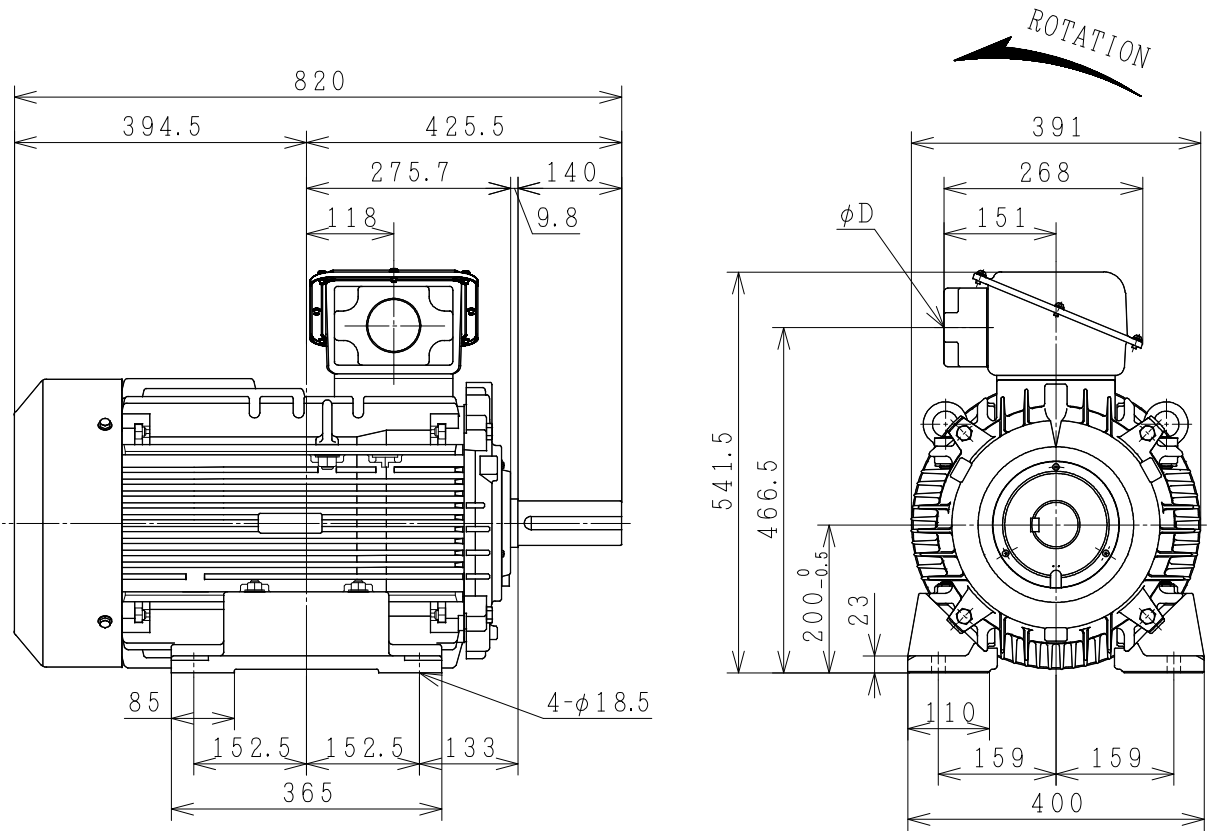
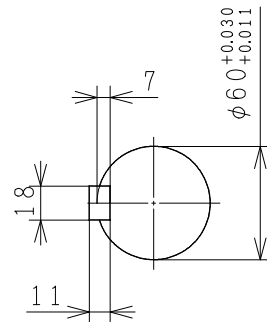
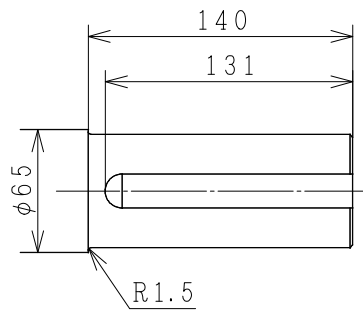


THREE-PHASE INDUCTION MOTOR

| OUTPUT | TYPE | FORM | RATING | VOLTAGE (V) | FREQ. (Hz) | SYNC. SPBBD (min ⁻¹) | POLES | TH. CLASS | MASS (kg) |
|--------|------|------|--------|-------------|------------|----------------------------------|-------|-----------|-----------|
| 50HP | TFO | KK | S1 | 380/415 | 50 | 3000 | 2 | F | 200 |
| 60HP | TFO | KK | S1 | 380/415 | 50 | 3000 | 2 | F | 210 |
| 50HP | TFO | KK | S1 | 380/415 | 50 | 1500 | 4 | F | 210 |
| 60HP | TFO | KK | S1 | 380/415 | 50 | 1500 | 4 | F | 230 |
| 40HP | TFO | KK | S1 | 380/415 | 50 | 1000 | 6 | F | 220 |
| 50HP | TFO | KK | S1 | 380/415 | 50 | 1000 | 6 | F | 240 |

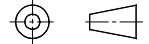


| OUTPUT | POLES | φD |
|--------|-------|---------------------------------|
| 50HP | 2P | PF2 ¹ / ₂ |
| 60HP | 2P | PF2 ¹ / ₂ |
| 50HP | 4P | PF2 ¹ / ₂ |
| 60HP | 4P | PF2 ¹ / ₂ |
| 40HP | 6P | PF2 |
| 50HP | 6P | PF2 ¹ / ₂ |



PROTECTION : IP55

PROJECTION



| | | | | |
|------------|------------------------------------------------------------------|-----------|----------------------------------|------|
| CUSTOMER | QTY. | ORDER No. | WORK No. | REV. |
| DIMENSIONS | HITACHI Hitachi Industrial Technology (Thailand), Ltd. | | HITT WORKS DWG. No. 4HTD03378 | SH. |

FRAME SIZE TFOD-200L (TMHD)

HITACHI

MANUFACTURER'S TEST REPORT OF INDUCTION MOTOR

| | | | |
|--------|--|----------|--|
| MESSRS | | ORDER No | |
|--------|--|----------|--|

SPECIFICATION FOR MOTOR

| | | | | | |
|---------------|---------------|----------------------|---------|---------------------------|-----------|
| OUT PUT(HP) | 50 | POLES | 6 | TYPE-FORM | TFO-KK |
| FREQUENCY(HZ) | 50/50 | VOLTAGE(V) | 380/415 | CURRENT(A) | 74.0/73.5 |
| PHASES | 3 | RATING | S1 | INSULATION | F |
| STANDARD | JEC-2137-2000 | SECONDARY VOLTAGE(V) | — | SECONDARY CURRENT(A) | — |
| COOLING | IC411 | PROTECTION | IP55 | SPEED(min ⁻¹) | 970/970 |

| MFG No | FREQUENCY (HZ) | (1)NO-LOAD TEST | | | (2)LOCKED ROTOR TEST | | |
|--------|----------------|-----------------|------------|----------|----------------------|------------|----------|
| | | VOLTAGE(V) | CURRENT(A) | INPUT(W) | VOLTAGE(V) | CURRENT(A) | INPUT(W) |
| | 50 | 380 | 29.30 | 1120.0 | 74.0 | 70.0 | 3500.0 |
| | 50 | 415 | 38.56 | 1500.0 | 74.0 | 70.0 | 3500.0 |
| | | | | | | | |

(3)WINDINGS RESISTANCE (BETWEEN LINES) STATOR 115°C 0.22064 (Ω)

(4)LOAD CHARACTERISTICS

| LOAD(%) | CURRENT(A) | EFFICIENCY(%) | POWER FACTOR(%) | SLIP(%) |
|---------|-------------|---------------|-----------------|---------|
| 25 | 33.60/41.47 | 87.5/84.2 | 47.8/36.8 | 0.4/0.4 |
| 50 | 43.82/48.95 | 91.5/89.9 | 70.1/58.4 | 0.9/0.7 |
| 75 | 57.47/59.70 | 91.9/91.1 | 79.8/70.8 | 1.3/1.1 |
| 100 | 73.41/72.74 | 91.3/91.1 | 83.9/77.5 | 1.9/1.6 |
| 125 | 91.49/87.67 | 90.1/90.4 | 85.3/81.0 | 2.5/2.1 |
| | | | | |

(5)MAXIMUM OUT PUT(%) STARTING CURRENT(A) STARTING TORQUE(%)

222/260 454.5/504.0 232/286

(6)TEMPERATURE RISE TEST (R)-RESISTANCE METHOD

| STATOR WINDINGS(K) | FRAME(K) | ROTOR WINDINGS(K) |
|--------------------|-----------|-------------------|
| 73.5/45.0 (R) | 52.5/50.0 | — |

(7)INSULATION RESISTANCE BY 500V MEGGER 100MΩ

(8)WITHSTAND STATOR WINDINGS TO CORE 1900V 1MIN WITHSTOOD
 VOLTAGE TEST ROTOR WINDINGS TO CORE — V 1MIN WITHSTOOD

(9)CONSTRUCTION, DIMENSION, PAINTING, OTHER PARTS SATISFACTORY

| | | |
|-----------------------------------------------|------------|-------------|
| HITACHI INDUSTRIAL TECHNOLOGY (THAILAND) LTD. | CHECKED BY | T.SHIMOZONO |
| | DATE | 09-Jun-2015 |

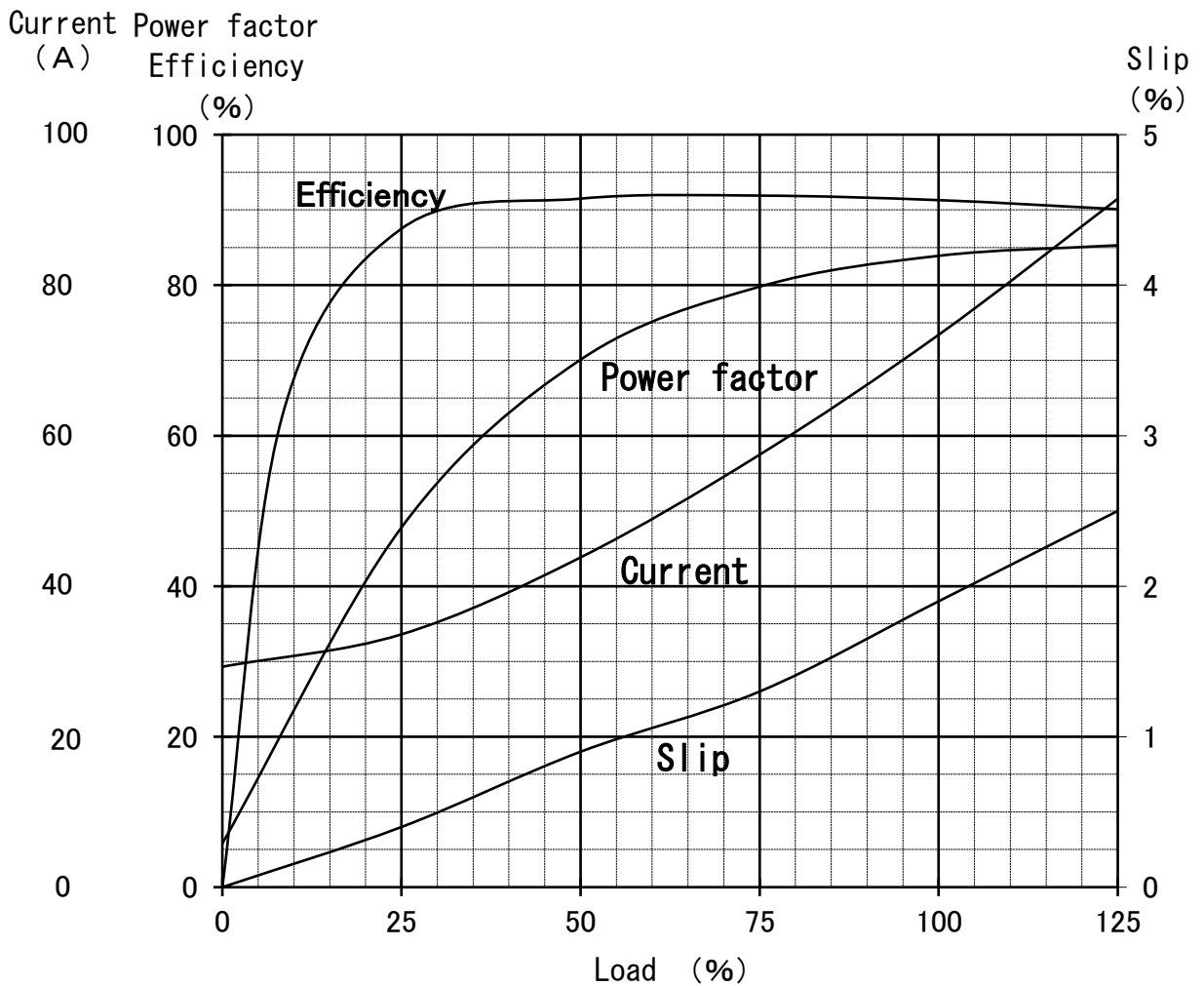
REP.No.RP30062

Three Phase Induction Motor Characteristic Curve

Hitachi Industrial Technology(Thailand),Ltd

| | |
|----------------|----------------|
| Power (HP) | 50 |
| Pole | 6 |
| Type-Form | TFO-KK,VTFO-KK |
| Voltage (V) | 380 |
| Frequency (Hz) | 50 |
| Protection | IP44,IP55 |

| | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|
| Load (%) | 0 | 25 | 50 | 75 | 100 | 125 |
| Current(A) | 29.30 | 33.60 | 43.82 | 57.47 | 73.41 | 91.49 |
| Efficiency(%) | 0 | 87.5 | 91.5 | 91.9 | 91.3 | 90.1 |
| Power factor(%) | 5.8 | 47.8 | 70.1 | 79.8 | 83.9 | 85.3 |
| Slip (%) | 0 | 0.4 | 0.9 | 1.3 | 1.9 | 2.5 |



Speed-Torque, Current Curve

50HP (V) TF0-KK 6P
380/415V 50Hz
IP44/IP55

