

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 | 250S | | Rated Output | 75 kW 100 HP | | | |
| Type | HS-75/4 | | 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 | 120.4 A 139.4 A 240.8 A | | |
| Insulation Class | <input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H | | Locked-rotor** | 670 % | 670 % 670 % | | |
| Temp. Rise at full load (by resistance method) | | | Efficiency | | | | |
| at 1.0 S.F 80 deg. C | | | 50% Load 94.2 % | | | | |
| Motor Location | <input type="checkbox"/> Indoor <input checked="" type="checkbox"/> Outdoor | | 75% Load 94.6 % | | | | |
| 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 0.826 | | | | |
| Duty Type | Continuous (S1) | | 75% Load 0.860 | | | | |
| Service Factor | 1.00 | | 100% Load 0.865 | | | | |
| Mounting | <input type="checkbox"/> B3 <input type="checkbox"/> B5 <input checked="" type="checkbox"/> V1 <input type="checkbox"/> B3/B5 | | Speed at Full Load 1780 r.p.m | | | | |
| Bearing | Type | Anti-Friction | Torque | | | | |
| | DE/N-DE | 6316C3 / 6313C3 | Full Load 41.0 kg·m | | | | |
| | Lubricant | Grease(Gadus S2 V 100 2) | Locked-rotor** 150 % | | | | |
| 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.) 56.350 kg·m² | | | | |
| Terminal Box | Main | <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron | Motor 1.723 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 | 82 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.OPB5.4/5.5(VL-451) | | |
| ACCESSORIES | | | SUBMITTAL DRAWING | | | | |
| | | | Outline Dimension Drawing \ Motor Weight(Approx.) | | | | |
| | | | B3 | | kg | | |
| | | | B5 | | 0 kg | | |
| | | | V1 | | GJ50PP02 735 kg | | |
| | | | B3/B5 | | 0 kg | | |
| | | | Main T-Box Ass'y 3M-036962 | | | | |
| | | | | | | | |
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| | | | | | | | |
| 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 |

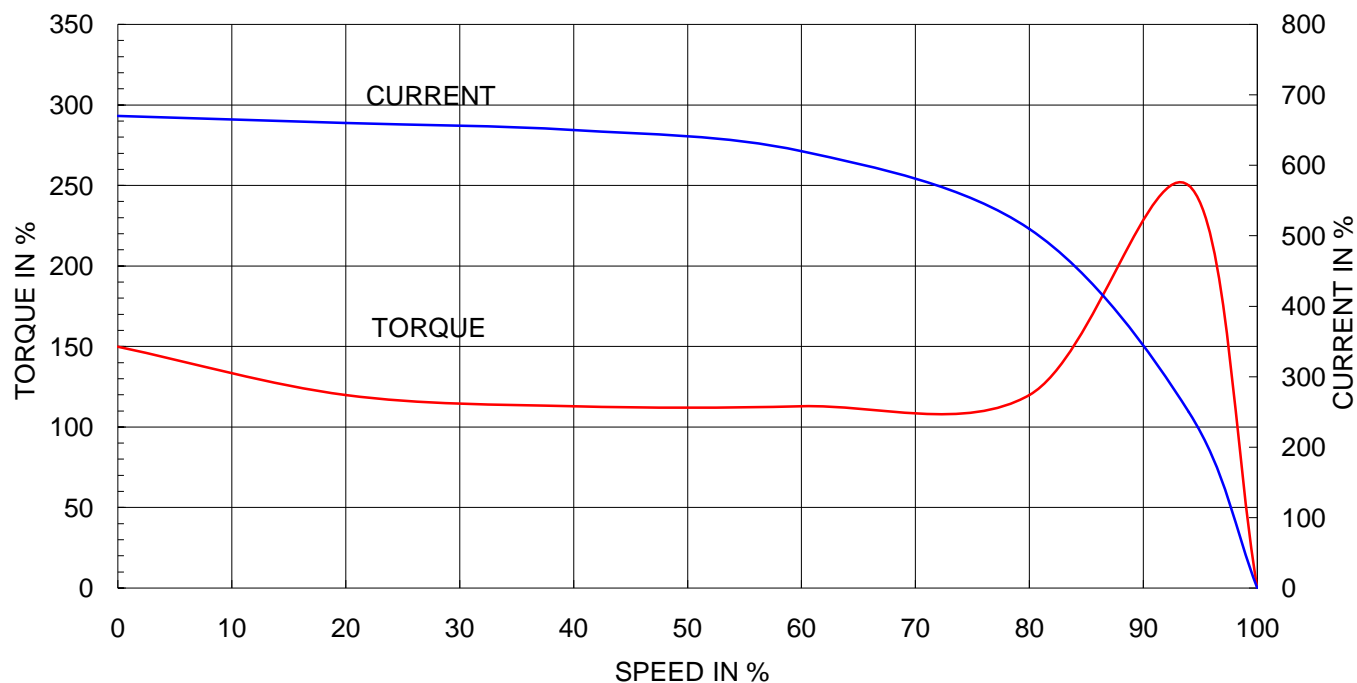
Note: Others not mentioned in this data sheet shall be in accordance with maker standard.
 Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.
 Inspection and performance test shall be maker standard, if not mentioned.
 * In case of Inverter-Fed 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)

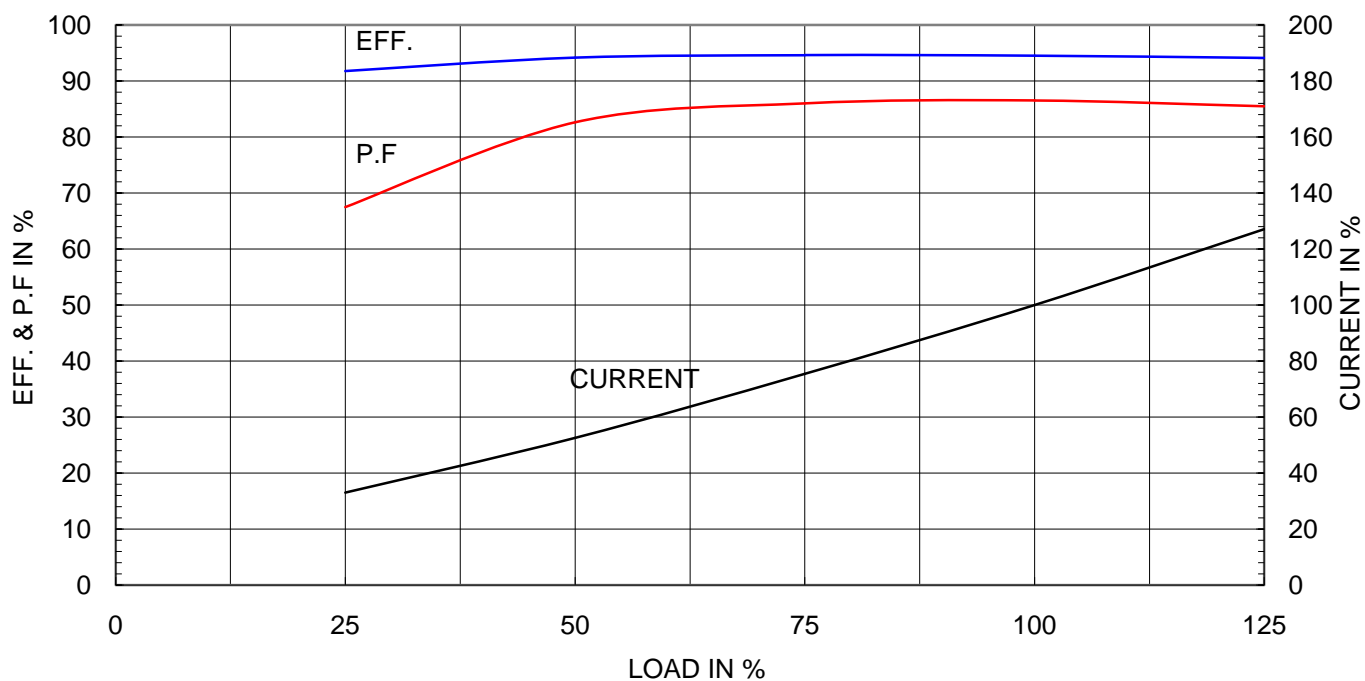
| | | |
|-----------------------------|---|--------------------------|
| Type | : | GHB250M |
| Full Load Torque | : | 41.0 Kg.m |
| Motor moment of Inertia (J) | : | 1.723 Kg.m ² |
| Load moment of Inertia (J) | : | 56.350 Kg.m ² |

| | | | | | |
|----------------------|--------|--------|--------|----------|--|
| 75 kW | | 4 P | | 60 Hz | |
| Speed at Full Load : | | | | 1780 RPM | |
| Rated Voltage | 440V | 380V | 220V | | |
| Full Load Current | 120.4A | 139.4A | 240.8A | | |

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





HEAVY INDUSTRIES CO., LTD.

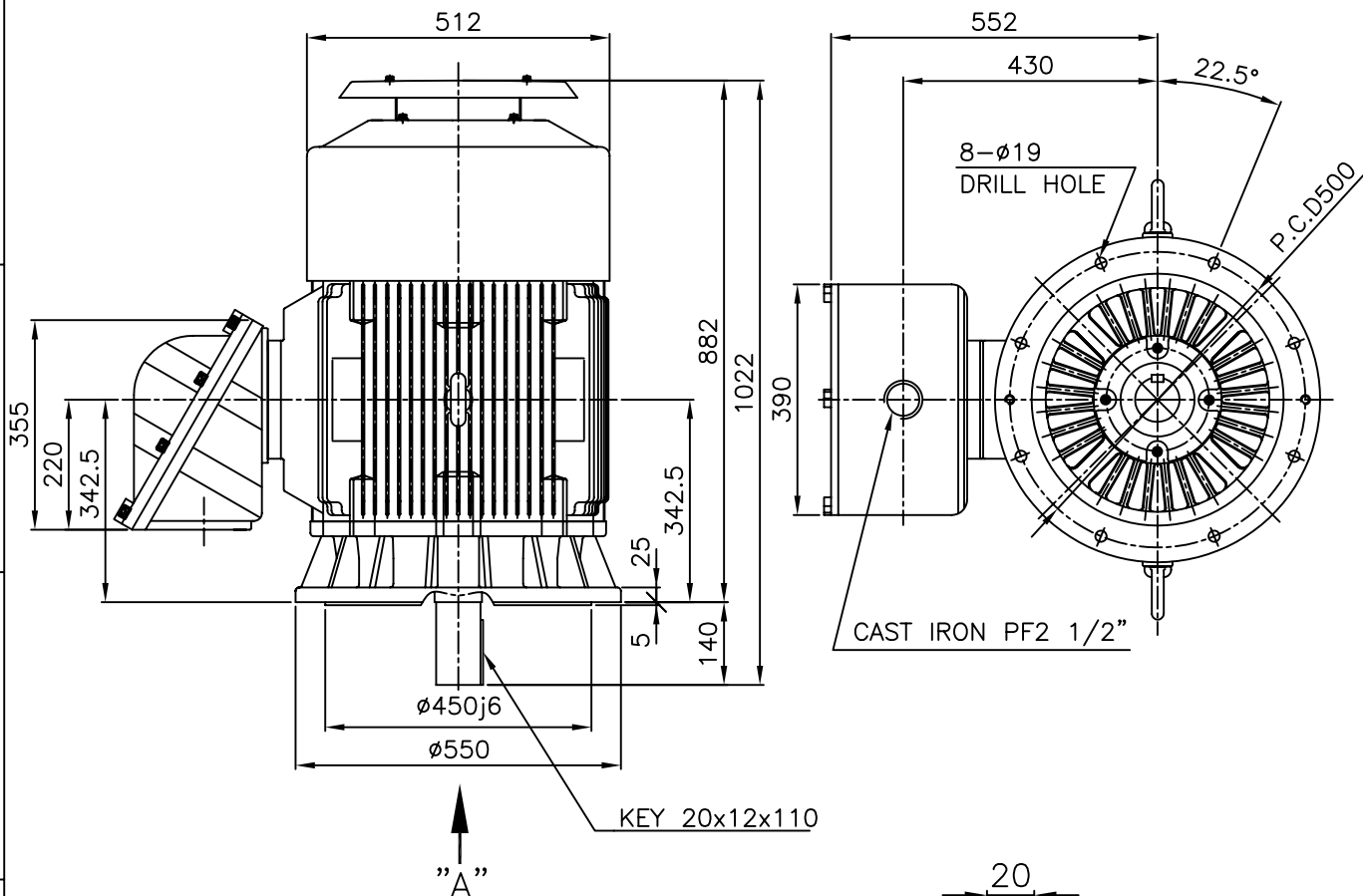
TEFC

THREE PHASE INDUCTION MOTOR

TYPE

GHB250M

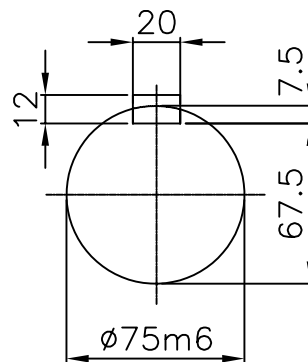
CAST IRON FRAME



NOTE

1.TOLERANCE :

| | |
|-----------------|---|
| RABBIT DIAMETER | $\varnothing 450 \pm 0.020$ |
| SHAFT DIAMETER | $\varnothing 75 \begin{smallmatrix} +0.030 \\ +0.011 \end{smallmatrix}$ |
| KEYWAY WIDTH | $20 \begin{smallmatrix} -0.022 \\ -0.074 \end{smallmatrix}$ |
| KEYWAY DEPTH | $7.5 \begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$ |
| KEY WIDTH | $20 \begin{smallmatrix} 0 \\ -0.052 \end{smallmatrix}$ |
| KEY HEIGHT | $12 \begin{smallmatrix} 0 \\ -0.110 \end{smallmatrix}$ |



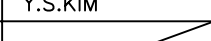

VIEW "A"

SCALE 4/1


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

| | |
|-------------------|--------|
| TEFC STANDARD | |
| CAD PROJ | \ FILE |
| MMSTDMTR/GJ50PC50 | |

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| | | | | | | |
|---|---|-------------|-----------|---------|--|-----------------|
| APPD BY | Y.S.KIM | UNIT | MM | SUBJECT | KS Fr.250 TEFC | CAD PROJ \ FILE |
| CHKD BY |  | SCALE | 1/13 | TITLE | OUTLINE THREE-PHASE INDUCTION MOTOR | |
| CHKD BY | | PROJEC'N | 3rd Angle | | | |
| DSND BY | | LEE NOH DUK | DATE | | | |
|  | | | | | | |
| | | | | DWG NO | GJ50PP02 | Revision No. 0 |

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| | | | | | | | | | |
|--|--------------------|----------|-------------------|-----------|-----------|----------|--------------|-----|---|
| 1 | HEX. BOLT | | BRONZE | M10 | | | | | 8 |
| 1 | EARTH TERMINAL LUG | | STD | | | | | | 7 |
| 10 | SPRING WASHER | | SUP3 | | | | | | 6 |
| 10 | HEX. BOLT | | S45C | M12 | | | | | 5 |
| 1 | GUIDE PLATE | | E.G.P | | | | | | 4 |
| 1 | ADAPTER | | FC25 | | | | | | 3 |
| 1 | TERMINAL BOX COVER | | FC25 | | | | | | 2 |
| 1 | TERMINAL BOX BODY | | FC25 | | | | | | 1 |
| QTY | DESCRIPTION | UNIT | MATERIAL | DIMENSION | WEIGHT | PART NO. | REMARK | NO. | |
| APPD BY | | SCALE | MM | | | | | | |
| O.P CHK | | SCALE | None | | | | | | |
| CHKD BY | | PROJECTN | 3 (90°/30° Angle) | TITLE | | | | | |
| DESIGN BY | KIM JONG SEON | DATE | 98.10.30 | | | | | | |
| | | | | REF. NO | | | | | |
| | | | | DWG NO | 3M-036962 | | | | |
| | | | | | | | Sheet No. of | | |
| | | | | | | | Revision No. | | |
|  | | | | | | | | | |