

Product Information Packet

November 8, 2016

Data shown is for the current revision model #. Ensure your nameplate model # matches.

| | |
|----------------------------|-----------------------|
| Model Number: | 5KS404XAA408D6 |
| Catalog Number: | M9457 |
| Instruction Manual: | GEI-56128 |
| Connection Diagram: | GEM2034E-FIG7 |
| Outline Drawing: | 239C6400PZ |

| Accessory Connection Diagrams | | | |
|--------------------------------------|------|------------------------------|------|
| Bearing Thermocouple: | None | Heater: | None |
| RTD: | None | Thermistor: | None |
| Thermostat: | None | Winding Thermocouple: | None |
| Bearing RTD: | None | | |

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Marks:

| | | | |
|----------------------------|-----------------------|-------------------------------|-----------|
| MODEL NUMBER: | 5KS404XAA408D6 | Estimated Weight: | 1390 Lbs |
| Outline Drawing: | 239C6400PZ | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG7 | Enclosure: | TEFC |
| Instruction Book: | GEI-56128 | Encl Construction: | 841 |
| Design Code: | 40BD4022A | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | 404T | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 8 | Nominal Efficiency: | 92.4 % |
| Output Power: | 50HP 37KW | Guaranteed Efficiency: | 91.7 |
| RPM: | 890 | 3/4 Load Efficiency: | 93.1 |
| Voltage: | 460 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 29.3 |
| Amps - FL: | 72.9 | Power Factor: | 69.5 |
| Service Factor: | 1.15 | Bearing - DE: | 6316ZC3S0 |
| Alt Service Factor: | -- | Bearing - ODE: | 6316ZC3S0 |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

IEEE-STD-841-2009
 DE BRG 80BC03JP3026, ODE BRG 80BC03JP3026
 STAMP NP249A5564P051 AS BELOW:
 MODEL:5KS404XAA408D6 S/N: XXX
 CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200 C GC
 CL 1 ZONE2 AEX NA IIC 200C;CL 1 DIV2 GRP ABCD 200C
 IN -25C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR
 SURF TEMP 230C AT 1.15SF ON SINE-WAVE PWR
 OR 200C VT OR 230C CT OR 200C CHP PWM CONTROL
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB
 VT 0 - 60 HZ, CT 15-60 HZ, CHP 60-90 HZ.

Additional Information:

8P - T EXTN
 PAINTED FRAME ID & SHAFT,
 FAN COVER INSIDE & ODE E/S OUTSIDE
 700 CU IN - 3.00" NPT
 INPRO SEAL BOTH ENDS
 OIL RESISTANT SLEEVING ON LEADS
 .0015" TIR SHAFT RUNOUT
 ROUTINE TEST REPORT AND 5 POINT VIBRATION TEST
 REPORT INCLUDED IN C/B
 COPPER WASHER UNDER HEADS OF BEARING CAP BOLTS,
 APPLY TITE-SEAL (A50CD427A) ON BEARING CAP SCREWS,
 RABBETS AND PLUG THREADS.
 GROUND PAD
 F1 MOUNTING



Performance Characteristics

1st Winding 1st Connection

Design: 40BD4022A

Marks:

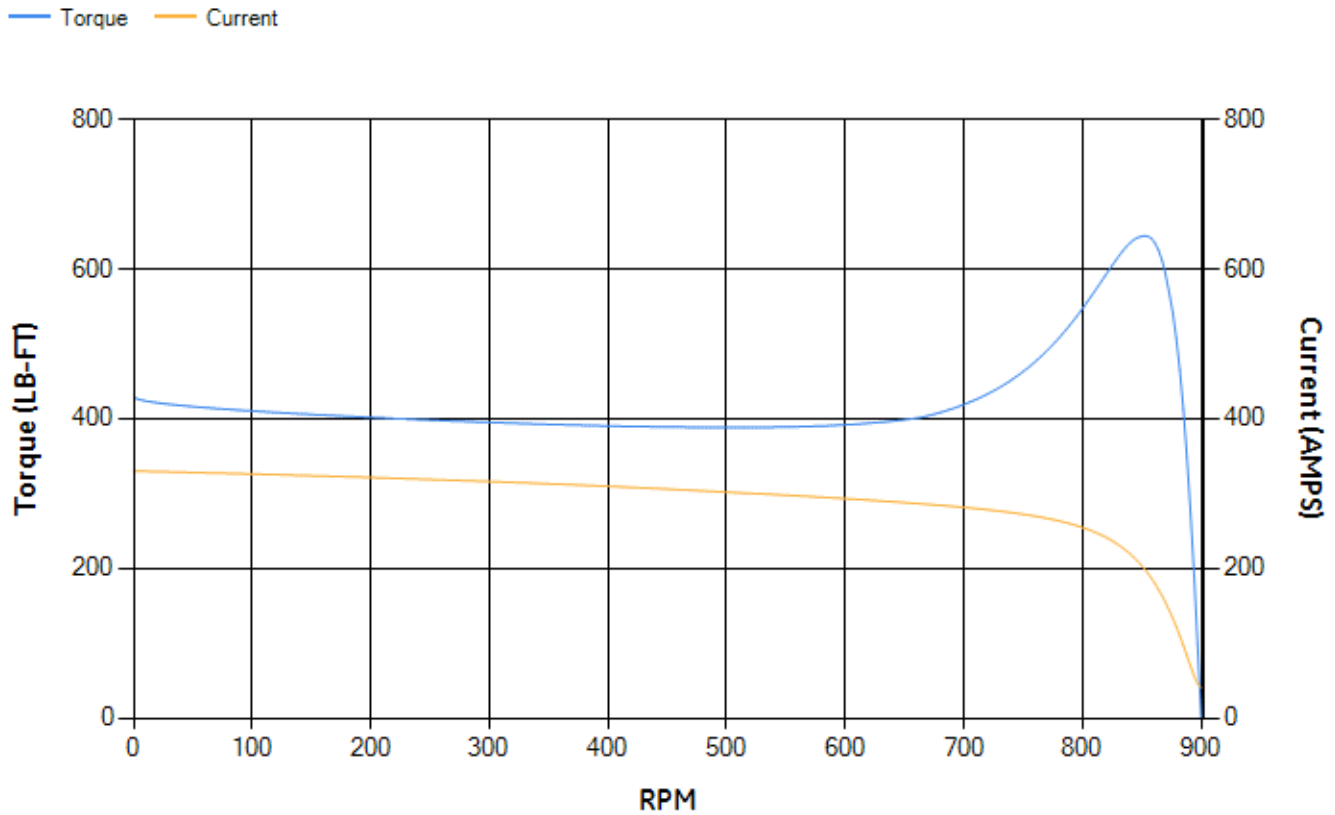
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|-------|
| % EFF | 92.09 | 92.43 | 93.02 | 93.06 | 92.34 | 88.39 | 0.00 |
| % PF | 73.13 | 72 | 69.51 | 62.5 | 50.16 | 30.25 | 3.03 |
| AMPS | 86.86 | 80.86 | 72.33 | 60.34 | 50.52 | 43.76 | 40.81 |

| | | | | | |
|--------------------|--------|--------------------|--------|--------------------|-------|
| TORQ(FL)#FT | 295.22 | TORQ(LR)%FL | 145.53 | TORQ(BD)%FL | 217.7 |
| AMPS(LR) | 330.02 | PF AT START | 0.36 | | |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 4531 Lb-Ft Sq (190.76 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 41 seconds. Safe stall time at 100% voltage is 118 seconds cold, 62 seconds hot. Rotor inertia is 26.19 Lb-Ft Sq (1.1 Kg-meter Sq).

| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 0.346 | Short Circuit D-C: | 0.019 |
| Short Circuit A-C: | 0.038 | X/R Ratio: | 7.257 |
| Stator Slots: | 72 | Rotor Slots: | 58 |

Speed Torque Current Curve (First Connection, First Speed)



Marks:

Connection Diagram
GEM2034E-FIG7



| End shield Assembly | | |
|---------------------|---------------|----------------|
| Part Description | DE Side Part# | ODE Side Part# |
| End Shield | 115E4304AA1 | 115E4304LL1 |
| Bearing | 235A2618AA04 | 235A2618AA04 |
| Slinger/Inproseal | 235A4575GS4 | 235A4575GS4 |

| Fan & Fan Cover Assembly | |
|--------------------------|-------------|
| Part Description | Part# |
| Fan | 159C7100G02 |
| Fan Cover | 128D6832AA1 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-------------|
| Part Description | Part# |
| Conduit Box | 118D4408AD2 |

| Mechanical Accessories | |
|------------------------|-------|
| Part Description | Part# |
| Brake | |
| Tachometer | |