

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 256TTFNA16099

Catalog No: M886B

Vertical Pump Motor, 10 & 7.50 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1200 & 1000 RPM,  
256HPV Frame, TEFC



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**RegalRexnord**

### Nameplate Specifications

|                        |                       |                            |                             |
|------------------------|-----------------------|----------------------------|-----------------------------|
| Phase                  | 3                     | Output HP                  | 10 & 7.5 Hp                 |
| Output KW              | 7.5 & 5.6 kW          | Voltage                    | 230/460 & 190/380 V         |
| Speed                  | 1176 & 975 rpm        | Service Factor             | 1.15 & 1.15                 |
| Frame                  | 256HPV                | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection         | Efficiency                 | 91 & 90.2 %                 |
| Ambient Temperature    | 40 °C                 | Frequency                  | 60 & 50 Hz                  |
| Current                | 26.2/13.1 & 23/11.5 A | Power Factor               | 79                          |
| Duty                   | Continuous            | Insulation Class           | F                           |
| Design Code            | B                     | KVA Code                   | H                           |
| Drive End Bearing Size | 6309                  | Opp Drive End Bearing Size | 6210                        |
| UL                     | Recognized            | CSA                        | Y                           |
| CE                     | Y                     | IP Code                    | 43                          |
| Number of Speeds       | 1                     |                            |                             |

### Technical Specifications

|                       |                             |                       |                 |
|-----------------------|-----------------------------|-----------------------|-----------------|
| Electrical Type       | Squirrel Cage Induction Run | Starting Method       | Across The Line |
| Poles                 | 6                           | Rotation              | Reversible      |
| Resistance Main       | .934 Ohms                   | Mounting              | Round           |
| Motor Orientation     | Shaft Down                  | Drive End Bearing     | Ball            |
| Opp Drive End Bearing | Ball                        | Frame Material        | Cast Iron       |
| Shaft Type            | HP                          | Overall Length        | 28.26 in        |
| Frame Length          | 12.25 in                    | Shaft Diameter        | 1.125 in        |
| Shaft Extension       | 2.75 in                     | Assembly/Box Mounting | F1/F2 CAPABLE   |
| Connection Drawing    | A-EE7308                    | Outline Drawing       | B-SS203116-1225 |





|                                                                                                                                                                                                                                        |                                                |                |         |                                |                 |                                                                                                                         |                     |             |      |    |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------------|---------|--------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|------|----|------|
|                                                                                                                                                                                                                                        |                                                |                |         | TOLERANCES<br>UNLESS SPECIFIED |                 |  <b>Regal Beloit America, Inc.</b> | DRAWN RM 11/20/1990 |             |      |    |      |
| 5                                                                                                                                                                                                                                      | CHG TO REGAL LOGO                              | SL 09/10/2015  | AB      | DEC.                           | INCHES          |                                                                                                                         | CHK ML 11/21/1990   |             |      |    |      |
| 4                                                                                                                                                                                                                                      | REVISED IEC NOTATIONS                          | MSG 11/15/2011 | CMN     | .X                             | ±.1             |                                                                                                                         | APPD SAS 04/24/2003 |             |      |    |      |
| 3                                                                                                                                                                                                                                      | ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194 | MSG 5/10/2010  | MJS     | .XX                            | ±.02            |                                                                                                                         | SCALE 1=1           |             |      |    |      |
| 2                                                                                                                                                                                                                                      | ADDED THE OPTIONAL CORD CONNECTION MU46318     | RDH 04/24/2003 | DRS     | .XXX                           | ±.005           | TITLE CONNECTION DIAGRAM<br>3Ø – DUAL VOLTAGE MOTOR                                                                     | REF                 |             |      |    |      |
| 1                                                                                                                                                                                                                                      | REDRAWN                                        | RM 11/20/1990  |         | .XXXX                          | ±.0005          | MAT'L.                                                                                                                  | FMF                 |             |      |    |      |
| NO.                                                                                                                                                                                                                                    | REVISION                                       | BY & DATE      | CHK     | ANG                            | ±7"30"          | FINISH                                                                                                                  | PREV                |             |      |    |      |
| THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT<br>IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED<br>THIS IS AN ELECTRONICALLY GENERATED DOCUMENT – DO NOT SCALE THIS PRINT |                                                |                | RFP     |                                | CAD FILE ee7308 |                                                                                                                         | SIZE                | DRAWING NO. | PAGE | OF | REV. |
|                                                                                                                                                                                                                                        |                                                |                | DIST WP |                                |                 |                                                                                                                         | A                   | EE7308      |      |    | 5    |



P.O. BOX 8003  
WAUSAU, WI 54401-8003  
PH. 715-675-3311

DATA VOLTS: 460

### CERTIFICATION DATA SHEET

CUSTOMER: \_\_\_\_\_ CUSTOMER P.O. #: \_\_\_\_\_  
ORDER #: \_\_\_\_\_ REFERENCE MODEL #: 256TTFNA16099  
CONN. DIAGRAM: A-EE7308 CAT #: M886B  
OUTLINE: B-SS203116-1225 CUSTOMER PART #: \_\_\_\_\_  
WINDING: 256674 NONE 6 MOUNTING: F1/F2 CAPABLE  
SPEED: \_\_\_\_\_

### TYPICAL MOTOR PERFORMANCE DATA

| HP | KW  | SYNC RPM | FL RPM | FRAME  | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|-----|----------|--------|--------|-----------|------|----------|--------|
| 10 | 7.5 | 1200     | 1176   | 256HPV | TEFC      | TFN  | H        | B      |

| PH | HZ    | VOLTS           | AMPS              | START TYPE      | DUTY | INSL | S.F. | AMB | ELEV. |
|----|-------|-----------------|-------------------|-----------------|------|------|------|-----|-------|
| 3  | 60/50 | 230/460#190/380 | 26.2/13.1&23/11.5 | ACROSS THE LINE | CONT | F    | 1.15 | 40  | 3300  |

| F.L. EFF | 91.0 | 3/4 LD EFF | 91.0 | 1/2 LD EFF | 90.2 | GTD EFF | 90.2 | ELECT. TYPE | SQ CAGE IND RUN |
|----------|------|------------|------|------------|------|---------|------|-------------|-----------------|
| F.L. PF  | 79.0 | 3/4 LD PF  | 72.5 | 1/2 LD PF  | 61.0 |         |      |             |                 |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE     | B.D. TORQUE    | F.L. RISE (°C) |  |
|-------------|-----------------|-----------------|----------------|----------------|--|
| 44.7 LB-FT  | 81.0            | 92.0 LB-FT 206% | 139 LB-FT 311% | 40             |  |

| @ 3 FT. | POWER  | ROTOR WK²  | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|---------|--------|------------|---------------|-----------------|-------------|-----------|
| 56 dBA  | 65 dBA | 3.0 LB-FT² | 225 LB-FT²    | 20 SEC.         | 2           | 390 LB.   |

### \*\*\* SUPPLEMENTAL INFORMATION \*\*\*

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT         |
|-----------------|------------------|------------|-------------------|-------------|--------------------|------------|---------|---------------|
| P-BASE          | STANDARD         | ROUND      | SHAFT DOWN        | NO          | NONE               | YES        | NONE    | BLUE (ENAMEL) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE       | ODE  |            |            |            |             |                         |                |
| BALL     | BALL | POLYREX EM | HP         | NONE       | NONE        | 1045 HOT ROLLED (C-204) | CAST IRON      |
| 6309     | 6210 |            |            |            |             |                         |                |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------|------------|-----------|-----------|-------------|---------|---------------|
| NONE        | NOT        | NONE      | NONE      | NONE        | FALSE   | NA            |

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.571        | 0.491        | 2.238        | 2.513        | 43.168       | 0.150              | ODE   |

|                                 |                               |                                                    |
|---------------------------------|-------------------------------|----------------------------------------------------|
| *<br>N<br>O<br>T<br>E<br>S<br>* |                               | INVERTER TORQUE: NONE<br>INV. HP SPEED RANGE: NONE |
|                                 |                               |                                                    |
|                                 |                               |                                                    |
|                                 |                               |                                                    |
|                                 |                               |                                                    |
|                                 |                               |                                                    |
|                                 | ENCODER: NONE<br>NONE<br>NONE | NONE PPR                                           |

|                               |                         |
|-------------------------------|-------------------------|
| PREPARED BY: FAREEDA DUDEKULA | BRAKE: NONE             |
| DATE: 9/11/2018               | NONE NONE               |
|                               | FT-LB: NA               |
|                               | VOLTAGE: NONE HZ:       |
| FORM: 3531 REV_4 2/27/06      | UL: V-INS, CONST UL REC |

## Data Sheet

Date: 11/30/2018

Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Submitted by: FAREEDA DUDEKULA



256TTFNA16099

Submittal

Data @ 460 V

## Motor Load Data

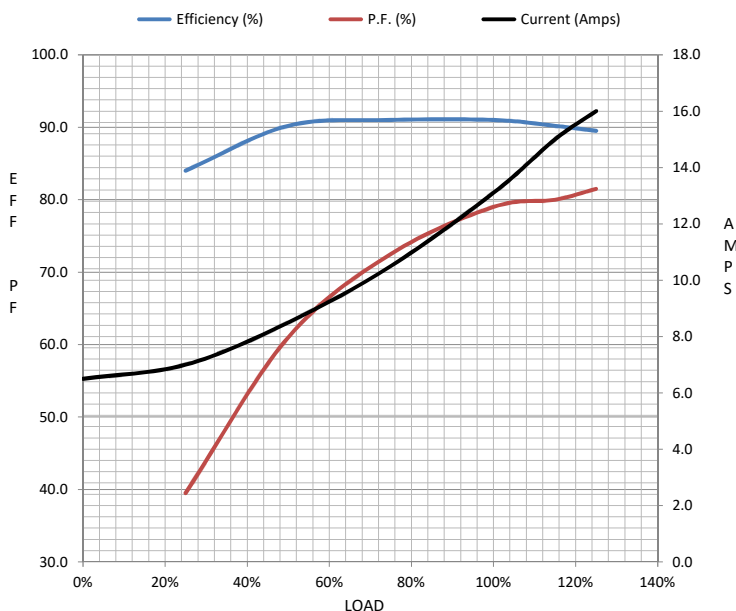
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |  |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 6.5  | 7.0  | 8.5  | 10.5 | 13.1 | 15.0  | 16.0 | 81.0 |  |
| Torque (ft-lb) | 0.00 | 11.0 | 22.0 | 33.5 | 44.7 | 51.0  | 56.0 | 92.0 |  |
| RPM            | 1200 | 1195 | 1190 | 1180 | 1176 | 1,170 | 1165 | 0    |  |
| Efficiency (%) |      | 84.0 | 90.2 | 91.0 | 91.0 | 90.2  | 89.5 |      |  |
| P.F. (%)       | 5.5  | 39.5 | 61.0 | 72.5 | 79.0 | 80.0  | 81.5 | 41.0 |  |

## Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 400     | 1055 | 1176  | 1200 |
| Current (Amps) | 81.0 | 78.0    | 53.5 | 13.1  | 6.5  |
| Torque (ft-lb) | 92.0 | 86.0    | 139  | 44.7  | 0.00 |

## Information Block

|                            |                 |        |        |         |
|----------------------------|-----------------|--------|--------|---------|
| HP                         | 10.0            |        |        |         |
| Sync. RPM                  | 1200            |        |        |         |
| Frame                      | 256             |        |        |         |
| Enclosure                  | TEFC            |        |        |         |
| Construction               | TFS             |        |        |         |
| Voltage                    | 230/460#190/380 | V      |        |         |
| Frequency                  | 60              | Hz     |        |         |
| Design                     | B               |        |        |         |
| LR Code letter             | H               |        |        |         |
| Service Factor             | 1.15            |        |        |         |
| Temp Rise @ FL             | 40              | ° C    |        |         |
| Duty                       | CONT            |        |        |         |
| Ambient                    | 40              | ° C    |        |         |
| Elevation                  | 1,000           | feet   |        |         |
| Rotor/Shaft wk²            | 3.0             | Lb-Ft² |        |         |
| Ref Wdg                    | 256674          | NONE   |        |         |
| Sound Pressure @ 1M        | 56              | dBA    |        |         |
| VFD Rating                 | NONE            |        |        |         |
| Outline Dwg                | B-SS203116-1225 |        |        |         |
| Conn. Diag                 | A-EE7308        |        |        |         |
| Additional Specifications: |                 |        |        |         |
| 0                          |                 |        |        |         |
| 0                          |                 |        |        |         |
| EQUIV CKT (OHMS / PHASE)   |                 |        |        |         |
| R1                         | R2              | X1     | X2     | Xm      |
| 0.5710                     | 0.4910          | 2.2380 | 2.5130 | 43.1680 |



## Speed -Torque Curve

