

# PRODUCT INFORMATION PACKET

Model No: 286TTDBD6035

Catalog No: GT2167

General Purpose Motors, Drip Proof, 30 HP, 3 Ph, 60 Hz, 575 V, 1775 RPM, 286TC



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**Nameplate Specifications**

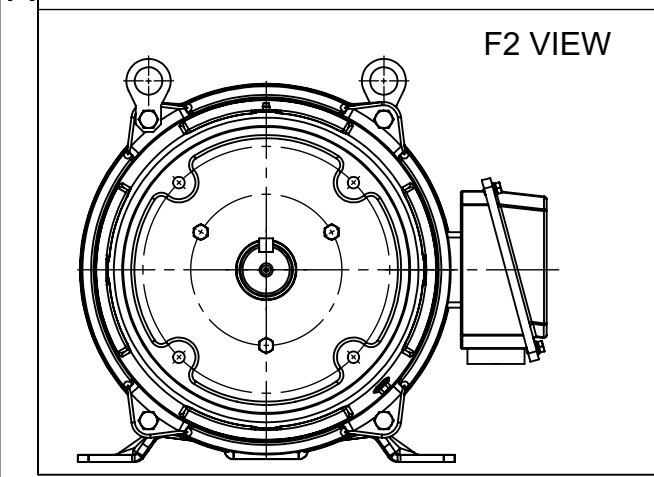
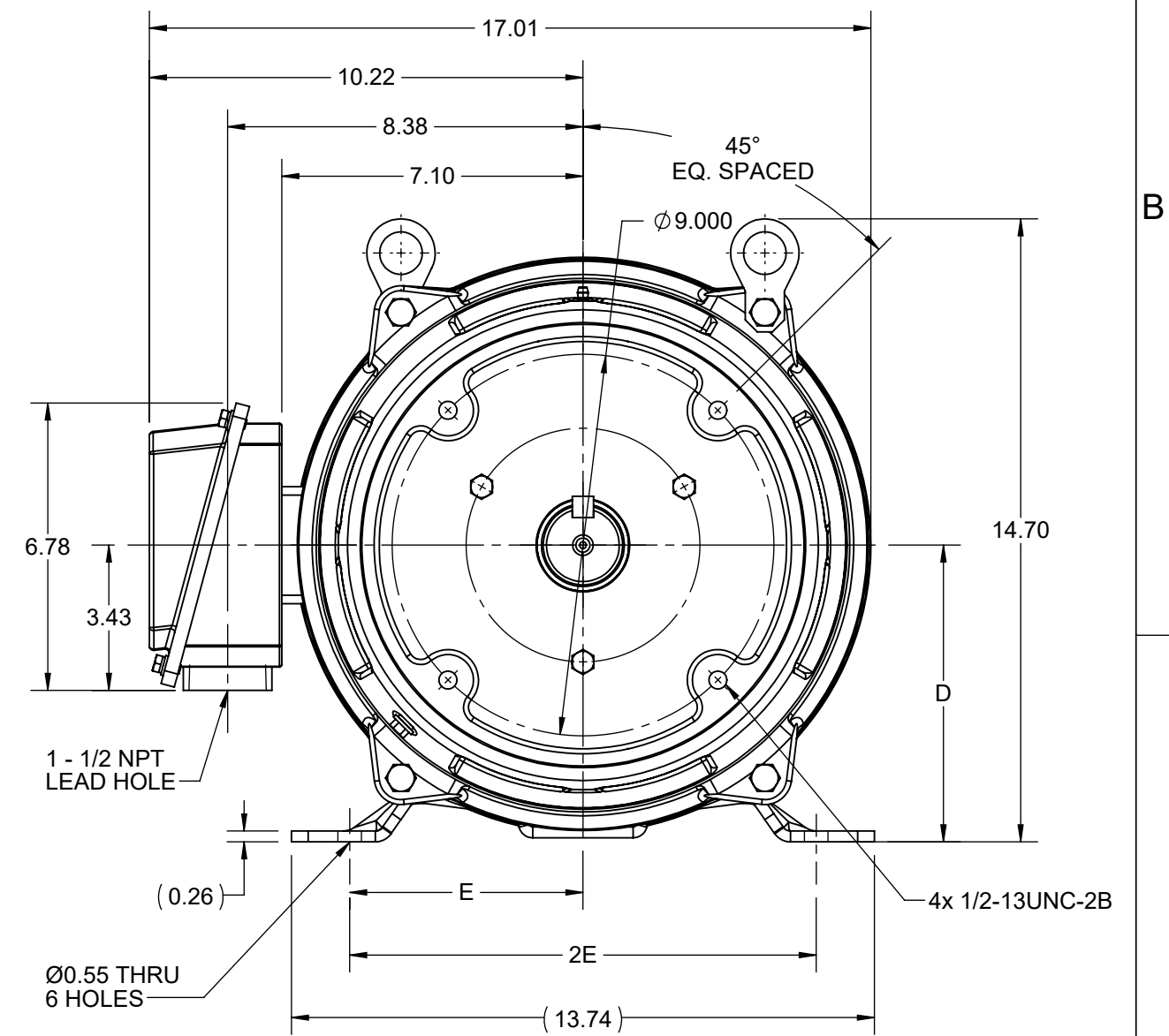
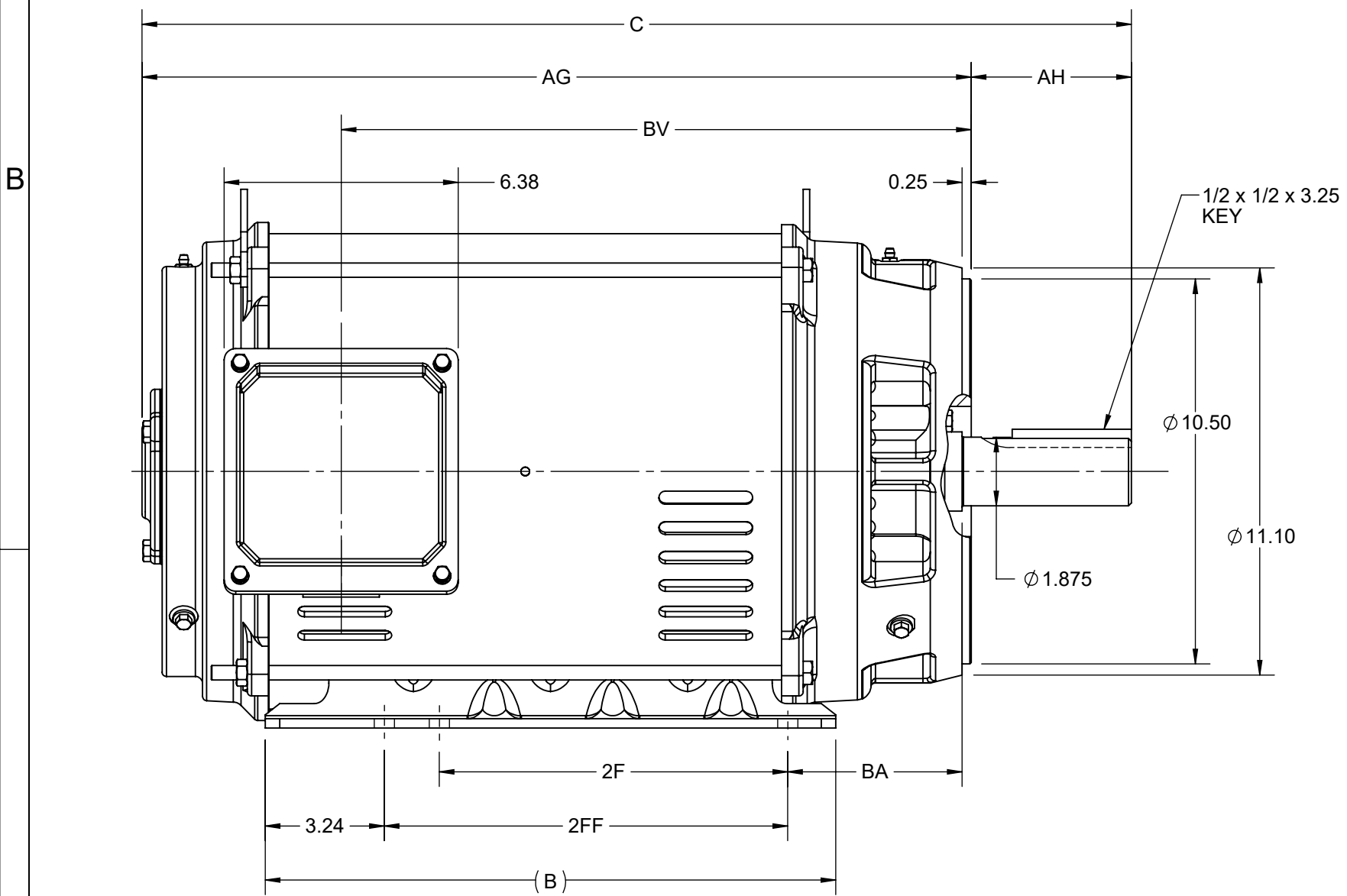
|                        |                   |                            |                   |
|------------------------|-------------------|----------------------------|-------------------|
| Output HP              | <b>30 Hp</b>      | Output KW                  | <b>22.4 kW</b>    |
| Frequency              | <b>60 Hz</b>      | Voltage                    | <b>575 V</b>      |
| Current                | <b>29.2 A</b>     | Speed                      | <b>1775 rpm</b>   |
| Service Factor         | <b>1.15</b>       | Phase                      | <b>3</b>          |
| Efficiency             | <b>94.1 %</b>     | Power Factor               | <b>82</b>         |
| Duty                   | <b>Continuous</b> | Insulation Class           | <b>F</b>          |
| Design Code            | <b>B</b>          | KVA Code                   | <b>G</b>          |
| Frame                  | <b>286TC</b>      | Enclosure                  | <b>Drip Proof</b> |
| Thermal Protection     | <b>No</b>         | Ambient Temperature        | <b>40 °C</b>      |
| Drive End Bearing Size | <b>6311</b>       | Opp Drive End Bearing Size | <b>6210</b>       |
| UL                     | <b>Recognized</b> | CSA                        | <b>Y</b>          |
| CE                     | <b>Y</b>          | IP Code                    | <b>22</b>         |
| Number of Speeds       | <b>1</b>          |                            |                   |

**Technical Specifications**

|                       |                                     |                   |                                   |
|-----------------------|-------------------------------------|-------------------|-----------------------------------|
| Electrical Type       | <b>Squirrel Cage Inverter Rated</b> | Starting Method   | <b>Line Or Inverter</b>           |
| Poles                 | <b>4</b>                            | Rotation          | <b>Reversible</b>                 |
| Resistance Main       | <b>.289 Ohms</b>                    | Mounting          | <b>Rigid Base</b>                 |
| Motor Orientation     | <b>Horizontal</b>                   | Drive End Bearing | <b>Ball</b>                       |
| Opp Drive End Bearing | <b>Ball</b>                         | Frame Material    | <b>Rolled Steel</b>               |
| Shaft Type            | <b>T</b>                            | Shaft Diameter    | <b>1.875 in</b>                   |
| Assembly/Box Mounting | <b>F1/F2 CAPABLE</b>                | Inverter Load     | <b>CONSTANT 2:1/VARIABLE 10:1</b> |
| Connection Drawing    | <b>EE7300</b>                       | Outline Drawing   | <b>SS620711-200</b>               |

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| DASH NO. | 4     |       |      | 3    |       |      |       | 2     |      |      |       | 1        |       |
|----------|-------|-------|------|------|-------|------|-------|-------|------|------|-------|----------|-------|
|          | B     | C     | D    | E    | 2E    | 2F   | 2FF   | AG    | AH   | BA   | BV    | MOUNTING | FRAME |
| 100      | 15.55 | 25.60 | 7.00 | 5.50 | 11.00 | 9.50 | 11.00 | 21.24 | 4.38 | 4.75 | 15.80 | F1 OR F2 | 284TC |
| 200      |       | 26.98 |      |      |       |      |       | 22.61 |      |      | 17.18 |          | 286TC |



|   |                    |                               |
|---|--------------------|-------------------------------|
| DRAWING REVISION<br>C   | REVISION BY<br>RAM | REV DATE/© DATE<br>01/02/2022 |
| REQUEST NUMBER<br>CR-0006669  | APPROVED BY<br>SBD | DATE<br>01/02/2022            |
| REQUEST NUMBER DESCRIPTION<br>VIEWS UPDATED AS PER 3D   |                    |                               |
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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

|                        |   |
|------------------------|---|
| DRAWN BY<br>ZXW        | <br>Regal Beloit America, Inc.                            |
| DATE<br>25/02/2016     |   |
| APPROVED BY<br>ZYH     | DESCRIPTION<br><b>OUTLINE</b><br>284/286TC FR NEMA ODP RS |
| DATE<br>25/02/2016     | MATERIAL  |
| REFERENCE              | PROCESS/FINISH  |
| THIRD ANGLE PROJECTION | SIZE<br>B   |
|                        | DRAWING NUMBER<br>SS620711                                |
|                        | SHEET<br>1 OF 1   |

**THREE PHASE - SINGLE VOLTAGE  
MOTOR - CONDUIT BOX @ 'A'**

**TO REVERSE ROTATION:  
INTERCHANGE ANY TWO  
LINE LEAD CONNECTIONS.**

**TERMINAL BLOCK WHEN SPECIFIED**



**VIEW OF TERMINAL END**

**IF MOTOR HAS  
6 LEADS**



A-9806 DECAL

**OPTIONAL CORD  
CONNECTION**



|   |                    |                    |
|---|--------------------|--------------------|
| DRAWING REVISION<br>AB  | REVISION BY<br>JJB | DATE<br>06-27-2017 |
| ECO<br>ECO-0125361  | APPROVED BY<br>TB  | DATE<br>06-27-2017 |
| ECO DESCRIPTION<br><b>UPDATED TO CURRENT STANDARDS</b>  |                    |                    |
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|                           |
|---------------------------|
| DRAWN BY<br>DA            |
| DATE<br>03-26-1993        |
| APPROVED BY<br>TB         |
| DATE<br>03-26-1993        |
| REFERENCE                 |
| THIRD ANGLE<br>PROJECTION |

|  |                                 |
|--|---------------------------------|
| Regal Beloit America, Inc.   |                                 |
| DESCRIPTION<br><b>CONNECTION DIAGRAM</b><br>EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR |                                 |
| MATERIAL   | PROCESS/FINISH                  |
| SIZE<br><b>A</b>   | DRAWING NUMBER<br><b>EE7300</b> |
| SHEET<br><b>1 OF 1</b>   |                                 |



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

DATA VOLTS: 575

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_  
ORDER #: \_\_\_\_\_  
CONN. DIAGRAM: EE7300  
OUTLINE: SS620711  
WINDING: HA31804015 NONE 4  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: 286TTDBD8035  
CAT #: GT2167  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

| HP | KW   | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|------|----------|--------|-------|-----------|------|----------|--------|
| 30 | 22.4 | 1800     | 1775   | 286TC | DP        | TDB  | G        | B      |

| PH | HZ | VOLTS | AMPS | START TYPE       | DUTY | INSL | S.F. | AMB | ELEV. |
|----|----|-------|------|------------------|------|------|------|-----|-------|
| 3  | 60 | 575   | 29.2 | LINE OR INVERTER | CONT | F    | 1.15 | 40  | 3300  |

| F.L. EFF | 3/4 LD EFF | 1/2 LD EFF | GTD EFF | ELECT. TYPE       |
|----------|------------|------------|---------|-------------------|
| 94.1     | 94.1       | 93.6       | 93.6    | SQ CAGE INV RATED |
| F.L. PF  | 3/4 LD PF  | 1/2 LD PF  |         |                   |
| 82.0     | 77.0       | 66.0       | 93.6    |                   |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE    | B.D. TORQUE    | F.L. RISE (° C) |
|-------------|-----------------|----------------|----------------|-----------------|
| 88.8 LB-FT  | 180             | 173 LB-FT 195% | 235 LB-FT 265% | 55              |

| SOUND PRESSURE @ 3 FT. | SOUND  | POWER | ROTOR WK <sup>2</sup>  | MAX. LOAD WK <sup>2</sup> | SAFE STALL TIME | STARTS/HOUR | APROX.  | MOTOR WGT |
|------------------------|--------|-------|------------------------|---------------------------|-----------------|-------------|---------|-----------|
| 75 dBA                 | 84 dBA |       | 4.8 LB-FT <sup>2</sup> | 175 LB-FT <sup>2</sup>    | 20 SEC.         | 2           | 425 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               | YES        | NONE    | BLUE (ENAMEL) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE       | ODE  | POLYREX EM | T          | NONE       | NONE        | 1045 HOT ROLLED (C-204) | ROLLED STEEL   |
| BALL     | BALL |            |            |            |             |                         |                |
| 6311     | 6210 |            |            |            |             |                         |                |

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

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.415625     | 0.2765625    | 1.6375       | 2.1921875    | 43.7890625   | 0.150              | ODE   |

|                            |  |  |
|----------------------------|--|--|
| *<br>N<br>O<br>T<br>E<br>* | INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1<br>INV. HP SPEED RANGE: NONE |  |
|                            | ENCODER: NONE<br>NONE<br>NONE PPR  |  |
|                            | BRAKE: NONE<br>NONE NONE   |  |
|                            | FT-LB: NA<br>VOLTAGE: NONE HZ:   |  |
|                            | UL: V - LI,ME-INS.CONST UL REC   |  |

|                    |                                |
|--------------------|--------------------------------|
| PREPARED BY: _____ | UL: V - LI,ME-INS.CONST UL REC |
| DATE: 12/24/2020   |                                |

FORM: 3531 REV\_4 2/27/06

Data Sheet

Date: 12/24/2020  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_



286TTDBD6035

Submittal

Data @ 575 V

Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 12.4 | 14.0 | 18.0 | 23.2 | 29.2 | 32.8  | 35.6 | 180  |
| Torque (ft-lb) | 0.00 | 22.0 | 44.0 | 66.5 | 88.8 | 102   | 111  | 173  |
| RPM            | 1800 | 1795 | 1788 | 1780 | 1775 | 1,770 | 1765 | 0    |
| Efficiency (%) |      | 90.2 | 93.6 | 94.1 | 94.1 | 94.1  | 93.6 |      |
| P.F. (%)       | 4.5  | 44.0 | 66.0 | 77.0 | 82.0 | 83.0  | 84.0 | 38.0 |

Motor Speed Data

|                | LR  | Pull-Up | BD   | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM)    | 0   | 900     | 1645 | 1775  | 1800 |
| Current (Amps) | 180 | 142     | 104  | 29.2  | 12.4 |
| Torque (ft-lb) | 173 | 150     | 235  | 88.8  | 0.00 |

| Information Block           |                            |        |        |         |
|-----------------------------|----------------------------|--------|--------|---------|
| HP                          | 30.0                       |        |        |         |
| Sync. RPM                   | 1800                       |        |        |         |
| Frame                       | 286                        |        |        |         |
| Enclosure                   | DP                         |        |        |         |
| Construction                | TDB                        |        |        |         |
| Voltage                     | 575 V                      |        |        |         |
| Frequency                   | 60 Hz                      |        |        |         |
| Design                      | B                          |        |        |         |
| LR Code letter              | G                          |        |        |         |
| Service Factor              | 1.15                       |        |        |         |
| Temp Rise @ FL              | 55 °C                      |        |        |         |
| Duty                        | CONT                       |        |        |         |
| Ambient                     | 40 °C                      |        |        |         |
| Elevation                   | 3,300 feet                 |        |        |         |
| Rotor/Shaft wk <sup>2</sup> | 4.8 Lb-Ft <sup>2</sup>     |        |        |         |
| Ref Wdg                     | HA31804015 NONE            |        |        |         |
| Sound Pressure @ 1M         | 75 dBA                     |        |        |         |
| VFD Rating                  | CONSTANT 2:1/VARIABLE 10:1 |        |        |         |
| Outline Dwg                 | SS620711                   |        |        |         |
| Conn. Diag                  | EE7300                     |        |        |         |
| Additional Specifications:  |                            |        |        |         |
| 0                           |                            |        |        |         |
| 0                           |                            |        |        |         |
| EQUIV CKT (OHMS / PHASE)    |                            |        |        |         |
| R1                          | R2                         | X1     | X2     | Xm      |
| 0.2660                      | 0.1770                     | 1.0480 | 1.4030 | 28.0250 |

