

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 184TTDR16023

Catalog No: U461A

5 HP Close-Coupled Pump Motor, 3 phase, 1800 RPM, 230/460 V, 184JM Frame, ODP  
Close-Coupled Pump Motors



Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.  
©2021 Regal Rexnord Corporation, All Rights Reserved. MC017097E

**RegalRexnord**

## Nameplate Specifications

|                        |            |                            |            |
|------------------------|------------|----------------------------|------------|
| Output HP              | 5 Hp       | Output KW                  | 3.7 kW     |
| Frequency              | 60 Hz      | Voltage                    | 230/460 V  |
| Current                | 12.6/6.3 A | Speed                      | 1750 rpm   |
| Service Factor         | 1.15       | Phase                      | 3          |
| Efficiency             | 89.5 %     | Power Factor               | 82         |
| Duty                   | Continuous | Insulation Class           | F          |
| Design Code            | B          | KVA Code                   | J          |
| Frame                  | 184JM      | Enclosure                  | Drip Proof |
| Thermal Protection     | No         | Ambient Temperature        | 40 °C      |
| Drive End Bearing Size | 6307       | Opp Drive End Bearing Size | 6205       |
| UL                     | Recognized | CSA                        | Y          |
| CE                     | Y          | IP Code                    | 22         |
| Number of Speeds       | 1          |                            |            |

## Technical Specifications

|                       |                              |                       |                                                  |
|-----------------------|------------------------------|-----------------------|--------------------------------------------------|
| Electrical Type       | Squirrel Cage Inverter Rated | Starting Method       | Part Wdg Start & Wye Start Delta Run Or Inverter |
| Poles                 | 4                            | Rotation              | Reversible                                       |
| Resistance Main       | 2.82 Ohms                    | Mounting              | Bolt-on Base                                     |
| Motor Orientation     | Horizontal Or Shaft Down     | Drive End Bearing     | Ball                                             |
| Opp Drive End Bearing | Ball                         | Frame Material        | Rolled Steel                                     |
| Shaft Type            | JM                           | Overall Length        | 18.28 in                                         |
| Frame Length          | 8.25 in                      | Shaft Diameter        | 0.875 in                                         |
| Shaft Extension       | 4.25 in                      | Assembly/Box Mounting | F1/F2 Capable                                    |
| Connection Drawing    | A-EE7358                     | Outline Drawing       | A-SS600024-825                                   |

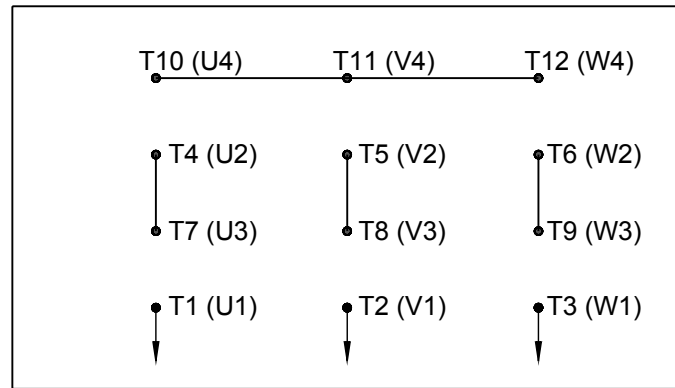
|      |          |       |       |      |          |
|------|----------|-------|-------|------|----------|
| 575  | 182T     | 15.78 | 11.53 | 2.25 | F1 OR F2 |
| 675  | 182/184T | 16.78 | 12.53 | 2.75 | F1 OR F2 |
| 725  | 182/184T | 17.28 | 13.03 | 3.00 | F1 ONLY  |
| 775  | 182/184T | 17.78 | 13.53 | 3.25 | F1 ONLY  |
| 825  | 182/184T | 18.28 | 14.03 | 3.50 | F1 ONLY  |
| 875  | 182/184T | 18.78 | 14.53 | 3.75 | F1 ONLY  |
|      |          |       |       |      |          |
| DASH | FRAME    | C     | AG    | BS   | MOUNTING |

1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

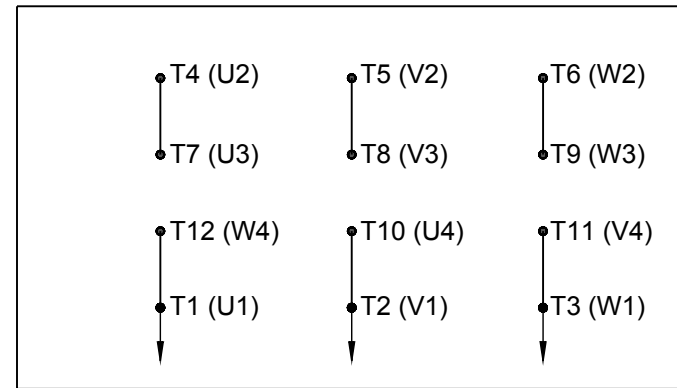
|                                                                                                                                                                                                                                        |          |  |           |                                |        |                                                                                       |                      |                   |             |      |             |      |    |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--|-----------|--------------------------------|--------|---------------------------------------------------------------------------------------|----------------------|-------------------|-------------|------|-------------|------|----|------|
|                                                                                                                                                                                                                                        |          |  |           | TOLERANCES<br>UNLESS SPECIFIED |        |  | DRAWN MSG 04-23-2010 |                   |             |      |             |      |    |      |
|                                                                                                                                                                                                                                        |          |  |           | DEC.                           | INCHES |                                                                                       | CHK                  | DR 4/26/2010      |             |      |             |      |    |      |
|                                                                                                                                                                                                                                        |          |  |           | .X                             | ±.1    |                                                                                       | APPD                 | MJS 4/26/2010     |             |      |             |      |    |      |
|                                                                                                                                                                                                                                        |          |  |           | .XX                            | ±.03   |                                                                                       | SCALE 1=4            |                   |             |      |             |      |    |      |
|                                                                                                                                                                                                                                        |          |  |           | .XXX                           | ±.005  |                                                                                       | REF                  |                   |             |      |             |      |    |      |
|                                                                                                                                                                                                                                        |          |  |           | .XXXX                          | ±.0005 | MAT'L.                                                                                |                      |                   | FMF MU95189 |      |             |      |    |      |
| 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 SS600024 |             | SIZE | DRAWING NO. | PAGE | OF | REV. |
|                                                                                                                                                                                                                                        |          |  |           |                                | DIST   |                                                                                       |                      |                   |             | A    | SS600024    |      |    |      |

## HIGH VOLTAGE

## WYE START

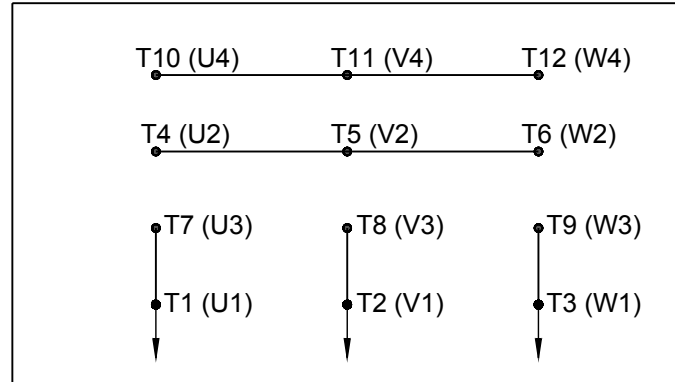


## DELTA RUN

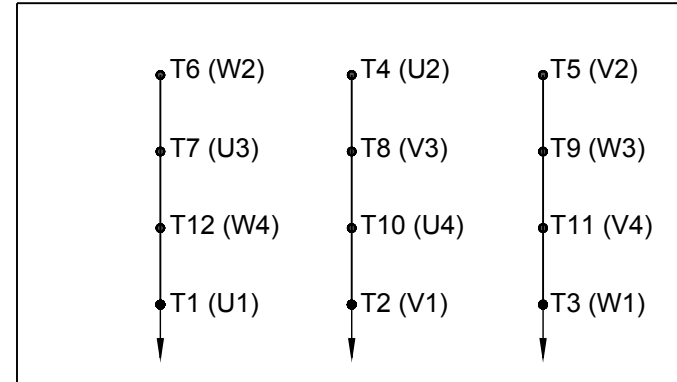


## LOW VOLTAGE

## WYE START



## DELTA RUN

4/2 CKTY  $\triangle$ 

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                    |  |                           |                                                                                                                  |           |                          |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--|---------------------------|------------------------------------------------------------------------------------------------------------------|-----------|--------------------------|--|
| DRAWING REVISION<br>D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | REVISION BY<br>JWO | DATE<br>01-26-2016 |  | DRAWN BY<br>BLR           |  Regal Beloit America, Inc. |           |                          |  |
| ECO<br>ECO-0092547                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | APPROVED BY<br>TB  | DATE<br>01-26-2016 |  | DATE<br>03-09-1998        | DESCRIPTION<br><b>CONN DIAGRAM-EXTERNAL</b><br>12 LEAD - DUAL VOLT. - WYE START - DELTA RUN                      |           |                          |  |
| ECO DESCRIPTION<br>ADDED IEC MARKINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                    |  | APPROVED BY<br>GK         |                                                                                                                  |           |                          |  |
| COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED.<br>PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF<br>REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY<br>INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED,<br>BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED<br>TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT<br>AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL<br>BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN<br>RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS. |                    |                    |  | DATE<br>03-23-1998        |                                                                                                                  |           |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                    |  | REFERENCE                 | MATERIAL                                                                                                         |           | PROCESS/FINISH           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                    |  | THIRD ANGLE<br>PROJECTION |                             | SIZE<br>A | DRAWING NUMBER<br>EE7358 |  |

## CERTIFICATION DATA SHEET

Model#: 184TTDR16023 AA  
 CONN. DIAGRAM: A-EE7358  
 OUTLINE: A-SS600024-825

WINDING#: K1844214 NONE 7  
 ASSEMBLY: F1/F2 CAPABLE

## TYPICAL MOTOR PERFORMANCE DATA

| HP | KW  | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----|-----|-----------|----------|-------|-----------|----------|--------|
| 5  | 3.7 | 1800      | 1750     | 184JM | DP        | J        | B      |

| PH | Hz | VOLTS   | FL AMPS  | START TYPE               | DUTY           | INSL | S.F  | AMB°C | ELEVATION |
|----|----|---------|----------|--------------------------|----------------|------|------|-------|-----------|
| 3  | 60 | 230/460 | 12.6/6.3 | PWS &<br>YDRUN OR<br>INV | CONTINUOU<br>S | F3   | 1.15 | 40    | 3300      |

|                     |                    |                    |          |                   |              |
|---------------------|--------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD EFF: 89.5 | 3/4 LOAD EFF: 90.2 | 1/2 LOAD EFF: 89.5 | GTD. EFF | ELEC. TYPE        | NO LOAD AMPS |
| FULL LOAD PF: 82    | 3/4 LOAD PF: 77    | 1/2 LOAD PF: 66    | 87.5     | SQ CAGE INV RATED | 5.6 / 2.8    |

|             |                   |                |              |             |
|-------------|-------------------|----------------|--------------|-------------|
| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE    | B.D. TORQUE  | F.L. RISE°C |
| 15 LB-FT    | 92 / 46           | 31.5 LB-FT 210 | 50 LB-FT 333 | 50          |

|                           |             |              |            |                 |                 |                      |
|---------------------------|-------------|--------------|------------|-----------------|-----------------|----------------------|
| SOUND PRESSURE<br>@ 3 FT. | SOUND POWER | ROTOR WK^2   | MAX. WK^2  | SAFE STALL TIME | STARTS<br>/HOUR | APPROX. MOTOR<br>WGT |
| 63 dBA                    | 73 dBA      | 0.45 LB-FT^2 | 30 LB-FT^2 | 20 SEC.         | 2               | 100 LBS.             |

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

| DE BRACKET<br>TYPE | ODE BRACKET<br>TYPE | MOUNT<br>TYPE | ORIENTATION                    | SEVERE<br>DUTY | HAZARDOUS<br>LOCATION | DRIP<br>COVER      | SCREENS | PAINT            |
|--------------------|---------------------|---------------|--------------------------------|----------------|-----------------------|--------------------|---------|------------------|
| C-FACE             | STANDARD            | BOLT-ON       | HORIZONTAL<br>OR SHAFT<br>DOWN | FALSE          | NONE                  | PROVISIONS<br>ONLY | NONE    | BLUE<br>(ENAMEL) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT<br>MATERIAL              | FRAME<br>MATERIAL |
|----------|------|------------|------------|------------|-------------|--------------------------------|-------------------|
| DE       | OPE  |            |            |            |             |                                |                   |
| BALL     | BALL | POLYREX EM | JM         | NONE       | NONE        | 1144<br>STRESSPROOF<br>(C-223) | ROLLED STEEL      |
| 6307     | 6205 |            |            |            |             |                                |                   |

| THERMO-PROTECTORS |            |          |          | THERMISTORS | CONTROL | SPACE /n HEATERS |
|-------------------|------------|----------|----------|-------------|---------|------------------|
| THERMOSTATS       | PROTECTORS | WDG RTDs | BRG RTDs |             |         |                  |
| NONE              | NOT        | NONE     | NONE     | NONE        | FALSE   | NONE VOLTS       |

If Inverter equals NONE, contact factory for further  
information

\*  
N  
O  
T  
E  
S  
\*

|                               |        |         |
|-------------------------------|--------|---------|
| INVERTER TORQUE: CONSTANT 2:1 |        |         |
| INV. HP SPEED RANGE: NONE     |        |         |
| ENCODER: NONE                 |        |         |
| NONE NONE                     |        |         |
| NONE NONE PPR                 |        |         |
| BRAKE: NONE NONE              |        |         |
| NONE P/N NONE                 |        |         |
| NONE NONE                     |        |         |
| NONE FT-LB                    | NONE V | NONE Hz |

DATE: 06/28/2017 06:33:59 AM

FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.



## Data Sheet

Date: 6/19/2017

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

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

Submitted by: FAREEDA DUDEKULA



184TTDR16023

Submittal

Data @ 460 V

## Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |  |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 2.80 | 3.2  | 4.0  | 5.1  | 6.3  | 7.2   | 7.8  | 46.0 |  |
| Torque (ft-lb) | 0.00 | 3.7  | 7.4  | 11.2 | 15.0 | 17.5  | 19.0 | 31.5 |  |
| RPM            | 1800 | 1790 | 1775 | 1765 | 1750 | 1,745 | 1735 | 0    |  |
| Efficiency (%) |      | 85.5 | 89.5 | 90.2 | 89.5 | 88.5  | 87.5 |      |  |
| P.F. (%)       | 6.5  | 44.0 | 66.0 | 77.0 | 82.0 | 84.0  | 85.0 | 50.0 |  |

## Motor Speed Data

|                                                                                                                                                        | LR   | Pull-Up        | BD   | Rated  | Idle |                   |  |               |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|------|--------|------|-------------------|--|---------------|--|--|
| Speed (RPM)                                                                                                                                            | 0    | 750            | 1500 | 1750   | 1800 |                   |  |               |  |  |
| Current (Amps)                                                                                                                                         | 46.0 | 43.0           | 26.0 | 6.3    | 2.80 |                   |  |               |  |  |
| Torque (ft-lb)                                                                                                                                         | 31.5 | 30.0           | 50.0 | 15.0   | 0.00 |                   |  |               |  |  |
| <div><div>— Efficiency (%) — P.F. (%) — Current (Amps)</div><div>EFFICIENCY (%)</div><div>P.F. (%)</div><div>CURRENT (AMPS)</div><div>LOAD</div></div> |      |                |      |        |      | Information Block |  |               |  |  |
|                                                                                                                                                        |      |                |      |        |      | HP                |  | 5.0           |  |  |
|                                                                                                                                                        |      |                |      |        |      | Sync. RPM         |  | 1800          |  |  |
|                                                                                                                                                        |      |                |      |        |      | Frame             |  | 184           |  |  |
|                                                                                                                                                        |      |                |      |        |      | Enclosure         |  | DP            |  |  |
|                                                                                                                                                        |      |                |      |        |      | Construction      |  | TDR           |  |  |
|                                                                                                                                                        |      |                |      |        |      | Voltage           |  | 230/460 V     |  |  |
|                                                                                                                                                        |      |                |      |        |      | Frequency         |  | 60 Hz         |  |  |
|                                                                                                                                                        |      |                |      |        |      | Design            |  | B             |  |  |
|                                                                                                                                                        |      |                |      |        |      | LR Code letter    |  | J             |  |  |
|                                                                                                                                                        |      |                |      |        |      | Service Factor    |  | 1.15          |  |  |
|                                                                                                                                                        |      |                |      |        |      | Temp Rise @ FL    |  | 50 ° C        |  |  |
|                                                                                                                                                        |      |                |      |        |      | Duty              |  | CONT          |  |  |
|                                                                                                                                                        |      |                |      |        |      | Ambient           |  | 40 ° C        |  |  |
|                                                                                                                                                        |      |                |      |        |      | Elevation         |  | 1,000 feet    |  |  |
|                                                                                                                                                        |      |                |      |        |      | Rotor/Shaft wk²   |  | 0.45 Lb-Ft²   |  |  |
|                                                                                                                                                        |      |                |      |        |      | Ref Wdg           |  | K1844214 NONE |  |  |
| Sound Pressure @ 1M                                                                                                                                    |      | 63 dBA         |      |        |      |                   |  |               |  |  |
| VFD Rating                                                                                                                                             |      | CONSTANT 2:1   |      |        |      |                   |  |               |  |  |
| Outline Dwg                                                                                                                                            |      | A-SS600024-825 |      |        |      |                   |  |               |  |  |
| Conn. Diag                                                                                                                                             |      | A-EE7358       |      |        |      |                   |  |               |  |  |
| Additional Specifications:                                                                                                                             |      |                |      |        |      |                   |  |               |  |  |
| 0                                                                                                                                                      |      |                |      |        |      |                   |  |               |  |  |
| 0                                                                                                                                                      |      |                |      |        |      |                   |  |               |  |  |
| EQUIV CKT (OHMS / PHASE)                                                                                                                               |      |                |      |        |      |                   |  |               |  |  |
| R1                                                                                                                                                     |      | R2             |      | X1     |      | X2                |  | Xm            |  |  |
| 1.5450                                                                                                                                                 |      | 1.1020         |      | 3.6750 |      | 5.1290            |  | 93.7200       |  |  |

## Speed -Torque Curve

