

# AC INDUCTION MOTOR DATA SHEET

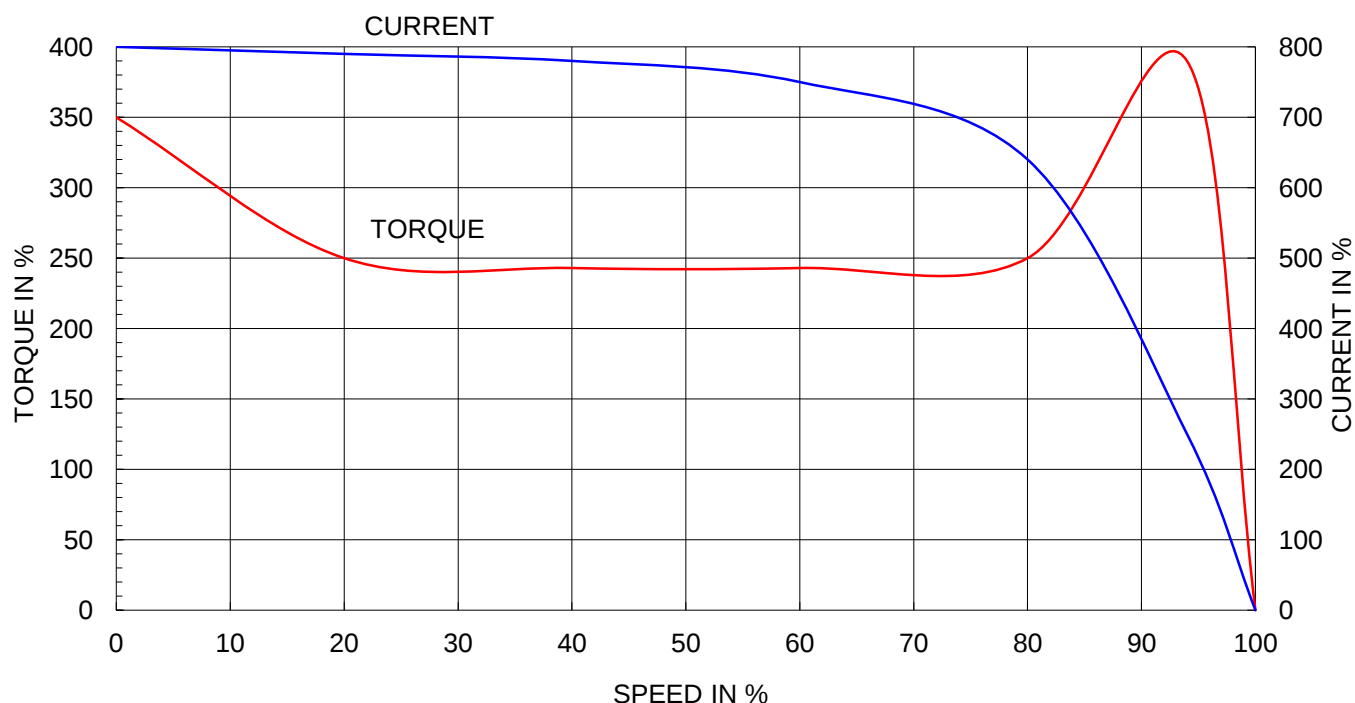
|                                                |                                                                                                                               |                                                                              |                                                              |                                                                         |                      |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------|----------------------|
| Model No.or RFQ No.                            |                                                                                                                               | Item No.                                                                     |                                                              | Rev. No. [ 0 ]                                                          |                      |
| Project Name                                   |                                                                                                                               | Project No.                                                                  |                                                              | Quantity sets                                                           |                      |
| <b>GENERAL SPECIFICATION</b>                   |                                                                                                                               |                                                                              | <b>PERFORMANCE DATA</b>                                      |                                                                         |                      |
| Frame Size                                     | 80M                                                                                                                           |                                                                              | Rated Output                                                 | 0.75 kW 1 HP                                                            |                      |
| Type                                           | HS                                                                                                                            |                                                                              | 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                                                | 440 V                                                                   | 380 V 220 V          |
| Number of Phases                               | 3                                                                                                                             |                                                                              | Current                                                      | Full Load 1.6 A                                                         | 1.9 A 3.2 A          |
| Insulation Class                               | <input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H                                   |                                                                              | Locked-rotor**                                               | 800 %                                                                   | 800 % 800 %          |
| Temp. Rise at full load (by resistance method) | at 1.0 S.F 80 deg. C                                                                                                          |                                                                              | Efficiency                                                   | 50% Load 65.0 %                                                         |                      |
| Motor Location                                 | <input checked="" type="checkbox"/> Indoor <input type="checkbox"/> Outdoor                                                   |                                                                              |                                                              | 75% Load 72.0 %                                                         |                      |
| Altitude                                       | Less than 1000 meter                                                                                                          |                                                                              |                                                              | 100% Load 75.5 %                                                        |                      |
| Relative Humidity                              | Less than 80 %                                                                                                                |                                                                              | Power Factor(p.u)                                            | 50% Load 0.610                                                          |                      |
| Ambient Temp.                                  | 40 deg. C (Max.)                                                                                                              |                                                                              |                                                              | 75% Load 0.750                                                          |                      |
| Duty Type                                      | Continuos ( S1 )                                                                                                              |                                                                              |                                                              | 100% Load 0.815                                                         |                      |
| Service Factor                                 | 1.15                                                                                                                          |                                                                              | Speed at Full Load                                           | 3500 r.p.m                                                              |                      |
| Mounting                                       | <input checked="" type="checkbox"/> B3 <input type="checkbox"/> B5 <input type="checkbox"/> V1 <input type="checkbox"/> B3/B5 |                                                                              | Torque                                                       | Full Load 0.2 kg·m                                                      |                      |
| Bearing                                        | Type                                                                                                                          | Anti-Friction                                                                |                                                              | Locked-rotor** 350 %                                                    |                      |
|                                                | DE/N-DE                                                                                                                       | 6204ZZ / 6203ZZ                                                              |                                                              | Breakdown** 390 %                                                       |                      |
|                                                | Lubricant                                                                                                                     | Grease(SML4)                                                                 | Moment of Inertia (J)                                        | Load(Max.) 0.150 kg·m²                                                  |                      |
| External Thrust                                | Not applicable                                                                                                                |                                                                              |                                                              | Motor 0.00075 kg·m²                                                     |                      |
| Coupling Method                                | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-Belt                                                    |                                                                              | Sound Pressure Level (No-load & mean value at 1m from motor) | 73 dB(A)                                                                |                      |
| Shaft Extension                                | <input checked="" type="checkbox"/> Single <input type="checkbox"/> Double                                                    |                                                                              | Vibration                                                    | 1.6 mm/sec (r.m.s)                                                      |                      |
| Terminal                                       | Main                                                                                                                          | <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron | Permissible number of consecutive starts                     | Cold 3 times                                                            | Hot 2 times          |
| Box                                            | Aux.                                                                                                                          | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          | Paint                                                        | Munsell No.                                                             | 4.0PB5.4/5.5(VL-451) |
|                                                | Location                                                                                                                      | Refer to Outline Drawing                                                     | <b>SUBMITTAL DRAWING</b>                                     |                                                                         |                      |
| Application                                    |                                                                                                                               |                                                                              | Outline Dimension Drawing \ Motor Weight(Approx.)            |                                                                         |                      |
| Area classification                            | Non-Hazardous                                                                                                                 |                                                                              | B3                                                           | 227B5000TA02                                                            | 12 kg                |
| Type of Ex-Protection                          | Not applicable                                                                                                                |                                                                              | B5                                                           |                                                                         | kg                   |
| Applicable Standard                            | KS,IEC,NEMA MG1 Part30(Vpeak)                                                                                                 |                                                                              | V1                                                           |                                                                         | kg                   |
| <b>ACCESSORIES</b>                             |                                                                                                                               |                                                                              | B3/B5                                                        |                                                                         | kg                   |
|                                                |                                                                                                                               |                                                                              | Main T-Box Ass'y                                             | 227B1537AA                                                              |                      |
|                                                |                                                                                                                               |                                                                              |                                                              |                                                                         |                      |
|                                                |                                                                                                                               |                                                                              |                                                              |                                                                         |                      |
|                                                |                                                                                                                               |                                                                              |                                                              |                                                                         |                      |
|                                                |                                                                                                                               |                                                                              |                                                              |                                                                         |                      |
| <b>SPARE PARTS</b>                             |                                                                                                                               |                                                                              | <b>REMARK</b>                                                |                                                                         |                      |
|                                                |                                                                                                                               |                                                                              | High Efficiency                                              |                                                                         |                      |
|                                                |                                                                                                                               |                                                                              | * For use on PWM VFD 10:1VT, 3:1CT@1.0S.F&F Temp. rise       |                                                                         |                      |
| Date                                           | DSND                                                                                                                          | CHKD                                                                         | CHKD                                                         | APPD                                                                    |                      |
| 2011-04-14                                     | W.H.BACK                                                                                                                      | S. J. RA                                                                     | O. J. KIM                                                    | J. H. KIM                                                               |                      |

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

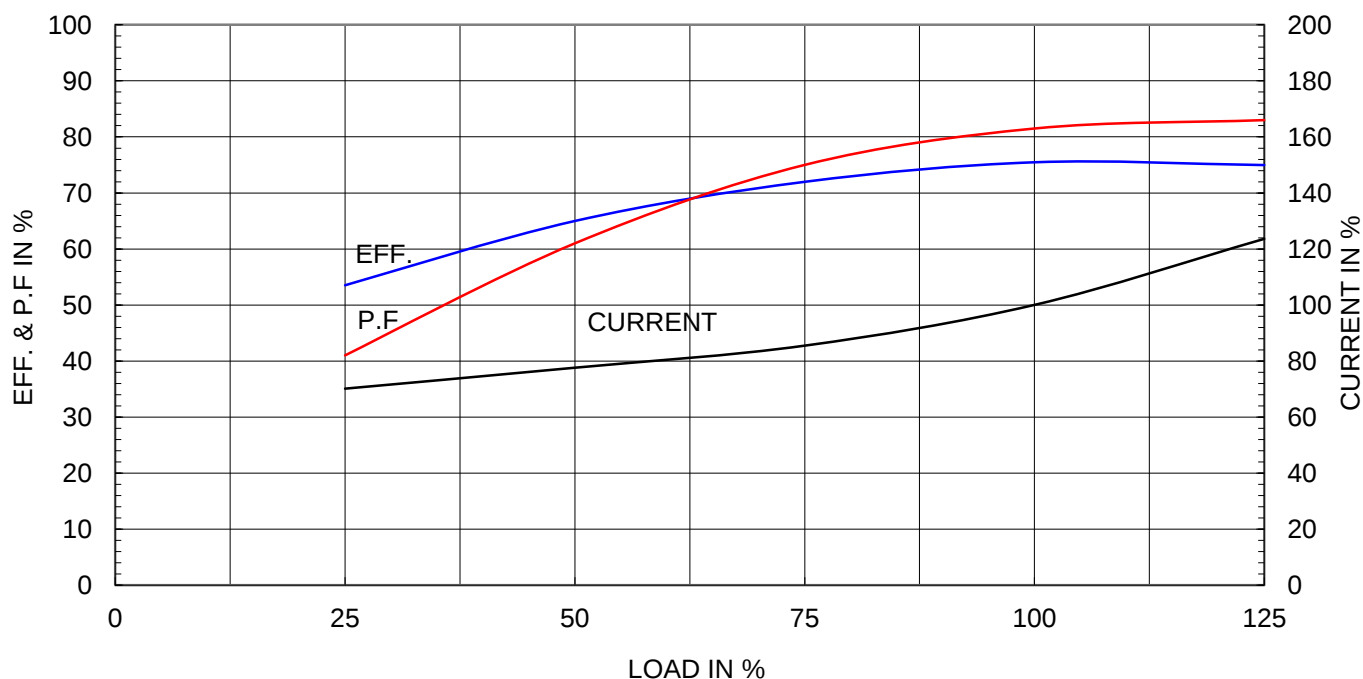
|                             |   |                         |
|-----------------------------|---|-------------------------|
| Type                        | : | HS                      |
| Full Load Torque            | : | 0.2 Kg.m                |
| Motor moment of Inertia (J) | : | ##### Kg.m <sup>2</sup> |
| Load moment of Inertia (J)  | : | 0.150 Kg.m <sup>2</sup> |

|                      |      |      |      |          |  |
|----------------------|------|------|------|----------|--|
| 0.75 kW              |      | 2 P  |      | 60 Hz    |  |
| Speed at Full Load : |      |      |      | 3500 RPM |  |
| Rated Voltage        | 440V | 380V | 220V |          |  |
| Full Load Current    | 1.6A | 1.9A | 3.2A |          |  |

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE





HEAVY INDUSTRIES CO., LTD.

**TEFC****THREE PHASE INDUCTION MOTOR****TYPE**

HL

AL FRAME

F

E

D

C

B

A

F

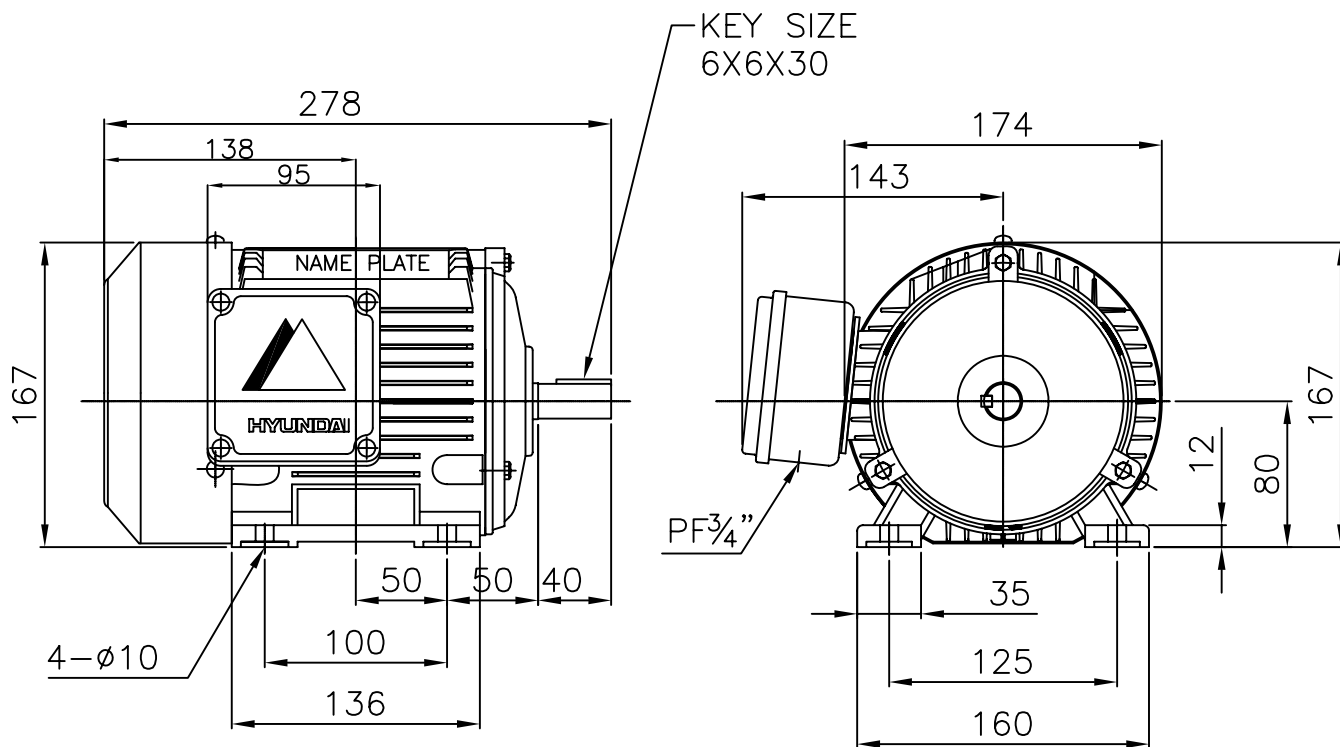
E

D

C

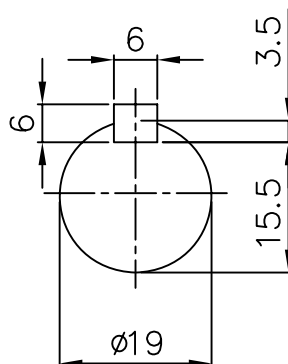
B

A

**NOTE**

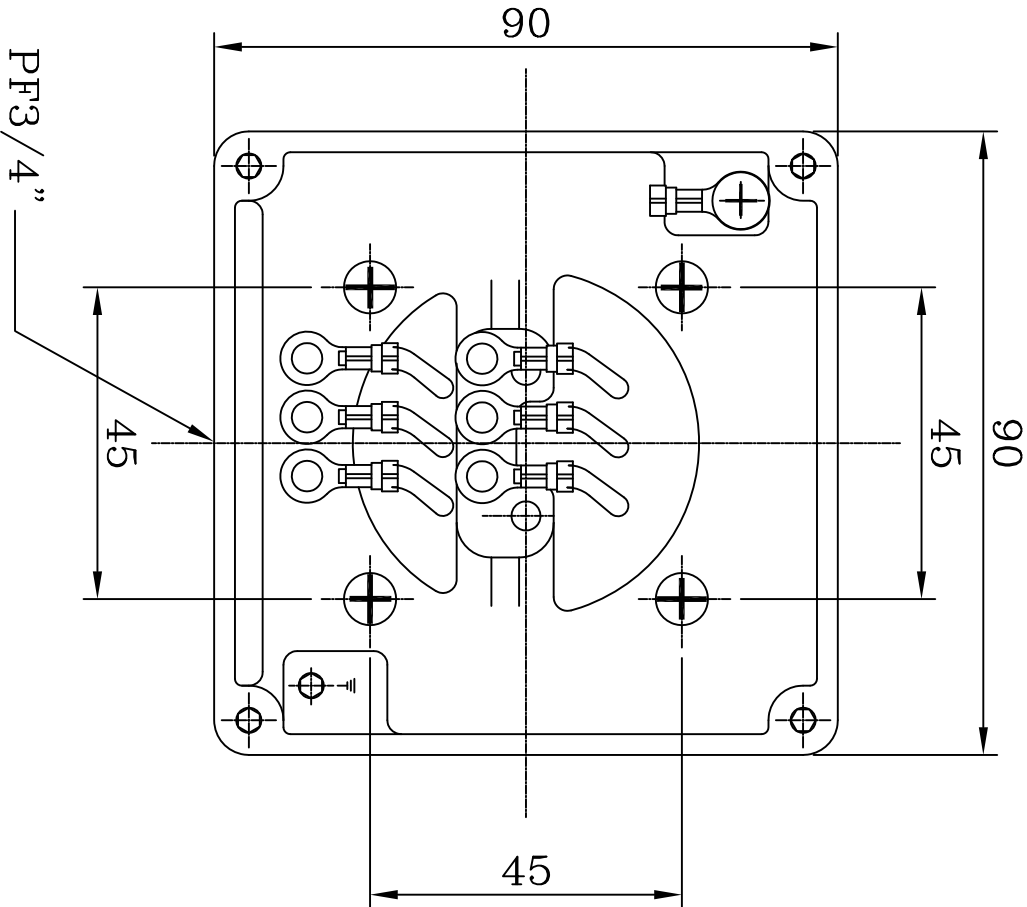
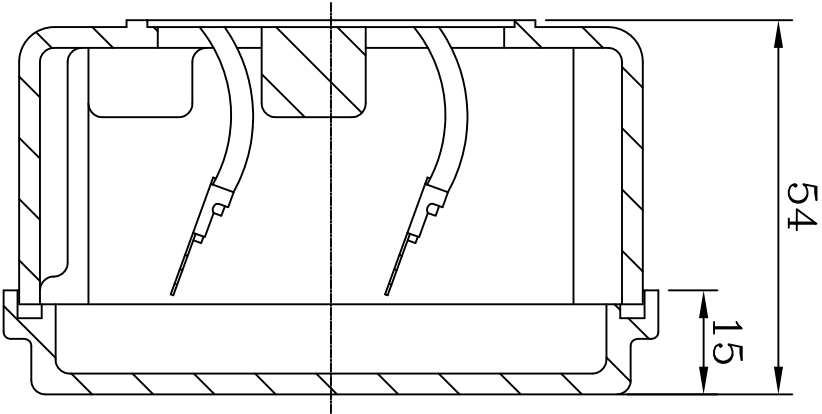
1.TOLERANCE :

|                |           |                      |
|----------------|-----------|----------------------|
| CENTER HEIGHT  | 80        | $+0$<br>$-0.5$       |
| BASE HOLES     | $\phi 10$ | $+0.36$<br>$-0$      |
| SHAFT DIAMETER | $\phi 19$ | $+0.009$<br>$-0.004$ |
| KEYWAY WIDTH   | 6         | $+0$<br>$-0.03$      |
| KEYWAY DEPTH   | 15.5      | $+0$<br>$-0.1$       |



\*AL CONDUIT BOX

|                                                                                  |           |          |            |         |              |                 |
|----------------------------------------------------------------------------------|-----------|----------|------------|---------|--------------|-----------------|
| APPD BY                                                                          | B.M.YOO   | UNIT     | mm         | SUBJECT | IEC 80M      | CAD PROJ \ FILE |
| CHKD BY                                                                          | S.W.SEO   | SCALE    | 1/5        | TITLE   | OUTLINE      | IP54,55,56      |
| CHKD BY                                                                          | J.S.JEONG | PROJEC'N | 3rd Angle  |         |              |                 |
| DSND BY                                                                          | C.S.KO    | DATE     | 2008.01.12 |         |              |                 |
| <b>HYUNDAI</b><br>HEAVY INDUSTRIES CO., LTD.<br>Electro-Electric System Division |           |          |            | REF. NO | B5000TA02    | Sheet No. of    |
|                                                                                  |           |          |            | DWG NO  | 227B5000TA02 | Revision No. 0  |



| QTY     |             | DESCRIPTION |            | MATERIAL |               | DIMENSION    |                      | WEIGHT    |               | PART NO. |  | REMARK |  | NO. |  |
|---------|-------------|-------------|------------|----------|---------------|--------------|----------------------|-----------|---------------|----------|--|--------|--|-----|--|
| APPD BY | B. M. YOO   | UNIT        | MM         | SCALE    | 1/0.98        | SUBJECT      | CB ASM (FR71--90)    | IP95      | CAO PROJ FILE | 6 LEADS  |  |        |  |     |  |
| CHKD BY | S. W. SEO   | SCALE       | 1/0.98     | PROJECN  | 3 (3rd Angle) | TITLE        | CONDUIT BOX ASSEMBLY |           |               |          |  |        |  |     |  |
| CHKD BY | J. S. JEONG | DATE        | 2005.12.05 | DSND BY  | C. S. KO      | REF. NO      | 227B1537AA1          | Sheet No. | of            |          |  |        |  |     |  |
| DSND BY | C. S. KO    | DATE        | 2005.12.05 | DWG NO   | 227B1537AA1   | Revision No. | 0                    |           |               |          |  |        |  |     |  |