

# Crusher Duty Motors

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**Model No:** 449TTFS36633

**Catalog No:** Y856A

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Crusher Duty Motor, 250 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 449T Frame, TEFC

**Product Information Packet: Model No: 449TTFS36633, Catalog No: Y856A Crusher Duty Motor, 250 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 449T Frame, TEFC**

### Nameplate Specifications

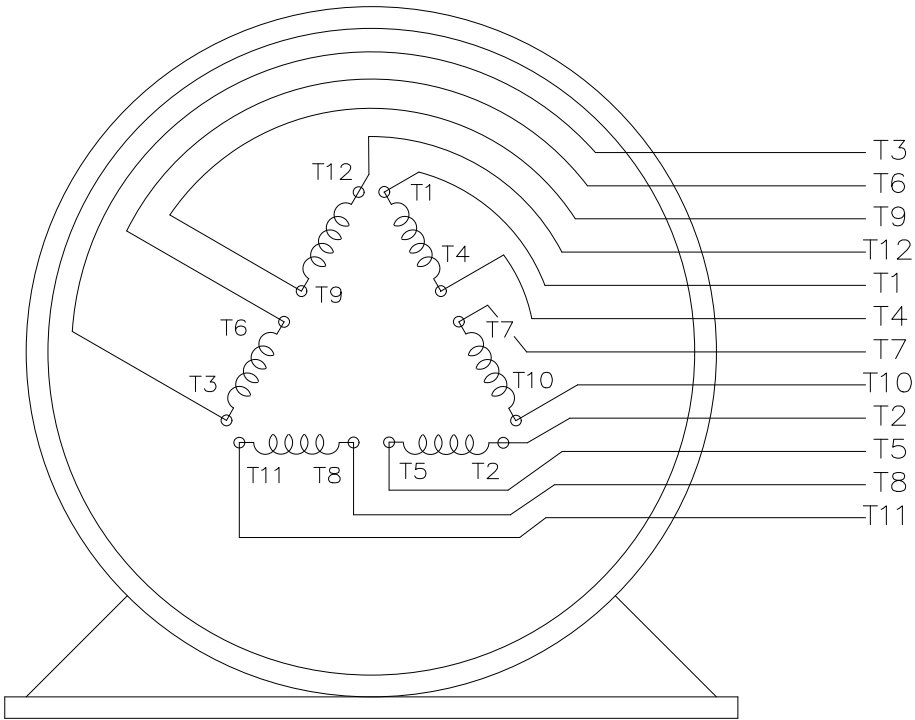
|                            |                                    |                        |                      |
|----------------------------|------------------------------------|------------------------|----------------------|
| Phase                      | <b>3</b>                           | Output HP              | <b>250 Hp</b>        |
| Output KW                  | <b>187.0 kW</b>                    | Voltage                | <b>460 V</b>         |
| Speed                      | <b>1788 r/min</b>                  | Synchronous RPM        | <b>1800 r/min</b>    |
| Service Factor             | <b>1.15</b>                        | Frame                  | <b>449T</b>          |
| Enclosure                  | <b>Totally Enclosed Fan Cooled</b> | Thermal Protection     | <b>No Protection</b> |
| Efficiency                 | <b>96.5 %</b>                      | Ambient Temperature    | <b>40 °C</b>         |
| Frequency                  | <b>60 Hz</b>                       | Current                | <b>282.0 A</b>       |
| Power Factor               | <b>86</b>                          | Duty                   | <b>Continuous</b>    |
| Insulation Class           | <b>F</b>                           | Design Code            | <b>C</b>             |
| KVA Code                   | <b>G</b>                           | Drive End Bearing Size | <b>NU322</b>         |
| Opp Drive End Bearing Size | <b>6319</b>                        | UL                     | <b>Recognized</b>    |
| CSA                        | <b>Y</b>                           | CE                     | <b>Y</b>             |
| IP Code                    | <b>55</b>                          | Number of Speeds       | <b>1</b>             |

### Technical Specifications

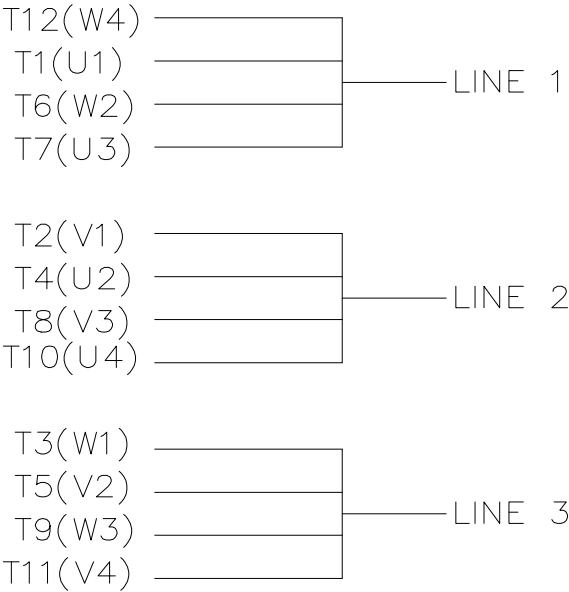
|                       |                                    |                       |                                                 |
|-----------------------|------------------------------------|-----------------------|-------------------------------------------------|
| Electrical Type       | <b>Squirrel Cage Induction Run</b> | Starting Method       | <b>Part Wdg Start &amp; Wye Start Delta Run</b> |
| Poles                 | <b>4</b>                           | Rotation              | <b>Reversible</b>                               |
| Resistance Main       | <b>.011 O</b>                      | Mounting              | <b>Rigid Base</b>                               |
| Motor Orientation     | <b>Horizontal</b>                  | Drive End Bearing     | <b>Roller</b>                                   |
| Opp Drive End Bearing | <b>Ball</b>                        | Frame Material        | <b>Cast Iron</b>                                |
| Shaft Type            | <b>T</b>                           | Overall Length        | <b>51.84 in</b>                                 |
| Frame Length          | <b>28.75 in</b>                    | Shaft Diameter        | <b>3 3/8 in</b>                                 |
| Shaft Extension       | <b>8.81 in</b>                     | Assembly/Box Mounting | <b>F1/F2 Capable</b>                            |

### Drawings

|                    |                   |                 |                        |
|--------------------|-------------------|-----------------|------------------------|
| Connection Drawing | <b>A-EE7300BH</b> | Outline Drawing | <b>B-SS515631-2875</b> |
|--------------------|-------------------|-----------------|------------------------|



VIEW OF TERMINAL END



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                    |  |                                |  |                                                                                      |  |                           |  |                                                                                       |  |                |                            |  |                 |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|--------------------------------|--|--------------------------------------------------------------------------------------|--|---------------------------|--|---------------------------------------------------------------------------------------|--|----------------|----------------------------|--|-----------------|--|
| DRAWING REVISION<br>E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | REVISION BY<br>SB  |  | REV DATE/ © DATE<br>08/04/2025 |  | DRAWN BY<br>RJW                                                                      |  | marathon™                 |  |                                                                                       |  |                |                            |  |                 |  |
| REQUEST NUMBER<br>CR-0023654                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | APPROVED BY<br>SBD |  | DATE<br>08/04/2025             |  | DATE<br>02/11/2025                                                                   |  |                           |  |                                                                                       |  |                |                            |  |                 |  |
| REQUEST NUMBER DESCRIPTION<br>DRAWING TITLE BLOCK UPDATED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                    |  |                                |  | PRIMARY DIMENSIONS ARE INCH<br>mm DIMENSIONS IN [BRACKETS]<br>ARE FOR REFERENCE ONLY |  | APPROVED BY<br>GK         |  | DESCRIPTION<br>CONNECTION DIAGRAM                                                     |  |                |                            |  |                 |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                    |  |                                |  |                                                                                      |  | REFERENCE                 |  | MATERIAL                                                                              |  | PROCESS/FINISH |                            |  |                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                    |  |                                |  |                                                                                      |  | THIRD ANGLE<br>PROJECTION |  |  |  | SIZE<br>A      | DRAWING NUMBER<br>EE7300BH |  | SHEET<br>1 OF 1 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                    |  |                                |  |                                                                                      |  |                           |  |                                                                                       |  |                |                            |  |                 |  |

## Data Sheet

Date: 6/19/2017

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

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

Submitted by: FAREEDA DUDEKULA



449TFS36633

Submittal

Data @ 460 V

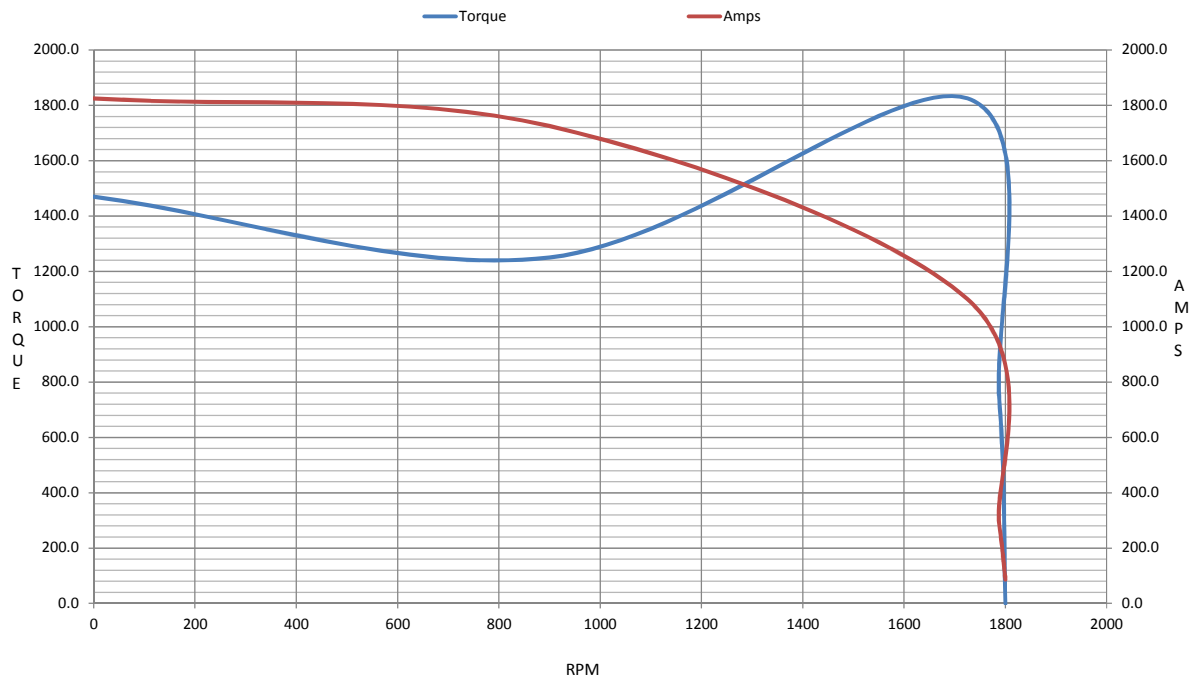
## Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR    |  |
|----------------|------|------|------|------|------|-------|------|-------|--|
| Current (Amps) | 86.0 | 110  | 158  | 217  | 282  | 322   | 350  | 1,825 |  |
| Torque (ft-lb) | 0.00 | 183  | 366  | 550  | 735  | 846   | 920  | 1,470 |  |
| RPM            | 1800 | 1796 | 1794 | 1790 | 1788 | 1,786 | 1784 | 0     |  |
| Efficiency (%) |      | 93.0 | 95.8 | 96.5 | 96.5 | 96.5  | 96.2 |       |  |
| P.F. (%)       | 4.5  | 57.0 | 77.0 | 83.5 | 86.0 | 86.5  | 86.5 | 31.0  |  |

## Motor Speed Data

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LR    | Pull-Up         | BD    | Rated  | Idle |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------|-------|--------|------|-------------------|----------------|----------|----------------|----|----|-----|----|----|----|-----|-----|----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|-------|--|-----|--|--|
| Speed (RPM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0     | 900             | 1725  | 1788   | 1800 | Information Block |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Current (Amps)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.825 | 1.725           | 1.100 | 282    | 86.0 | HP                |                | 250.0    |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Torque (ft-lb)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.470 | 1.250           | 1.825 | 735    | 0.00 | Sync. RPM         |                | 1800     |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| <div><div>— Efficiency (%) — P.F. (%) — 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>93</td><td>150</td><td>80</td></tr><tr><td>50</td><td>95</td><td>250</td><td>120</td></tr><tr><td>75</td><td>96</td><td>300</td><td>180</td></tr><tr><td>100</td><td>97</td><td>315</td><td>240</td></tr><tr><td>125</td><td>97</td><td>320</td><td>350</td></tr></tbody></table></div> |       |                 |       |        |      | Load (%)          | Efficiency (%) | P.F. (%) | Current (Amps) | 25 | 93 | 150 | 80 | 50 | 95 | 250 | 120 | 75 | 96 | 300 | 180 | 100 | 97 | 315 | 240 | 125 | 97 | 320 | 350 | Frame |  | 449 |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Load (%)          | Efficiency (%) | P.F. (%) | Current (Amps) |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | 25                | 93             | 150      | 80             |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | 50                | 95             | 250      | 120            |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | 75                | 96             | 300      | 180            |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | 100               | 97             | 315      | 240            |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | 125               | 97             | 320      | 350            |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Enclosure         |                | TEFC     |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Construction      |                | TFN      |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Voltage           |                | 460 V    |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Frequency         |                | 60 Hz    |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Design            |                | A        |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | LR Code letter    |                | G        |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Service Factor    |                | 1.15     |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Temp Rise @ FL    |                | 65 ° C   |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Duty              |                | CONT     |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                 |       |        |      | Ambient           |                | 40 ° C   |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Elevation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       | 1,000 feet      |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Rotor/Shaft wk²                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       | 89.0 Lb-Ft²     |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Ref Wdg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       | T4494141 NONE   |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Sound Pressure @ 1M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | 80 dBA          |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| VFD Rating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       | NONE            |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Outline Dwg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       | B-SS515631-2875 |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Conn. Diag                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       | A-EE7300BH      |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| Additional Specifications:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                 |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                 |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                 |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| EQUIV CKT (OHMS / PHASE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                 |       |        |      |                   |                |          |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| R1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       | R2              |       | X1     |      | X2                |                | Xm       |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |
| 0.0090                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       | 0.0070          |       | 0.0900 |      | 0.1300            |                | 3.0420   |                |    |    |     |    |    |    |     |     |    |    |     |     |     |    |     |     |     |    |     |     |       |  |     |  |  |

## Speed -Torque Curve



## CERTIFICATION DATA SHEET

Model#: 449TTFS36633 AA  
 CONN. DIAGRAM: A-EE7300BH  
 OUTLINE: B-SS515631-2875

WINDING#: T4494141 NONE 1  
 ASSEMBLY: F1/F2 CAPABLE

## TYPICAL MOTOR PERFORMANCE DATA

| HP  | KW  | SYNC. RPM | F.L. RPM | FRAME    | ENCLOSURE | KVA CODE | DESIGN |
|-----|-----|-----------|----------|----------|-----------|----------|--------|
| 250 | 187 | 1800      | 1788     | 447/449T | TEFC      | G        | C      |

| PH | Hz | VOLTS | FL AMPS | START TYPE  | DUTY       | INSL | S.F  | AMB°C | ELEVATION |
|----|----|-------|---------|-------------|------------|------|------|-------|-----------|
| 3  | 60 | 460   | 282     | PWS & YDRUN | CONTINUOUS | F1   | 1.15 | 40    | 3300      |

|                     |                    |                    |          |                 |              |
|---------------------|--------------------|--------------------|----------|-----------------|--------------|
| FULL LOAD EFF: 96.5 | 3/4 LOAD EFF: 96.5 | 1/2 LOAD EFF: 95.8 | GTD. EFF | ELEC. TYPE      | NO LOAD AMPS |
| FULL LOAD PF: 86    | 3/4 LOAD PF: 83.5  | 1/2 LOAD PF: 77    | 96.2     | SQ CAGE IND RUN | 86           |

|             |                   |                |                |             |
|-------------|-------------------|----------------|----------------|-------------|
| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE    | B.D. TORQUE    | F.L. RISE°C |
| 735 LB-FT   | 1825              | 1470 LB-FT 200 | 1825 LB-FT 248 | 70          |

|                        |             |            |           |                 |              |                   |
|------------------------|-------------|------------|-----------|-----------------|--------------|-------------------|
| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
| 80 dBA                 | 90 dBA      | 89 LB-FT^2 | - LB-FT^2 | 25 SEC.         | -            | 2900 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 | NONE               | FALSE      | NONE    | BLUE (EPOXY) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL           | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|--------------------------|----------------|
| DE       | OPE  |            |            |            |             |                          |                |
| ROLLER   | BALL |            |            |            |             |                          |                |
| NU322    | 6319 | POLYREX EM | T          | NONE       | NONE        | 4140 STRESSPROOF (C-214) | 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

|                                 |                            |
|---------------------------------|----------------------------|
| *<br>N<br>O<br>T<br>E<br>S<br>* | INVERTER TORQUE: NONE      |
|                                 | INV. HP SPEED RANGE: NONE  |
|                                 | ENCODER: NONE              |
|                                 | NONE NONE<br>NONE NONE PPR |
|                                 | BRAKE: NONE NONE           |
|                                 | NONE P/N NONE              |
|                                 | NONE NONE                  |
|                                 | NONE FT-LB NONE V NONE Hz  |

DATE: 06/21/2017 07:10:42 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.