

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 286TTFCA6085

Catalog No: GT3426

Globetrotter® Close-Coupled Pump Motor, 20 & 15 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,  
1200 & 1000 RPM, 286JPV Frame, TEFC



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**RegalRexnord**

### Nameplate Specifications

|                        |                   |                            |                             |
|------------------------|-------------------|----------------------------|-----------------------------|
| Phase                  | 3                 | Output HP                  | 20 & 15 Hp                  |
| Output KW              | 14.9 & 11.2 kW    | Voltage                    | 230/460 & 190/380 V         |
| Speed                  | 1185 & 985 rpm    | Service Factor             | 1.15 & 1.15                 |
| Frame                  | 286JPV            | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection     | Efficiency                 | 91.7 & 91 %                 |
| Ambient Temperature    | 40 °C             | Frequency                  | 60 & 50 Hz                  |
| Current                | 52/26 & 49/24.5 A | Power Factor               | 77                          |
| Duty                   | Continuous        | Insulation Class           | F                           |
| Design Code            | B                 | KVA Code                   | F                           |
| Drive End Bearing Size | 6311              | 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 Inverter Rated | Starting Method    | Wye Start Delta Run Or Inverter |
| Poles                 | 6                            | Rotation           | Reversible                      |
| Resistance Main       | .4578 Ohms                   | Mounting           | Rigid Base                      |
| Motor Orientation     | Horizontal Or Shaft Down     | Drive End Bearing  | Ball                            |
| Opp Drive End Bearing | Ball                         | Frame Material     | Cast Iron                       |
| Shaft Type            | JP                           | Overall Length     | 35.00 in                        |
| Shaft Diameter        | 1.250 in                     | Shaft Extension    | 8.15 in                         |
| Assembly/Box Mounting | F1/F2 CAPABLE                |                    |                                 |
| Outline Drawing       | SS620568-286TC               | Connection Drawing | EE7308AA                        |

|       |       |       |       |
|-------|-------|-------|-------|
| 284TC | 33.82 | 15.75 | 9.50  |
| 286TC | 35.00 | 16.93 | 11.00 |
| FRAME | C     | BB    | 2F    |

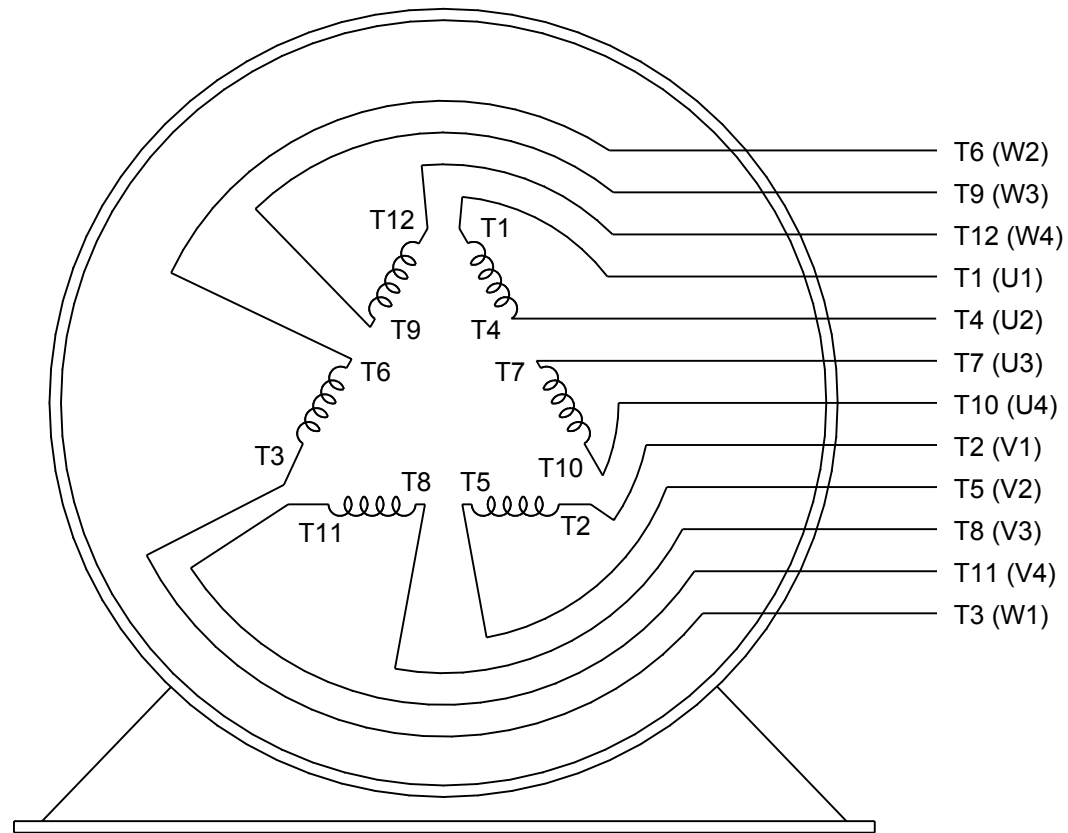
|                                                                                                                                                                                                                                     |  |          |  |                             |  |                                                                                                                       |  |                      |  |                      |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------|--|-----------------------------|--|-----------------------------------------------------------------------------------------------------------------------|--|----------------------|--|----------------------|--|
|                                                                                                                                                                                                                                     |  |          |  | TOLERANCES UNLESS SPECIFIED |  |  <b>REGAL-BELOIT CORPORATION</b> |  | DRAWN Lee 05-16-2012 |  |                      |  |
|                                                                                                                                                                                                                                     |  |          |  | DEC. INCHES                 |  |                                                                                                                       |  | CHK HPH 05-16-2012   |  |                      |  |
|                                                                                                                                                                                                                                     |  |          |  | .X ±.1                      |  |                                                                                                                       |  | APPD JGX 05-16-2012  |  |                      |  |
|                                                                                                                                                                                                                                     |  |          |  | .XX ±.03                    |  | TITLE                                                                                                                 |  | SCALE 2=13           |  |                      |  |
|                                                                                                                                                                                                                                     |  |          |  | .XXX ±.005                  |  | OUTLINE                                                                                                               |  | REF                  |  |                      |  |
|                                                                                                                                                                                                                                     |  |          |  | .XXXX ±.0005                |  | TEFC-284/286JP FR-CAST IRON                                                                                           |  | FMF HWADA            |  |                      |  |
| NO.                                                                                                                                                                                                                                 |  | REVISION |  | BY & DATE                   |  | CHK ANG ±1/2                                                                                                          |  | FINISH               |  |                      |  |
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|                                                                                                                                                                                                                                     |  |          |  |                             |  | DIST                                                                                                                  |  | SIZE B               |  | DRAWING NO. SS620568 |  |
|                                                                                                                                                                                                                                     |  |          |  |                             |  |                                                                                                                       |  | REV.                 |  |                      |  |



## LOW VOLTAGE



## HIGH VOLTAGE



## VIEW OF TERMINAL END

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------|
| DRAWING REVISION<br>K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | REVISION BY<br>AJW    | DATE<br>07-17-2015 |
| ECO<br>ECO-0081632                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | APPROVED BY<br>T. VUE | DATE<br>07-17-2015 |
| ECO DESCRIPTION<br>REV'D IEC MARKINGS PER IEC 60034-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                    |
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|                   |                           |
|-------------------|---------------------------|
| DRAWN BY<br>LZ    | DATE<br>01-12-1994        |
| APPROVED BY<br>GK | DATE<br>01-14-1994        |
| REFERENCE         | THIRD ANGLE<br>PROJECTION |

|                                                                                                                  |                            |                 |
|------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------|
|  Regal Beloit America, Inc. |                            |                 |
| DESCRIPTION<br><b>CONN DIAGRAM-EXTERNAL</b><br>3Ø-2/1 DELTA-12 LEADS                                             |                            |                 |
| MATERIAL                                                                                                         | PROCESS/FINISH             |                 |
| SIZE<br>A                                                                                                        | DRAWING NUMBER<br>EE7308AA | SHEET<br>1 OF 1 |

## CERTIFICATION DATA SHEET

Model#: 286TTFCA6085 AA  
 CONN. DIAGRAM: EE7308AA  
 OUTLINE: SS620568

WINDING#: CHT28660001 NONE 1  
 ASSEMBLY: F1/F2 CAPABLE

## TYPICAL MOTOR PERFORMANCE DATA

| HP    | KW        | SYNC. RPM | F.L. RPM | FRAME  | ENCLOSURE | KVA CODE | DESIGN |
|-------|-----------|-----------|----------|--------|-----------|----------|--------|
| 20&15 | 14.9&11.2 | 1200      | 1185&985 | 286JPV | TEFC      | F        | B      |

| PH | Hz    | VOLTS               | FL AMPS       | START TYPE              | DUTY           | INSL | S.F       | AMB°C | ELEVATION |
|----|-------|---------------------|---------------|-------------------------|----------------|------|-----------|-------|-----------|
| 3  | 60/50 | 230/460#190/<br>380 | 52/26&49/24.5 | Y START D<br>RUN OR INV | CONTINUOU<br>S | F7   | 1.15/1.15 | 40    | 3300      |

| FULL LOAD EFF:<br>91.7&91 | 3/4 LOAD EFF: 91.7 | 1/2 LOAD EFF: 90.2 | GTD. EFF | ELEC. TYPE        | NO LOAD AMPS |
|---------------------------|--------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD PF: 77&76       | 3/4 LOAD PF: 71    | 1/2 LOAD PF: 60    | 91       | SQ CAGE INV RATED | 25.2 / 12.6  |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE   | B.D. TORQUE   | F.L. RISE°C |
|-------------|-------------------|---------------|---------------|-------------|
| 89 LB-FT    | 258 / 129         | 147 LB-FT 165 | 196 LB-FT 220 | 65          |

| SOUND PRESSURE<br>@ 3 FT. | SOUND POWER | ROTOR WK^2  | MAX. WK^2 | SAFE STALL TIME | STARTS<br>/HOUR | APPROX. MOTOR<br>WGT |
|---------------------------|-------------|-------------|-----------|-----------------|-----------------|----------------------|
| 56 dBA                    | 66 dBA      | 6.2 LB-FT^2 | - LB-FT^2 | 20 SEC.         | 2               | - 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            | RIGID         | HORIZONTAL<br>OR SHAFT<br>DOWN | FALSE          | NONE                  | FALSE         | NONE    | BLUE<br>(ENAMEL) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT<br>MATERIAL          | FRAME<br>MATERIAL |
|----------|------|------------|------------|------------|-------------|----------------------------|-------------------|
| DE       | OPE  |            |            |            |             |                            |                   |
| BALL     | BALL | POLYREX EM | JP         | NONE       | NONE        | 1045 HOT<br>ROLLED (C-204) | CAST IRON         |
| 6311     | 6210 |            |            |            |             |                            |                   |

| 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

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|                                                                             |
|-----------------------------------------------------------------------------|
| INVERTER TORQUE: VARIABLE 10:1<br>INV. HP SPEED RANGE: NONE                 |
| ENCODER: NONE<br>NONE NONE<br>NONE NONE PPR                                 |
| BRAKE: NONE NONE<br>NONE P/N NONE<br>NONE NONE<br>NONE FT-LB NONE V NONE Hz |

DATE: 06/21/2017 10:37:20 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

## Data Sheet

Date: 16-06-2017

Customer:

Attention:

Submitted by: FAREEDA DUDEKULA



286TTFCA6085

Submittal

Data @ 460 V

## Motor Load Data

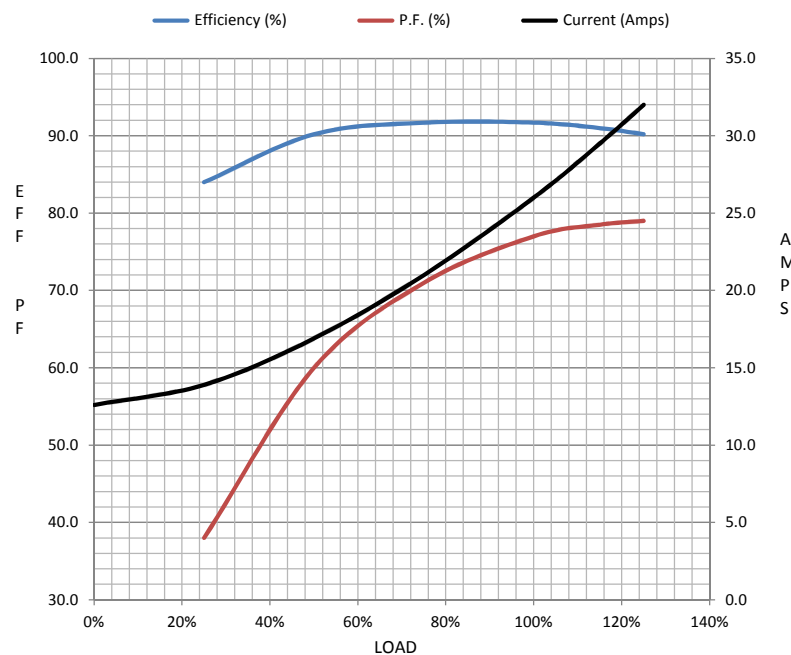
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |  |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 12.6 | 13.9 | 16.9 | 21.0 | 26.0 | 29.5  | 32.0 | 129  |  |
| Torque (ft-lb) | 0.00 | 22.0 | 44.0 | 66.5 | 89.0 | 102   | 112  | 147  |  |
| RPM            | 1200 | 1195 | 1190 | 1182 | 1175 | 1,172 | 1170 | 0    |  |
| Efficiency (%) |      | 84.0 | 90.2 | 91.7 | 91.7 | 91.0  | 90.2 |      |  |
| P.F. (%)       | 4.5  | 38.0 | 60.0 | 71.0 | 77.0 | 78.5  | 79.0 | 37.5 |  |

## Motor Speed Data

|                | LR  | Pull-Up | BD   | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM)    | 0   | 600     | 1110 | 1175  | 1200 |
| Current (Amps) | 129 | 116     | 78.0 | 26.0  | 12.6 |
| Torque (ft-lb) | 147 | 135     | 196  | 89.0  | 0.00 |

## Information Block

|                            |                  |        |        |         |
|----------------------------|------------------|--------|--------|---------|
| HP                         | 20.0             |        |        |         |
| Sync. RPM                  | 1200             |        |        |         |
| Frame                      | 286              |        |        |         |
| Enclosure                  | TEFC             |        |        |         |
| Construction               | TFC              |        |        |         |
| Voltage                    | 230/460#190/38(V |        |        |         |
| Frequency                  | 60 Hz            |        |        |         |
| Design                     | B                |        |        |         |
| LR Code letter             | F                |        |        |         |
| Service Factor             | 1.15             |        |        |         |
| Temp Rise @ FL             | 65 ° C           |        |        |         |
| Duty                       | CONT             |        |        |         |
| Ambient                    | 40 ° C           |        |        |         |
| Elevation                  | 1,000 feet       |        |        |         |
| Rotor/Shaft wk²            | 6.2 Lb-Ft²       |        |        |         |
| Ref Wdg                    | CHT28660001 NONE |        |        |         |
| Sound Pressure @ 1M        | 56 dBA           |        |        |         |
| VFD Rating                 | VARIABLE 10:1    |        |        |         |
| Outline Dwg                | SS620568         |        |        |         |
| Conn. Diag                 | EE7308AA         |        |        |         |
| Additional Specifications: |                  |        |        |         |
| 0                          |                  |        |        |         |
| 365THFS8036                |                  |        |        |         |
| EQUIV CKT (OHMS / PHASE)   |                  |        |        |         |
| R1                         | R2               | X1     | X2     | Xm      |
| 0.3020                     | 0.1620           | 0.8340 | 1.8340 | 20.7100 |



## Speed -Torque Curve

