

# 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                                                                                                                             | 280LL                                                                                       |                                                                              | Rated Output                                      | 200 kW 268 HP                                                           |                         |           |           |
| Type                                                                                                                                   | HS-200/4                                                                                    |                                                                              | Number of Poles                                   | 4                                                                       |                         |           |           |
| 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                                                               | 312.1 A 361.4 A 624.3 A |           |           |
| Insulation Class                                                                                                                       | <input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H |                                                                              |                                                   | Locked-rotor**                                                          | 630 % 630 % 630 %       |           |           |
| Temp. Rise at full load (by resistance method)                                                                                         |                                                                                             |                                                                              | Efficiency                                        |                                                                         |                         |           |           |
| at 1.0 S.F 80 deg. C                                                                                                                   |                                                                                             |                                                                              | 50% Load 94.5 %                                   |                                                                         |                         |           |           |
| Motor Location <input checked="" type="checkbox"/> Indoor <input type="checkbox"/> Outdoor                                             |                                                                                             |                                                                              | 75% Load 95.0 %                                   |                                                                         |                         |           |           |
| Altitude Less than 1000 meter                                                                                                          |                                                                                             |                                                                              | 100% Load 95.0 %                                  |                                                                         |                         |           |           |
| Relative Humidity Less than 80 %                                                                                                       |                                                                                             |                                                                              | Power Factor(p.u)                                 |                                                                         |                         |           |           |
| Ambient Temp. 40 deg. C (Max.)                                                                                                         |                                                                                             |                                                                              | 50% Load 0.860                                    |                                                                         |                         |           |           |
| Duty Type Continuous ( S1 )                                                                                                            |                                                                                             |                                                                              | 75% Load 0.880                                    |                                                                         |                         |           |           |
| Service Factor 1.00                                                                                                                    |                                                                                             |                                                                              | 100% Load 0.885                                   |                                                                         |                         |           |           |
| Mounting <input checked="" type="checkbox"/> B3 <input type="checkbox"/> B5 <input type="checkbox"/> V1 <input type="checkbox"/> B3/B5 |                                                                                             |                                                                              | Speed at Full Load 1785 r.p.m                     |                                                                         |                         |           |           |
| Bearing                                                                                                                                | Type                                                                                        | Anti-Friction                                                                |                                                   | Torque                                                                  |                         |           |           |
|                                                                                                                                        | DE/N-DE                                                                                     | NU320M / 6318C3                                                              |                                                   | Full Load 109.1 kg·m                                                    |                         |           |           |
|                                                                                                                                        | Lubricant                                                                                   | Grease(Gadus S2 V 100 2)                                                     |                                                   | Locked-rotor** 170 %                                                    |                         |           |           |
| External Thrust Not applicable                                                                                                         |                                                                                             |                                                                              | Breakdown** 220 %                                 |                                                                         |                         |           |           |
| Coupling Method <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.) 139.850 kg·m²                          |                                                                         |                         |           |           |
| Terminal Box                                                                                                                           | Main                                                                                        | <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron |                                                   | Motor 5.488 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                                                     |                                                   | 85 dB(A)                                                                |                         |           |           |
| Application                                                                                                                            |                                                                                             |                                                                              | Vibration 2.2 mm/sec (r.m.s)                      |                                                                         |                         |           |           |
| Area classification Hazardous                                                                                                          |                                                                                             |                                                                              | Permissible number of                             |                                                                         |                         |           |           |
| Type of Ex-Protection Ex d II T4                                                                                                       |                                                                                             |                                                                              | consecutive starts Cold 3 times                   |                                                                         |                         |           |           |
| Applicable Standard KS,IEC                                                                                                             |                                                                                             |                                                                              | Hot 2 times                                       |                                                                         |                         |           |           |
|                                                                                                                                        |                                                                                             |                                                                              | Paint                                             | Munsell No.                                                             | 4.0PB5.4/5.5(VL-451)    |           |           |
| ACCESSORIES                                                                                                                            |                                                                                             |                                                                              | SUBMITTAL DRAWING                                 |                                                                         |                         |           |           |
|                                                                                                                                        |                                                                                             |                                                                              | Outline Dimension Drawing \ Motor Weight(Approx.) |                                                                         |                         |           |           |
|                                                                                                                                        |                                                                                             |                                                                              | B3                                                | GJ8XAP02                                                                | 1400 kg                 |           |           |
|                                                                                                                                        |                                                                                             |                                                                              | B5                                                | 0                                                                       | 0 kg                    |           |           |
|                                                                                                                                        |                                                                                             |                                                                              | V1                                                |                                                                         | kg                      |           |           |
|                                                                                                                                        |                                                                                             |                                                                              | B3/B5                                             | 0                                                                       | 0 kg                    |           |           |
|                                                                                                                                        |                                                                                             |                                                                              | Main T-Box Ass'y                                  |                                                                         |                         | 3M-036962 |           |
| SPARE PARTS                                                                                                                            |                                                                                             |                                                                              | REMARK High Efficiency                            |                                                                         |                         |           |           |
|                                                                                                                                        |                                                                                             |                                                                              |                                                   |                                                                         |                         |           |           |
|                                                                                                                                        |                                                                                             |                                                                              |                                                   |                                                                         |                         |           |           |
|                                                                                                                                        |                                                                                             |                                                                              |                                                   |                                                                         |                         |           |           |
|                                                                                                                                        |                                                                                             |                                                                              | Date                                              | DSND                                                                    | CHKD                    | CHKD      | APPD      |
|                                                                                                                                        |                                                                                             |                                                                              | 2010-05-28                                        | R.G. KIM                                                                | O.J. KIM                | J.H. KIM  | K.J. KANG |

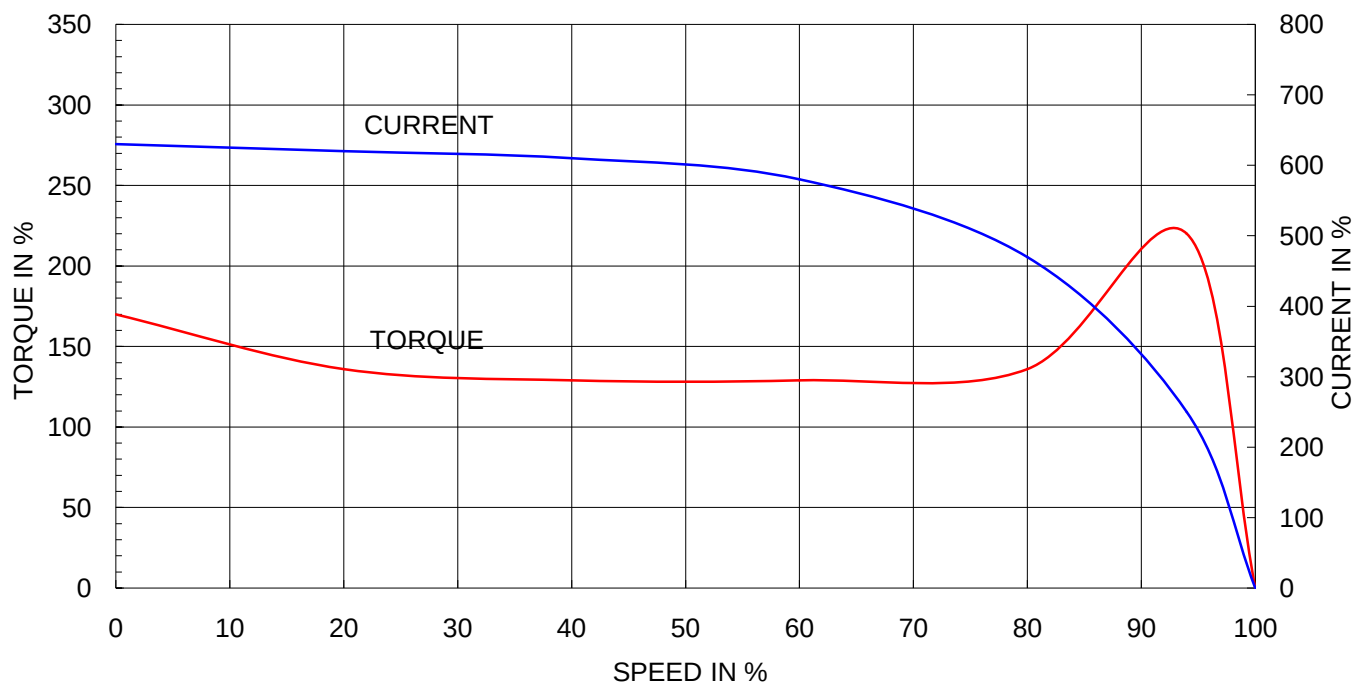
Note: Others not mentioned in this data sheet shall be in accordance with maker standard.  
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.  
 Inspection and performance test shall be maker standard, if not mentioned.  
 \* In case of Inverter-Fed Motor, performance data is based on sine wave tests.  
 \*\* Data is based on when the motor is supplied at rated voltage & frequency, and the data is expressed as a percentage of full-load value.

HHI W230-131-1 \* In case of Inverter or V.V.V.F Motor:Performance data is based on sine wave tests. A4(210mm X 297mm)

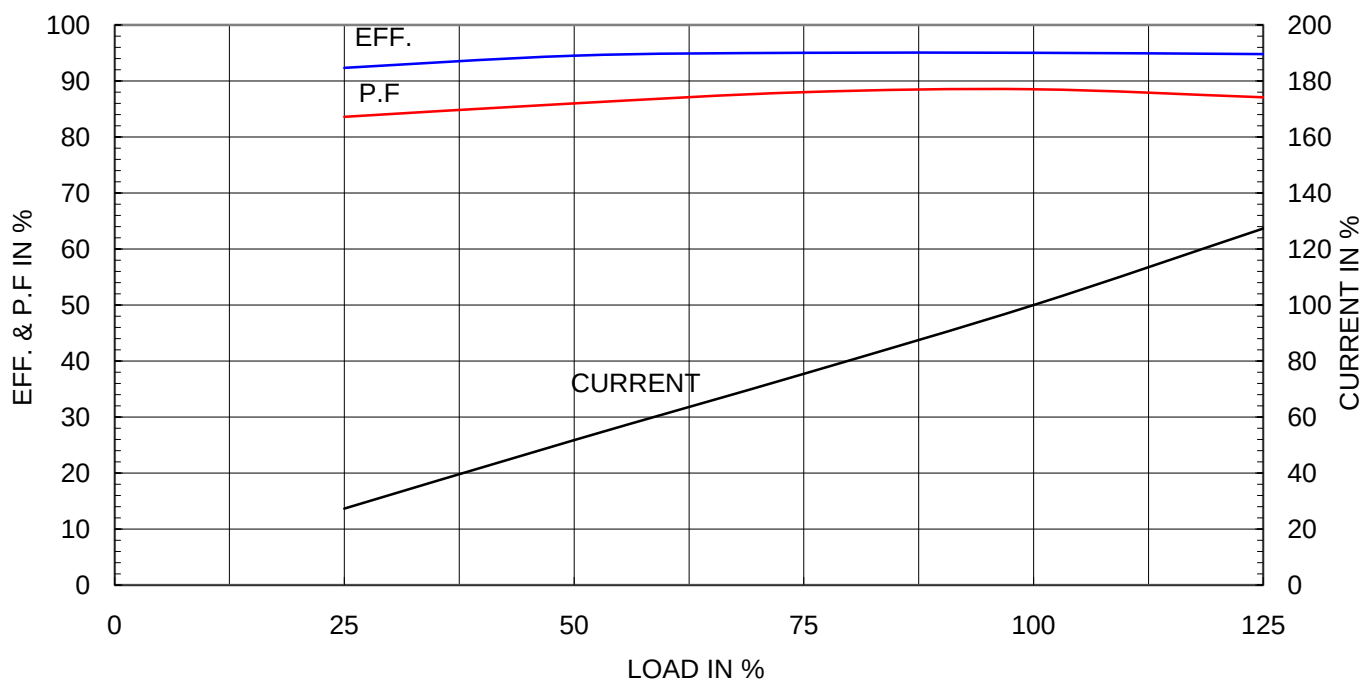
|                             |   |                           |
|-----------------------------|---|---------------------------|
| Type                        | : | GHB280X                   |
| Full Load Torque            | : | 109.1 Kg.m                |
| Motor moment of Inertia (J) | : | 5.488 Kg.m <sup>2</sup>   |
| Load moment of Inertia (J)  | : | 139.850 Kg.m <sup>2</sup> |

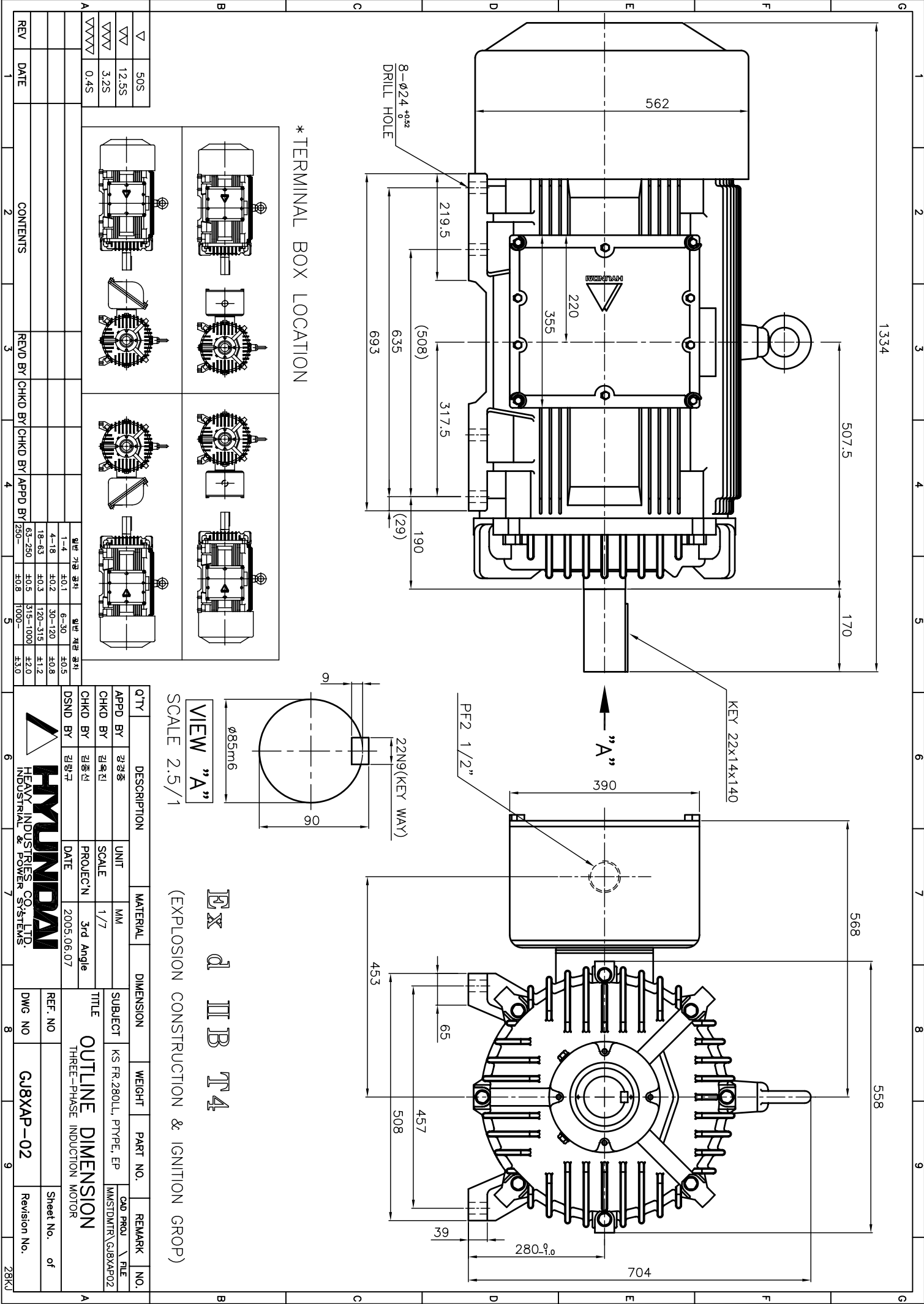
|                      |        |        |        |          |  |
|----------------------|--------|--------|--------|----------|--|
| 200 kW               |        | 4 P    |        | 60 Hz    |  |
| Speed at Full Load : |        |        |        | 1785 RPM |  |
| Rated Voltage        | 440V   | 380V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

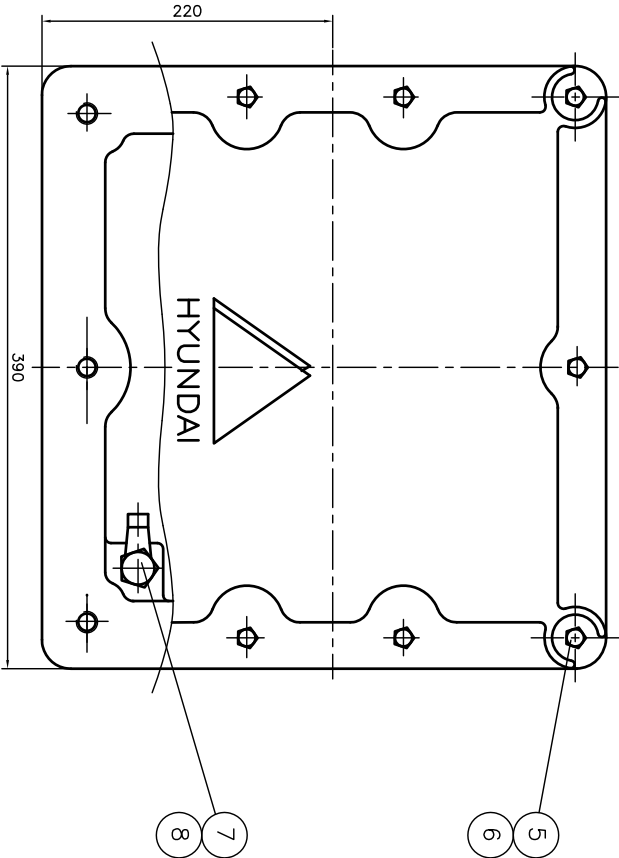
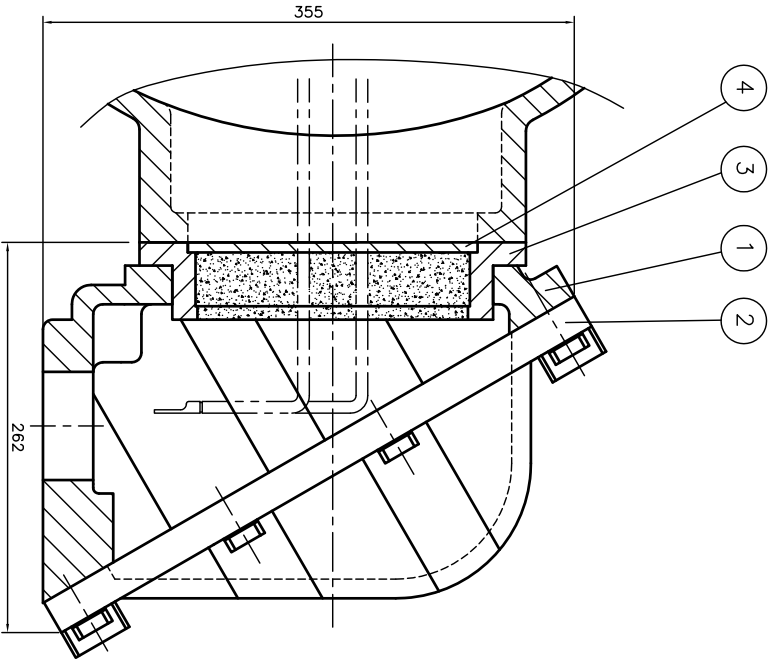
SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE







| REV | DATE | CONTENTS | REQD BY | CHKD BY | CHKD BY | APRD BY |
|-----|------|----------|---------|---------|---------|---------|
| 1   |      |          |         |         |         |         |
| 2   |      |          |         |         |         |         |
| 3   |      |          |         |         |         |         |
| 4   |      |          |         |         |         |         |

| 1            | HEX. BOLT            | BRONZE          | M10       |        |          |        | 8   |
|--------------|----------------------|-----------------|-----------|--------|----------|--------|-----|
| 7            | 1 EARTH TERMINAL LUG | STD             |           |        |          |        | 7   |
| 6            | 10 SPRING WASHER     | SUP-3           |           |        |          |        | 6   |
| 5            | 10 HEX. BOLT         | S45C            | M12       |        |          |        | 5   |
| 4            | 1 GUIDE PLATE        | E.G.P           |           |        |          |        | 4   |
| 3            | 1 ADAPTER            | FC25            |           |        |          |        | 3   |
| 2            | 1 TERMINAL BOX COVER | FC25            |           |        |          |        | 2   |
| 1            | 1 TERMINAL BOX BODY  | FC25            |           |        |          |        | 1   |
| QTY          | DESCRIPTION          | MATERIAL        | DIMENSION | WEIGHT | PART NO. | REMARK | NO. |
| APRD BY      | UNIT                 | MM              |           |        |          |        |     |
| Q.P. CHK     | SCALE                | NONE            |           |        |          |        |     |
| CHND BY      | PROJEC'T             | 3-24(3rd Angle) |           |        |          |        |     |
| DSND BY      | KIM JONG SEON        | DATE            | 98.10.30  |        |          |        |     |
| REF. NO      |                      |                 |           |        |          |        |     |
| DWG NO       |                      |                 |           |        |          |        |     |
| 3M-036962    |                      |                 |           |        |          |        |     |
| Sheet No. of |                      |                 |           |        |          |        |     |
| Revision No. |                      |                 |           |        |          |        |     |



TERMINAL BOX ASS'Y