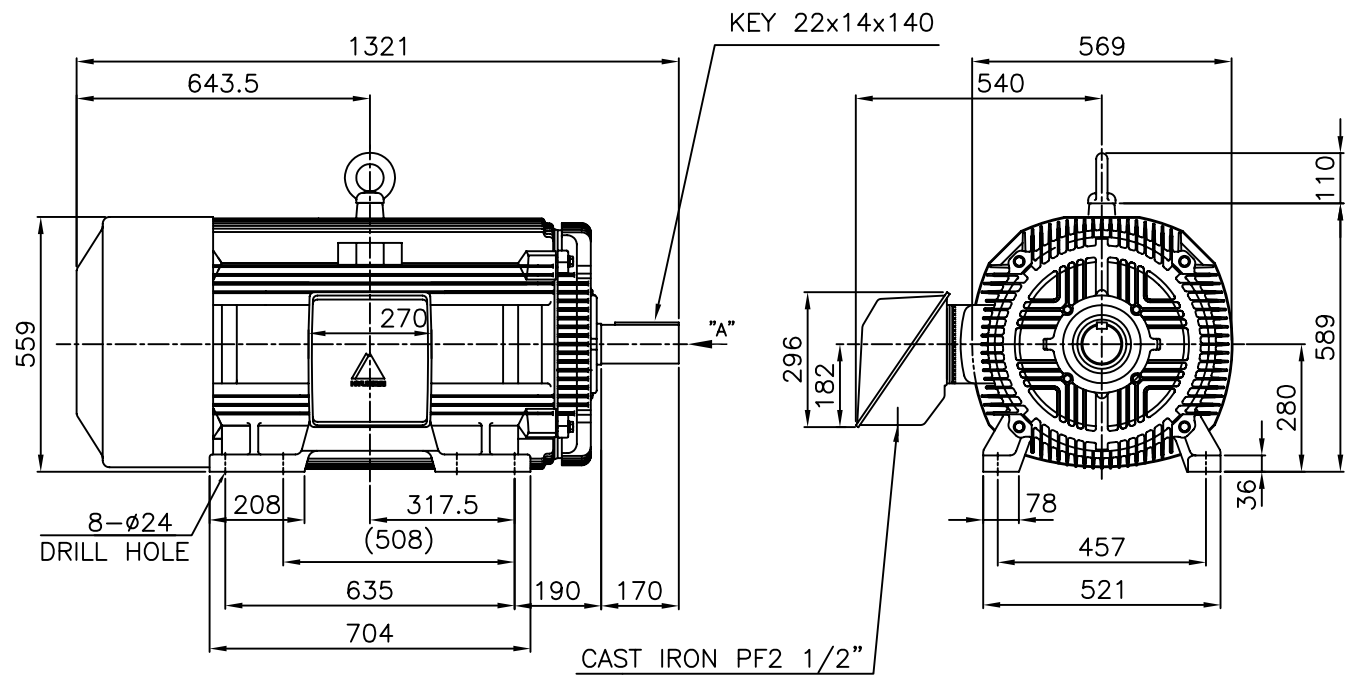


|                                                                                                                                                                                                          |           |                                                                                                              |  |                                                        |               |                                                                                       |          |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------|---------------|---------------------------------------------------------------------------------------|----------|-----------|
|                                                                                                                           |           | <b>DATA SHEET</b><br><b>of</b><br><b>AC INDUCTION MOTOR</b>                                                  |  |                                                        |               | <b>268 HP - 4 P</b><br><b>TE</b>                                                      |          |           |
|                                                                                                                                                                                                          |           |                                                                                                              |  |                                                        |               | DESIGN NO : <b>KS C4202-1996</b>                                                      |          |           |
| Model No.or RFQ No.                                                                                                                                                                                      |           | Item No.                                                                                                     |  | Rev. No.                                               |               | [ 0 ]                                                                                 |          |           |
| Project Name                                                                                                                                                                                             |           | Project No.                                                                                                  |  | Quantity :                                             |               |                                                                                       |          |           |
| <b>GENERAL SPECIFICATION</b>                                                                                                                                                                             |           |                                                                                                              |  | <b>PERFORMANCE DATA</b>                                |               |                                                                                       |          |           |
| Frame No.                                                                                                                                                                                                |           | 280LL                                                                                                        |  | Output                                                 |               | 268 HP      200 KW                                                                    |          |           |
| Type                                                                                                                                                                                                     |           | TNB                                                                                                          |  | Poles                                                  |               | 4 P                                                                                   |          |           |
| Enclosure(Protection)                                                                                                                                                                                    |           | Totally Enclosed (IP IP54 )                                                                                  |  | Rotor Type                                             |               | Squirrel Cage                                                                         |          |           |
| Cooling Method                                                                                                                                                                                           |           | IC411(FC)                                                                                                    |  | Starting Method(*)                                     |               | <input checked="" type="checkbox"/> D.O.L. <input type="checkbox"/> Y-Δ               |          |           |
| Frequency                                                                                                                                                                                                |           | 60 Hz                                                                                                        |  | Rated Voltage                                          |               | 440 V      380 V      220 V                                                           |          |           |
| Phase                                                                                                                                                                                                    |           | 3 Φ                                                                                                          |  | Current                                                | Rated Load    | 313.6 A      363.1 A      627.2 A                                                     |          |           |
| Insulation Class                                                                                                                                                                                         |           | <input checked="" type="checkbox"/> F <input type="checkbox"/> B <input type="checkbox"/> H                  |  |                                                        | Start'g-D.O.L | 2,038.4 A      2,360.3 A      4,076.9 A                                               |          |           |
| Temp. Rise at full load (by resistance method)                                                                                                                                                           |           |                                                                                                              |  | Efficiency                                             |               |                                                                                       |          |           |
| at 1.0 S.F                                                                                                                                                                                               |           | 105 °C                                                                                                       |  | 50% Load                                               |               | 92.6 %                                                                                |          |           |
| Location                                                                                                                                                                                                 |           | <input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor                                             |  | 75% Load                                               |               | 93.6 %                                                                                |          |           |
| Altitude                                                                                                                                                                                                 |           | Less than 1000 meter                                                                                         |  | 100% Load                                              |               | 93.5 %                                                                                |          |           |
| Humidity                                                                                                                                                                                                 |           | Less than 80 %                                                                                               |  | Power Factor                                           |               |                                                                                       |          |           |
| Ambient Temp.                                                                                                                                                                                            |           | 40 °C (Max.)                                                                                                 |  | 50% Load                                               |               | 82.0 %                                                                                |          |           |
| Duty                                                                                                                                                                                                     |           | CONT.(S1)                                                                                                    |  | 75% Load                                               |               | 87.5 %                                                                                |          |           |
| Service Factor                                                                                                                                                                                           |           | 1.00                                                                                                         |  | 100% Load                                              |               | 89.5 %                                                                                |          |           |
| Electric Design                                                                                                                                                                                          |           | NEMA Design B                                                                                                |  | Speed at Rated Load                                    |               | 1770 RPM / SLIP 1.67 %                                                                |          |           |
| Construction                                                                                                                                                                                             |           | <input type="checkbox"/> B3 <input type="checkbox"/> B5 <input type="checkbox"/> V1 <input type="checkbox"/> |  | Torque (D.O.L)                                         |               |                                                                                       |          |           |
| Bearing                                                                                                                                                                                                  | Type      | Anti-friction                                                                                                |  | Rated                                                  |               | 110.1 Kg.m      100 %                                                                 |          |           |
|                                                                                                                                                                                                          | DE/ODE    | 6318C3 \ 6316C3                                                                                              |  | Starting                                               |               | 176.1 Kg.m      160 %                                                                 |          |           |
|                                                                                                                                                                                                          | Lubricant | GREASE(ALVANIA#2)                                                                                            |  | Break down                                             |               | 242.1 Kg.m      220 %                                                                 |          |           |
| External Thrust                                                                                                                                                                                          |           | Not applicable                                                                                               |  | Allowable Load GD <sup>2</sup> referred to motor shaft |               |                                                                                       |          |           |
| Coupling Method                                                                                                                                                                                          |           | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-Belt                                   |  |                                                        |               | 486.500 Kg.m <sup>2</sup>                                                             |          |           |
| Shaft Extension                                                                                                                                                                                          |           | <input checked="" type="checkbox"/> Single <input type="checkbox"/> Double                                   |  | Motor GD <sup>2</sup>                                  |               | 17.270 Kg.m <sup>2</sup>                                                              |          |           |
| Terminal Box                                                                                                                                                                                             | Main      | <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Cast Iron                                 |  | Noise Level (dB(A))                                    |               | 88 dB(A) at 1m from motor(No-load)                                                    |          |           |
|                                                                                                                                                                                                          | Aux.      | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                          |  | Vibration(Velocity)                                    |               | 3.8 mm/sec.(peak)                                                                     |          |           |
|                                                                                                                                                                                                          | Location  | <input checked="" type="checkbox"/> Left <input type="checkbox"/> Right                                      |  | Starting Duty                                          |               | Cold 2 times \ Hot 1 time                                                             |          |           |
| (Viewed from Drive End)                                                                                                                                                                                  |           |                                                                                                              |  | Paint                                                  | Munsell No.   | 4.0PB5.4/5.5(VL-451)                                                                  |          |           |
| <b>Application</b>                                                                                                                                                                                       |           |                                                                                                              |  | <b>SUBMITTAL DRAWING</b>                               |               |                                                                                       |          |           |
| Area Classification                                                                                                                                                                                      |           | Not applicable                                                                                               |  | Outline Dimension Drawing \ Motor Weight(Approx.)      |               |                                                                                       |          |           |
| Applicable Standard                                                                                                                                                                                      |           | KS                                                                                                           |  | <input type="checkbox"/> B3                            |               | TJ8XAP51      1130 Kg                                                                 |          |           |
| Inspection and Performance Test                                                                                                                                                                          |           |                                                                                                              |  | <input type="checkbox"/> B5                            |               | TJ8XBP51      1160 Kg                                                                 |          |           |
| HHI Stand.                                                                                                                                                                                               |           | Maker Test Report                                                                                            |  | <input type="checkbox"/> V1                            |               | TJ8XPP51      1160 Kg                                                                 |          |           |
| <b>ACCESSORIES(OPTION ITEM)</b>                                                                                                                                                                          |           |                                                                                                              |  |                                                        |               |                                                                                       |          |           |
|                                                                                                                                                                                                          |           |                                                                                                              |  | Main T-Box Ass'y      3M-016882                        |               |                                                                                       |          |           |
|                                                                                                                                                                                                          |           |                                                                                                              |  |                                                        |               |                                                                                       |          |           |
| <b>SPARE PARTS</b>                                                                                                                                                                                       |           |                                                                                                              |  | <b>REMARK</b>                                          |               |                                                                                       |          |           |
|                                                                                                                                                                                                          |           |                                                                                                              |  |                                                        |               |                                                                                       |          |           |
| Note: Others not mentioned in this specification shall be in accordance with HHI standard.<br>Above technical data are only design values and shall be guaranteed with tolerance of applicable standard. |           |                                                                                                              |  | Date                                                   | DSND          | CHKD                                                                                  | CHKD     | APPD      |
|                                                                                                                                                                                                          |           |                                                                                                              |  | 2004.01.27                                             | KIM R.G.      |  | KIM O.J. | KANG K.G. |

|                                                                                                                                |   |                                                   |                                                 |
|--------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------|-------------------------------------------------|
| 1                                                                                                                              | 2 | 3                                                 | 4                                               |
|  <b>HYUNDAI</b><br>HEAVY INDUSTRIES CO., LTD. |   | <b>TEFC</b><br><b>THREE PHASE INDUCTION MOTOR</b> | <b>TYPE</b><br>(1) TNB , TDB<br>CAST IRON FRAME |

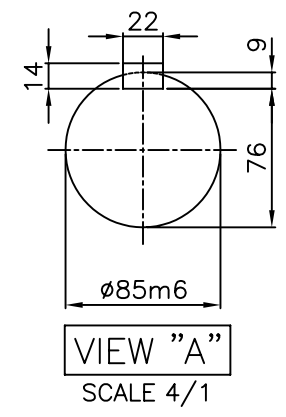


**NOTE**

1.TOLERANCE :

|                |                                         |
|----------------|-----------------------------------------|
| CENTER HEIGHT  | 280 <sub>-1.0</sub> <sup>0</sup>        |
| BASE HOLE      | ø24 <sub>0</sub> <sup>+0.43</sup>       |
| SHAFT DIAMETER | ø85 <sub>+0.013</sub> <sup>+0.035</sup> |
| KEYWAY WIDTH   | 22 <sub>-0.074</sub> <sup>-0.022</sup>  |
| KEYWAY DEPTH   | 9 <sub>0</sub> <sup>+0.2</sup>          |
| KEY WIDTH      | 22 <sub>-0.052</sub> <sup>0</sup>       |
| KEY HEIGHT     | 14 <sub>-0.110</sub> <sup>0</sup>       |

2.The type (1)-"TNB , TDB" is for HHI's standard products and it can be changed for customer's requirements or detail designing.



|                                                                                                                                                                |               |          |            |                                        |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|------------|----------------------------------------|-------------------|
|                                                                                                                                                                |               |          |            | TEFC STANDARD                          |                   |
| APPD BY                                                                                                                                                        | KANG K.J.     | UNIT     | MM         | SUBJECT                                | KS Fr.280LL TEFC  |
| CHKD BY                                                                                                                                                        | KIM O.J.      | SCALE    | 1/17       | TITLE                                  | CAD PROJ \ FILE   |
| CHKD BY                                                                                                                                                        | LEE N.D.      | PROJEC'N | 3rd Angle  |                                        | MMSTDMTR/TJ8XAP51 |
| DSND BY                                                                                                                                                        | KIM RYANG GYU | DATE     | 2007.03.23 |                                        |                   |
|  <b>HYUNDAI</b><br>HEAVY INDUSTRIES CO., LTD.<br>INDUSTRIAL & POWER SYSTEMS |               |          |            | OUTLINE<br>THREE-PHASE INDUCTION MOTOR |                   |
|                                                                                                                                                                |               |          |            | REF. NO                                | L2-Series         |
|                                                                                                                                                                |               |          |            | DWG NO                                 | TJ8XAP51          |
|                                                                                                                                                                |               |          |            | Sheet No.                              | of                |
|                                                                                                                                                                |               |          |            | Revision No.                           | 0                 |



# HYUNDAI

HEAVY INDUSTRIES CO., LTD

## PERFORMANCE CURVE

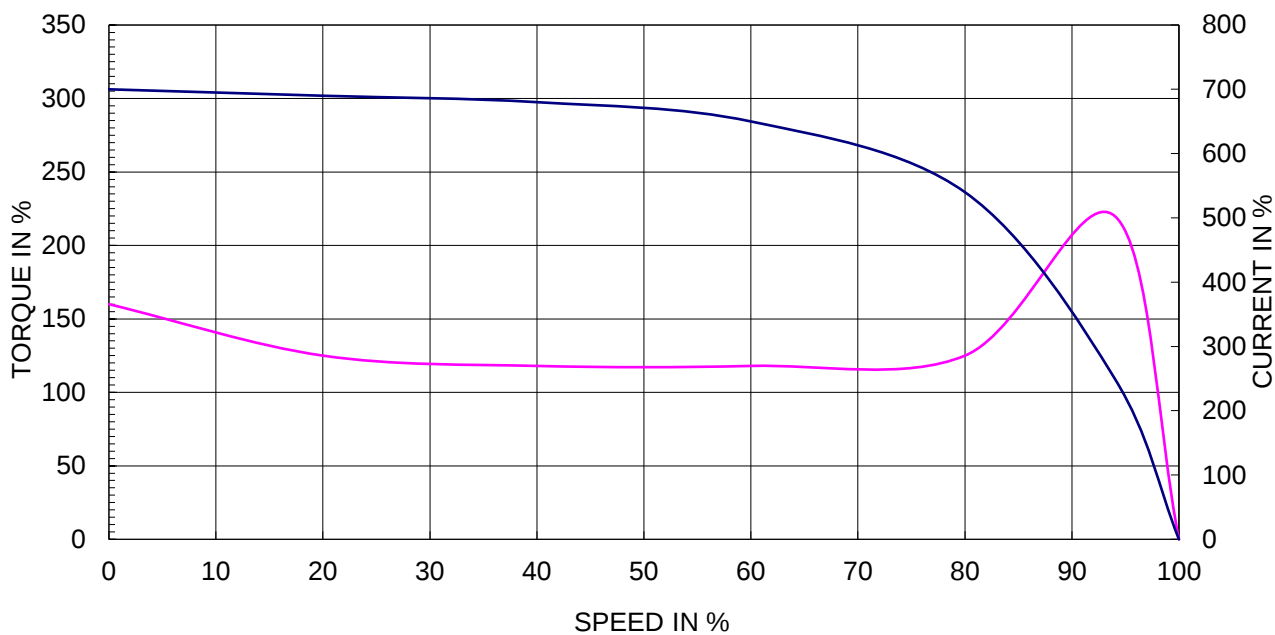
CURVE NO.

P-TNBJ8X04200

|                        |       |                   |
|------------------------|-------|-------------------|
| TYPE :                 |       |                   |
| RATED TORQUE :         | 110.1 | Kg.m              |
| GD2 OF MOTOR :         | 17.3  | Kg.m <sup>2</sup> |
| (ALLOWABLE) GD2 OF LOA | 486.5 | Kg.m <sup>2</sup> |

|               |          |         |
|---------------|----------|---------|
| 200 kW        | 4 P      | 60 Hz   |
| RATED SPEED : | 1770 RPM |         |
| VOLTAGE       | 440V     | 380 V   |
| RATED CURRENT | 313.6A   | 363.1 A |
|               |          | 627.2A  |

SPEED VS TORQUE & CURRENT CURVE



OUTPUT VS EFF., P.F & CURRENT CURVE

