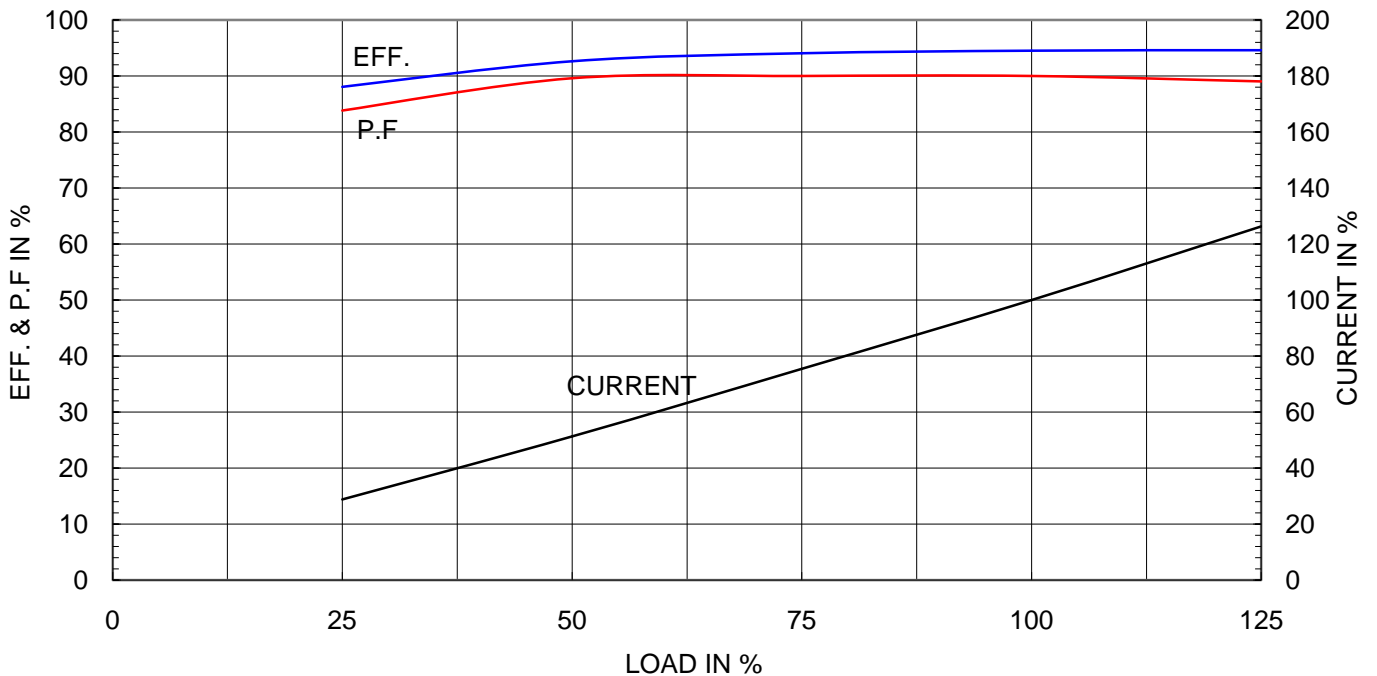
|                             |                            |
|-----------------------------|----------------------------|
| Type                        | : GHB280M                  |
| Full Load Torque            | : 30.0 Kg.m                |
| Motor moment of Inertia (J) | : 2.100 Kg.m <sup>2</sup>  |
| Load moment of Inertia (J)  | : 12.350 Kg.m <sup>2</sup> |

|                               |        |        |        |
|-------------------------------|--------|--------|--------|
| 110 kW                        | 2 P    | 60 Hz  |        |
| Speed at Full Load : 3570 RPM |        |        |        |
| Rated Voltage                 | 440V   | 380V   | 220V   |
| Full Load Current             | 169.7A | 196.5A | 339.4A |

SPEED VS TORQUE & CURRENT CURVE



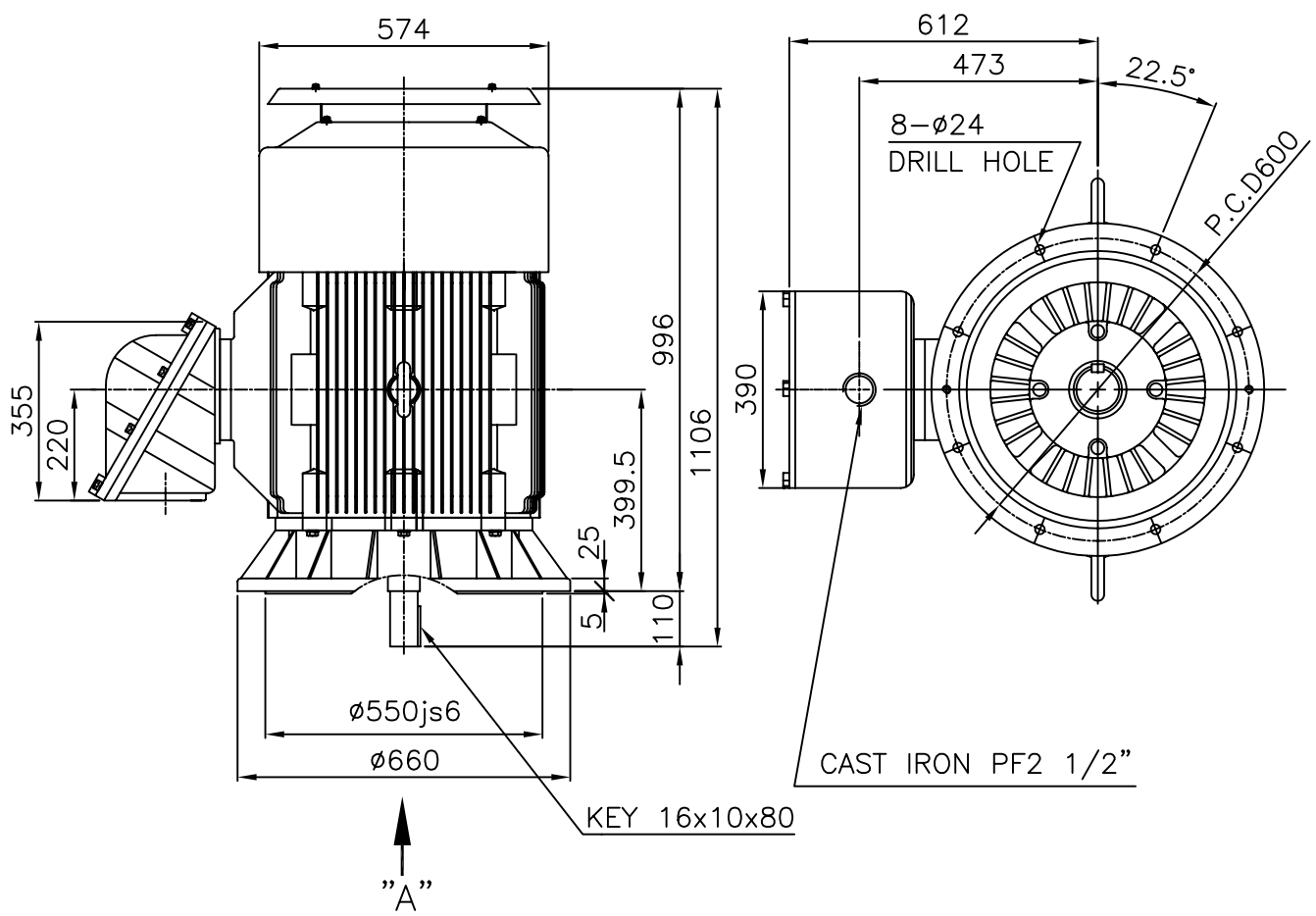
OUTPUT VS EFF., P.F & CURRENT CURVE



본 도면은 현대중공업(주) 재산이므로  
허가없이 복사할 수 없습니다 (취급유의)

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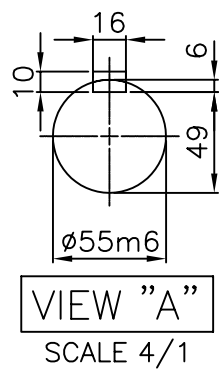
|                                    |  |               |  |             |                 |
|------------------------------------|--|---------------|--|-------------|-----------------|
|                                    |  | <h1>TEFC</h1> |  | <b>TYPE</b> | GHB280M         |
| <b>THREE PHASE INDUCTION MOTOR</b> |  |               |  |             | CAST IRON FRAME |



**NOTE**

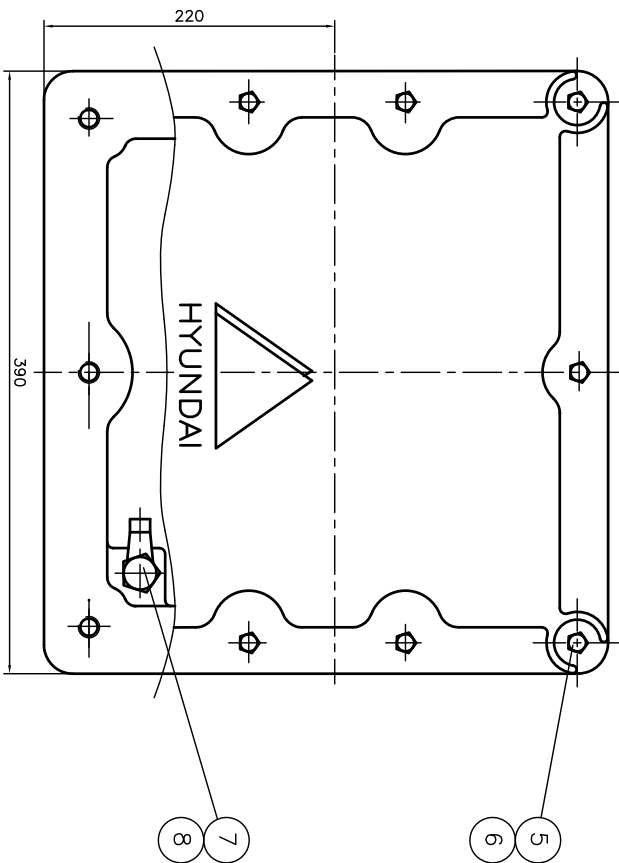
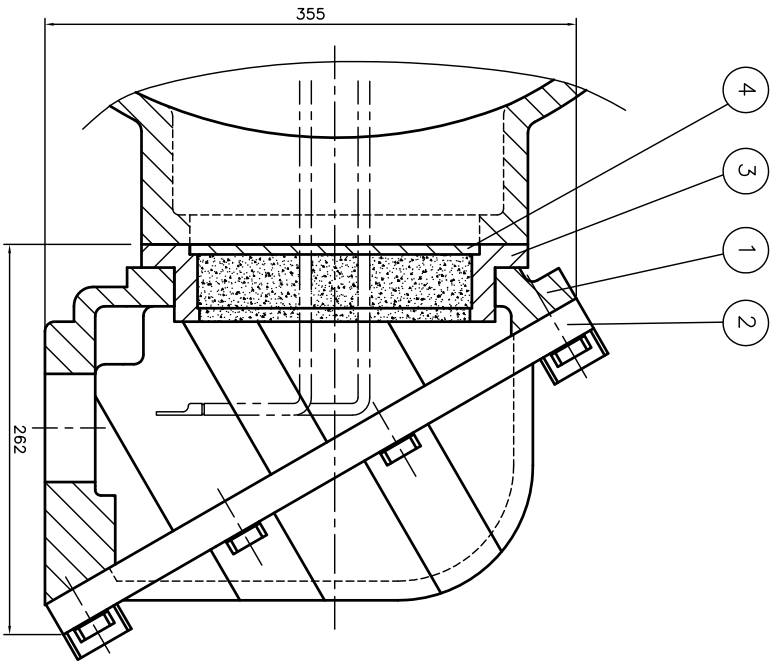
1.TOLERANCE :

|                 |                     |
|-----------------|---------------------|
| RABBET DIAMETER | ø550 ±0.022         |
| SHAFT DIAMETER  | ø55 +0.030 / +0.011 |
| KEYWAY WIDTH    | 16 -0.018 / -0.061  |
| KEYWAY DEPTH    | 6 +0.2 / 0          |
| KEY WIDTH       | 16 0 / -0.043       |
| KEY HEIGHT      | 10 0 / -0.090       |



2.Ex d IIB T4 : (EXPLOSION CONSTRUCTION & IGNITION GROUP)

|         |             |          |            |   |                |                   |
|---------|-------------|----------|------------|---|----------------|-------------------|
|         |             |          |            | TEFC STANDARD                                 |                |                   |
| APPD BY | KIM Y.S     | UNIT     | mm         | SUBJECT                                       | KS Fr.280 d2G4 | CAD PROJ \ FILE   |
| CHKD BY |             | SCALE    | 1/15       |   |                | MMSTDMTR/GJ80PP01 |
| CHKD BY |             | PROJEC'N | 3rd Angle  | <b>OUTLINE</b><br>THREE-PHASE INDUCTION MOTOR |                |                   |
| DSND BY | NOH DUK LEE | DATE     | 2008.07.14 |   |                |                   |
|         |             |          |            | REF. NO                                       | L3-SERIES      | Sheet No. of      |
|         |             |          |            | DWG NO  | GJ80PP01       | Revision No. 0    |



| QTY | DESCRIPTION        | MATERIAL | DIMENSION | WEIGHT | PART NO. | REMARK | NO. |
|-----|--------------------|----------|-----------|--------|----------|--------|-----|
| 1   | HEX. BOLT          | BRONZE   | M10       |        |          |        | 8   |
| 1   | EARTH TERMINAL LUG | STD      |           |        |          |        | 7   |
| 10  | SPRING WASHER      | SUP-3    |           |        |          |        | 6   |
| 10  | HEX. BOLT          | S45C     | M12       |        |          |        | 5   |
| 1   | GUIDE PLATE        | E.C.P    |           |        |          |        | 4   |
| 1   | ADAPTER            | FC25     |           |        |          |        | 3   |
| 1   | TERMINAL BOX COVER | FC25     |           |        |          |        | 2   |
| 1   | TERMINAL BOX BODY  | FC25     |           |        |          |        | 1   |

|          |               |                 |          |                         |                  |  |
|----------|---------------|-----------------|----------|-------------------------|------------------|--|
| APRD BY  | UNIT          | MM              | SUBJECT  | H/LAB FR-250,280 (2234) | GO PROJ & FILE # |  |
| Q.P. CHK | SCALE         | NONE            | TITLE    | TERMINAL BOX ASS'Y      | F-300-4          |  |
| CHGD BY  | PROJECN       | 3.24(3rd Angle) |          |                         |                  |  |
| DSND BY  | KIM JONG SEON | DATE            | 98.10.30 |                         |                  |  |

| REV | DATE | CONTENTS | REQD BY | CHKD BY | APRD BY |
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| 2   |      |          |         |         |         |
| 3   |      |          |         |         |         |
| 4   |      |          |         |         |         |

|          |           |              |  |
|----------|-----------|--------------|--|
| REF. NO. |           | SHEET NO.    |  |
| DWG NO.  | 3M-036962 | of           |  |
|          |           | Revision No. |  |

