

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 182TTFW16045

Catalog No: G590A

XRI® General Purpose General Purpose Motor, 3 & 2 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,  
1800 & 1500 RPM, 182TC Frame, TEFC



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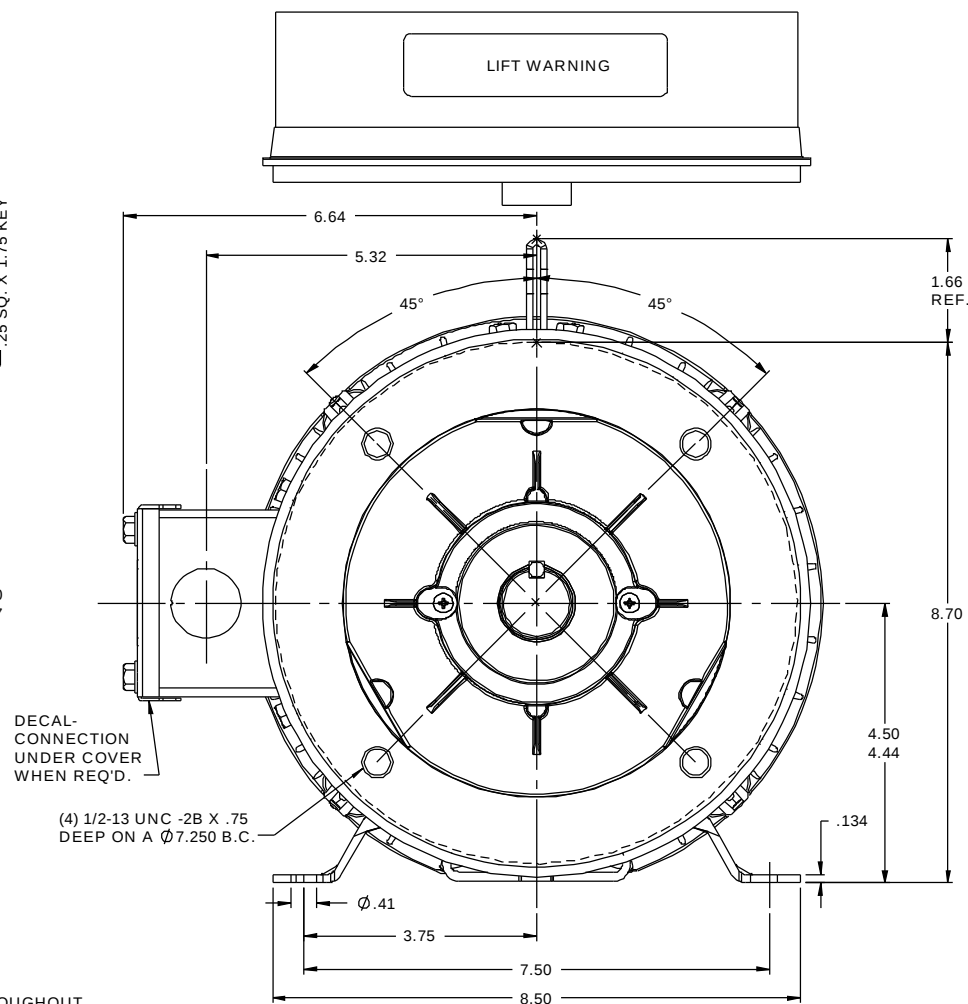
**RegalRexnord**

### Nameplate Specifications

|                        |                      |                            |                             |
|------------------------|----------------------|----------------------------|-----------------------------|
| Phase                  | 3                    | Output HP                  | 3 & 2 Hp                    |
| Output KW              | 2.2 & 1.5 kW         | Voltage                    | 230/460 & 190/380 V         |
| Speed                  | 1770 & 1475 rpm      | Service Factor             | 1.0 & 1.0                   |
| Frame                  | 182TC                | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection        | Efficiency                 | 89.5 & 88.5 %               |
| Ambient Temperature    | 40 °C                | Frequency                  | 60 & 50 Hz                  |
| Current                | 7.8/3.9 & 9.5/4.75 A | Power Factor               | 80.5                        |
| Duty                   | Continuous           | Insulation Class           | F                           |
| Design Code            | B                    | KVA Code                   | K                           |
| Drive End Bearing Size | 6206                 | Opp Drive End Bearing Size | 6205                        |
| UL                     | Recognized           | CSA                        | Y                           |
| CE                     | Y                    | IP Code                    | 43                          |
| Number of Speeds       | 1                    |                            |                             |

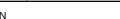
### Technical Specifications

|                       |                             |                       |                 |
|-----------------------|-----------------------------|-----------------------|-----------------|
| Electrical Type       | Squirrel Cage Induction Run | Starting Method       | Across The Line |
| Poles                 | 4                           | Rotation              | Reversible      |
| Resistance Main       | 6.08 Ohms                   | Mounting              | Rigid Base      |
| Motor Orientation     | Horizontal                  | Drive End Bearing     | Ball            |
| Opp Drive End Bearing | Ball                        | Frame Material        | Rolled Steel    |
| Shaft Type            | T                           | Overall Length        | 14.47 in        |
| Frame Length          | 9.00 in                     | Shaft Diameter        | 1.125 in        |
| Shaft Extension       | 2.90 in                     | Assembly/Box Mounting | F1 ONLY         |
| Connection Drawing    | 005010.01                   | Outline Drawing       | 035453ME-900    |



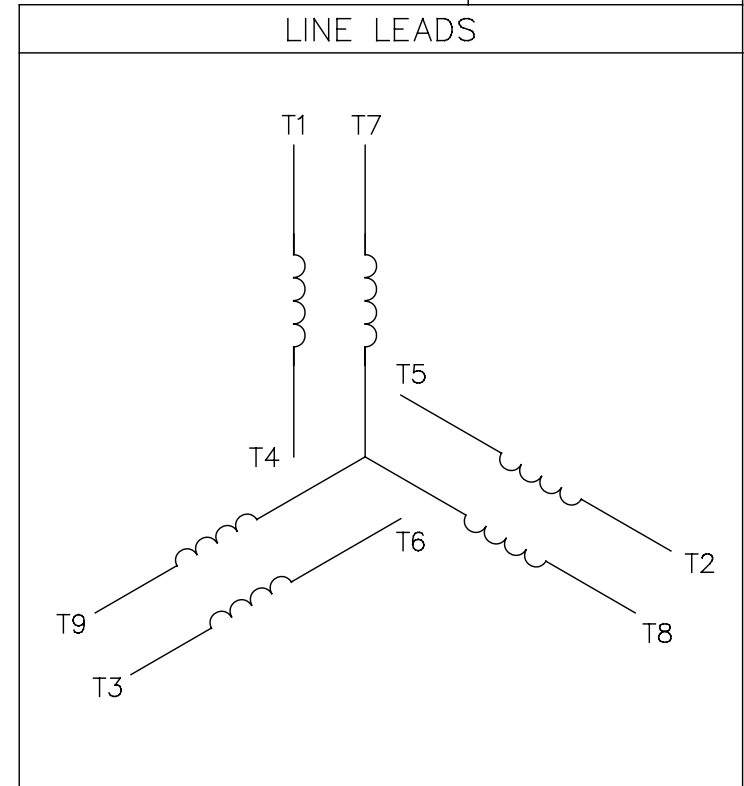
GASKETS THROUGHOUT  
MAXIMUM FACE RUNOUT TO BE .004 T.I.R.  
MAXIMUM PILOT ECCENTRICITY TO BE .004 T.I.R.  
PERMISSIBLE SHAFT RUNOUT TO BE .002 T.I.R.

| DASH NO. | "C"   | "AD" |
|----------|-------|------|
| 850      | 13.97 | 4.50 |
| 900      | 14.47 | 5.00 |
| 950      | 14.97 | 5.50 |
| 1000     | 15.47 | 6.00 |
| 1050     | 15.97 | 6.50 |
| 1100     | 16.47 | 7.00 |
| 1150     | 16.97 | 7.50 |

|                                                                                                                             |                                      |          |              |           |      |                                |           |                                                                                       |                   |                     |            |     |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------|--------------|-----------|------|--------------------------------|-----------|---------------------------------------------------------------------------------------|-------------------|---------------------|------------|-----|
|                                                                                                                             |                                      |          |              |           |      | TOLERANCES<br>UNLESS SPECIFIED |           |  |                   | DRAWN JD 05/20/2011 |            |     |
|                                                                                                                             |                                      |          |              |           |      | DEC                            | INCHES    |                                                                                       |                   | CHK                 |            |     |
|                                                                                                                             |                                      |          |              |           |      | X                              | ±.1       |                                                                                       |                   | APPR                |            |     |
|                                                                                                                             |                                      |          |              |           |      | XX                             | ±.03      | TITLE OUTLINE - 180TC FRAME<br>TEFC - RIGID "C"                                       |                   | SCALE 1:2           |            |     |
|                                                                                                                             |                                      |          |              |           |      | XXX                            | ±.005     |                                                                                       |                   | REF 035453          |            |     |
| 01                                                                                                                          | WHEN REQD. NOTE ADDED ON "XRI" DECAL |          | PVR 1/2/2013 | JD        | XXXX | ±.0005                         |           | MAT'L                                                                                 | F/MF 184TTFW16009 |                     |            |     |
| NO                                                                                                                          |                                      | REVISION |              | BY & DATE |      | CHK                            | ANG ±1/2" | FINISH                                                                                |                   | PAGE OF             |            |     |
| <div>THIRD ANGLE<br/>PROJECTION</div>  |                                      |          |              |           |      | RFP                            |           | PREV                                                                                  |                   | SIZE                | DRAWING NO | REV |
|                                                                                                                             |                                      |          |              |           |      | NETWORK FILE NAME 035453ME     |           |                                                                                       |                   | B                   | 035453ME   | 01  |

005010-01

VIEW FROM OUTSIDE OF MOTOR AT SWITCH END.



| VOLTAGE | L1    | L2    | L3    | JOIN & INSULATE               |
|---------|-------|-------|-------|-------------------------------|
| HIGH    | T1    | T2    | T3    | (T4,T7)<br>(T5,T8)<br>(T6,T9) |
| LOW     | T1,T7 | T2,T8 | T3,T9 | T4,T5,T6                      |

|                                                                                                                                                                                                                                        |                       |              |              |                                |                   |                                                                                                                         |           |                          |                       |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|--------------|--------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------|-----------------------|-----------|
|                                                                                                                                                                                                                                        |                       |              |              | TOLERANCES<br>UNLESS SPECIFIED |                   |  <b>Regal Beloit America, Inc.</b> |           |                          | DRAWN RDW 04/12/02    |           |
|                                                                                                                                                                                                                                        |                       |              |              | DEC.                           | INCHES            |                                                                                                                         |           |                          | CHK                   |           |
|                                                                                                                                                                                                                                        |                       |              |              | .X                             | ±.1               |                                                                                                                         |           |                          | APPD                  |           |
|                                                                                                                                                                                                                                        |                       |              |              | .XX                            | ±.01              |                                                                                                                         |           |                          | SCALE 1=1             |           |
|                                                                                                                                                                                                                                        |                       |              |              | .XXX                           | ±.005             | TITLE<br>EXTERNAL WIRING DIAGRAM<br>3 PHASE W/O PROTECTOR                                                               |           |                          | REF FIG.2-51          |           |
| A                                                                                                                                                                                                                                      | UPDATED TO REGAL LOGO | SAJ 06/26/15 | AJY          | .XXXX                          | ±.0005            |                                                                                                                         |           |                          | MAT'L. DECAL - 004014 |           |
| NO.                                                                                                                                                                                                                                    | REVISION              | BY & DATE    | CHK          | ANG                            | ±1/2"             | 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 04/12/02 |                                | CAD FILE 00501001 |                                                                                                                         | SIZE<br>A | DRAWING NO.<br>005010-01 |                       | REV.<br>A |
|                                                                                                                                                                                                                                        |                       |              | DIST BRF-NLV |                                |                   |                                                                                                                         |           |                          |                       |           |



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 #: 182TTFW16045  
CONN. DIAGRAM: 005010.01 CAT #: G590A  
OUTLINE: 035453ME-900 CUSTOMER PART #: \_\_\_\_\_  
WINDING: T84174 FR 3 MOUNTING: F1 ONLY  
SPEED: \_\_\_\_\_

### TYPICAL MOTOR PERFORMANCE DATA

| HP | KW  | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|-----|----------|--------|-------|-----------|------|----------|--------|
| 3  | 2.2 | 1800     | 1770   | 182TC | TEFC      | TFW  | K        | B      |

| PH | HZ    | VOLTS           | AMPS             | START TYPE      | DUTY | INSL | S.F. | AMB | ELEV. |
|----|-------|-----------------|------------------|-----------------|------|------|------|-----|-------|
| 3  | 60/50 | 230/460#190/380 | 7.8/3.9&9.5/4.75 | ACROSS THE LINE | CONT | F    | 1.15 | 40  | 3300  |

| F.L. EFF | 89.5 | 3/4 LD EFF | 89.6 | 1/2 LD EFF | 87.7 | GTD EFF | 0.0 | ELECT. TYPE | SQ CAGE IND RUN |
|----------|------|------------|------|------------|------|---------|-----|-------------|-----------------|
| F.L. PF  | 80.5 | 3/4 LD PF  | 73.8 | 1/2 LD PF  | 62.7 |         |     |             |                 |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE     | B.D. TORQUE     | F.L. RISE (°C) |
|-------------|-----------------|-----------------|-----------------|----------------|
| 8.9 LB-FT   | 33.5            | 22.5 LB-FT 253% | 36.0 LB-FT 404% | 40             |

| @ 3 FT. | POWER | ROTOR WK²   | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|---------|-------|-------------|---------------|-----------------|-------------|-----------|
| 0 dBA   | 9 dBA | 0.38 LB-FT² | 0 LB-FT²      | 10 SEC.         | 2           | 0 LB.     |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT         |
|-----------------|------------------|------------|-------------------|-------------|--------------------|------------|---------|---------------|
| C-FACE          | STANDARD         | RIGID      | HORIZONTAL        | NO          | NONE               | NO         | NONE    | BLUE (ENAMEL) |

| BEARINGS                         | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL    | FRAME MATERIAL |
|----------------------------------|------------|------------|------------|-------------|-------------------|----------------|
| DE ODE<br>BALL BALL<br>6206 6205 | POLYREX EM | T          | NONE       | NONE        | AISI 1045 (C-240) | ROLLED STEEL   |

| 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            | 0            | 0            | 0            | 0            | 0.080              | 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<br>NONE PPR                                            |
|                                                  |  |                                                                                      |
|                                                  |  |                                                                                      |
| PREPARED BY: FAREEDA DUDEKULA<br>DATE: 8/28/2018 |  | BRAKE: NONE<br>NONE<br>NONE<br>FT-LB: NA<br>VOLTAGE: NONE<br>UL: V-INS, CONST UL REC |
|                                                  |  |                                                                                      |
| FORM: 3531 REV 4 2/27/06                         |  |                                                                                      |

FORM: 3531 REV\_4 2/27/06

## Data Sheet

Date: 12/13/2018

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

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

Submitted by: FAREEDA DUDEKULA



182TTFW16045

Submittal

Data @ 460 V

## Motor Load Data

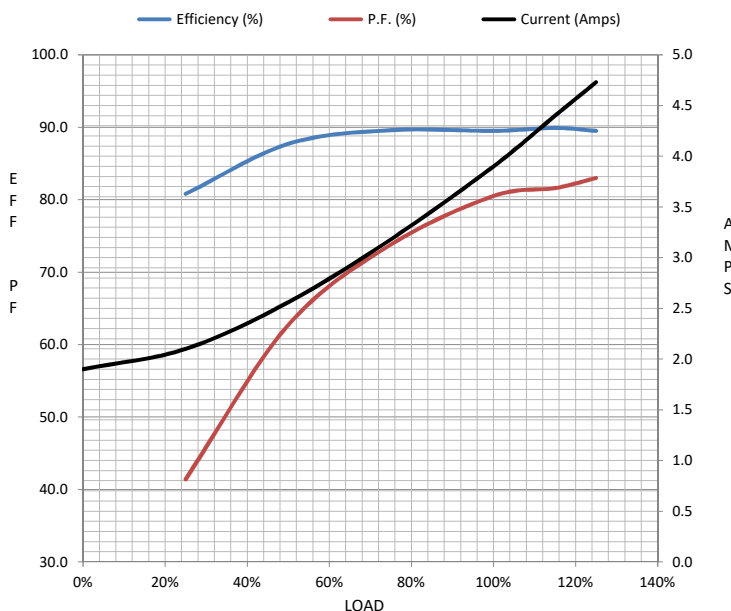
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |  |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 1.90 | 2.10 | 2.56 | 3.2  | 3.9  | 4.4   | 4.7  | 33.5 |  |
| Torque (ft-lb) | 0.00 | 2.20 | 4.4  | 6.6  | 8.9  | 10.3  | 11.2 | 22.5 |  |
| RPM            | 1800 | 1792 | 1785 | 1777 | 1770 | 1,766 | 1755 | 0    |  |
| Efficiency (%) |      | 80.8 | 87.7 | 89.6 | 89.5 | 89.9  | 89.5 |      |  |
| P.F. (%)       | 6.9  | 41.4 | 62.7 | 73.8 | 80.5 | 81.6  | 83.0 | 0.0  |  |

## Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 900     | 1656 | 1770  | 1800 |
| Current (Amps) | 33.5 | 33.0    | 21.5 | 3.9   | 1.90 |
| Torque (ft-lb) | 22.5 | 21.0    | 36.0 | 8.9   | 0.00 |

## Information Block

|                            |                 |        |        |        |
|----------------------------|-----------------|--------|--------|--------|
| HP                         | 3.0             |        |        |        |
| Sync. RPM                  | 1800            |        |        |        |
| Frame                      | 182             |        |        |        |
| Enclosure                  | TEFC            |        |        |        |
| Construction               | TFR             |        |        |        |
| Voltage                    | 230/460#190/380 | V      |        |        |
| Frequency                  | 60              | Hz     |        |        |
| Design                     | B               |        |        |        |
| LR Code letter             | K               |        |        |        |
| Service Factor             | 1               |        |        |        |
| Temp Rise @ FL             | 40              | ° C    |        |        |
| Duty                       | CONT            |        |        |        |
| Ambient                    | 40              | ° C    |        |        |
| Elevation                  | 1,000           | feet   |        |        |
| Rotor/Shaft wk²            | 0.38            | Lb-Ft² |        |        |
| Ref Wdg                    | T84174 FR       |        |        |        |
| Sound Pressure @ 1M        | 0               | dBA    |        |        |
| VFD Rating                 | NONE            |        |        |        |
| Outline Dwg                | 035453ME-900    |        |        |        |
| Conn. Diag                 | 005010.01       |        |        |        |
| Additional Specifications: |                 |        |        |        |
| 0                          |                 |        |        |        |
| 0                          |                 |        |        |        |
| EQUIV CKT (OHMS / PHASE)   |                 |        |        |        |
| R1                         | R2              | X1     | X2     | Xm     |
| 0.0000                     | 0.0000          | 0.0000 | 0.0000 | 0.0000 |



## Speed -Torque Curve

