

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 182THFS19101  
Catalog No: W504  
1,900,TEFC,182T,3/60/460  
Severe Duty



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**REGAL**<sup>®</sup>



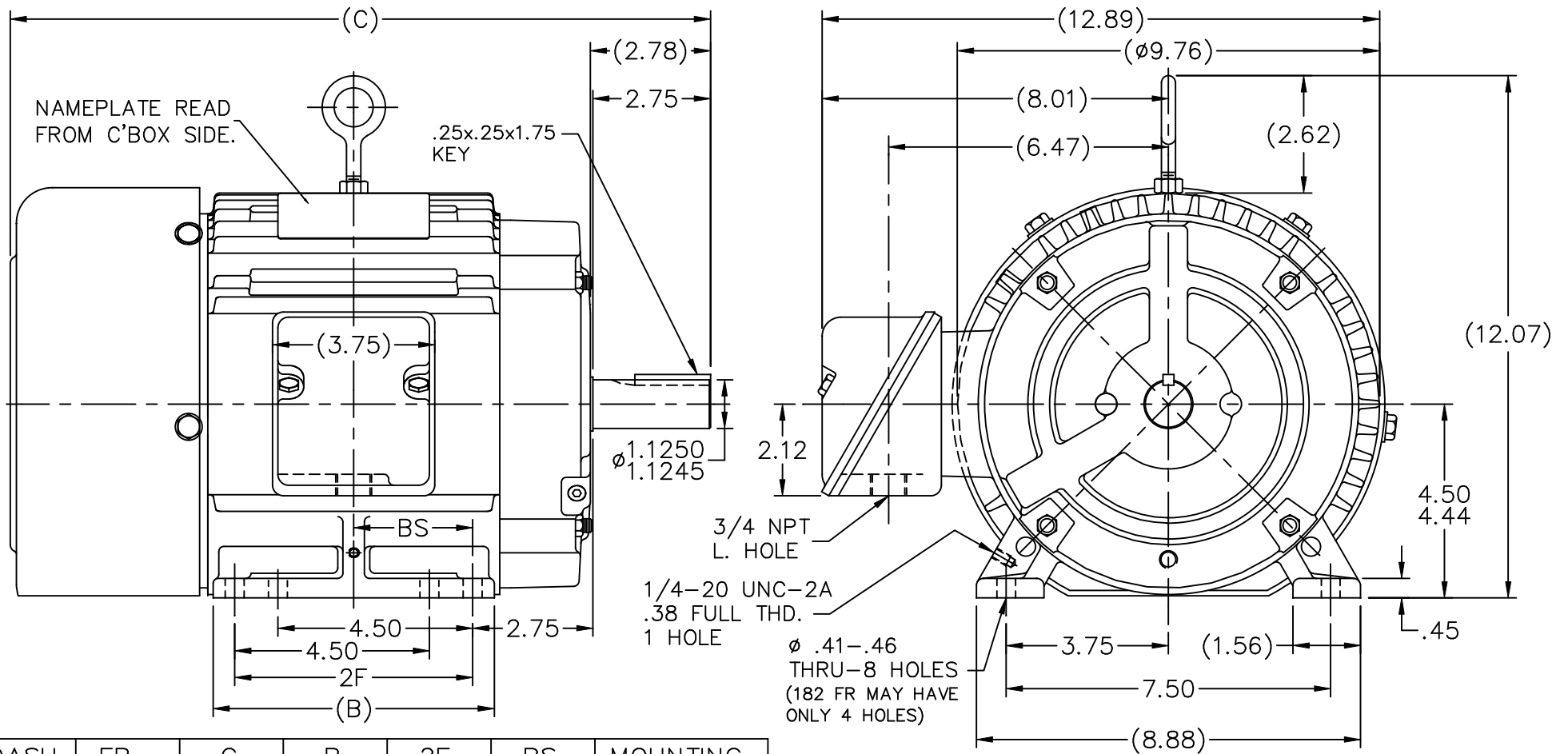
### Nameplate Specifications

|                            |                                    |                        |                   |
|----------------------------|------------------------------------|------------------------|-------------------|
| Output HP                  | <b>1 Hp</b>                        | Output KW              | <b>0.75 kW</b>    |
| Frequency                  | <b>60 Hz</b>                       | Voltage                | <b>460 V</b>      |
| Current                    | <b>1.9 A</b>                       | Speed                  | <b>870 rpm</b>    |
| Service Factor             | <b>1.15</b>                        | Phase                  | <b>3</b>          |
| Efficiency                 | <b>78.5 %</b>                      | Duty                   | <b>Continuous</b> |
| Insulation Class           | <b>F</b>                           | Design Code            | <b>B</b>          |
| KVA Code                   | <b>G</b>                           | Frame                  | <b>182T</b>       |
| Enclosure                  | <b>Totally Enclosed Fan Cooled</b> | Overload Protector     | <b>No</b>         |
| Ambient Temperature        | <b>40 °C</b>                       | Drive End Bearing Size | <b>6206</b>       |
| Opp Drive End Bearing Size | <b>6205</b>                        | UL                     | <b>Recognized</b> |
| CSA                        | <b>Y</b>                           | CE                     | <b>Y</b>          |
| IP Code                    | <b>56</b>                          |                        |                   |

### Technical Specifications

|                       |                                     |                       |                         |
|-----------------------|-------------------------------------|-----------------------|-------------------------|
| Electrical Type       | <b>Squirrel Cage Inverter Rated</b> | Starting Method       | <b>Line Or Inverter</b> |
| Poles                 | <b>8</b>                            | Rotation              | <b>Reversible</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>Cast Iron</b>                    | Shaft Type            | <b>T</b>                |
| Overall Length        | <b>15.19 in</b>                     | Frame Length          | <b>5.75 in</b>          |
| Shaft Diameter        | <b>1.125 in</b>                     | Shaft Extension       | <b>2.78 in</b>          |
| Assembly/Box Mounting | <b>F1/F2 Capable</b>                |                       |                         |
| Outline Drawing       | <b>A-SS68446-575</b>                | Connection Diagram    | <b>A-EE7300</b>         |

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BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS & TURNING FRAME 180°.

BOX CAN BE ROTATED IN 90° STEPS.

| DASH | FR.  | C     | B    | 2F   | BS   | MOUNTING |
|------|------|-------|------|------|------|----------|
| 575  | 182T | 15.19 | 5.50 | 4.50 | 2.25 | F1 ONLY  |
| 675  | 182T | 16.19 | 6.50 | 5.50 | 2.75 | F1 ONLY  |
| 675  | 184T | 16.19 | 6.50 | 5.50 | 2.75 | F1 OR F2 |

|                                                                                                                                                                                                                                  |                                            |                |     | TOLERANCES UNLESS SPECIFIED |                  | DRAWN PGK 07-29-1997 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------|-----|-----------------------------|------------------|----------------------|
|                                                                                                                                                                                                                                  |                                            |                |     | DEC.                        | INCHES           |                      |
|                                                                                                                                                                                                                                  |                                            |                |     | .X                          | ±.1              | APPD PH 08-11-1997   |
| 3                                                                                                                                                                                                                                | REDRAWN IN AUTOCAD                         | TAT 06-29-2004 | ML  | .XX                         | ±.03             | SCALE 9=32           |
| 2                                                                                                                                                                                                                                | ADDED FOUR MOUNTING HOLES IN BASE CN 26348 | MJD 06-29-1998 |     | .XXX                        | ±.005            | REF                  |
| 1                                                                                                                                                                                                                                | NEW DRAWING CN 23925-402                   | PGK 08-11-1997 |     | .XXXX                       | ±.0005           | FMF                  |
| NO.                                                                                                                                                                                                                              | REVISION                                   | BY & DATE      | CHK | ANG                         | ±7'30"           | PREV                 |
| THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT |                                            |                |     | RFP                         | CAD FILE ss68446 | SIZE A               |
|                                                                                                                                                                                                                                  |                                            |                |     | DIST LB                     |                  | DRAWING NO. SS68446  |
|                                                                                                                                                                                                                                  |                                            |                |     |                             |                  | PAGE OF 3            |
|                                                                                                                                                                                                                                  |                                            |                |     |                             |                  | REV. 3               |



TITLE OUTLINE  
180T FR. - BB - TS - TEFC

MAT'L.

FINISH

```
ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--
```

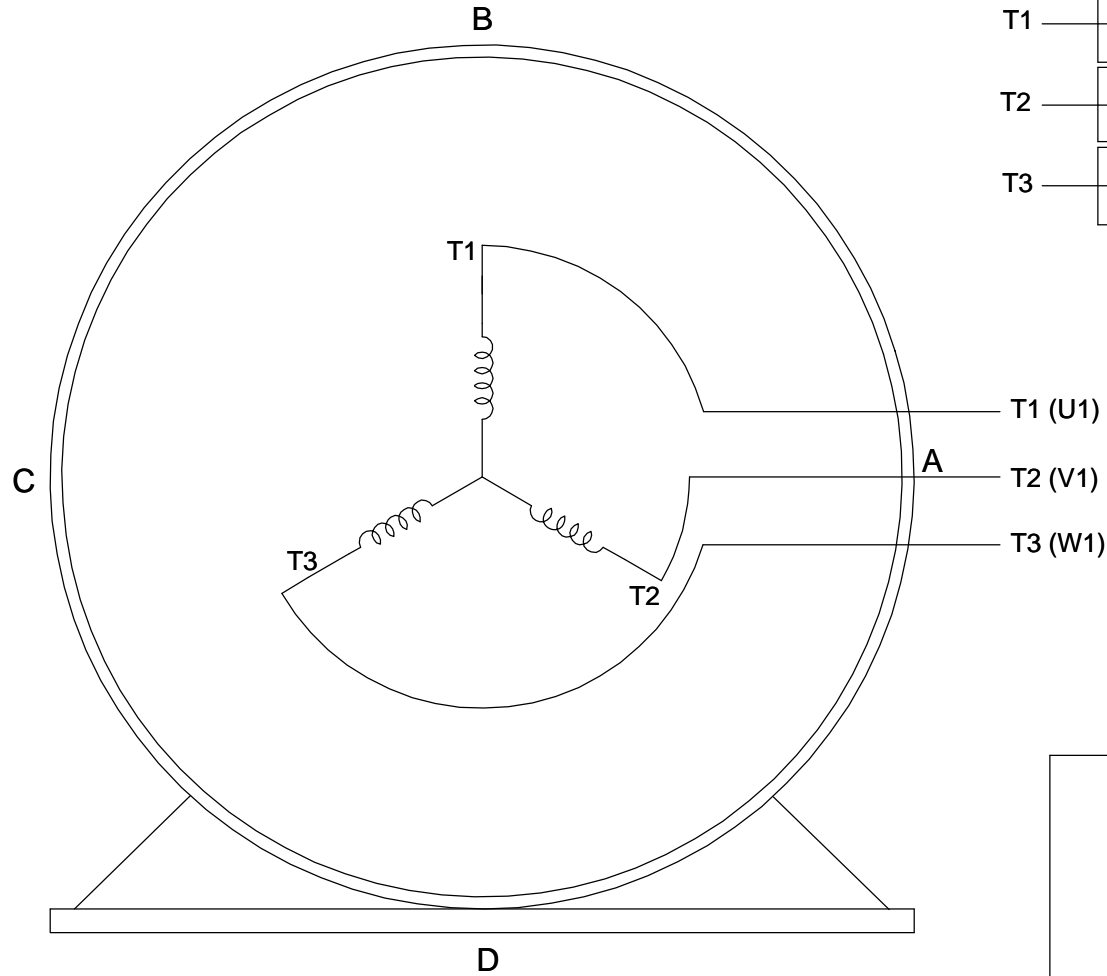
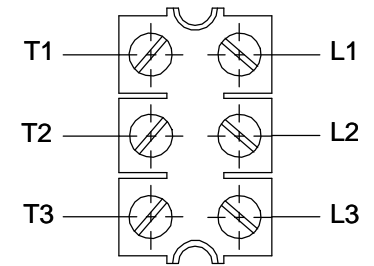
```
STACK:
```

```
/initialize  
-dictionary-  
/Pscript_WinNT_Compact  
-dictionary-
```

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

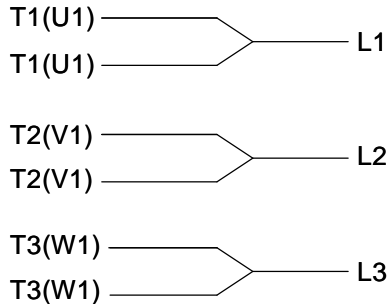
**TO REVERSE ROTATION:  
INTERCHANGE ANY TWO  
LINE LEAD CONNECTIONS.**

**TERMINAL BLOCK WHEN SPECIFIED**



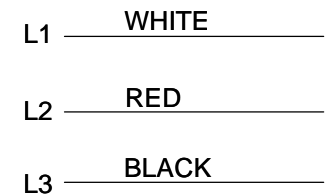
**VIEW OF TERMINAL END**

**IF MOTOR HAS  
6 LEADS**

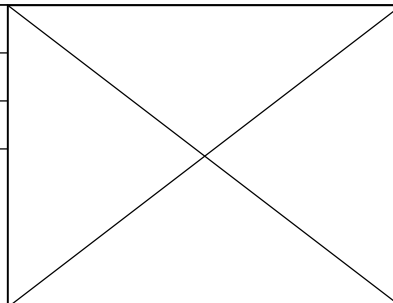


**A-9806 DECAL**

**OPTIONAL CORD  
CONNECTION**



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

|                                                                                  |                                 |                        |
|----------------------------------------------------------------------------------|---------------------------------|------------------------|
| <b>Regal Beloit America, Inc.</b>                                                |                                 |                        |
| 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> |

**CERTIFICATION DATA SHEET**

**Model#:** 182THFS19101 AA      **WINDING#:** 182814 NONE 2  
**CONN. DIAGRAM:** A-EE7300      **ASSEMBLY:** F1/F2 CAPABLE  
**OUTLINE:** A-SS68446-575

**TYPICAL MOTOR PERFORMANCE DATA**

| HP | KW   | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----|------|-----------|----------|-------|-----------|----------|--------|
| 1  | 0.75 | 900       | 870      | 182T  | TEFC      | G        | B      |

| PH | Hz | VOLTS | FL AMPS | START TYPE          | DUTY       | INSL | S.F  | AMB°C | ELEVATION |
|----|----|-------|---------|---------------------|------------|------|------|-------|-----------|
| 3  | 60 | 460   | 1.9     | LINE OR<br>INVERTER | CONTINUOUS | F3   | 1.15 | 40    | 3300      |

| FULL LOAD EFF: 78.5 | 3/4 LOAD EFF: 78.5 | 1/2 LOAD EFF: 75.5 | GTD. EFF | ELEC. TYPE        | NO LOAD AMPS |
|---------------------|--------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD PF: 62    | 3/4 LOAD PF: 51    | 1/2 LOAD PF: 40    | 75.5     | SQ CAGE INV RATED | 1.4          |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE   | B.D. TORQUE  | F.L. RISE°C |
|-------------|-------------------|---------------|--------------|-------------|
| 6 LB-FT     | 8.2               | 8.5 LB-FT 142 | 14 LB-FT 233 | 60          |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2   | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|--------------|-----------|-----------------|--------------|-------------------|
| 52 dBA                 | 62 dBA      | 0.32 LB-FT^2 | - LB-FT^2 | 20 SEC.         | 4            | 80 LBS.           |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY         | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT        |
|-----------------|------------------|------------|-------------|---------------------|--------------------|------------|---------|--------------|
| STANDARD        | STANDARD         | RIGID      | HORIZONTAL  | PREMIUM SEVERE DUTY | DIVISION 2 T2B     | FALSE      | NONE    | BLUE (EPOXY) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL           | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|--------------------------|----------------|
| DE       | OPE  |            |            |            |             |                          |                |
| BALL     | BALL | POLYREX EM | T          | NONE       | NONE        | 1144 STRESSPROOF (C-223) | CAST IRON      |
| 6206     | 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 20:1 |
| 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: 06/27/2017 01:13:05 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



182THFS19101

Submittal

Data @ 460 V

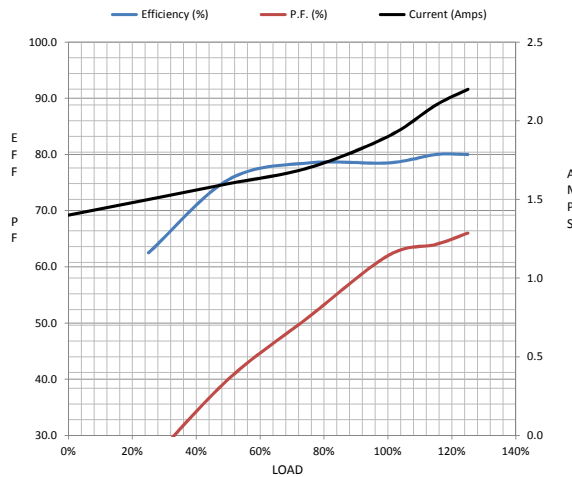
Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115% | 125% | LR   |
|----------------|------|------|------|------|------|------|------|------|
| Current (Amps) | 1.40 | 1.50 | 1.60 | 1.70 | 1.90 | 2.10 | 2.20 | 8.2  |
| Torque (ft-lb) | 0.00 | 1.50 | 3.0  | 4.5  | 6.0  | 7.0  | 7.8  | 8.5  |
| RPM            | 900  | 892  | 885  | 878  | 870  | 865  | 860  | 0    |
| Efficiency (%) |      | 62.5 | 75.5 | 78.5 | 78.5 | 80.0 | 80.0 |      |
| P.F. (%)       | 9.5  | 25.0 | 40.0 | 51.0 | 62.0 | 64.0 | 66.0 | 42.0 |

Motor Speed Data

|                | LR  | Pull-Up | BD   | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM)    | 0   | 250     | 750  | 870   | 900  |
| Current (Amps) | 8.2 | 7.5     | 5.0  | 1.90  | 1.40 |
| Torque (ft-lb) | 8.5 | 8.0     | 14.0 | 6.0   | 0.00 |

| Information Block           |                         |         |         |          |
|-----------------------------|-------------------------|---------|---------|----------|
| HP                          | 1.0                     |         |         |          |
| Sync. RPM                   | 900                     |         |         |          |
| Frame                       | 182                     |         |         |          |
| Enclosure                   | TEFC                    |         |         |          |
| Construction                | TFS                     |         |         |          |
| Voltage                     | 460 V                   |         |         |          |
| Frequency                   | 60 Hz                   |         |         |          |
| Design                      | B                       |         |         |          |
| LR Code letter              | G                       |         |         |          |
| Service Factor              | 1.15                    |         |         |          |
| Temp Rise @ FL              | 60 ° C                  |         |         |          |
| Duty                        | CONT                    |         |         |          |
| Ambient                     | 40 ° C                  |         |         |          |
| Elevation                   | 1,000 feet              |         |         |          |
| Rotor/Shaft wk <sup>2</sup> | 0.32 Lb-Ft <sup>2</sup> |         |         |          |
| Ref Wdg                     | 182814 NONE             |         |         |          |
| Sound Pressure @ 1M         | 52 dBA                  |         |         |          |
| VFD Rating                  | CONSTANT 20:1           |         |         |          |
| Outline Dwg                 | A-SS68446-575           |         |         |          |
| Conn. Diag                  | A-EE7300                |         |         |          |
| Additional Specifications:  |                         |         |         |          |
| 0                           |                         |         |         |          |
| 365THFS8036                 |                         |         |         |          |
| EQUIV CKT (OHMS / PHASE)    |                         |         |         |          |
| R1                          | R2                      | X1      | X2      | Xm       |
| 10.2240                     | 6.2480                  | 21.0160 | 24.7080 | 183.1800 |



Speed -Torque Curve

