

# PRODUCT INFORMATION PACKET



Model No: 171587.60

Catalog No: 171587.60

General Purpose Motor, 15 & 15 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1800 & 1500 RPM,  
254TC Frame, TEFC



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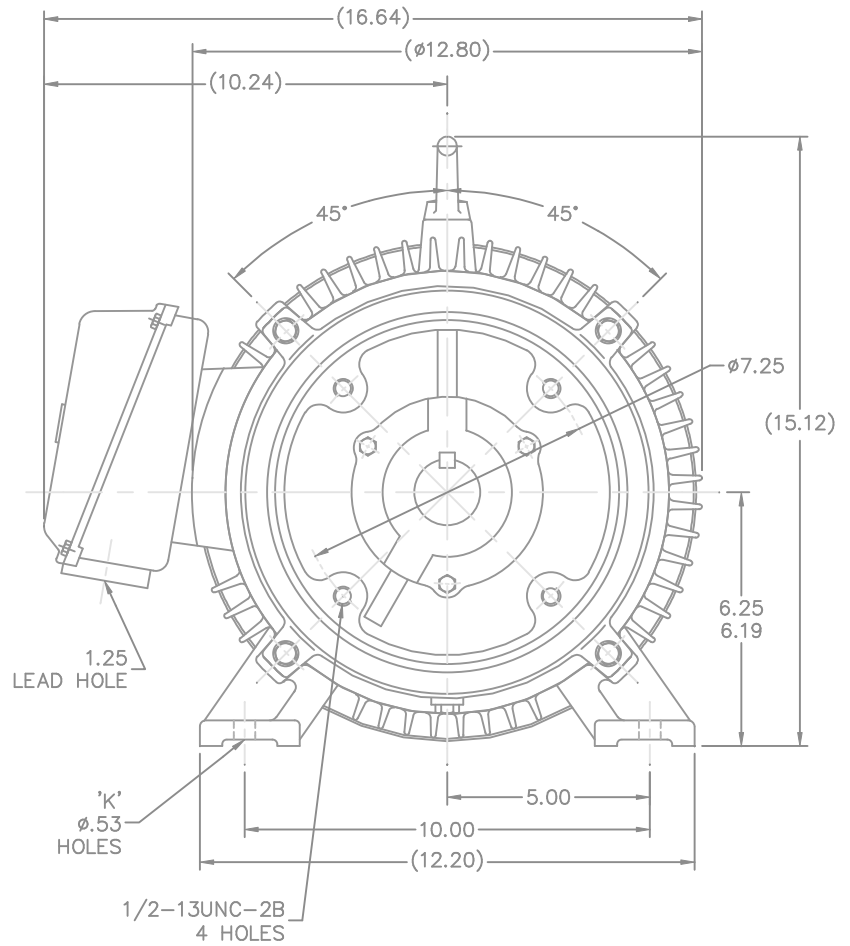
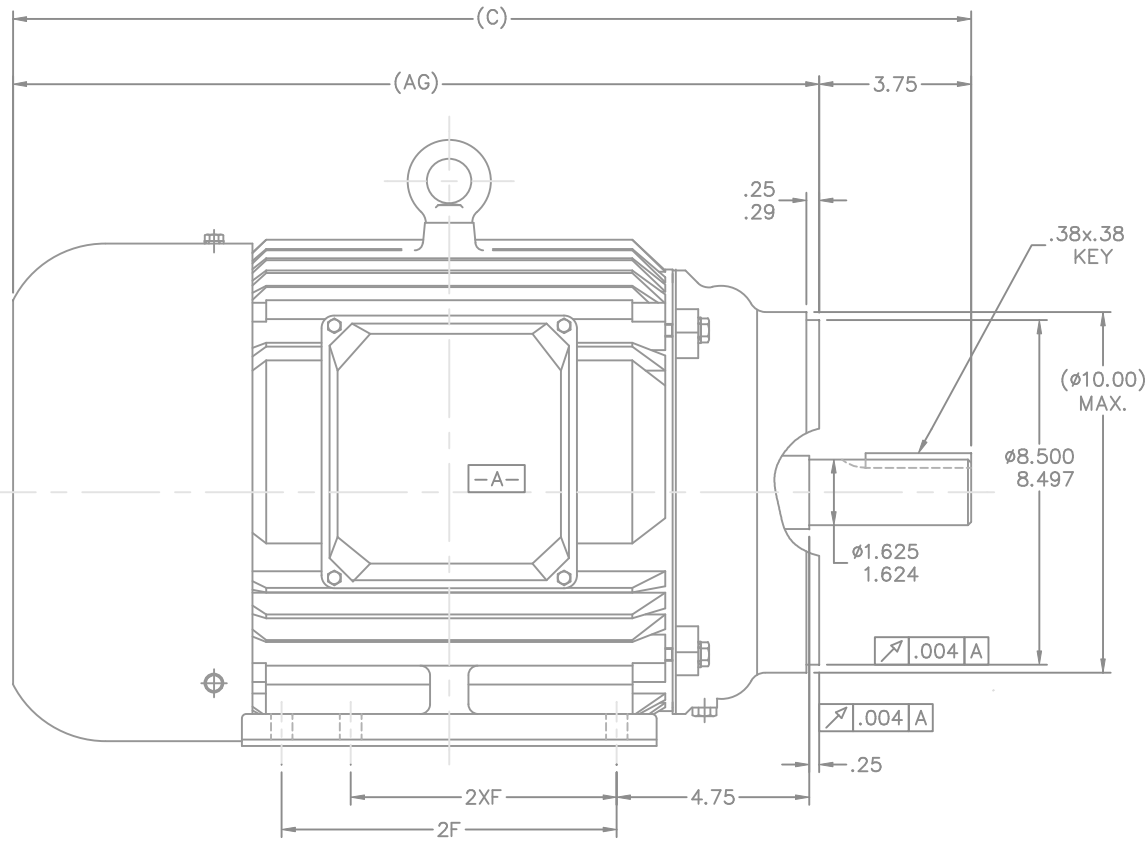


## Nameplate Specifications

|                        |                      |                            |                             |
|------------------------|----------------------|----------------------------|-----------------------------|
| Phase                  | 3                    | Output HP                  | 15 & 15 Hp                  |
| Output KW              | 11.2 & 11.2 kW       | Voltage                    | 208-230/460 & 190/380 V     |
| Speed                  | 1775 & 1468 rpm      | Service Factor             | 1.25 & 1.25                 |
| Frame                  | 254TC                | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | Thermostat           | Efficiency                 | 92.4 & 91 %                 |
| Ambient Temperature    | 40 °C                | Frequency                  | 60 & 50 Hz                  |
| Current                | 39-37/18.5 & 44/22 A | Power Factor               | 82.5                        |
| Duty                   | Continuous           | Insulation Class           | F                           |
| Design Code            | B                    | KVA Code                   | H                           |
| Drive End Bearing Size | NONE                 | Opp Drive End Bearing Size | NONE                        |
| UL                     | Recognized           | CSA                        | N                           |
| CE                     | Y                    | IP Code                    | 43                          |
| Number of Speeds       | 1                    |                            |                             |

## Technical Specifications

|                       |                              |                    |                                 |
|-----------------------|------------------------------|--------------------|---------------------------------|
| Electrical Type       | Squirrel Cage Inverter Rated | Starting Method    | Wye Start Delta Run Or Inverter |
| Poles                 | 4                            | Rotation           | Reversible                      |
| Resistance Main       | .129 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     | 23.75 in                        |
| Shaft Diameter        | 1.625 in                     | Shaft Extension    | 4 in                            |
| Assembly/Box Mounting | F1/F2 CAPABLE                |                    |                                 |
| Outline Drawing       | SS622044LE-N254TC-4          | Connection Drawing | 004172.01                       |



NOT DRAWN TO SCALE

|                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |           |  |                             |  |                                                                                                                                               |  |                      |  |                          |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|-----------|--|-----------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|--|--------------------------|--|
|                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |           |  | TOLERANCES UNLESS SPECIFIED |  | <div>ELECTRIC MOTORS<br/>GEARMOTORS<br/>AND DRIVES</div> |  | DRAWN MSG 08-11-2005 |  |                          |  |
|                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |           |  | DEC. INCHES                 |  |                                                                                                                                               |  | CHK ML 08-12-2005    |  |                          |  |
|                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |           |  | .X ±.1                      |  |                                                                                                                                               |  | APPD LMC 08-23-2005  |  |                          |  |
|                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |           |  | .XX ±.03                    |  |                                                                                                                                               |  | SCALE 3=8            |  |                          |  |
|                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |           |  | .XXX ±.005                  |  |                                                                                                                                               |  | REF                  |  |                          |  |
|                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |           |  | .XXXX ±.0005                |  |                                                                                                                                               |  | FMF                  |  |                          |  |
|                                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |           |  | CHK ANG ±7°30"              |  | FINISH                                                                                                                                        |  | PREV 250013670-3700  |  |                          |  |
| NO. REVISION                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  | BY & DATE |  | RFP                         |  | CAD FILE ss622044le                                                                                                                           |  | SIZE                 |  | DRAWING NO. PAGE OF REV. |  |
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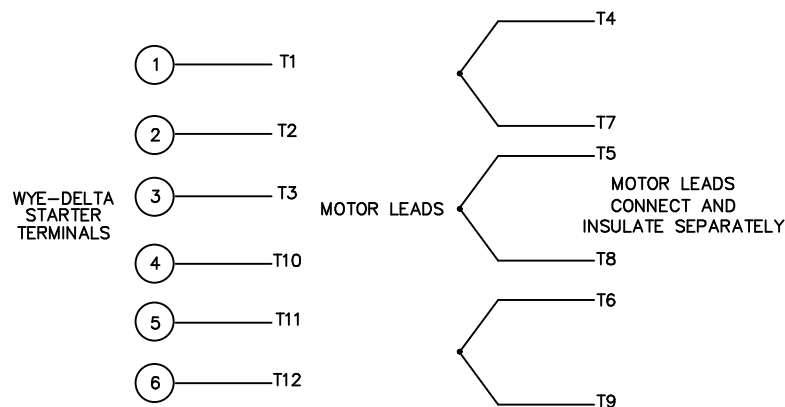
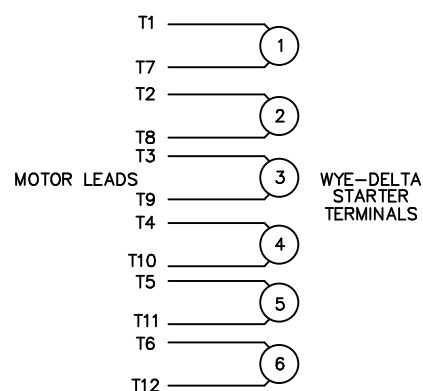
|      |          |       |       |      |       |      |   |      |
|------|----------|-------|-------|------|-------|------|---|------|
| ---- | N254TC-2 | 23.75 | 20.00 | ---- | 8.26  | ---- | 4 | ---- |
| ---- | N254TC-4 | 23.75 | 20.00 | ---- | 8.26  | ---- | 4 | ---- |
| ---- | N256TC-2 | 25.48 | 21.73 | ---- | 10.00 | 8.26 | 6 | ---- |
| ---- | N256TC-4 | 25.48 | 21.73 | ---- | 10.00 | 8.26 | 6 | ---- |

|      |       |   |    |   |    |     |   |    |
|------|-------|---|----|---|----|-----|---|----|
| DASH | FRAME | C | AG | B | 2F | 2XF | K | BS |
|------|-------|---|----|---|----|-----|---|----|

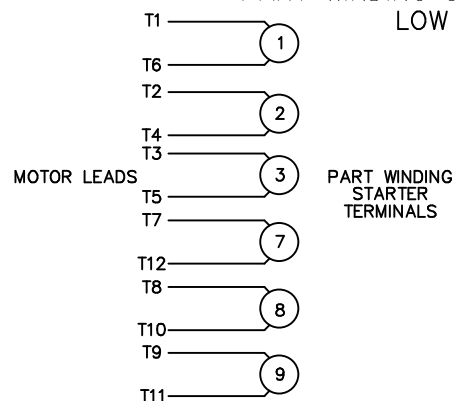
## WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

## LOW VOLTAGE CONNECTION

## HIGH VOLTAGE CONNECTION



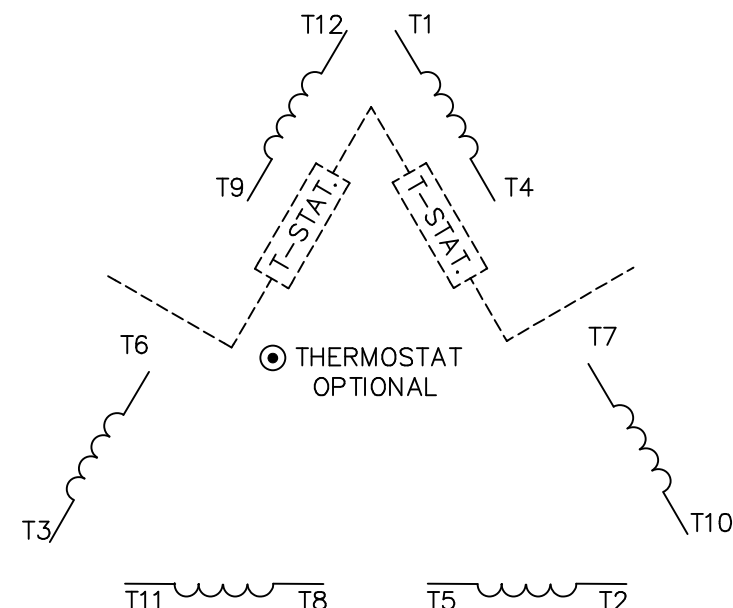
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

PART WINDING START USABLE ON 4 & 6 POLE MOTORS  
LOW VOLTAGE CONNECTION ONLY

REFER TO THE PART WINDING STARTER INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

REFER TO THE CUTLER - HAMMER OR EQUIV. FOR PROPER SELECTION OF OVERLOAD HEATER COILS.

## LINE LEADS



## ACROSS THE LINE START &amp; RUN

|           | LINE 1          | LINE 2          | LINE 3          | JOIN & INSULATE SEPARATELY |
|-----------|-----------------|-----------------|-----------------|----------------------------|
| HIGH VOLT | T1,T12          | T2,T10          | T3,T11          | (T4,T7) (T5,T8) (T6,T9)    |
| LOW VOLT  | T1,T6<br>T7,T12 | T2,T4<br>T8,T10 | T3,T5<br>T9,T11 |                            |

TOLERANCES  
UNLESS SPECIFIED

DEC. INCHES

.X ±.1

.XX ±.01

.XXX ±.005

.XXXX ±.0005

ANG ±1/2"



ELECTRIC MOTORS  
GEARMOTORS  
AND DRIVES

DRAWN WLW 09/08/77

CHK RPB 09/12/77

APPD JCW 09/12/77

SCALE 1=1

REF

FMF

PREV

| NO. | REVISION                                | BY & DATE    | CHK   | ANG    |
|-----|-----------------------------------------|--------------|-------|--------|
| 03  | REV'D LOW VOLTAGE CONN. LEADS PER ELEC. | BJB 06/07/00 | .XX   | ±.01   |
| 02  | ADDED T-STAT. NOTES PER ELECTRICAL      | KMM 06/02/98 | .XXX  | ±.005  |
| 01  | REDRAWN TO CAD                          | DBT 06/02/97 | .XXXX | ±.0005 |

TITLE DELTA - WYE CONNECTION DIAGRAM

MAT'L.

FINISH

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RFP

DIST

CAD FILE 00417201

SIZE

A

DRAWING NO.

004172-01

REV.

03



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

DATA VOLTS: 460

### CERTIFICATION DATA SHEET

CONN. DIAGRAM: 004172.01  
OUTLINE: SS622044LE  
WINDING: T12904005

CAT #: 171587.60

NONE 3

### TYPICAL MOTOR PERFORMANCE DATA

| HP | KW   | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|------|----------|--------|-------|-----------|------|----------|--------|
| 15 | 11.2 | 1800     | 1765   | 254TC | TEFC      | TFC  | H        | A      |

| PH | HZ    | VOLTS               | AMPS           | START TYPE         | DUTY | INSL | S.F. | AMB | ELEV. |
|----|-------|---------------------|----------------|--------------------|------|------|------|-----|-------|
| 3  | 60/50 | 208-230/460#190/380 | 39-36/18&44/22 | START D RUN OR INV | CONT | F    | 1.15 | 40  | 3300  |

| F.L. EFF | 92.4 | 3/4 LD EFF | 92.4 | 1/2 LD EFF | 91.7 | GTD EFF | ELECT. TYPE       |
|----------|------|------------|------|------------|------|---------|-------------------|
| F.L. PF  | 84.0 | 3/4 LD PF  | 78.0 | 1/2 LD PF  | 67.5 | 0.0     | SQ CAGE INV RATED |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE    | B.D. TORQUE    | F.L. RISE (°C) |
|-------------|-----------------|----------------|----------------|----------------|
| 44.6 LB-FT  | 140             | 126 LB-FT 283% | 154 LB-FT 345% | 45             |

| PRESSURE @ 3 | POWER    | ROTOR WK²   | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|--------------|----------|-------------|---------------|-----------------|-------------|-----------|
| 999 dBA      | 1008 dBA | 2.09 LB-FT² | 2.1 LB-FT²    | 15 SEC.         | 2           | 0 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               | NO         | NONE    | N - LEESON WATTS |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL    | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------|----------------|
| DE       | ODE  | POLYREX EM | T          | NONE       | NONE        | AISI 1045 (C-240) | CAST IRON      |
| BALL     | BALL |            |            |            |             |                   |                |
| NONE     | NONE |            |            |            |             |                   |                |

| THERMOSTATS  | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|--------------|------------|-----------|-----------|-------------|---------|---------------|
| TSTATS (N/C) | 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            | 0            | 0            | 0            | 0            | 0.150              | ODE   |

|                                 |  |                                                                            |                                                                           |
|---------------------------------|--|----------------------------------------------------------------------------|---------------------------------------------------------------------------|
| *<br>N<br>O<br>T<br>E<br>S<br>* |  |                                                                            | <b>INVERTER TORQUE:</b> CONSTANT 10:1<br><b>INV. HP SPEED RANGE:</b> NONE |
|                                 |  |                                                                            |                                                                           |
|                                 |  |                                                                            |                                                                           |
|                                 |  |                                                                            |                                                                           |
|                                 |  |                                                                            |                                                                           |
|                                 |  |                                                                            | <b>ENCODER:</b> NONE<br>NONE<br>NONE<br>NONE PPR                          |
|                                 |  |                                                                            |                                                                           |
|                                 |  |                                                                            |                                                                           |
|                                 |  |                                                                            |                                                                           |
|                                 |  |                                                                            |                                                                           |
| DATE: 1/17/2018                 |  | <b>BRAKE:</b> NONE<br>NONE<br>NONE                                         |                                                                           |
|                                 |  | <b>FT-LB:</b> NA<br><b>VOLTAGE:</b> NONE<br><b>UL:</b> V-INS, CONST UL REC |                                                                           |
|                                 |  | <b>HZ:</b>                                                                 |                                                                           |
|                                 |  |                                                                            |                                                                           |

## Data Sheet

Date: 1/17/2018

171587.60



Data @ 460 V

## Motor Load Data

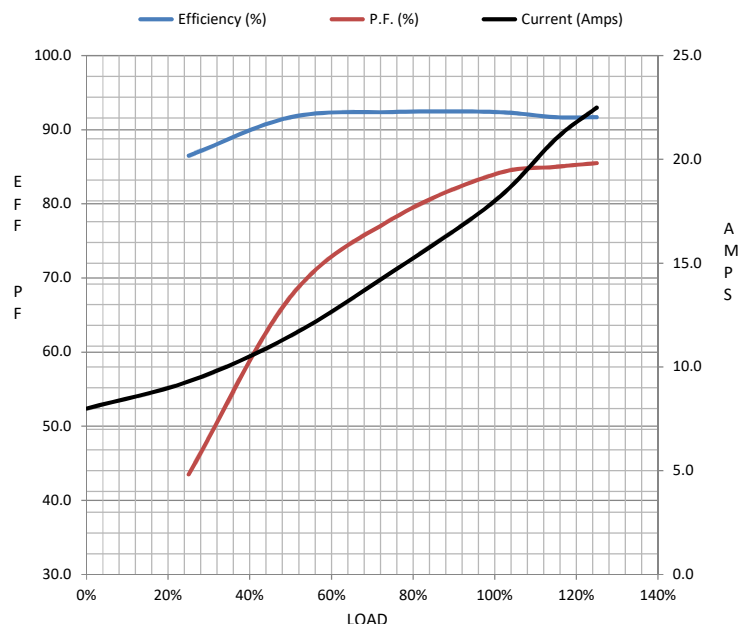
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115% | 125% | LR  |  |
|----------------|------|------|------|------|------|------|------|-----|--|
| Current (Amps) | 8.0  | 9.3  | 11.5 | 14.6 | 18.0 | 21.0 | 22.5 | 140 |  |
| Torque (ft-lb) | 0.00 | 11.0 | 22.0 | 33.2 | 44.6 | 51.3 | 55.7 | 126 |  |
| RPM            | 1800 | 1794 | 1788 | 1780 | 1765 | 1770 | 1765 | 0   |  |
| Efficiency (%) |      | 86.5 | 91.7 | 92.4 | 92.4 | 91.7 | 91.7 |     |  |
| P.F. (%)       | 6.0  | 43.5 | 67.5 | 78.0 | 84.0 | 85.0 | 85.5 | 0.0 |  |

## Motor Speed Data

|                | LR  | Pull-Up | BD   | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM)    | 0   | 467     | 1620 | 1765  | 1800 |
| Current (Amps) | 140 | 130     | 79.5 | 18.0  | 8.0  |
| Torque (ft-lb) | 126 | 98.5    | 154  | 44.6  | 0.00 |

## Information Block

|                            |                     |        |        |        |
|----------------------------|---------------------|--------|--------|--------|
| HP                         | 15.0                |        |        |        |
| Sync. RPM                  | 1800                |        |        |        |
| Frame                      | 254                 |        |        |        |
| Enclosure                  | TEFC                |        |        |        |
| Construction               | TFC                 |        |        |        |
| Voltage                    | 208-230/460#190/380 | V      |        |        |
| Frequency                  | 60                  | Hz     |        |        |
| Design                     | A                   |        |        |        |
| LR Code letter             | H                   |        |        |        |
| Service Factor             | 1.15                |        |        |        |
| Temp Rise @ FL             | 45                  | ° C    |        |        |
| Duty                       | CONT                |        |        |        |
| Ambient                    | 40                  | ° C    |        |        |
| Elevation                  | 1,000               | feet   |        |        |
| Rotor/Shaft wk²            | 2.09                | Lb-Ft² |        |        |
| Ref Wdg                    | T12904005 NONE      |        |        |        |
| Sound Pressure @ 1M        | 999                 | dBa    |        |        |
| VFD Rating                 | CONSTANT 10:1       |        |        |        |
| Outline Dwg                | SS622044LE          |        |        |        |
| Conn. Diag                 | 004172.01           |        |        |        |
| Additional Specifications: |                     |        |        |        |
| 0                          |                     |        |        |        |
| 0                          |                     |        |        |        |
| EQUIV CKT (OHMS / PHASE)   |                     |        |        |        |
| R1                         | R2                  | X1     | X2     | Xm     |
| 0.0000                     | 0.0000              | 0.0000 | 0.0000 | 0.0000 |



## Speed - Torque Curve

