

# OUTLINE 3-PHASE INDUCTION MOTOR

TOTALLY ENCLOSED FAN  
COOLED,SQUIRREL CAGE  
ROTOR (WMP-90)  
(INDOOR)

FILE NO:  
CUSTOMER: TOJ  
PO. NO:  
ORDER NO: 1010123247-10

| OUTPUT | POLE | SYN. SPEED<br>R.P.M | VOLT. | FREQ  | TIME RATING | MODEL | FRAME NO. |
|--------|------|---------------------|-------|-------|-------------|-------|-----------|
| 5.5kW  | 2P   | 3000                | 380 V | 50 Hz | S1          | FPPFC | 132S      |

\* IE2 EFFICIENCY  
\* PAINTING: ZINC PRIMER 80um,EPOXY INTERMEDIATE 150um,PU FINISH 40um

\* COLOR: RAL 5021

\* NOISE LEVEL: 79 dBA AT 1 METER ON NO-LOAD

\* SHAFT MATERIAL: SCM440

\* WITH TERMINAL BLOCK

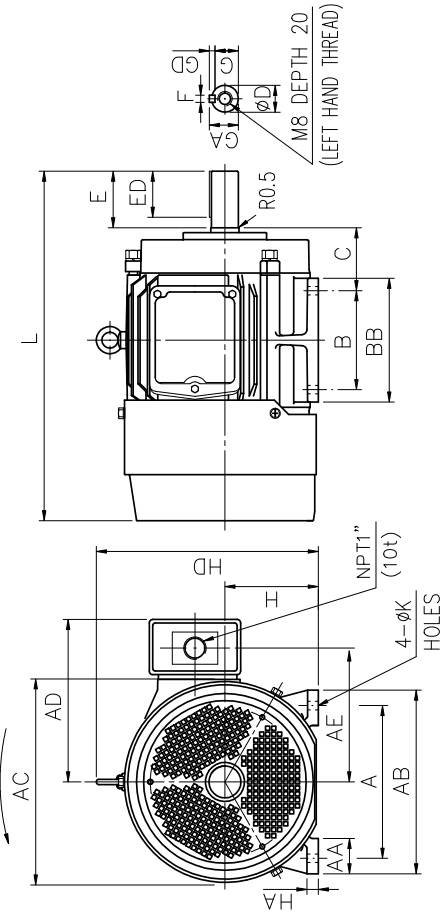
\* NDE: INSULATED BEARING \* IP44

\* WIRE LABEL COLOR: (U=BLACK,V=BROWN,W=GREY) WITH POWER CABLE TERMINALS.

### APPLICATION

MAIN OIL TANK VAPOUR EXTRACTOR MOTOR

ROTATION



| A   | B   | C  | H   | phi K | L   | AA | AB  | AC  | AD  | AE  | BA  | BB  | HA |
|-----|-----|----|-----|-------|-----|----|-----|-----|-----|-----|-----|-----|----|
| 216 | 140 | 89 | 132 | 12    | 450 | 50 | 260 | 286 | 236 | --- | --- | 175 | 15 |

| HD  | KK  | SHAFT END |    |    |    | BEARING NO. |    | APPROX WEIGHT |        |      |       |        |      |
|-----|-----|-----------|----|----|----|-------------|----|---------------|--------|------|-------|--------|------|
|     |     | phi D     | E  | ED | F  | G           | GD |               | GA     | D.E  | O.D.E |        |      |
| 316 | --- | 38        | 80 | 65 | 10 | 33          | 8  | 41            | 6308zz | 6208 | 27719 | 10631T | 74kg |

NOTE:1.TOLERANCE OF SHAFT END DIAMETER D: k6 (+0.018 , +0.002)

2.TOLERANCE OF SHAFT CENTER HEIGHT H: +0 , -0.5

3. F CLASS INSULATION.

|                |         |             |                      |
|----------------|---------|-------------|----------------------|
| CERTIFIED BY : |         | DATE :      |                      |
| DESIGNED       | C.K.Lan | Apr.25'2018 | DWG. NO: AS-071166   |
| CHECKED        | L.J.Lee | Apr.25'2018 | 3RD ANGLE PROJECTION |
| APPROVED       | L.J.Lee | Apr.25'2018 | DIMENSIONS IN mm     |



TJB 5&6 Equipment NO. (KKS NO.) List  
Note: "\*", shall be "5" for Unit5 or "6" for Unit6.

| Application | Description  |
|-------------|--|
| MOTVE A     | *OMAV71AN001-M01<br>MAIN OIL TANK VAPOUR EXTRACTOR A MOTOR |
| MOTVE B     | *OMAV72AN001-M01<br>MAIN OIL TANK VAPOUR EXTRACTOR B MOTOR |

## Motor Data Sheet

| No.        | Description  | Unit              | Manufacturer's Design Data                     |
|------------|--|-------------------|--|
| 1.         | <b>Name of Motor</b>   | -                 | MAIN OIL TANK<br>VAPOUR EXTRACTOR<br>A/B MOTOR |
| 2.         | <b>Manufacturer</b>  | -                 | TATUNG   |
| 3.         | <b>Country of Origin</b>                                     | -                 | TAIWAN   |
| 4.         | <b>Type/Machine Code</b>                                     | -                 | TEFC   |
| 5.         | <b>Applied Standard (characteristics)</b>                    | -                 | IEC 60034                                      |
| 6.         | <b>Ratings</b>   |                   |  |
| 6. (1)     | Rated output   | kW                | 5.5  |
| 6. (2)     | Service factor   | -                 | 1.0  |
| 6. (3)     | Number of pole   | -                 | 2  |
| 6. (4)     | Rated speed  | min <sup>-1</sup> | 2900   |
| 6. (5)     | Rated voltage  | V                 | 380  |
| 6. (6)     | Number of phases   | -                 | 3  |
| 6. (7)     | Rated frequency  | Hz                | 50   |
| 6. (8)     | Insulation class   | -                 | F  |
| 6. (9)     | Temperature rise   | -                 | B  |
| 6. (10)    | Rated duty   | -                 | S1   |
| 7.         | <b>Service Conditions</b>                                    |                   |  |
| 7. (1)     | Starting method  | -                 | Direct-On-Line                                 |
| 7. (2)     | Direction of rotation (viewed from DE (Drive End))           | -                 | CW   |
| 7. (3)     | Reverse rotation (Yes / No)                                  | -                 | YES  |
| 7. (4)     | Location (Indoor / Outdoor)                                  | -                 | INDOOR   |
| 7. (5)     | Enclosure IP rating  |                   |  |
| 7. (5) (a) | Motor frame  | -                 | IP44   |
| 7. (5) (b) | Terminal boxes   | -                 | IP44   |
| 7. (6)     | Installation (Horizontal / Vertical)                         | -                 | HORIZONTAL                                     |
| 7. (7)     | Design ambient temperature                                   | deg C             | 40   |
| 7. (8)     | Explosion proof (Yes / No)                                   | -                 | NO   |
| 7. (9)     | Noise level (at full-load condition, at 1m from motor frame) | dB(A)             | 82   |
| 7. (10)    | Winding resistance   | Ω                 | 0.8887 (@20°C)                                 |
| 8.         | <b>Characteristics</b>                                       |                   |  |
| 8. (1)     | Current  |                   |  |
| 8. (1) (a) | Normal current   | A                 | 11.2   |
| 8. (1) (b) | No-load current  | A                 | 3.0  |
| 8. (1) (c) | Starting current   | A                 | 78   |
| 8. (2)     | Torque   |                   |  |
| 8. (2) (a) | Starting torque  | %                 | 200  |
| 8. (2) (b) | Maximum torque   | %                 | 250  |
| 8. (3)     | Slip at rated output   | %                 | 3.33   |
| 8. (4)     | Efficiencies   |                   |  |
| 8. (4) (a) | At 100% load   | %                 | 87.0   |
| 8. (4) (b) | At 75% load  | %                 | 87.0   |
| 8. (4) (c) | At 50% load  | %                 | 86.5   |
| 8. (4) (d) | At 25% load  | %                 | 83.0   |
| 8. (5)     | Power factor   |                   |  |
| 8. (5) (a) | At rated load  | %                 | 86.0   |
| 8. (5) (b) | At starting load   | %                 | 24.7   |
| 8. (6)     | GD <sup>2</sup> coupled with driven equipment                | kg-m <sup>2</sup> | 0.088  |
| 8. (7)     | Starting time with driven equipment                          | sec               | 7  |

## Motor Data Sheet

| No.        | Description  | Unit              | Manufacturer's Design Data |
|------------|--|-------------------|----------------------------|
| 8. (8)     | Consecutive numbers of motor starting                                  |                   |                            |
| 8. (8) (a) | From cold condition (consecutive)                                      | -                 | 3                          |
| 8. (8) (b) | From hot condition (consecutive)                                       | -                 | 2                          |
| 8. (8) (c) | Minimum time between 2 starts (running state)                          | min               | -                          |
| 8. (8) (d) | Minimum time between 2 starts (stop state)                             | min               | -                          |
| 8. (9)     | Allowable locked-rotor time  |                   |                            |
| 8. (9) (a) | At cold condition  | sec               | 12                         |
| 8. (9) (b) | At hot condition   | sec               | 7                          |
| 9.         | <b>Constructions</b>   |                   |                            |
| 9. (1)     | Stator winding connection (Wye / Delta)                                | -                 | DELTA                      |
| 9. (2)     | Type of bearing  |                   |                            |
|            | Bearing of DE (Drive End)  | -                 | SEALED BALL                |
|            | Bearing of NDE (Non Drive End)   | -                 | SEALED BALL                |
| 9. (3)     | Lubricants   |                   | N/A                        |
| 9. (3) (a) | Recommended lubricant and brand name                                   | -                 | -                          |
| 9. (3) (b) | Pouring method (if applicable)   | -                 | -                          |
| 9. (3) (c) | Quantity of lubricant for initial filling (if applicable)              | g                 | -                          |
| 9. (3) (d) | Recommended interval for recharging (if applicable)                    | hr                | -                          |
| 9. (3) (e) | Recharging quantity (if applicable)                                    | g                 | -                          |
| 9. (3) (f) | Location of pouring (indicated in the outline drawing) (if applicable) | -                 | -                          |
| 9. (4)     | Bearing cooling water requirement (if required)                        |                   | N/A                        |
| 9. (4) (a) | Quantity (if required)   | m <sup>3</sup> /h | -                          |
| 9. (4) (b) | Inlet water temperature (if required)                                  | deg C             | -                          |
| 9. (4) (c) | Required cooling water pressure (if required)                          | kPa               | -                          |
| 9. (4) (d) | Type of cooling water (if required)                                    | -                 | -                          |
| 9. (5)     | Water to air heat exchanger (if applicable)                            |                   | N/A                        |
| 9. (5) (a) | Quantity of cooling water (if applicable)                              | m <sup>3</sup> /h | -                          |
| 9. (5) (b) | Inlet water temperature (if applicable)                                | deg C             | -                          |
| 9. (5) (c) | Required cooling water pressure (if applicable)                        | kPa               | -                          |
| 9. (5) (d) | Type of cooling water (if applicable)                                  | -                 | -                          |
| 9. (6)     | Space heater (AC 220V 1 phase) (if applicable)                         | W                 | N/A                        |
| 9. (7)     | Weight   | kg                | 74                         |
| 10.        | <b>Related Document Numbers</b>  |                   |                            |
| 10. (1)    | Motor outline drawing  | -                 | AS071166                   |
| 10. (2)    | Terminal box drawings  |                   | -                          |
| 10. (a)    | For main power   | -                 | N/A                        |
| 10. (b)    | For instruments  | -                 | N/A                        |
| 10. (c)    | For space heater   | -                 | N/A                        |
| 10. (3)    | Current transformers (for MV motors only)                              |                   | N/A                        |
| 10. (a)    | Characteristics curves (for MV motors only)                            | -                 | -                          |
| 10. (b)    | Outline drawing (for MV motors only)                                   | -                 | -                          |
| 10. (4)    | Efficiency curves  | -                 | N/A                        |
| 10. (5)    | Thermal capability curves  |                   | N/A                        |
| 10. (a)    | At cold condition  | -                 | -                          |
| 10. (b)    | At hot condition   | -                 | -                          |
| (6)        | Starting and speed torque characteristics at 80, 90 and 100 % voltage  | -                 | N/A                        |