

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 324THFS9076

Catalog No: W562

25 HP Severe Duty Motor, 3 phase, 1200 RPM, 460 V, 324T Frame, TEFC
Severe Duty Motors



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RegalRexnord

Nameplate Specifications

| | | | |
|------------------------|------------|----------------------------|-----------------------------|
| Output HP | 25 Hp | Output KW | 18.7 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 32.5 A | Speed | 1182 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 93 % | Power Factor | 78 |
| Duty | Continuous | Insulation Class | F |
| Design Code | B | KVA Code | G |
| Frame | 324T | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6312 | Opp Drive End Bearing Size | 6311 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 56 |
| Number of Speeds | 1 | | |

Technical Specifications

| | | | |
|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 6 | Rotation | Reversible |
| Resistance Main | .255 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Overall Length | 28.87 in |
| Frame Length | 11.50 in | Shaft Diameter | 2.125 in |
| Shaft Extension | 5.5 in | Assembly/Box Mounting | F1/F2 Capable |
| Connection Drawing | A-EE7300 | Outline Drawing | B-SS300575-1150 |

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Uncontrolled Copy

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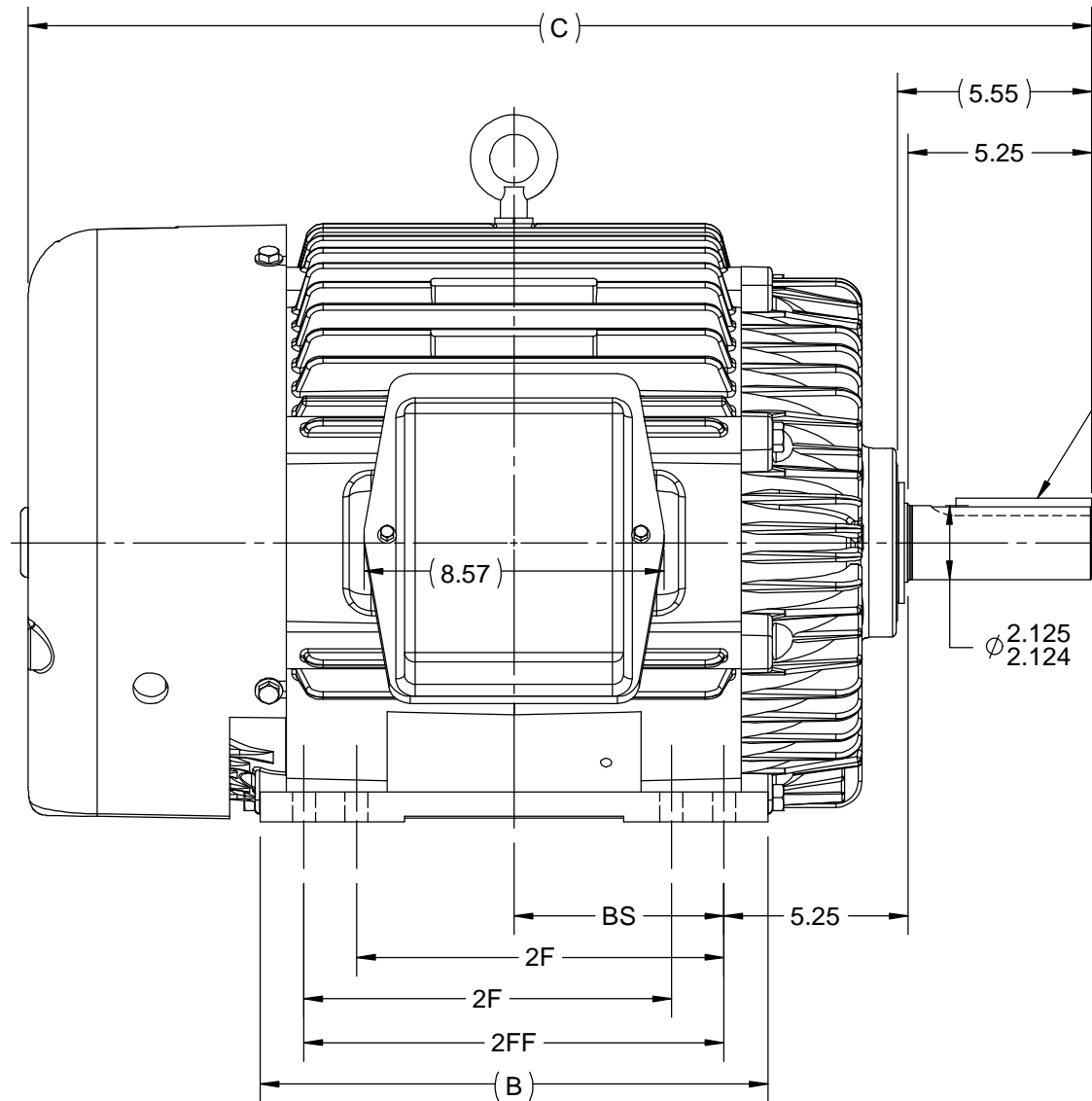
1

B

B

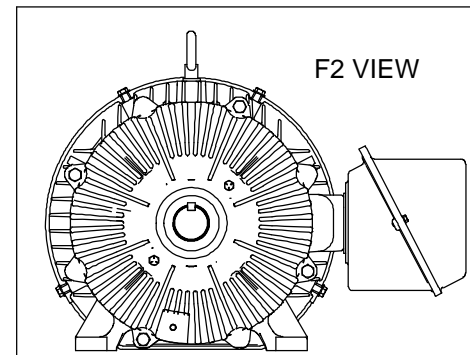
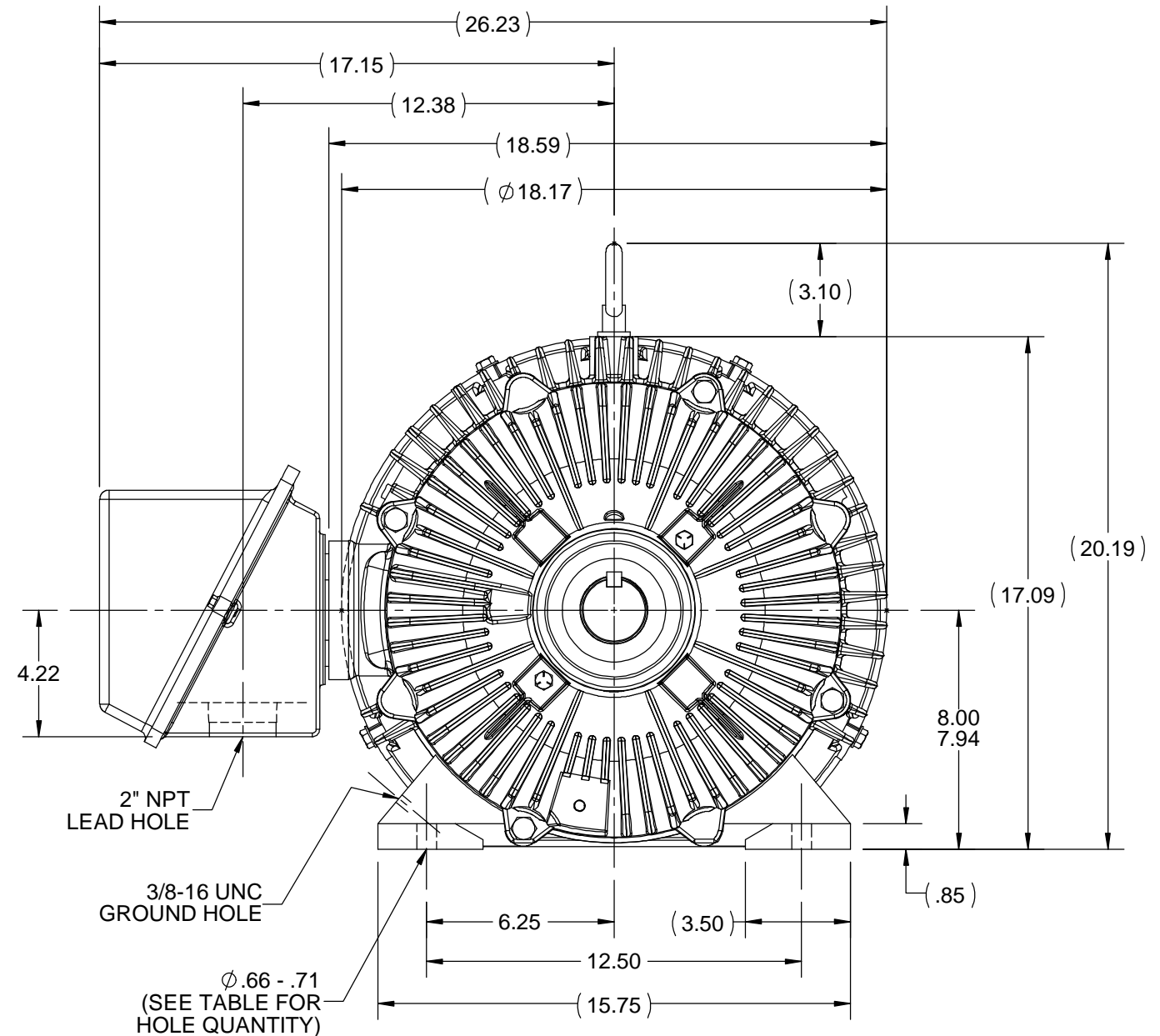
A

A



.500x.500x3.88
KEY

Ø 2.125
2.124



NOTES:

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.

| DASH | FRAME | C | B | BS | 2F | 2FF | -- | MTG HOLES |
|------|--------|-------|-------|------|-------|-------|----|-----------|
| 1150 | 324T | 28.87 | 13.00 | 5.25 | -- | 10.50 | | 4 |
| 1300 | 324/6T | 30.37 | 14.50 | 6.00 | 10.50 | 12.00 | | 8 |
| 1450 | 326T | 31.87 | 15.00 | 6.75 | 12.00 | 13.50 | | 8 |

| | | |
|--|--------------------|--------------------|
| DRAWING REVISION D | REVISION BY MSG | DATE 12-05-2018 |
| ECO ECO-0157547 | APPROVED BY MSG | DATE 12-05-2018 |
| ECO DESCRIPTION REVISED 2FF DIM FOR -1450 COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS. | | |

| | | | |
|--|---------|-----------|---------|
| TOLERANCES UNLESS OTHERWISE SPECIFIED: | | | |
| DEC. | INCH | mm | ANGLE |
| .X | ±0.1 | [±2.5] | ±7° 30" |
| .XX | ±0.03 | [±0.76] | |
| .XXX | ±0.005 | [±0.127] | |
| .XXXX | ±0.0005 | [±0.0127] | |
| REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH/mm 5.1 | | | |
| mm SHOWN IN [BRACKETS] | | | |

| |
|---------------------------|
| DRAWN BY MH |
| DATE 01-23-1998 |
| APPROVED BY DD |
| DATE 01-26-1998 |
| REFERENCE |
| THIRD ANGLE PROJECTION |

| | |
|--|-----------------------------------|
| Regal Beloit America, Inc. | |
| DESCRIPTION OUTLINE 300T FR. - TEFC | |
| MATERIAL | PROCESS/FINISH |
| SIZE B | DRAWING NUMBER SS300575 |
| SHEET 1 OF 1 | |

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

TO REVERSE ROTATION:
INTERCHANGE ANY TWO
LINE LEAD CONNECTIONS.

TERMINAL BLOCK WHEN SPECIFIED



IF MOTOR HAS 6 LEADS



A-9806 DECAL

OPTIONAL CORD CONNECTION



VIEW OF TERMINAL END

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



Regal Beloit America, Inc.

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL PROCESS/FINISH

| | | |
|-----------|--------------------------|-----------------|
| SIZE A | DRAWING NUMBER EE7300 | SHEET 1 OF 1 |
|-----------|--------------------------|-----------------|

CERTIFICATION DATA SHEET

Model#: 324THFS9076 CD
 CONN. DIAGRAM: A-EE7300
 OUTLINE: B-SS300575-1150

WINDING#: 324679 NONE 1
 ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----|------|-----------|----------|-------|-----------|----------|--------|
| 25 | 18.7 | 1200 | 1182 | 324T | TEFC | G | B |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|----|----|-------|---------|---------------------|------------|------|------|-------|-----------|
| 3 | 60 | 460 | 32.5 | LINE OR INVERTER | CONTINUOUS | F3 | 1.15 | 40 | 3300 |

| | | | | | |
|-------------------|------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD EFF: 93 | 3/4 LOAD EFF: 93 | 1/2 LOAD EFF: 92.4 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
| FULL LOAD PF: 78 | 3/4 LOAD PF: 73 | 1/2 LOAD PF: 63 | 92.4 | SQ CAGE INV RATED | 14 |

| | | | | |
|-------------|-------------------|---------------|---------------|-------------|
| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
| 112 LB-FT | 182 | 175 LB-FT 156 | 300 LB-FT 268 | 55 |

| | | | | | | |
|---------------------------|-------------|-------------|-------------|-----------------|-----------------|----------------------|
| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
| 56 dBA | 66 dBA | 8.5 LB-FT^2 | 425 LB-FT^2 | 20 SEC. | 2 | 650 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 | | | | | | |
| 6312 | 6311 | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |

| 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 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

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DATE: 06/21/2017 03:27:55 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



324THFS9076

Submittal

Data @ 460 V

Motor Load Data

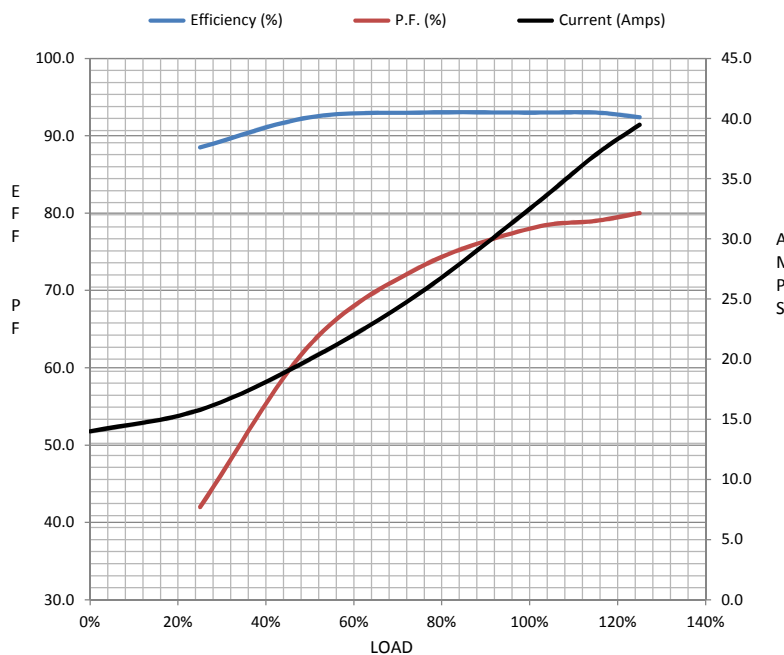
| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|----------------|------|------|------|------|------|-------|------|------|--|
| Current (Amps) | 14.0 | 15.8 | 20.0 | 25.5 | 32.5 | 37.0 | 39.5 | 182 | |
| Torque (ft-lb) | 0.00 | 27.5 | 55.0 | 83.5 | 112 | 128 | 140 | 175 | |
| RPM | 1200 | 1195 | 1190 | 1188 | 1182 | 1,178 | 1175 | 0 | |
| Efficiency (%) | | 88.5 | 92.4 | 93.0 | 93.0 | 93.0 | 92.4 | | |
| P.F. (%) | 4.5 | 42.0 | 63.0 | 73.0 | 78.0 | 79.0 | 80.0 | 30.0 | |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 600 | 1100 | 1182 | 1200 |
| Current (Amps) | 182 | 168 | 125 | 32.5 | 14.0 |
| Torque (ft-lb) | 175 | 190 | 300 | 112 | 0.00 |

Information Block

| | | | | |
|-----------------------------|------------------------|--------|--------|---------|
| HP | 25.0 | | | |
| Sync. RPM | 1200 | | | |
| Frame | 324 | | | |
| Enclosure | TEFC | | | |
| Construction | TFN | | | |
| Voltage | 460 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 | 1,000 feet | | | |
| Rotor/Shaft wk ² | 8.5 Lb-Ft ² | | | |
| Ref Wdg | 324679 NONE | | | |
| Sound Pressure @ 1M | 56 dBA | | | |
| VFD Rating | CONSTANT 20:1 | | | |
| Outline Dwg | B-SS300575-1150 | | | |
| Conn. Diag | A-EE7300 | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 365THFS8036 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.1760 | 0.1360 | 1.0460 | 1.3050 | 18.1150 |



Speed - Torque Curve

