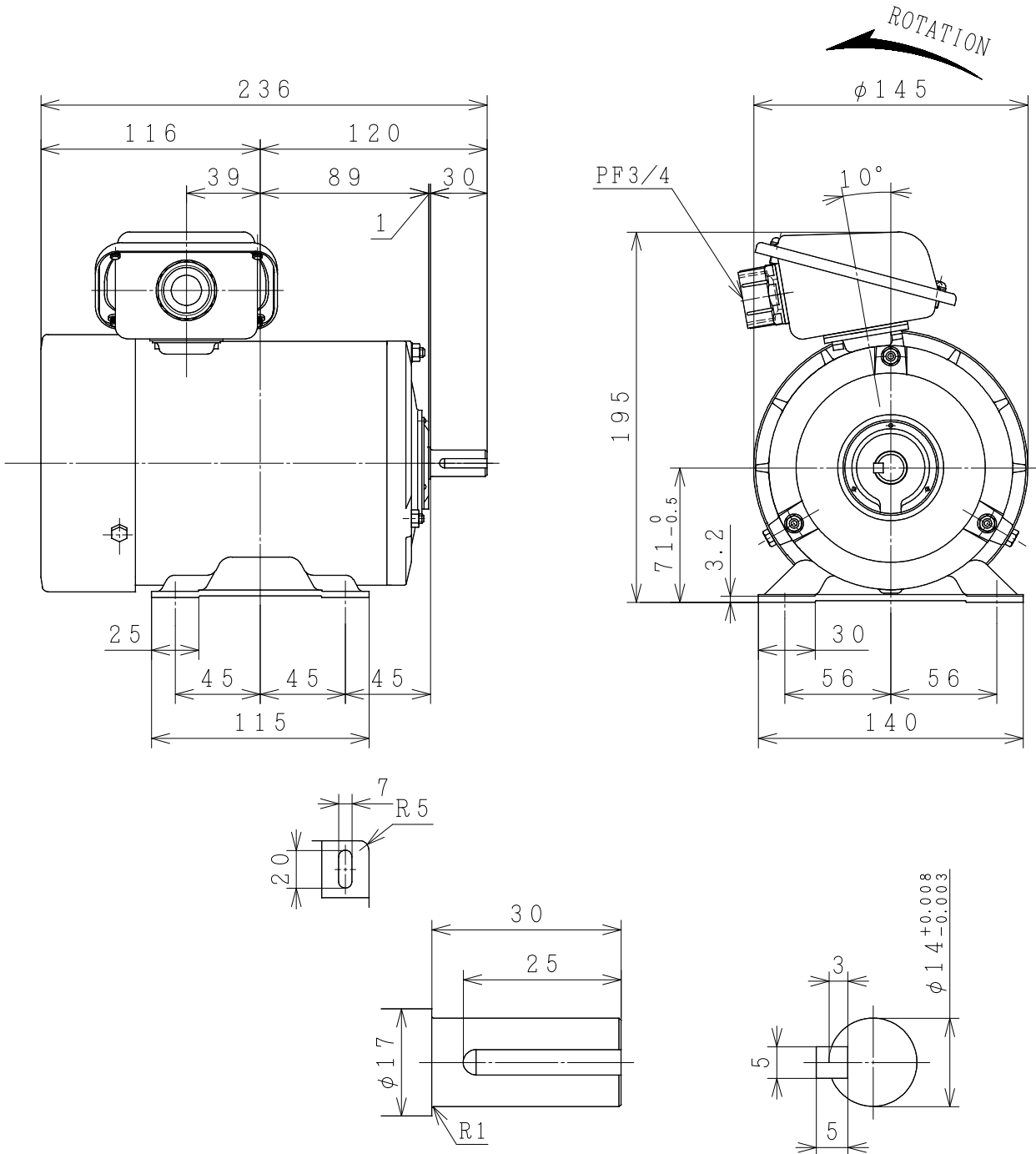
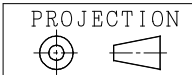


THREE-PHASE INDUCTION MOTOR

| OUTPUT | TYPE | FORM | RATING | VOLTAGE (V) | FREQ. (Hz) | SYNC. SPEED (min ⁻¹) | POLES | TH. CLASS | MASS (kg) |
|--------|------|------|--------|-------------|------------|----------------------------------|-------|-----------|-----------|
| 1/2HP | TFO | K | S1 | 220/380 | 50 | 3000 | 2 | F | 9.5 |
| 1/2HP | TFO | K | S1 | 220/380 | 50 | 1500 | 4 | F | 8.2 |



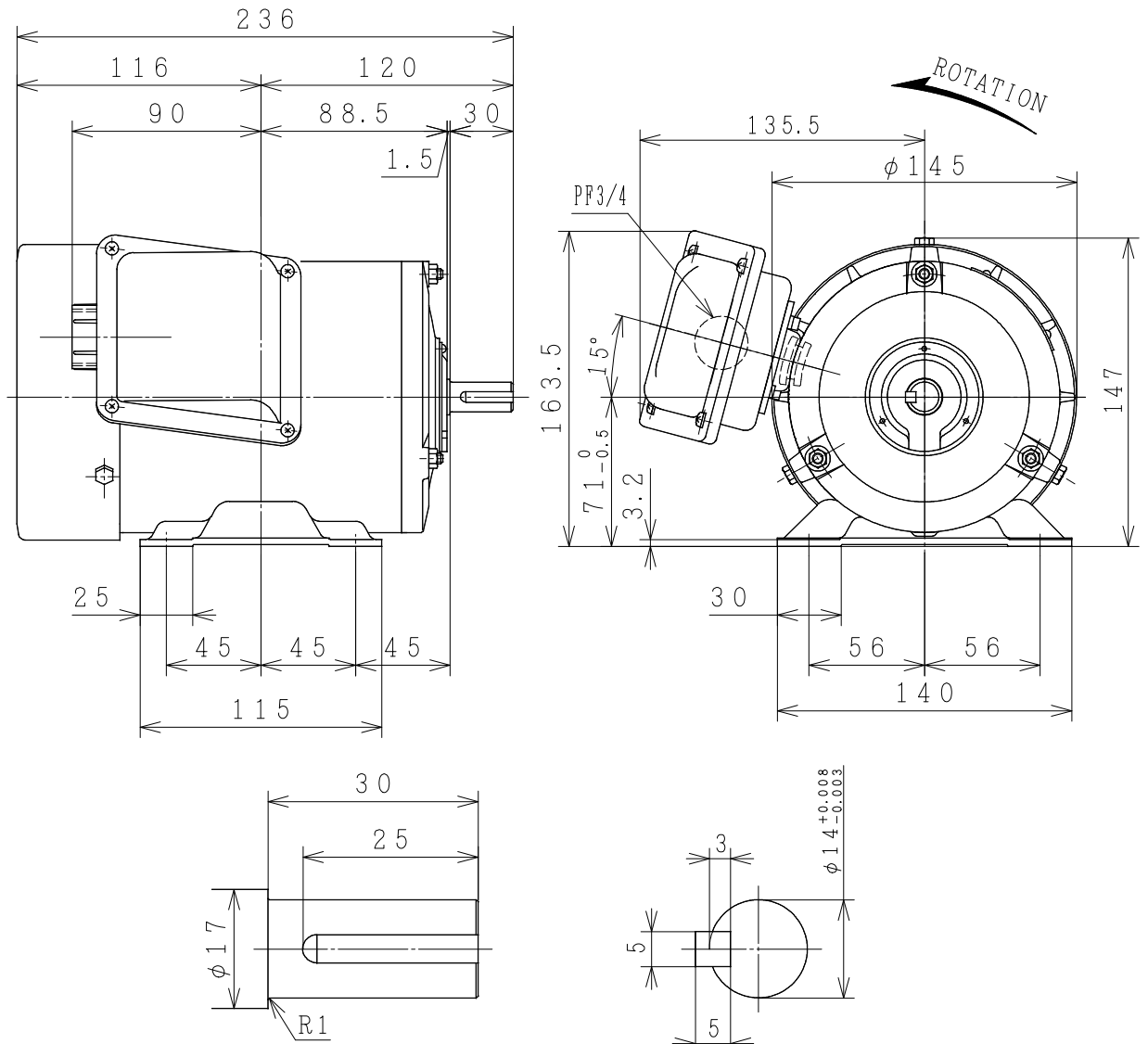
PROTECTION : IP55



| | | | | |
|------------|--|-----------|----------------------------------|------|
| CUSTOMER | QTY. | ORDER No. | WORK No. | REV. |
| DIMENSIONS | HITACHI Hitachi Industrial Technology (Thailand), Ltd. | | HITT WORKS DWG. No. 4HTD03356 | SH. |
| | FRAME SIZE TFOB-71M (TMHD) | | | |

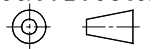
THREE-PHASE INDUCTION MOTOR

| OUTPUT | TYPE | FORM | RATING | VOLTAGE (V) | FREQ. (Hz) | SYNC. SPEED (min ⁻¹) | POLES | INS. CLASS | MASS (kg) |
|--------|------|------|--------|-------------|------------|----------------------------------|-------|------------|-----------|
| 1/2HP | TFO | K | S1 | 220/380 | 50 | 3000 | 2 | F | 9.5 |
| 1/2HP | TFO | K | S1 | 220/380 | 50 | 1500 | 4 | F | 8.2 |



PROTECTION : IP55

PROJECTION



| | | | | | | |
|----------------------------|--------------|----------|---|-----------|----------|---------------------|
| CUSTOMER | | | QTY. | ORDER No. | WORK No. | REV. |
| DWN. | C. ANAN | 03-06-13 | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="font-size: 2em; font-weight: bold;">DIMENSIONS</div> <div style="text-align: center;"> HITACHI <small>Hitachi Industrial Technology (Thailand), Ltd.</small> </div> <div style="font-size: 1.5em; font-weight: bold;">4HTD02374</div> </div> | | | SH. |
| CHKD. | W. THAWAT | S | | | | HITT WORKS DWG. No. |
| APPD. | T. SHIMOZONO | | | | | |
| FRAME SIZE TFOB-71M (TMLR) | | | | | | |

HITACHI

MANUFACTURER'S TEST REPORT OF INDUCTION MOTOR

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

SPECIFICATION FOR MOTOR

| | | | | | |
|---------------|---------------|----------------------|---------|---------------------------|-----------|
| OUT PUT(HP) | 1/2 | POLES | 2 | TYPE-FORM | TFO-K |
| FREQUENCY(HZ) | 50/50 | VOLTAGE(V) | 220/380 | CURRENT(A) | 1.7/1.0 |
| PHASES | 3 | RATING | S1 | INSULATION | F |
| STANDARD | JEC-2137-2000 | SECONDARY VOLTAGE(V) | — | SECONDARY CURRENT(A) | — |
| COOLING | IC411 | PROTECTION | IP55 | SPEED(min ⁻¹) | 2910/2910 |

| MFG No | FREQUENCY (HZ) | NO-LOAD TEST | | | LOCKED ROTOR TEST | | |
|--------|-------------------|--------------|------------|----------|-------------------|------------|----------|
| | | VOLTAGE(V) | CURRENT(A) | INPUT(W) | VOLTAGE(V) | CURRENT(A) | INPUT(W) |
| | 50 | 220 | 1.09 | 80.0 | 44.0 | 2.0 | 139.0 |
| | 50 | 380 | 0.64 | 80.0 | 79.8 | 1.2 | 150.0 |
| | | | | | | | |

(3) WINDINGS RESISTANCE (BETWEEN LINES) STATOR 115°C 20.13177/60.39419 (Ω)

(4) LOAD CHARACTERISTICS

| LOAD(%) | CURRENT(A) | EFFICIENCY(%) | POWERFACTOR(%) | SLIP(%) |
|---------|------------|---------------|----------------|---------|
| 25 | 1.13/0.67 | 53.4/53.4 | 40.4/40.4 | 0.5/0.5 |
| 50 | 1.24/0.73 | 68.0/68.0 | 58.1/58.1 | 1.0/1.0 |
| 75 | 1.40/0.82 | 73.7/73.7 | 71.1/71.1 | 1.5/1.5 |
| 100 | 1.61/0.94 | 75.8/75.8 | 80.0/80.0 | 2.1/2.1 |
| 125 | 1.88/1.09 | 76.0/76.0 | 85.9/85.9 | 2.8/2.8 |
| | | | | |

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

265/265 10.8/6.0 200/200

TEMPERATURE RISE TEST (R): RESISTANCE METHOD

| STATOR WINDINGS(K) | FRAME(K) | ROTOR WINDINGS(K) |
|--------------------|-----------|-------------------|
| 51.0/51.0 (R) | 25.0/25.0 | — |

(7) INSULATION RESISTANCE BY 500V MEGGER 100MΩ

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

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

| | | |
|---|------------|---------------|
| HITACHI INDUSTRIAL TECHNOLOGY (THAILAND) LTD. | CHECKED BY | M.KAMIZONO |
| | DATE | 23-MAY .-2015 |

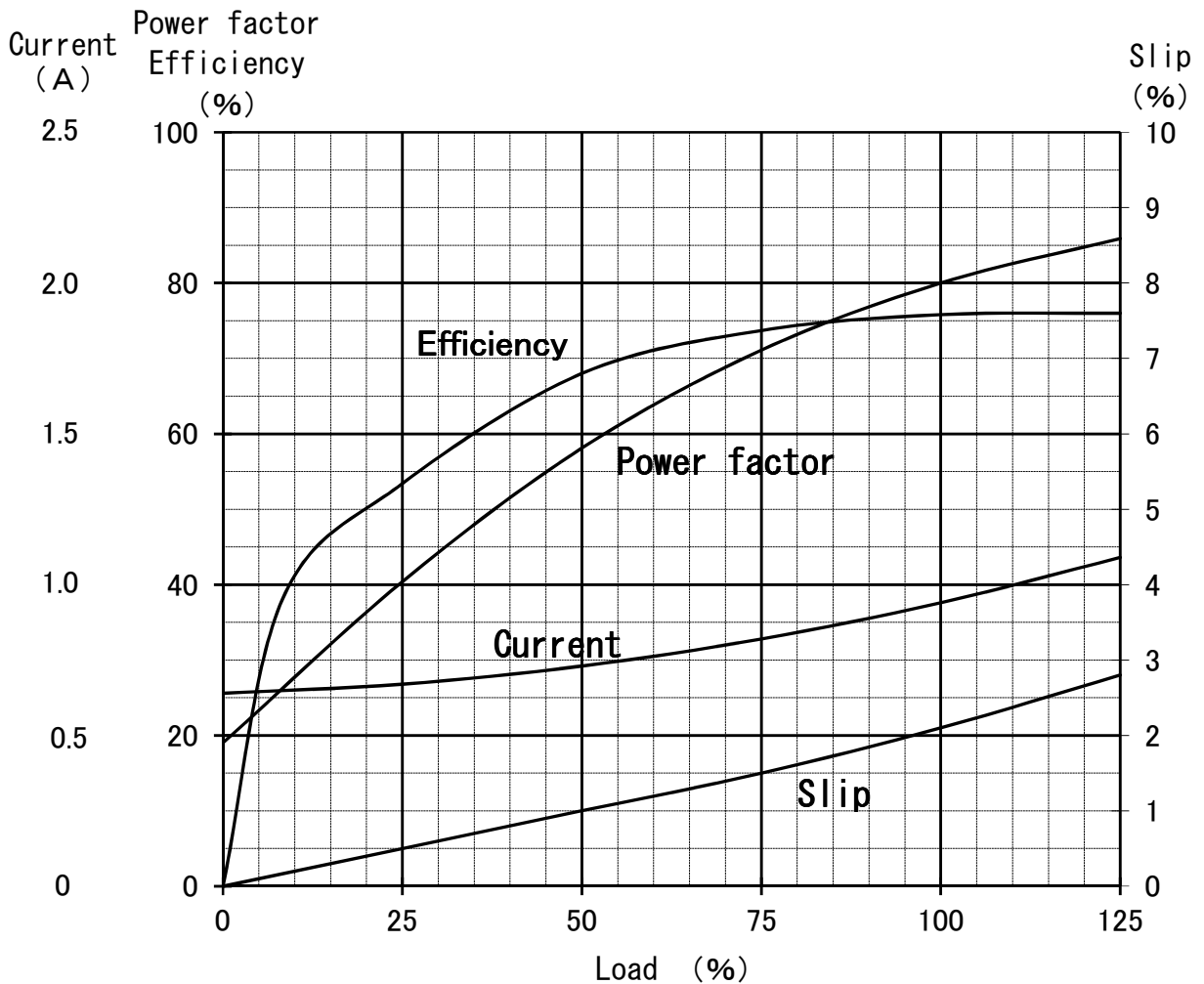
REP.No.RP10045

Three Phase Induction Motor Characteristic Curve

Hitachi Industrial Technology(Thailand),Ltd

Power (HP) 1/2
 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) | 0.64 | 0.67 | 0.73 | 0.82 | 0.94 | 1.09 |
| Efficiency(%) | 0 | 53.4 | 68.0 | 73.7 | 75.8 | 76.0 |
| Power factor(%) | 19.0 | 40.4 | 58.1 | 71.1 | 80.0 | 85.9 |
| Slip (%) | 0 | 0.5 | 1.0 | 1.5 | 2.1 | 2.8 |



Speed-Torque, Current Curve

1/2HP (V) TF0-K 2P
220/380V 50Hz
IP44/IP55

