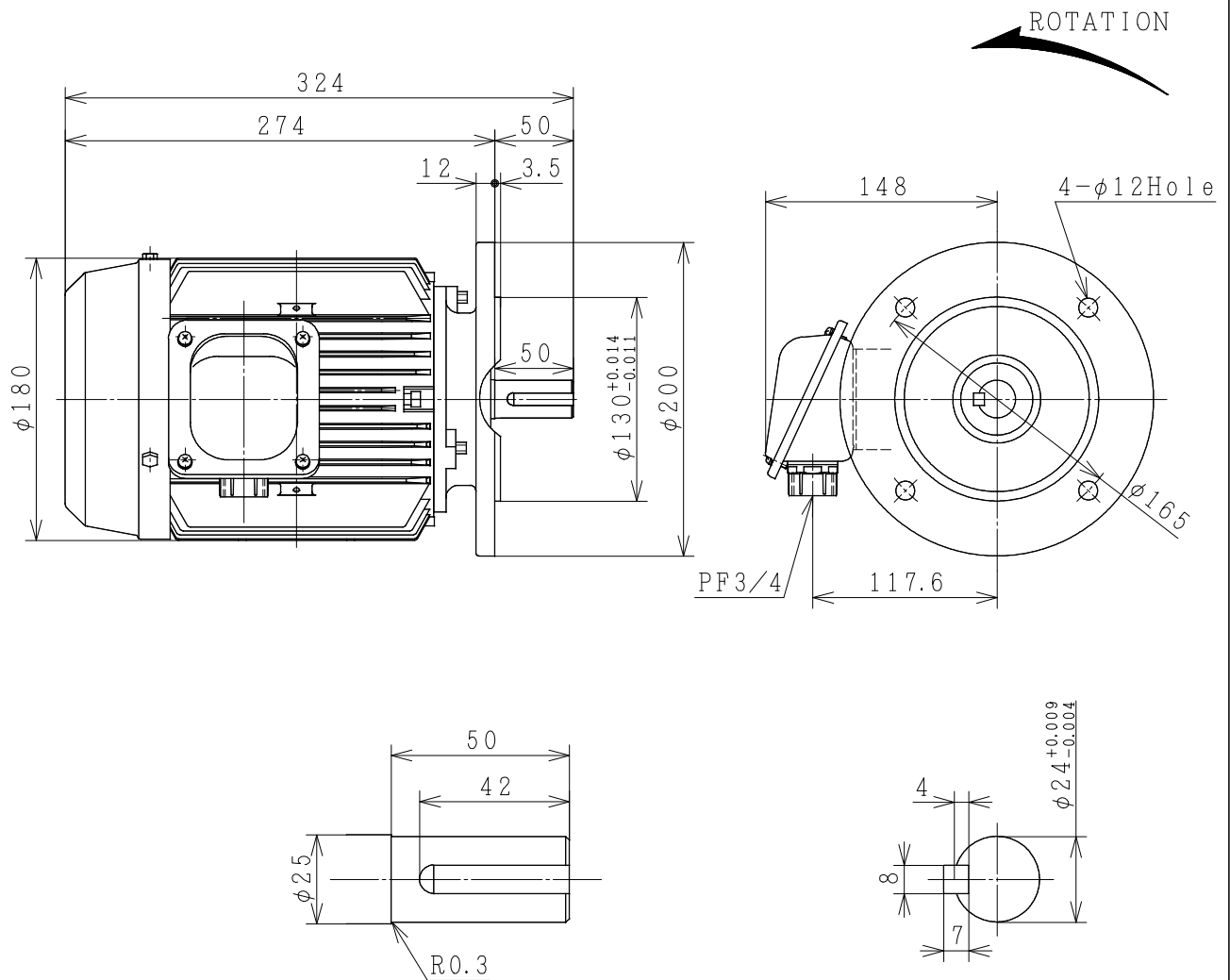


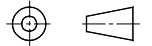
# THREE-PHASE INDUCTION MOTOR

| OUTPUT | TYPE | FORM | RATING | VOLTAGE (V) | FREQ. (Hz) | SYNC. SPEED (min <sup>-1</sup> ) | POLES | INS. CLASS | MASS (kg) |
|--------|------|------|--------|-------------|------------|----------------------------------|-------|------------|-----------|
| 2HP    | VTFO | K    | S1     | 220/380     | 50         | 3000                             | 2     | F          | 17        |
| 3HP    | VTFO | K    | S1     | 220/380     | 50         | 3000                             | 2     | F          | 18        |
| 2HP    | VTFO | K    | S1     | 220/380     | 50         | 1500                             | 4     | F          | 18        |
| 1HP    | VTFO | K    | S1     | 220/380     | 50         | 1000                             | 6     | F          | 17        |



PROTECTION: IP55

PROJECTION



|            |              |             |   |           |          |      |
|------------|--------------|-------------|---|-----------|----------|------|
| CUSTOMER   |              |             | QTY.  | ORDER No. | WORK No. | REV. |
| DWN.       | S. Sakda     | 21-Jun-2015 | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <h2 style="margin: 0;">DIMENSIONS</h2> <p style="font-size: small; margin: 0;">Hitachi Industrial Technology (Thailand), Ltd.</p> </div> <div style="text-align: center;"> <p style="margin: 0;">HITT WORKS DWG. No.</p> <h1 style="margin: 0;">4HTD02381</h1> </div> </div> |           |          | SH.  |
| CHKD.      | W. Thawat    | }           |   |           |          |      |
| APPD.      | T. Shimozone |             |   |           |          |      |
| FRAME SIZE |              |             | VTFOD-FF165 (90L)   |           |          |      |

# HITACHI

## MANUFACTURER'S TEST REPORT OF INDUCTION MOTOR

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

### SPECIFICATION FOR MOTOR

|               |               |                      |         |                           |           |
|---------------|---------------|----------------------|---------|---------------------------|-----------|
| OUT PUT(HP)   | 2             | POLES                | 2       | TYPE-FORM                 | VTFO-K    |
| FREQUENCY(HZ) | 50/50         | VOLTAGE(V)           | 220/380 | CURRENT(A)                | 5.3/3.1   |
| PHASES        | 3             | RATING               | S1      | INSULATION                | F         |
| STANDARD      | JEC-2137-2000 | SECONDARY VOLTAGE(V) | —       | SECONDARY CURRENT(A)      | —         |
| COOLING       | IC411         | PROTECTION           | IP55    | SPEED(min <sup>-1</sup> ) | 2900/2900 |

| MFG No | FREQUENCY (HZ) | NO-LOAD TEST |            |          | LOCKED ROTOR TEST |            |          |
|--------|----------------|--------------|------------|----------|-------------------|------------|----------|
|        |                | VOLTAGE(V)   | CURRENT(A) | INPUT(W) | VOLTAGE(V)        | CURRENT(A) | INPUT(W) |
|        | 50             | 220          | 2.34       | 130.0    | 35.0              | 5.2        | 226.0    |
|        | 50             | 380          | 1.35       | 130.0    | 60.6              | 3.0        | 226.0    |
|        |                |              |            |          |                   |            |          |

(3) WINDINGS RESISTANCE (BETWEEN LINES) STATOR 115°C 4.52750/13.58248 (Ω)

#### (4) LOAD CHARACTERISTICS

| LOAD(%) | CURRENT(A) | EFFICIENCY(%) | POWERFACTOR(%) | SLIP(%) |
|---------|------------|---------------|----------------|---------|
| 25      | 2.64/1.53  | 71.8/71.8     | 52.0/52.0      | 1.1/1.1 |
| 50      | 3.34/1.93  | 80.3/80.3     | 73.7/73.7      | 2.3/2.3 |
| 75      | 4.30/2.49  | 81.7/81.7     | 84.2/84.2      | 3.6/3.6 |
| 100     | 5.47/3.16  | 80.6/80.6     | 89.3/89.3      | 5.1/5.1 |
| 125     | 6.87/3.97  | 78.1/78.1     | 91.9/91.9      | 6.8/6.8 |
|         |            |               |                |         |

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

201/201 32.8/19.0 218/218

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

| STATOR WINDINGS(K) | FRAME(K)  | ROTOR WINDINGS(K) |
|--------------------|-----------|-------------------|
| 54.0/54.0 (R)      | 17.0/17.0 | -                 |

(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 | M.KAMIZONO   |
|   | DATE       | 10-JUN.-2015 |

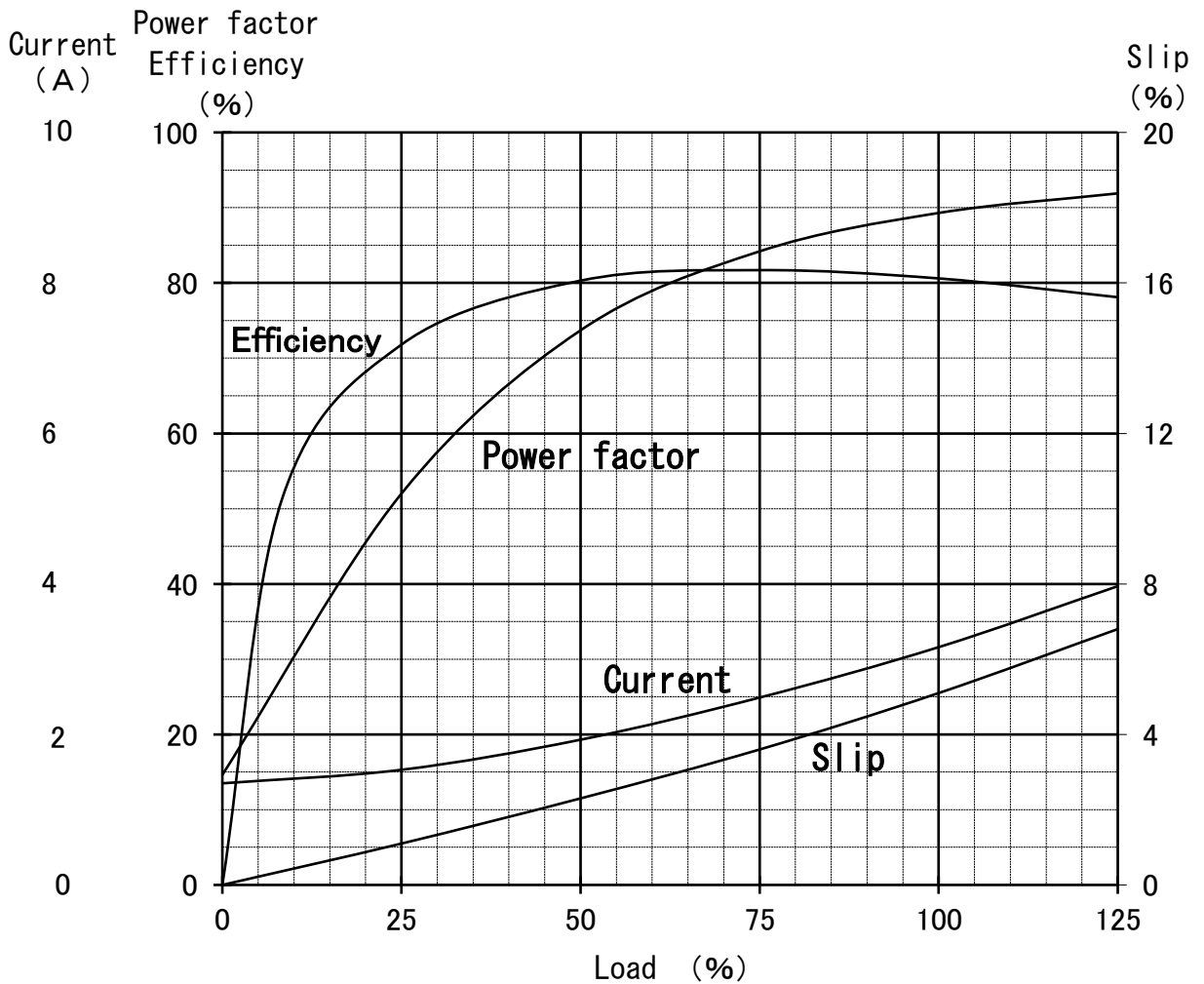
REP.No.RP10054

### Three Phase Induction Motor Characteristic Curve

Hitachi Industrial Technology(Thailand),Ltd

|                |                |
|----------------|----------------|
| Power (HP)     | 2              |
| Pole           | 2              |
| Type-Form      | TFO-K , VTFO-K |
| Voltage (V)    | 380            |
| Frequency (Hz) | 50             |
| Protection     | IP44 , IP55    |

|                 |      |      |      |      |      |      |
|-----------------|------|------|------|------|------|------|
| Load (%)        | 0    | 25   | 50   | 75   | 100  | 125  |
| Current(A)      | 1.35 | 1.53 | 1.93 | 2.49 | 3.16 | 3.97 |
| Efficiency(%)   | 0    | 71.8 | 80.3 | 81.7 | 80.6 | 78.1 |
| Power factor(%) | 14.6 | 52.0 | 73.7 | 84.2 | 89.3 | 91.9 |
| Slip (%)        | 0    | 1.1  | 2.3  | 3.6  | 5.1  | 6.8  |



# Speed-Torque, Current Curve

2HP (V) TF0-K 2P  
220/380V 50Hz  
IP44/IP55

