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 | | 200LL |
| Type | | HL-XP |
| Enclosure(Protection) | | Explosion Proof ( 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 | | Continuos ( S1 ) |
| Service Factor | | 1.00 |
| Mounting | | ☐ B3 ☐ B5 ■ V1 ☐ B3/B5 |
| Bearing | Type | Anti-Friction |
| | DE/N-DE | 6313ZC3 / 6211ZC3 |
| | Lubricant | Grease(Gadus S2 V100 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 | | Hazardous |
| Type of Ex-Protection | | Ex d IIB T4 |
| Applicable Standard | | KS,IEC |

## PERFORMANCE DATA

| | | | | |
|---|---|---|---|---|
| Rated Output | | 37 kW | 50 HP | |
| Number of Poles | | 4 | | |
| Rotor Type | | Squirrel Cage | | |
| Starting Method* | | ■ D.O.L | ☐ Y-△ | |
| Rated Voltage | | 440 V | 380 V | 220 V |
| Current | Full Load | 62.1 A | 72.0 A | 124.3 A |
| | Locked-rotor** | 670 % | 670 % | 670 % |
| Efficiency | | | | |
| | 50% Load | 92.5 % | | |
| | 75% Load | 93.2 % | | |
| | 100% Load | 93.0 % | | |
| Power Factor(p.u) | | | | |
| | 50% Load | 0.730 | | |
| | 75% Load | 0.795 | | |
| | 100% Load | 0.840 | | |
| Speed at Full Load | | 1780 r.p.m | | |
| Torque | | | | |
| | Full Load | 20.2 kg·m | | |
| | Locked-rotor** | 150 % | | |
| | Breakdown** | 220 % | | |
| Moment of Inertia (J) | | | | |
| | Load(Max.) | 24.000 kg·m² | | |
| | Motor | 0.280 kg·m² | | |
| Sound Pressure Level (No-load & mean value at 1m from motor) | | 77 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 | 227B1616XI10 | 400 | kg |
| B3/B5 | 0 | 0 | kg |
| Main T-Box Ass'y | 227B1470LA | | |

## SPARE PARTS

## REMARK

**High Efficiency**

| 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 shal

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# PERFORMANCE CURVE

CURVE NO.

P-HS-37/4

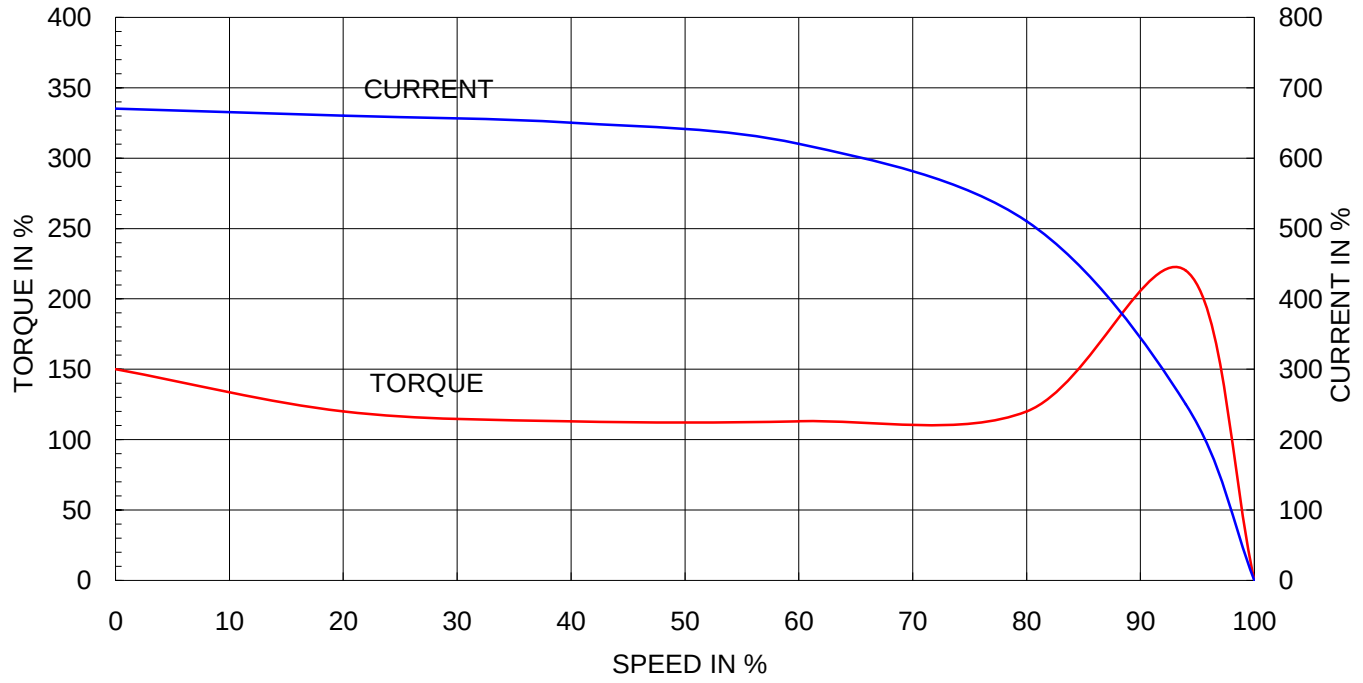
| | | |
|---|---|---|
| Type : | HL-XP | |
| Full Load Torque : | 20.2 | Kg.m |
| Motor moment of Inertia (J) : | 0.280 | $Kg.m^2$ |
| Load moment of Inertia (J) : | 24.000 | $Kg.m^2$ |

37 kW 4 P 60 Hz

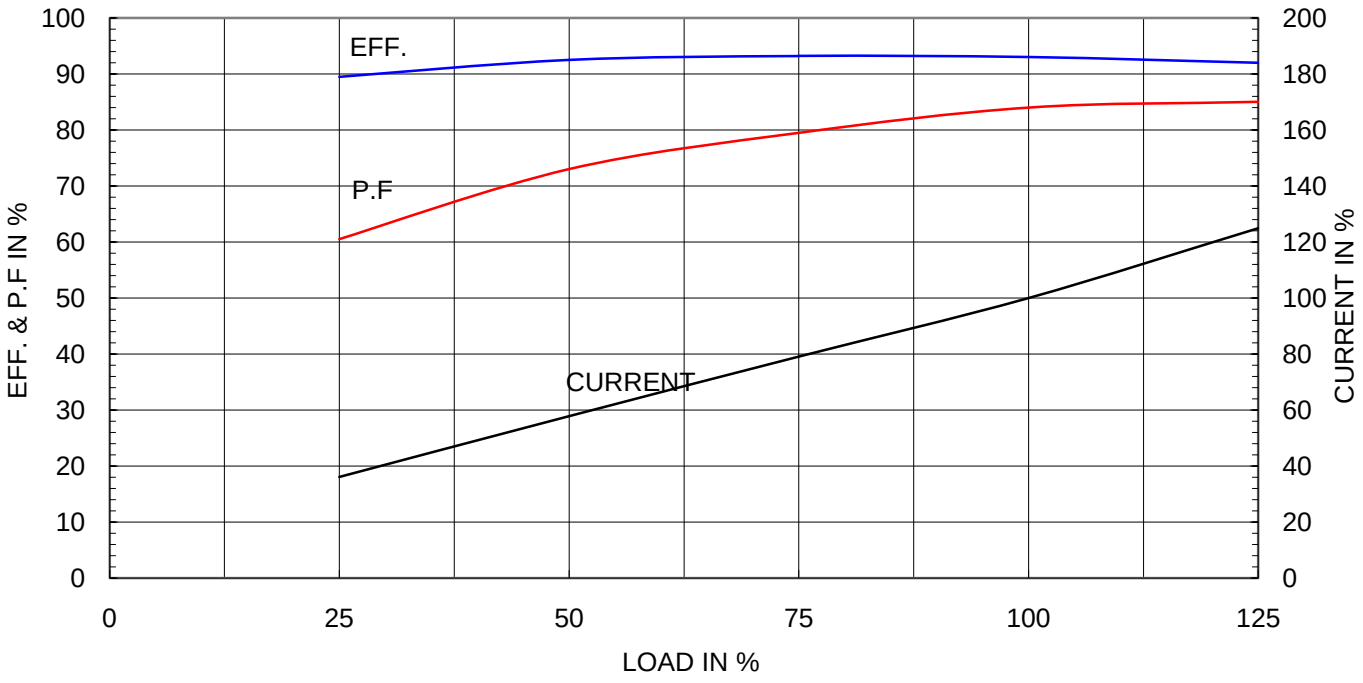
Speed at Full Load : 1780 RPM

| Rated Voltage | 440V | 380V | 220V | |
|---|---|---|---|---|
| Full Load Current | 62.1A | 72.0A | 124.3A | |

SPEED VS TORQUE & CURRENT CURVE




OUTPUT VS EFF., P.F & CURRENT CURVE



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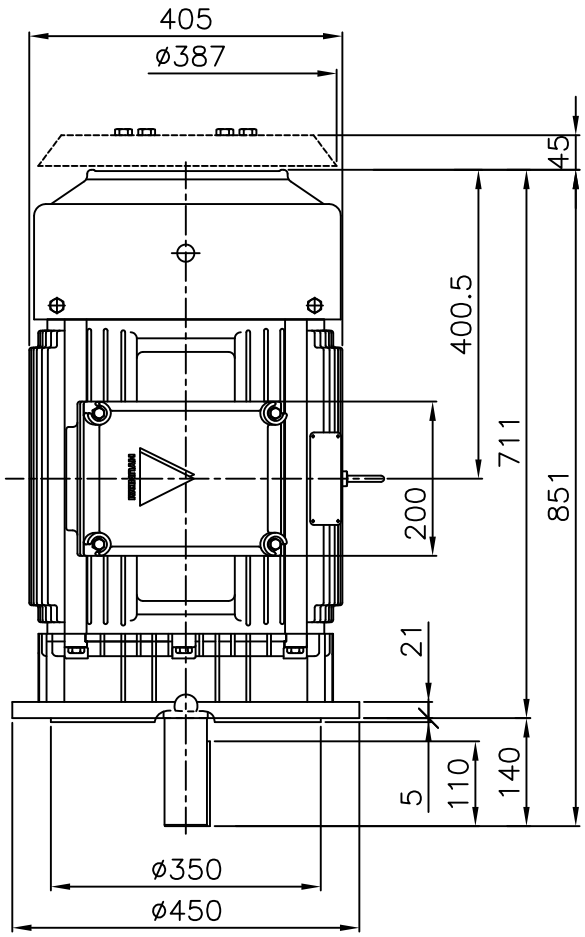
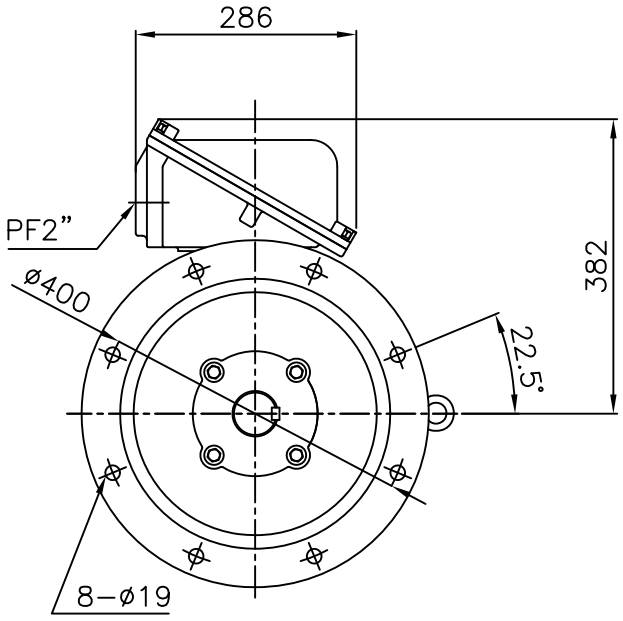
# TEFC

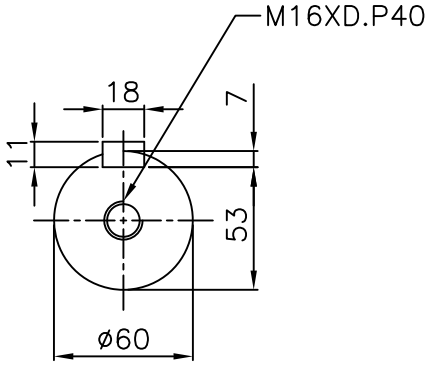
**THREE PHASE INDUCTION MOTOR**

| TYPE | HKS , HK |
|---|---|
| | CAST IRON FRAME |

# Exd II




NOTE

1.TOLERANCE :

| | | |
|---|---|---|
| FLANGE HOLES | ø19 | $^{+0.43}_{-0.}$ |
| RABBET DIAMETER | ø350 | $^{+0.018}_{-0.018}$ |
| SHAFT DIAMETER | ø60 | $^{+0.030}_{+0.011}$ |
| KEYWAY WIDTH | 18 | $^{+0}_{-0.043}$ |
| KEYWAY DEPTH | 53 | $^{+0}_{-0.2}$ |

2. REMARK
DRIP COVER WILL BE ATTACHED PER REQUEST FROM CUSTOMER ONLY.

*d2G4

| | | | |
|---|---|---|---|
| APPD BY | KIM.Y.S | UNIT | mm |
| CHKD BY | --- | SCALE | 1/10 |
| CHKD BY | KO.S.H | PROJEC'N | 3rd Angle |
| DSND BY | LEE KWANG SOO | DATE | 2008.12.05 |

| | | |
|---|---|---|
| SUBJECT | XSD KS 200LL 4,6P | CAD PROJ \ FILE: XSDNKS\B1616XI10 |
| TITLE | OUTLINE | |

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Electro-Electric System Division

| | | |
|---|---|---|
| REF. NO | B1616XI10 | Sheet No. of |
| DWG NO | 227B1616XI10 | Revision No. 0 |

36N

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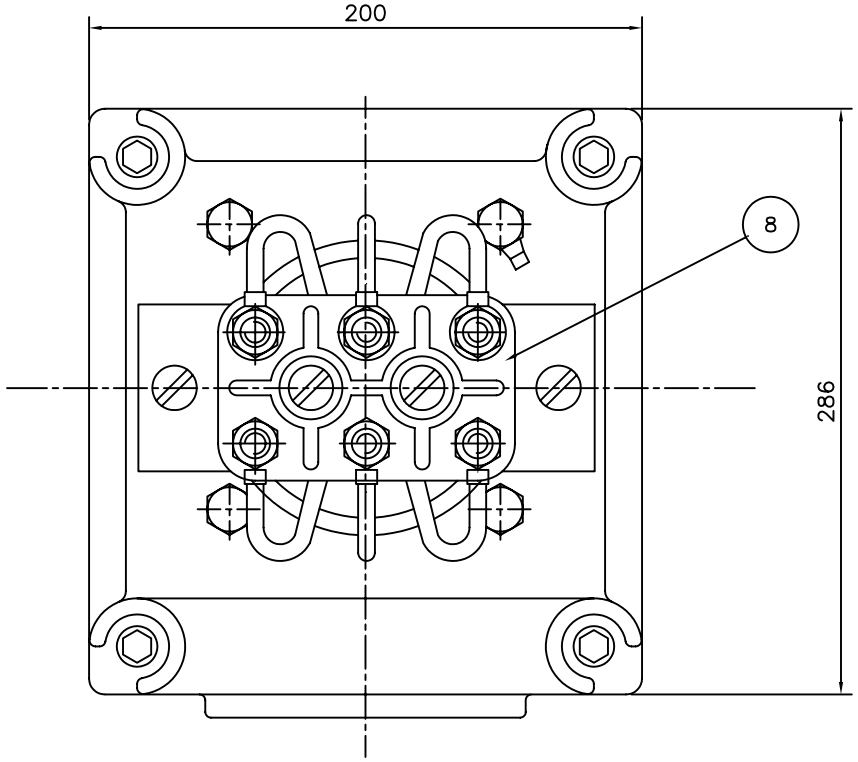


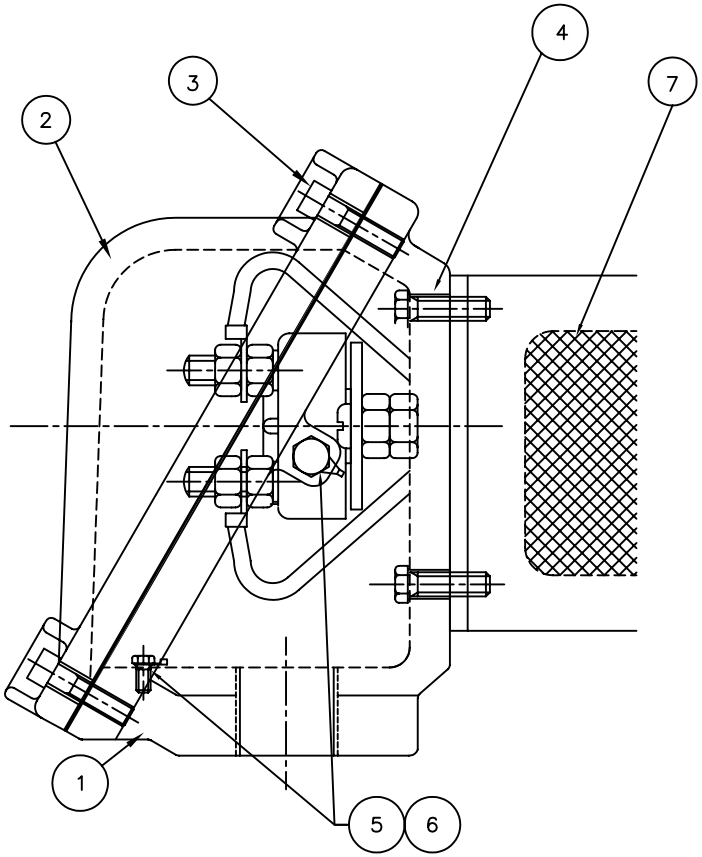


| NO. | DESCRIPTION | MATERIAL | DIMENSION | WEIGHT | PART NO. | REMARK | Q'TY |
|---|---|---|---|---|---|---|---|
| 8 | TERMINAL BLOCK | | | | | | 1 |
| 7 | SEALING COMPOUND | D4C29C | | | | | . |
| 6 | GRD TERMINAL LUG | CU | | | | | 2 |
| 5 | GRD. BOLT | S45C | | | | | 2 |
| 4 | T/B + FRAME BOLT | S45C | | | | | 4 |
| 3 | T/B + COVER BOLT | S45C | | | | | 4 |
| 2 | TERMINAL BOX COVER | FC15 | | | | | 1 |
| 1 | TERMINAL BOX | FC15 | | | | | 1 |
| | ASSEMBLY | | | | | | |

| | | | |
|---|---|---|---|
| APPD BY | | UNIT | MM |
| CHKD BY | | SCALE | N/S |
| CHKD BY | | PROJEC'N | 3 각법(3rd Angle) |
| DSND BY | LEE E.J. | DATE | 99.2.2 |

SUBJECT: IEC200FR d2G4

CAD PROJ 명 \ FILE 명: XSMOUT\7B1468LB

TITLE: MAIN TERMINAL BOX

HYUNDAI HEAVY INDUSTRIES CO. LTD.
ELECTRICAL ENGINEERING DIVISION

| | |
|---|---|
| REF. NO | 7B1470LA |
| DWG NO | 227B1470LA |

Sheet No. of

Revision No. 0

| REV | DATE | CONTENTS | REVD BY | CHKD BY | CHKD BY | APPD BY |
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