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# General Purpose Motors

**Model No:** 256TTFL16038
**Catalog No:** E2124-P

General Purpose Motor, 20 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 RPM, 256T Frame, TEFC

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## Product Information Packet: Model No: 256TTFL16038, Catalog No: E2124-P  General Purpose Motor, 20 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 RPM, 256T Frame, TEFC

### Nameplate Specifications

| | | | |
|---|---|---|---|
| Phase | **3** | Output HP | **20 & 20 Hp** |
| Output KW | **14.9 & 14.9 kW** | Voltage | **230/460 & 190/380 V** |
| Speed | **1775 & 1450 r/min** | Synchronous RPM | **1800 & 1500 r/min** |
| Service Factor | **1.15 & 1.15** | Frame | **256T** |
| Enclosure | **Totally Enclosed Fan Cooled** | Thermal Protection | **No Protection** |
| Efficiency | **93 & 91.7 %** | Ambient Temperature | **40 °C** |
| Frequency | **60 & 50 Hz** | Current | **48/24.1 & 57/28.5 A** |
| Power Factor | **84** | Duty | **Continuous** |
| Insulation Class | **F** | Design Code | **B** |
| KVA Code | **G** | Drive End Bearing Size | **6309** |
| Opp Drive End Bearing Size | **6208** | UL | **Recognized** |
| CSA | **Y** | CE | **Y** |
| IP Code | **43** | Number of Speeds | **1** |

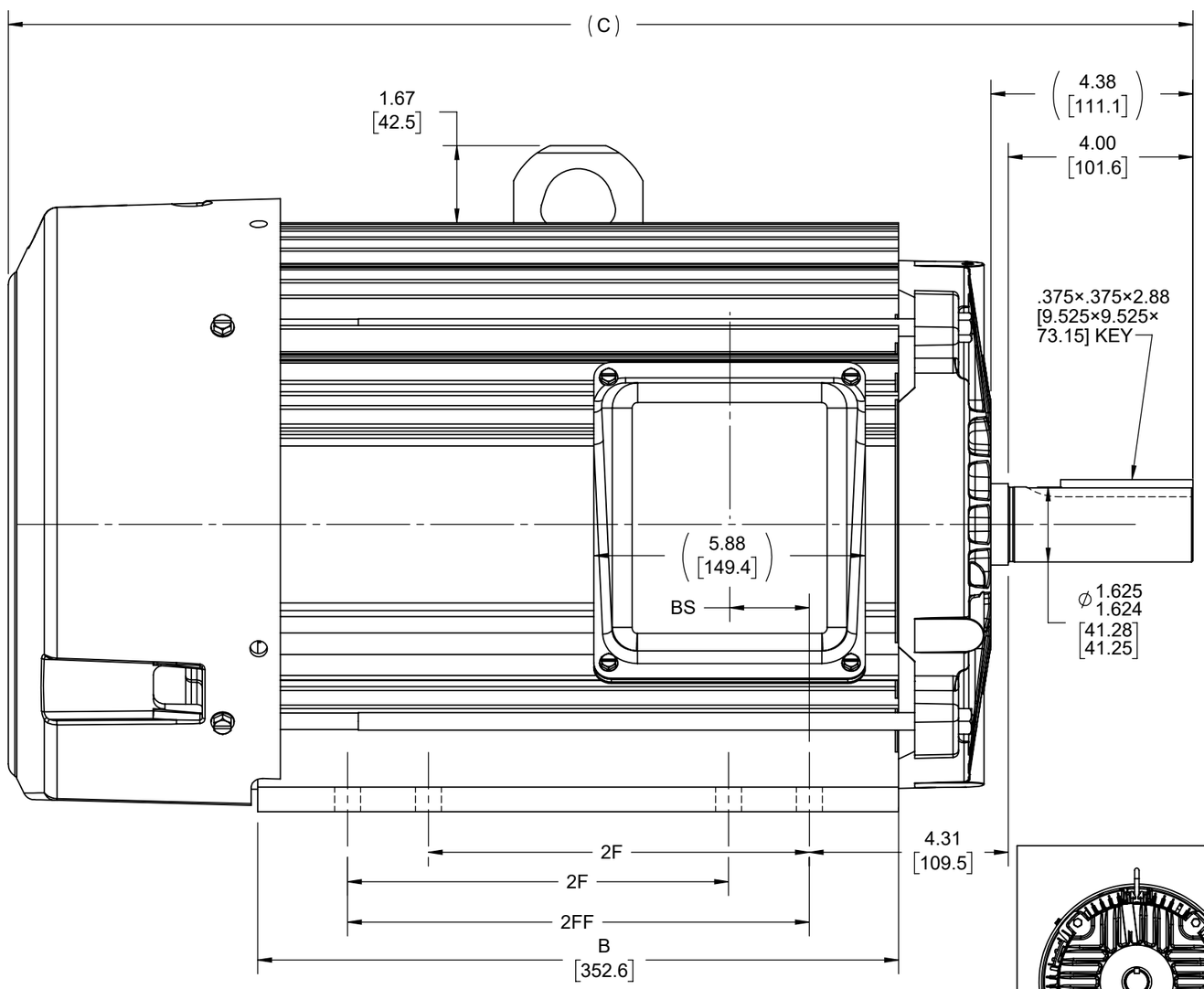
### Technical Specifications

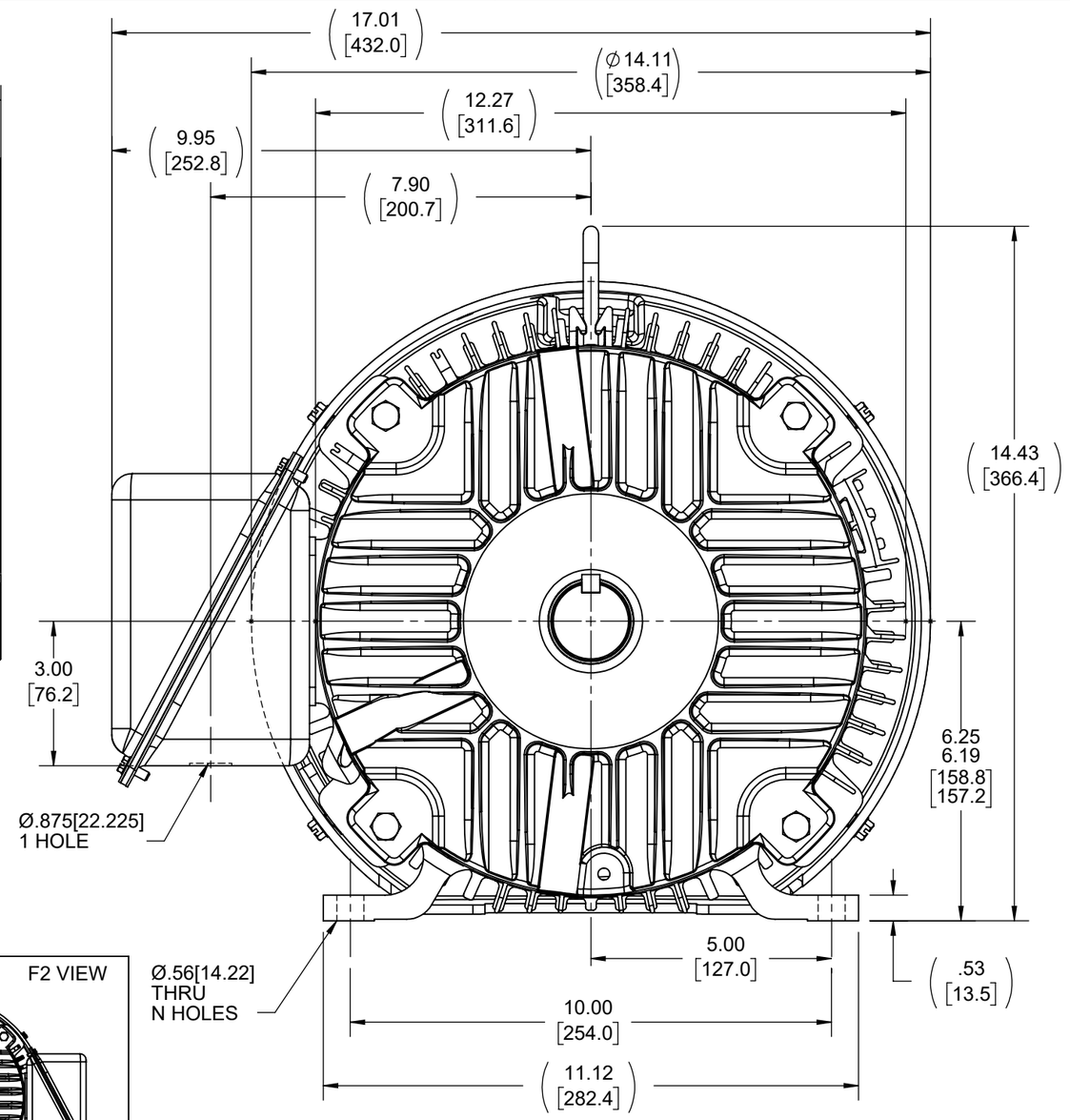
| | | | |
|---|---|---|---|
| Electrical Type | **Squirrel Cage Inverter Rated** | Starting Method | **Line Or Inverter** |
| Poles | **4** | Rotation | **Reversible** |
| Resistance Main | **.474 O** | Mounting | **Rigid Base** |
| Motor Orientation | **Horizontal** | Drive End Bearing | **Ball** |
| Opp Drive End Bearing | **Ball** | Frame Material | **Aluminum** |
| Shaft Type | **T** | Overall Length | **25.26 in** |
| Frame Length | **13.75 in** | Shaft Diameter | **1 5/8 in** |
| Shaft Extension | **4.38 in** | Assembly/Box Mounting | **F1/F2 Capable** |
| Inverter Load | **Constant 10:1** | | |

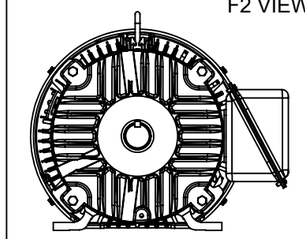
### Drawings

| | | | |
|---|---|---|---|
| Connection Drawing | **A-EE7308** | Outline Drawing | **B-SS321100-1375** |

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NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

| DASH | FRAME | C | B | 2F | 2FF | BS | N |
|---|---|---|---|---|---|---|---|
| 1200 | 254T | 23.78 [603.90] | 12.13 [308.10] | 8.25 [209.55] | ------ | 1.73 [43.94] | 4 |
| 1375 | 254/6T | 25.66 [651.65] | 13.88 [352.55] | 8.25 [209.55] | 10.00 [254.00] | 1.73 [43.94] | 8 |

| DRAWING REVISION | REVISION BY | REV DATE/© DATE |
|---|---|---|
| E | SB | 07/23/2025 |
| REQUEST NUMBER | APPROVED BY | DATE |
| CR-0023556 | SBD | 07/23/2025 |

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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TOLERANCES (EXCEPT AS NOTED):

| DEC. | INCH | mm | ANGLE |
|---|---|---|---|
| .X | ±0.1 | [±3] | ±7' 30" |
| .XX | ±0.03 | [±0.8] | |
| .XXX | ±0.005 | [±0.13] | |
| .XXXX | ±0.0005 | [±0.013] | |

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200 / 5.1 / INCH / mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

| | |
|---|---|
| DRAWN BY | RJW |
| DATE | 02-01-2005 |
| APPROVED BY | BW |
| DATE | 02-01-2005 |
| REFERENCE | |

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DESCRIPTION
# OUTLINE
250T FR.-ALUM. FR.-TEFC

MATERIAL | PROCESS/FINISH

THIRD ANGLE PROJECTION

| SIZE | DRAWING NUMBER | SHEET |
|---|---|---|
| B | SS321100 | 1 OF 1 |

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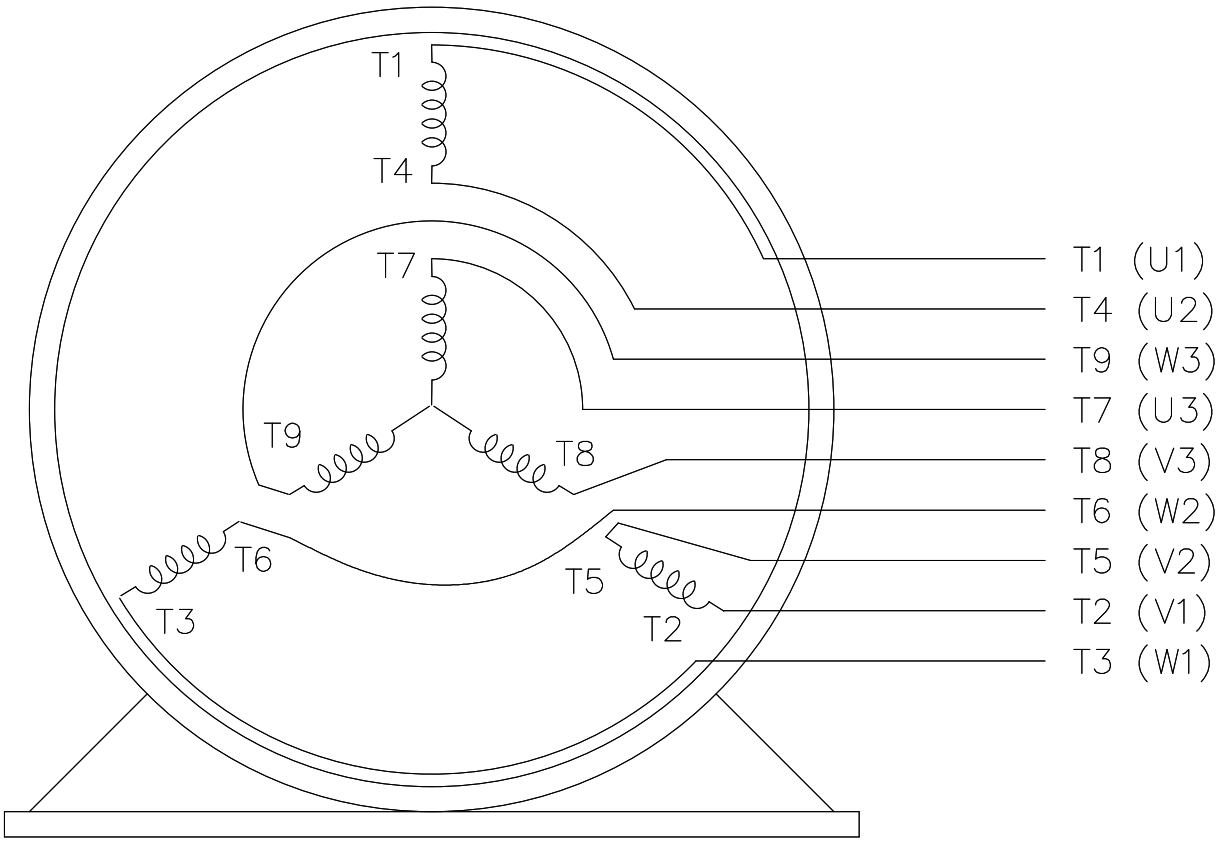
# THREE PHASE
# DUAL VOLTAGE MOTOR

## HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9

## LOW VOLTAGE

(U1) T1
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6




VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

## OPTIONAL CORD CONNECTION

L1 — WHITE
L2 — RED
L3 — BLACK

| DRAWING REVISION | REVISION BY | REV DATE/ © DATE |
|---|---|---|
| J | SB | 08/01/2025 |
| REQUEST NUMBER | APPROVED BY | DATE |
| CR-0023654 | SBD | 08/01/2025 |

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

| DRAWN BY | RM |
|---|---|
| DATE | 11/20/1990 |
| APPROVED BY | SAS |
| DATE | 04/24/2003 |
| REFERENCE | |
| THIRD ANGLE PROJECTION | |

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DESCRIPTION
CONN DIAGRAM-EXTERNAL
3Ø - DUAL VOLTAGE MOTOR

| MATERIAL | PROCESS/FINISH |
|---|---|
| | |

| SIZE | DRAWING NUMBER | SHEET |
|---|---|---|
| A | 4 of 6 EE7308 | 1 OF 1 |

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# Data Sheet

**Date:** 1/25/2019
**Customer:**
**Attention:**
**Submitted by:** FAREEDA DUDEKULA

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256TTFL16038

**Submittal**

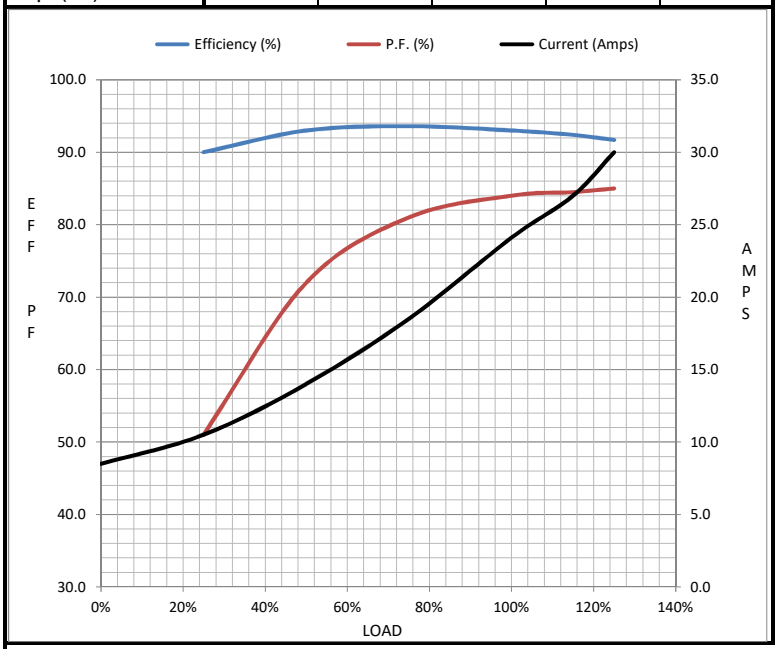
Data @ 460 V

## Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|---|---|---|---|---|---|---|---|---|---|
| Current (Amps) | 8.5 | 10.5 | 14.0 | 18.5 | 24.1 | 27.0 | 30.0 | 138 | |
| Torque (ft-lb) | 0.00 | 14.5 | 29.5 | 44.5 | 59.2 | 68.0 | 74.5 | 104 | |
| RPM | 1800 | 1795 | 1785 | 1780 | 1775 | 1,770 | 1760 | 0 | |
| Efficiency (%) | | 90.0 | 93.0 | 93.6 | 93.0 | 92.4 | 91.7 | | |
| P.F. (%) | 8.5 | 51.0 | 72.0 | 81.0 | 84.0 | 84.5 | 85.0 | 40.0 | |

## Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|---|---|---|---|---|---|
| Speed (RPM) | 0 | 900 | 1625 | 1775 | 1800 |
| Current (Amps) | 138 | 115 | 86.0 | 24.1 | 8.5 |
| Torque (ft-lb) | 104 | 100 | 146 | 59.2 | 0.00 |



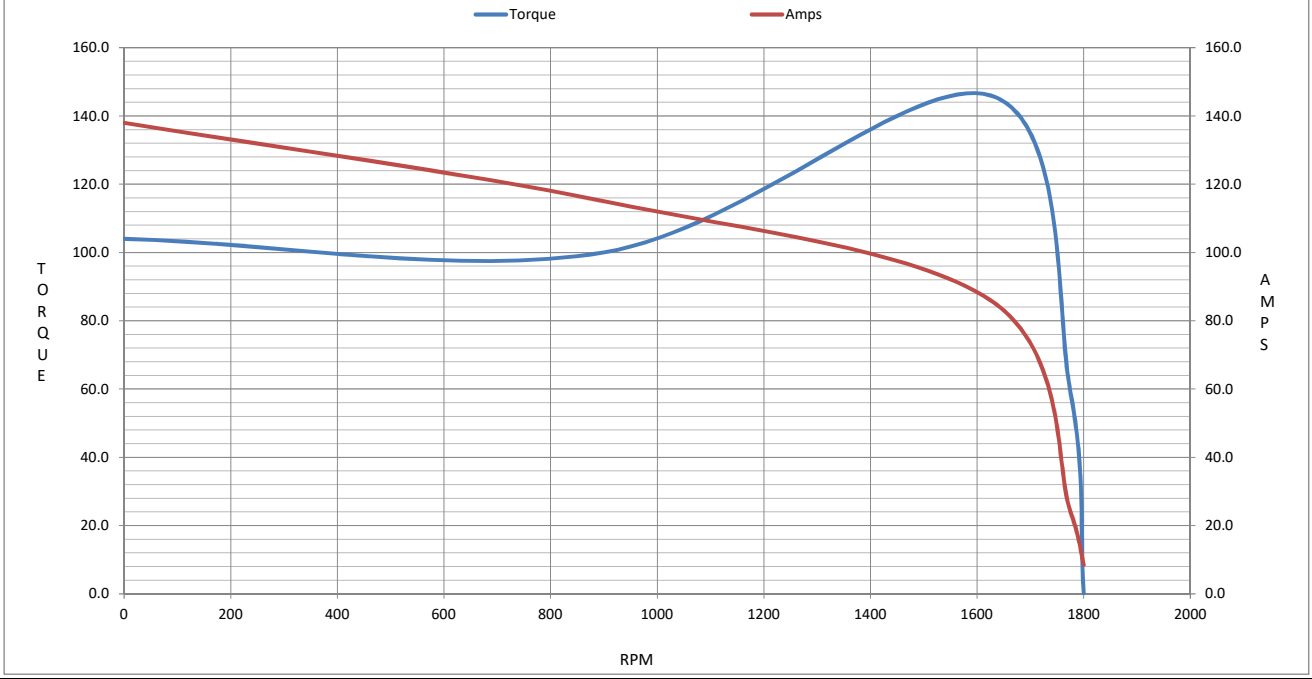

## Information Block

| | |
|---|---|
| HP | 20.0 |
| Sync. RPM | 1800 |
| Frame | 256 |
| Enclosure | TEFC |
| Construction | TFL |
| Voltage | 230/460#190/380 V |
| Frequency | 60 Hz |
| Design | B |
| LR Code letter | G |
| Service Factor | 1.15 |
| Temp Rise @ FL | 65 ° C |
| Duty | CONT |
| Ambient | 40 ° C |
| Elevation | 3,300 feet |
| Rotor/Shaft wk² | 3.0 Lb-Ft² |
| Ref Wdg | K2564164 R26 |
| Sound Pressure @ 1M | 65 dBA |
| VFD Rating | CONSTANT 10:1 |
| Outline Dwg | B-SS321100-1375 |
| Conn. Diag | A-EE7308 |
| Additional Specifications: | |
| 0 | |
| 0 | |

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|---|---|---|---|---|
| 0.2670 | 0.2070 | 0.9900 | 1.4910 | 28.4000 |

## Speed -Torque Curve



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## CERTIFICATION DATA SHEET

| | | | |
|---|---|---|---|
| **Model#:** | 256TTFL16038 AN | **WINDING#:** | K2564164 R26 6 |
| **CONN. DIAGRAM:** | A-EE7308 | **ASSEMBLY:** | F1/F2 CAPABLE |
| **OUTLINE:** | B-SS321100-1375 | | |

### TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|---|---|---|---|---|---|---|---|
| 20&20 | 14.9&14.9 | 1800 | 1775&1450 | 256T | TEFC | G | B |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 60/50 | 230/460#190/380 | 48/24.1&57/28.5 | LINE OR INVERTER | CONTINUOUS | F3 | 1.15/1.15 | 40 | 3300 |

| FULL LOAD EFF: 93&91.7 | 3/4 LOAD EFF: 93.6 | 1/2 LOAD EFF: 93 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
|---|---|---|---|---|---|
| FULL LOAD PF: 84&86 | 3/4 LOAD PF: 81 | 1/2 LOAD PF: 72 | 92.4 | SQ CAGE INV RATED | 17 / 8.5 |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
|---|---|---|---|---|
| 59.2 LB-FT | 276 / 138 | 104 LB-FT 176 | 146 LB-FT 247 | 65 |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
|---|---|---|---|---|---|---|
| 65 dBA | 75 dBA | 3.2 LB-FT^2 | 125 LB-FT^2 | 25 SEC. | 2 | 425 LBS. |

### *** SUPPLEMENTAL INFORMATION ***

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

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|---|---|---|---|---|---|---|---|
| DE | OPE | | | | | | |
| BALL 6309 | BALL 6208 | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | ALUMINUM |

| 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 10:1
INV. HP SPEED RANGE: NONE

ENCODER: NONE
NONE NONE
NONE NONE PPR

BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
- FT-LB NONE V NONE Hz

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** Subject to change without notice.