HYUNDAI HEAVY INDUSTRIES CO.,LTD.

# AC INDUCTION MOTOR DATA SHEET

| | | | |
|---|---|---|---|
| Model No.or RFQ No. | | Item No. | Rev. No. [ 0 ] |
| Project Name | | Project No. | Quantity sets |

## GENERAL SPECIFICATION

| | | |
|---|---|---|
| Frame Size | | 280L |
| Type | | HS-132/6 |
| Enclosure(Protection) | | Totally Enclosed ( IP55 ) |
| Method of Cooling | | IC411(FC) |
| Rated Frequency | | 60 Hz |
| Number of Phases | | 3 |
| Insulation Class | | ■ F ☐ B ☐ H |
| Temp. Rise at full load (by resistance method) | | |
| | at 1.0 S.F | 80 deg. C |
| Motor Location | | ■ Indoor ☐ Outdoor |
| Altitude | | Less than 1000 meter |
| Relative Humidity | | Less than 80 % |
| Ambient Temp. | | 40 deg. C (Max.) |
| Duty Type | | Continuous ( S1 ) |
| Service Factor | | 1.15 |
| Mounting | | ☐ B3 ☐ B5 ☐ V1 ■ B3/B5 |
| Bearing | Type | Anti-Friction |
| | DE/N-DE | 6318C3 / 6316C3 |
| | Lubricant | Grease(Gadus S2 V 100 2) |
| External Thrust | | Not applicable |
| Coupling Method | | ■ Direct ☐ V-Belt |
| Shaft Extension | | ■ Single ☐ Double |
| Terminal Box | Main | ☐ Steel ■ Cast Iron |
| | Aux. | ☐ Yes ■ No |
| | Location | Refer to Outline Drawing |
| Application | | |
| Area classification | | Non-Hazardous |
| Type of Ex-Protection | | Not applicable |
| Applicable Standard | | KS,IEC,NEMA MG1 Part30(Vpeak) |

## PERFORMANCE DATA

| | | | | |
|---|---|---|---|---|
| Rated Output | | 132 kW | 175 HP | |
| Number of Poles | | 6 | | |
| Rotor Type | | Squirrel Cage | | |
| Starting Method* | | ■ D.O.L | ☐ Y- △ | |
| Rated Voltage | | 440 V | 380 V | 220 V |
| Current | Full Load | 209.6 A | 242.7 A | 419.1 A |
| | Locked-rotor** | 650 % | 650 % | 650 % |
| Efficiency | | | | |
| | 50% Load | 95.0 % | | |
| | 75% Load | 95.1 % | | |
| | 100% Load | 95.0 % | | |
| Power Factor(p.u) | | | | |
| | 50% Load | 0.750 | | |
| | 75% Load | 0.851 | | |
| | 100% Load | 0.870 | | |
| Speed at Full Load | | 1185 r.p.m | | |
| Torque | | | | |
| | Full Load | 108.5 kg·m | | |
| | Locked-rotor** | 180 % | | |
| | Breakdown** | 230 % | | |
| Moment of Inertia (J) | | | | |
| | Load(Max.) | 224.250 kg·m² | | |
| | Motor | 5.753 kg·m² | | |
| Sound Pressure Level (No-load & mean value at 1m from motor) | | 80 dB(A) | | |
| Vibration | | 2.2 mm/sec (r.m.s) | | |
| Permissible number of consecutive starts | | Cold 3 times | | |
| | | Hot 2 times | | |
| Paint | Munsell No. | 4.0PB5.4/5.5(VL-451) | | |

## ACCESSORIES

## SUBMITTAL DRAWING

| | | | |
|---|---|---|---|
| Outline Dimension Drawing \ Motor Weight(Approx.) | | | |
| | B3 | | kg |
| | B5 | | kg |
| | V1 | | kg |
| | B3/B5 | TJ8LCP51 | 925 kg |
| Main T-Box Ass'y | | 3M-016882 | |

## SPARE PARTS

## REMARK

**High Efficiency**

*. For use on PWM VFD 10:1VT, 3:1CT@1.0S.F&F Temp. rise

| 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.

HYUNDAI HEAVY INDUSTRIES CO.,LTD.

# PERFORMANCE CURVE

CURVE NO.

P-HS-132/6

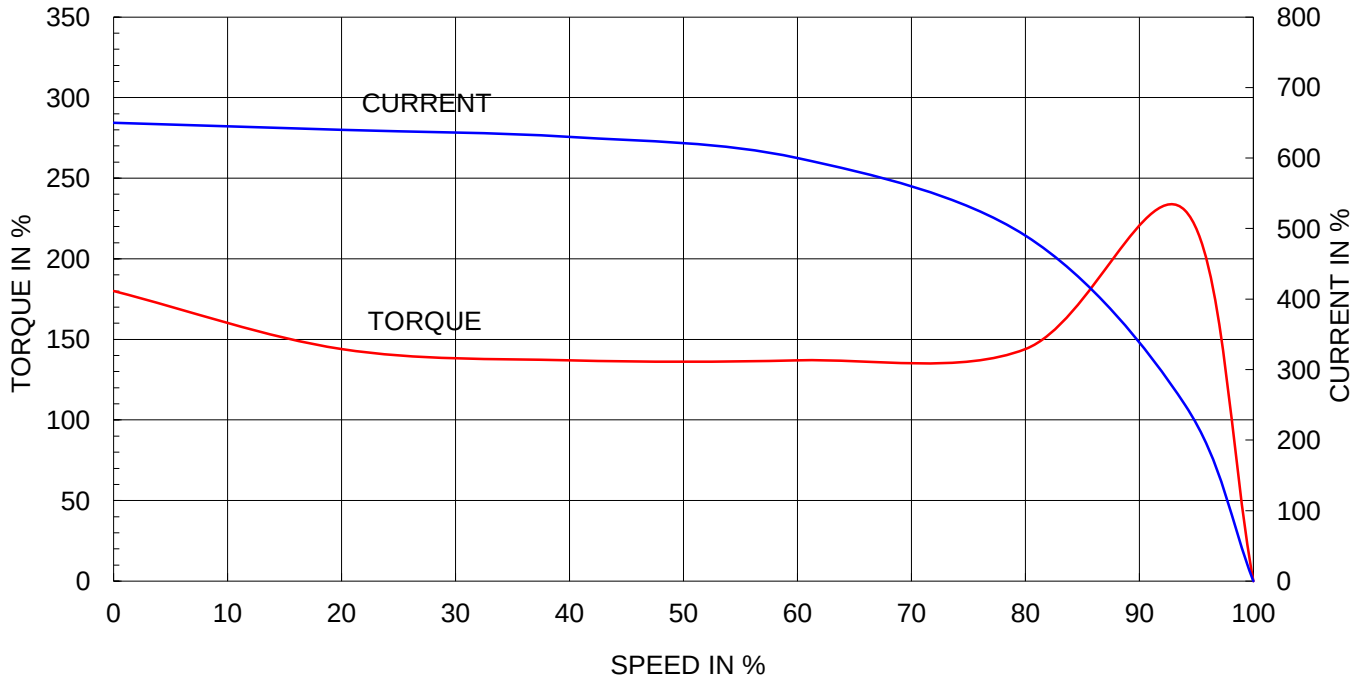
| | | |
|---|---|---|
| Type : | HS | |
| Full Load Torque : | 108.5 | Kg.m |
| Motor moment of Inertia (J) : | 5.753 | $Kg.m^2$ |
| Load moment of Inertia (J) : | 224.250 | $Kg.m^2$ |

132 kW 6 P 60 Hz

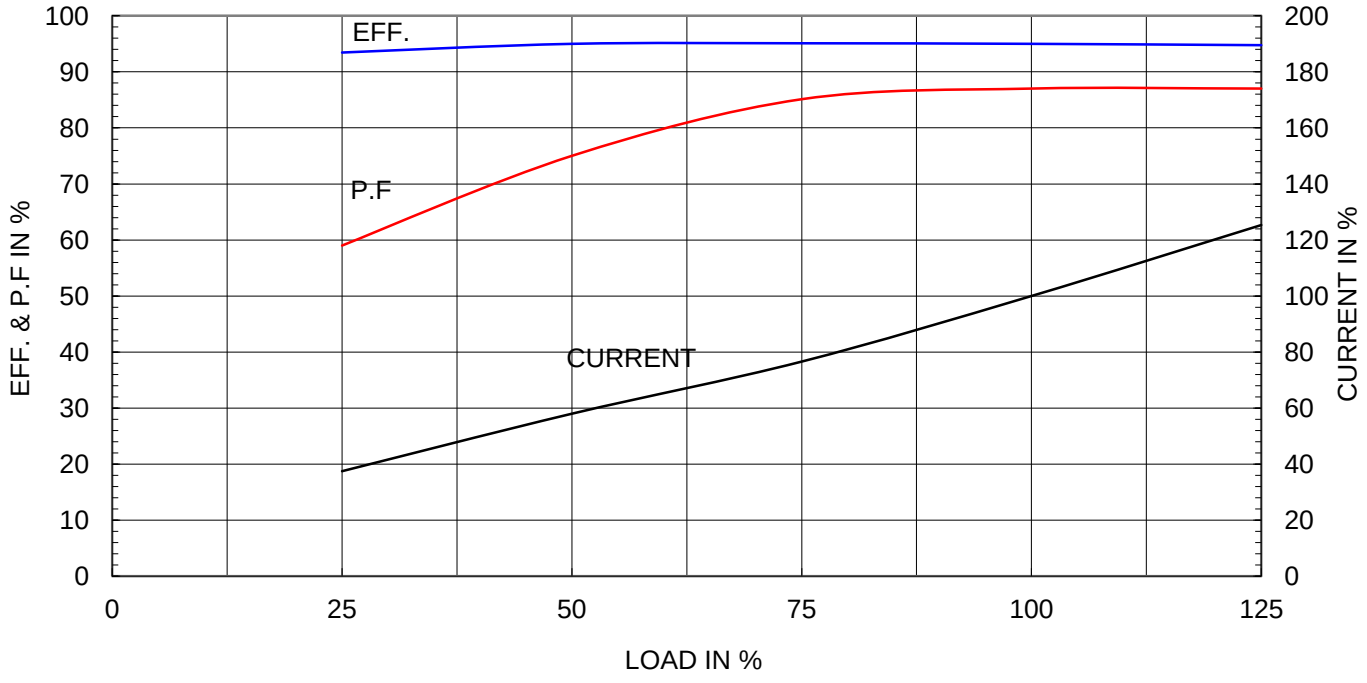
Speed at Full Load : 1185 RPM

| Rated Voltage | 440V | 380V | 220V | |
|---|---|---|---|---|
| Full Load Current | 209.6A | 242.7A | 419.1A | |

SPEED VS TORQUE & CURRENT CURVE




OUTPUT VS EFF., P.F & CURRENT CURVE



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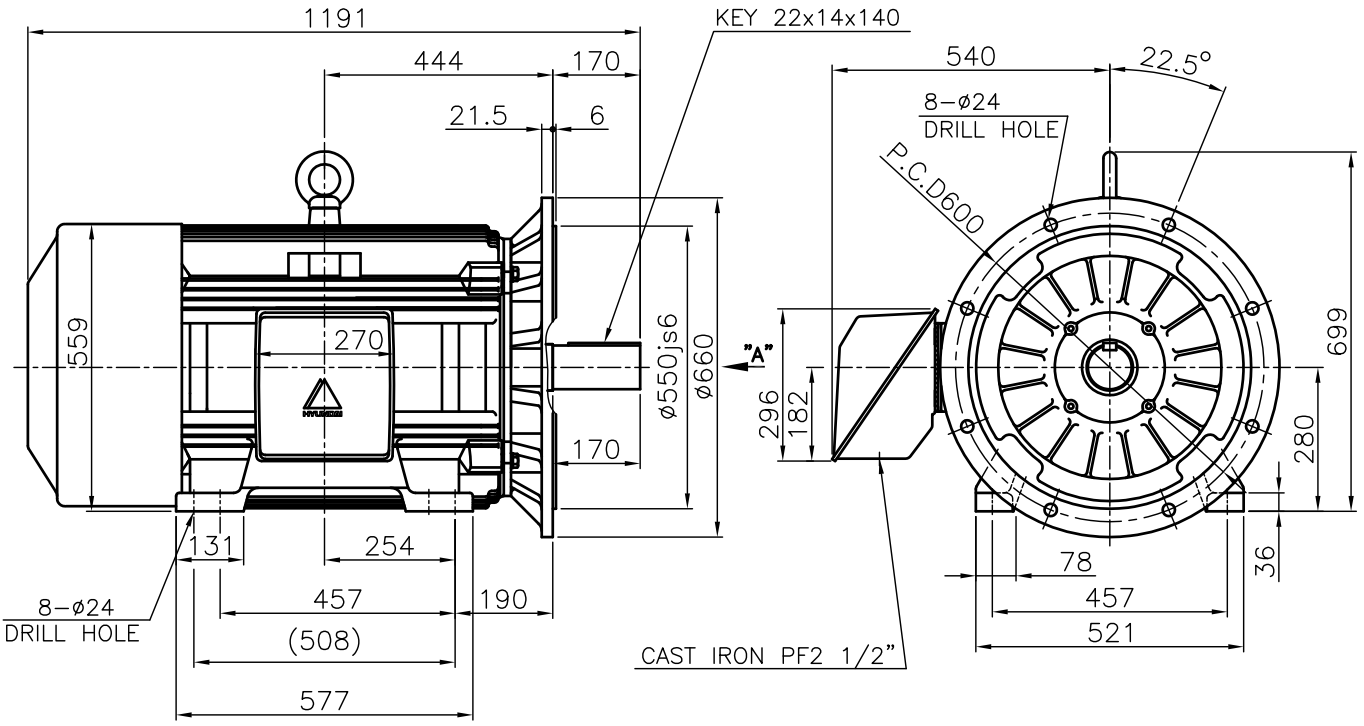
# TEFC

## THREE PHASE INDUCTION MOTOR

| TYPE | (1) TNB , TDB |
|---|---|
| | CAST IRON FRAME |

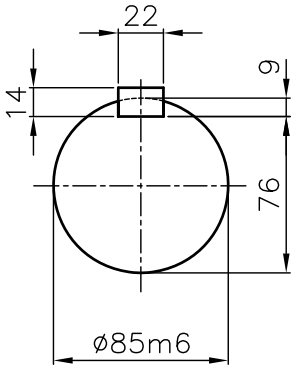



NOTE

1.TOLERANCE :

| | |
|---|---|
| CENTER HEIGHT | $280\ ^{0}_{-1.0}$ |
| RABBET DIAMETER | ø550 ±0.022 |
| SHAFT DIAMETER | $ø85\ ^{+0.035}_{+0.013}$ |
| KEYWAY WIDTH | $22\ ^{-0.022}_{-0.074}$ |
| KEYWAY DEPTH | $9\ ^{+0.2}_{0}$ |

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




VIEW "A"

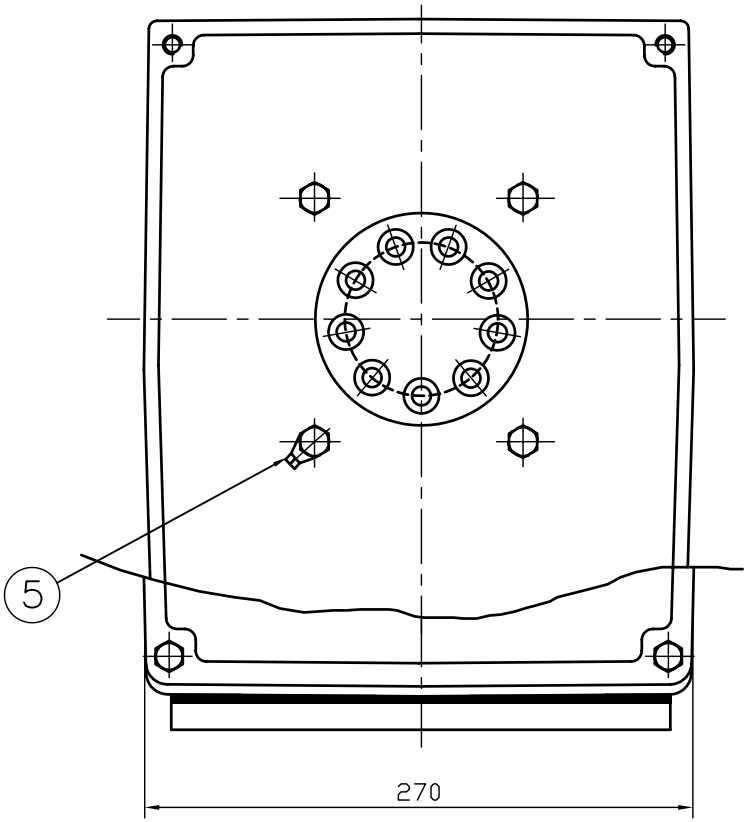
SCALE 4/1

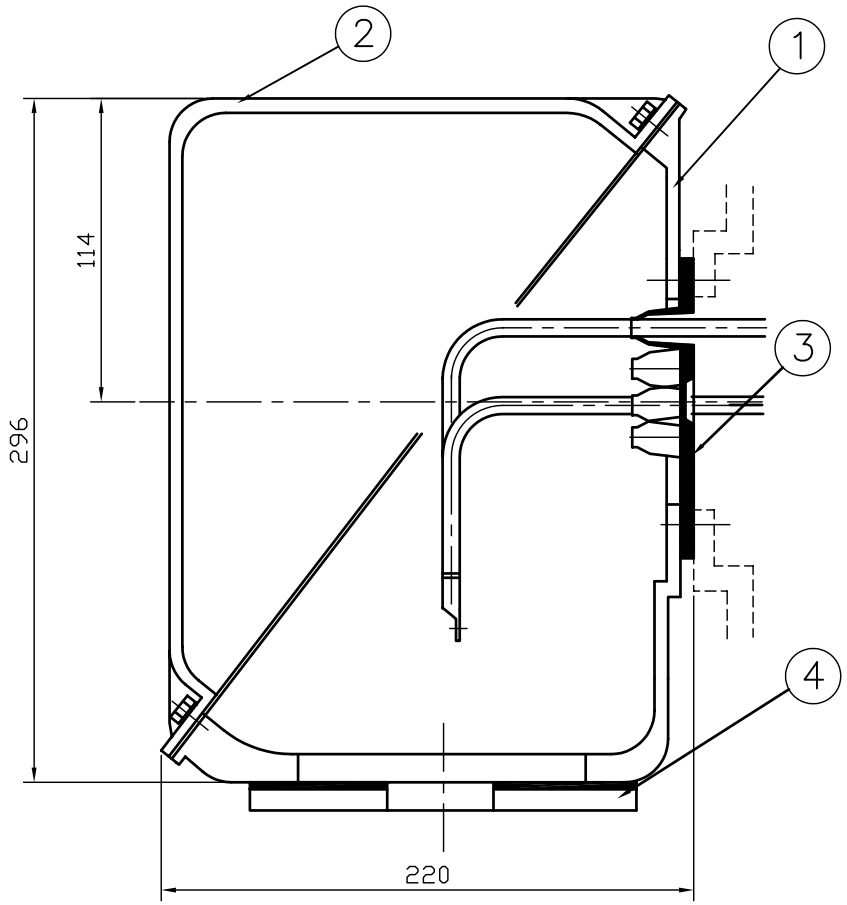
| | | | |
|---|---|---|---|
| APPD BY | KANG K.J. | UNIT | MM |
| CHKD BY | KIM O.J. | SCALE | 1/15 |
| CHKD BY | LEE N.D. | PROJEC'N | 3rd Angle |
| DSND BY | KIM RYANG GYU | DATE | 2007.03.23 |

| | | |
|---|---|---|
| SUBJECT | KS Fr.280L TEFC | TEFC STANDARD<br>CAD PROJ \ FILE<br>MMSTDMTR/TJ8LCP51 |
| TITLE | OUTLINE<br>THREE–PHASE INDUCTION MOTOR | |

HYUNDAI HEAVY INDUSTRIES CO., LTD.
INDUSTRIAL & POWER SYSTEMS

| | | |
|---|---|---|
| REF. NO | L2–Series | Sheet No. of |
| DWG NO | TJ8LCP51 | Revision No. 0 |




| Q'TY | DESCRIPTION | MATERIAL | DIMENSION | WEIGHT | PART NO. | REMARK | NO. |
|---|---|---|---|---|---|---|---|
| 1 | EARTH TERMINAL LUG | | | | | | 5 |
| 1 | CABLE ENTRY PLATE | | | | | | 4 |
| 1 | GASKET | NBR | | | | | 3 |
| 1 | TERMINAL BOX COVER | CAST IRON | | | | | 2 |
| 1 | TERMINAL BOX BODY | CAST IRON | | | | | 1 |

| | | | |
|---|---|---|---|
| APPD BY | 김 진 오 | UNIT | MM |
| Q.P CHK | 주 영 걸 | SCALE | NONE |
| CHKD BY | 권 오 철 | PROJEC'N | 3 각법(3rd Angle) |
| DSND BY | 김 현 태 | DATE | 92.06.05 |

SUBJECT: HLA6 – 250,280Fr.

CAD PROJ 명 \ FILE 명: T-BOX-M \ 3R016882

TITLE: (CAST IRON) TERMINAL BOX ASS'Y

HYUNDAI ELECTRICAL ENGINEERING CO., LTD.

REF. NO

Sheet No. of

DWG NO: 3M-016882

Revision No.

| REV | DATE | CONTENTS | REVD BY | CHKD BY | Q.P CHK | APPD BY |
|---|---|---|---|---|---|---|
| | | | | | | |
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| | | | | | | |