

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 215TTFW6076

Catalog No: E2014

XRI® General Purpose General Purpose Motor, 5 & 5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,  
1200 & 1000 RPM, 215TC Frame, TEFC



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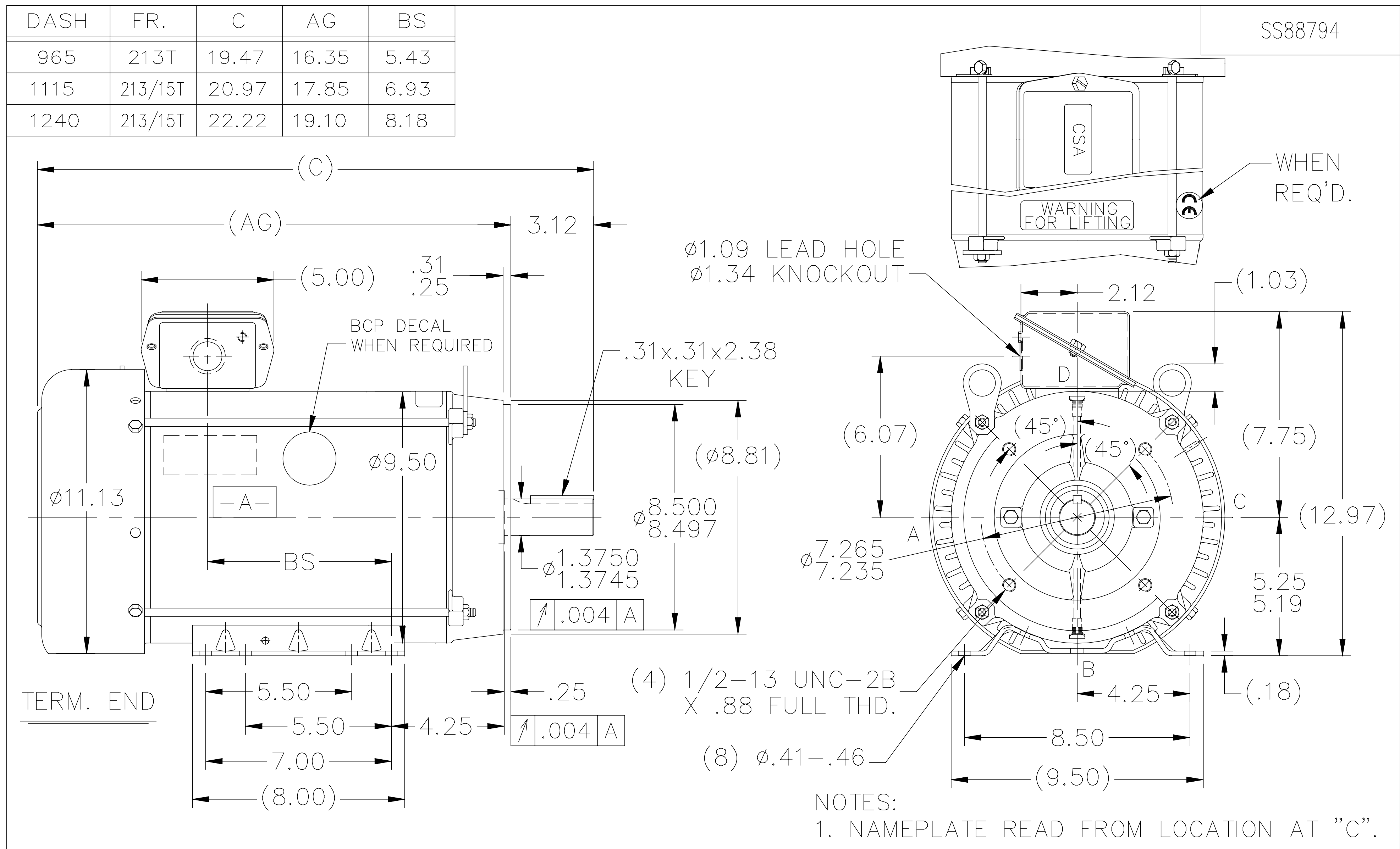
**RegalRexnord**

### Nameplate Specifications

|                        |                   |                            |                             |
|------------------------|-------------------|----------------------------|-----------------------------|
| Phase                  | 3                 | Output HP                  | 5 & 5 Hp                    |
| Output KW              | 3.7 & 3.7 kW      | Voltage                    | 230/460 & 190/380 V         |
| Speed                  | 1170 & 965 rpm    | Service Factor             | 1.15 & 1.15                 |
| Frame                  | 215TC             | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection     | Efficiency                 | 90.2 & 89.5 %               |
| Ambient Temperature    | 40 °C             | Frequency                  | 60 & 50 Hz                  |
| Current                | 14/7 & 16.2/8.1 A | Power Factor               | 75                          |
| Duty                   | Continuous        | Insulation Class           | F                           |
| Design Code            | B                 | KVA Code                   | J                           |
| Drive End Bearing Size | 6309              | Opp Drive End Bearing Size | 6206                        |
| UL                     | Recognized        | CSA                        | Y                           |
| CE                     | Y                 | IP Code                    | 43                          |
| Number of Speeds       | 1                 |                            |                             |

### Technical Specifications

|                       |                              |                       |                  |
|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type       | Squirrel Cage Inverter Rated | Starting Method       | Line Or Inverter |
| Poles                 | 6                            | Rotation              | Reversible       |
| Resistance Main       | 1.65 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        | 20.97 in         |
| Frame Length          | 11.15 in                     | Shaft Diameter        | 1.375 in         |
| Shaft Extension       | 3.12 in                      | Assembly/Box Mounting | F3               |
| Outline Drawing       | A-SS88794-1115               | Connection Drawing    | A-EE7308         |



|  |   |  |                |                                |        |  |        |  |  |                      |                     |  |      |  |
|--|---|--|----------------|--------------------------------|--------|--|--------|--|--|----------------------|---------------------|--|------|--|
|  |   |  |                | TOLERANCES<br>UNLESS SPECIFIED |        | <div><div>REGAL™</div><div>Regal Beloit America, Inc.</div></div>      |        |  |  | DRAWN TAT 08-13-2004 |                     |  |      |  |
|  |   |  |                | DEC.                           | INCHES |  |        |  |  | CHK ML 08-13-2004    |                     |  |      |  |
|  |   |  |                | .X                             | ±.1    |  |        |  |  | APPD TB 08-13-2004   |                     |  |      |  |
|  |   |  |                | .XX                            | ±.03   | TITLE OUTLINE – F3 C’BOX MOUNTING<br>210T FR. –BB–TS–TEFC–R/S – C’FACE |        |  |  | SCALE 1=5            |                     |  |      |  |
|  |   |  |                | .XXX                           | ±.005  |  |        |  |  | REF                  |                     |  |      |  |
| 1  | TITLE BLOCK LOGO CHANGE PER ECO-0078542 |  | MDV 06/09/2015 |                                | .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 ss88794   |        |  |  | SIZE                 | DRAWING NO. PAGE OF |  | REV. |  |
|  |   |  |                | DIST LB                        |        |  |        |  |  | A                    | SS88794             |  | 1    |  |



|  |  |                |         |                                |                 |   |          |                          |
|--|--|----------------|---------|--------------------------------|-----------------|---|----------|--------------------------|
|  |  |                |         | TOLERANCES<br>UNLESS SPECIFIED |                 |  <b>Regal</b> Beloit America, Inc. | 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        |                          |

## CERTIFICATION DATA SHEET

Model#: 215TTFW6076 AA  
 CONN. DIAGRAM: A-EE7308  
 OUTLINE: A-SS88794-1115

WINDING#: K2156166 NONE 2  
 ASSEMBLY: F3

## TYPICAL MOTOR PERFORMANCE DATA

| HP  | KW        | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|-----|-----------|-----------|----------|-------|-----------|----------|--------|
| 5&5 | 3.70&3.70 | 1200      | 1170&965 | 215TC | TEFC      | J        | B      |

| PH | Hz    | VOLTS               | FL AMPS       | START TYPE          | DUTY           | INSL | S.F       | AMB°C | ELEVATION |
|----|-------|---------------------|---------------|---------------------|----------------|------|-----------|-------|-----------|
| 3  | 60/50 | 230/460#190/<br>380 | 14/7&16.2/8.1 | LINE OR<br>INVERTER | CONTINUOU<br>S | F4   | 1.15/1.15 | 40    | 3300      |

| FULL LOAD EFF:<br>90.2&89.5 | 3/4 LOAD EFF: 90.2 | 1/2 LOAD EFF: 89.5 | GTD. EFF | ELEC. TYPE        | NO LOAD AMPS |
|-----------------------------|--------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD PF: 75&78         | 3/4 LOAD PF: 67    | 1/2 LOAD PF: 55    | 88.5     | SQ CAGE INV RATED | 7.4 / 3.7    |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE  | B.D. TORQUE  | F.L. RISE°C |
|-------------|-------------------|--------------|--------------|-------------|
| 22.5 LB-FT  | 92 / 46           | 47 LB-FT 209 | 79 LB-FT 351 | 45          |

| SOUND PRESSURE<br>@ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2  | SAFE STALL TIME | STARTS<br>/HOUR | APPROX. MOTOR<br>WGT |
|---------------------------|-------------|------------|------------|-----------------|-----------------|----------------------|
| 55 dBA                    | 65 dBA      | 1 LB-FT^2  | 80 LB-FT^2 | 25 SEC.         | 2               | 140 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  | 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 |            |            |            |             |                   |                   |
| 6309     | 6206 | POLYREX EM | T          | NONE       | NONE        | AISI 1045 (C-240) | ROLLED STEEL      |

| 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

|                                       |        |         |  |
|---------------------------------------|--------|---------|--|
| INVERTER TORQUE: CONSTANT 10:1        |        |         |  |
| INV. HP SPEED RANGE: 1.5 X BASE SPEED |        |         |  |
| ENCODER: NONE                         |        |         |  |
| NONE NONE                             |        |         |  |
| NONE NONE PPR                         |        |         |  |
| BRAKE: NONE NONE                      |        |         |  |
| NONE P/N NONE                         |        |         |  |
| NONE NONE                             |        |         |  |
| NONE FT-LB                            | NONE V | NONE Hz |  |

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DATE: 06/22/2017 08:26:24 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

## Data Sheet

Date: 6/20/2017

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

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

Submitted by: FAREEDA DUDEKULA



215TTFW6076

Submittal

Data @ 460 V

## Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |  |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 3.7  | 4.0  | 4.7  | 5.8  | 7.0  | 7.7   | 8.4  | 46.0 |  |
| Torque (ft-lb) | 0.00 | 5.5  | 11.0 | 16.8 | 22.5 | 26.0  | 28.5 | 47.0 |  |
| RPM            | 1200 | 1192 | 1185 | 1175 | 1170 | 1,165 | 1160 | 0    |  |
| Efficiency (%) |      | 84.0 | 89.5 | 90.2 | 90.2 | 89.5  | 88.5 |      |  |
| P.F. (%)       | 5.0  | 35.0 | 55.0 | 67.0 | 75.0 | 76.5  | 78.0 | 41.0 |  |

## Motor Speed Data

|  | LR             | Pull-Up | BD     | Rated   | Idle | Information Block |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|--|----------------|---------|--------|---------|------|-------------------|-----------------|----------|----------------|----|------|------|-----|----|------|------|-----|----|------|------|-----|-----|------|------|-----|-----|------|------|-----|-----------|------|--|--|--|
| Speed (RPM)  | 0              | 400     | 1000   | 1170    | 1200 | HP                | 5.0             |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| Current (Amps)   | 46.0           | 40.0    | 30.0   | 7.0     | 3.7  | Sync. RPM         | 1200            |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| Torque (ft-lb)   | 47.0           | 40.0    | 79.0   | 22.5    | 0.00 | Frame             | 215             |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| <div><div>— Efficiency (%)</div><div>— P.F. (%)</div><div>— Current (Amps)</div><table><caption>Graph Data Points (Estimated)</caption><thead><tr><th>Load (%)</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>25</td><td>84.0</td><td>35.0</td><td>3.7</td></tr><tr><td>50</td><td>89.0</td><td>55.0</td><td>5.5</td></tr><tr><td>75</td><td>90.2</td><td>68.0</td><td>7.0</td></tr><tr><td>100</td><td>90.2</td><td>75.0</td><td>8.0</td></tr><tr><td>125</td><td>88.5</td><td>78.0</td><td>8.5</td></tr></tbody></table></div> |                |         |        |         |      | Load (%)          | Efficiency (%)  | P.F. (%) | Current (Amps) | 25 | 84.0 | 35.0 | 3.7 | 50 | 89.0 | 55.0 | 5.5 | 75 | 90.2 | 68.0 | 7.0 | 100 | 90.2 | 75.0 | 8.0 | 125 | 88.5 | 78.0 | 8.5 | Enclosure | TEFC |  |  |  |
|  |                |         |        |         |      | Load (%)          | Efficiency (%)  | P.F. (%) | Current (Amps) |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | 25                | 84.0            | 35.0     | 3.7            |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | 50                | 89.0            | 55.0     | 5.5            |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | 75                | 90.2            | 68.0     | 7.0            |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | 100               | 90.2            | 75.0     | 8.0            |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | 125               | 88.5            | 78.0     | 8.5            |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Construction      | TFW             |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Voltage           | 30/460#190/381V |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Frequency         | 60 Hz           |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Design            | B               |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | LR Code letter    | J               |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Service Factor    | 1.15            |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Temp Rise @ FL    | 45 °C           |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Duty              | CONT            |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Ambient           | 40 °C           |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
|  |                |         |        |         |      | Elevation         | 1,000 feet      |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| Rotor/Shaft wk²  | 1.00 Lb-Ft²    |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| Ref Wdg  | K2156166 NONE  |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| Sound Pressure @ 1M  | 55 dBA         |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| VFD Rating   | CONSTANT 10:1  |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| Outline Dwg  | A-SS88794-1115 |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| Conn. Diag   | A-EE7308       |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| Additional Specifications:   |                |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| 0  |                |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| 0  |                |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| EQUIV CKT (OHMS / PHASE)   |                |         |        |         |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| R1   | R2             | X1      | X2     | Xm      |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |
| 1.1360   | 1.1930         | 4.4930  | 4.6860 | 67.7060 |      |                   |                 |          |                |    |      |      |     |    |      |      |     |    |      |      |     |     |      |      |     |     |      |      |     |           |      |  |  |  |

## Speed -Torque Curve

