

Product Information Packet

November 8, 2016

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

| | |
|----------------------------|-----------------------|
| Model Number: | 5KS254XAA2059B |
| Catalog Number: | M9508 |
| Instruction Manual: | GEI-56128 |
| Connection Diagram: | GEM2034E-FIG7 |
| Outline Drawing: | 4002B5825PDP5310 |

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

Table of Contents

| | |
|-----------------------------|----|
| Specification | 01 |
| Performance Characteristics | 02 |
| Outline Drawing | 03 |
| Connection Drawing(s) | 04 |
| Spare parts | 05 |



Marks:

| | | | |
|----------------------------|-----------------------|-------------------------------|---------|
| MODEL NUMBER: | 5KS254XAA2059B | Estimated Weight: | 315 Lbs |
| Outline Drawing: | 4002B5825PDP5310 | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG7 | Enclosure: | TEFC |
| Instruction Book: | GEI-56128 | Encl Construction: | 841 |
| Design Code: | 25BD1258A | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | 254TC | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 4 | Nominal Efficiency: | 92.4 % |
| Output Power: | 15HP 11.1KW | Guaranteed Efficiency: | 91.7 |
| RPM: | 1775 | 3/4 Load Efficiency: | 93.3 |
| Voltage: | 460 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 5.4 |
| Amps - FL: | 18.3 | Power Factor: | 83.0 |
| Service Factor: | 1.15 | Bearing - DE: | 6310ZC3 |
| Alt Service Factor: | -- | Bearing - ODE: | 6309ZC3 |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

IEEE-STD-841-2009
 DE BRG 50BC03JP30 ODE BRG 45BC03JP30
 STAMP NP249A5564P051 AS BELOW:
 MODEL:5KS254XAA2059B S/N: XXX
 CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200 C GC
 CL1ZONE2 AEXNAIIC 200 C; CL1DIV2 GRP ABCD 200 C
 IN -25C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR
 SURF TEMP 200 C AT 1.15 SF ON SINE-WAVE PWR
 OR 200 C VT OR 200 C CT OR 200 C CHP PWM CONTROL
 ALTERNATE RATING FOR PWM CONTROL 1.0 SF 40 C AMB
 VT 0-60 HZ, CT 3-60 HZ, CHP 60-90 HZ.

Additional Information:

4P - T EXTN
 C/BOX 137 CU IN-1.25 NPT
 "C" FACE AT DE ENDSHIELD ROUND FRAME
 VERTICAL MOUNT SHAFT DOWN WITH DRIPCOVER
 PAINTED FRAME ID & SHAFT,
 FAN COVER INSIDE & ODE E/S OUTSIDE
 ROUTINE AND 5 POINT VIBRATION TESTS INCL IN C/BOX
 INPRO SEAL BOTH ENDS
 E/SHLD GROUND STUD MTD ON DE C/BOX SIDE NEAR FOOT
 ROTATE D.E. E/SHIELD 90 DEG. PER OUTLINE
 SHAFT RUNOUT LIMIT .001" TIR
 COPPER WASHER UNDER HEADS OF BEARING CAP BOLTS
 APPLY TITE-SEAL (A50CD427A) ON BEARING CAP SCREWS, RABBETS,
 AND PLUG THREADS



OIL RESISTANT SLEEVING ON LEADS

Performance Characteristics

1st Winding 1st Connection

Design: 25BD1258A

Marks:

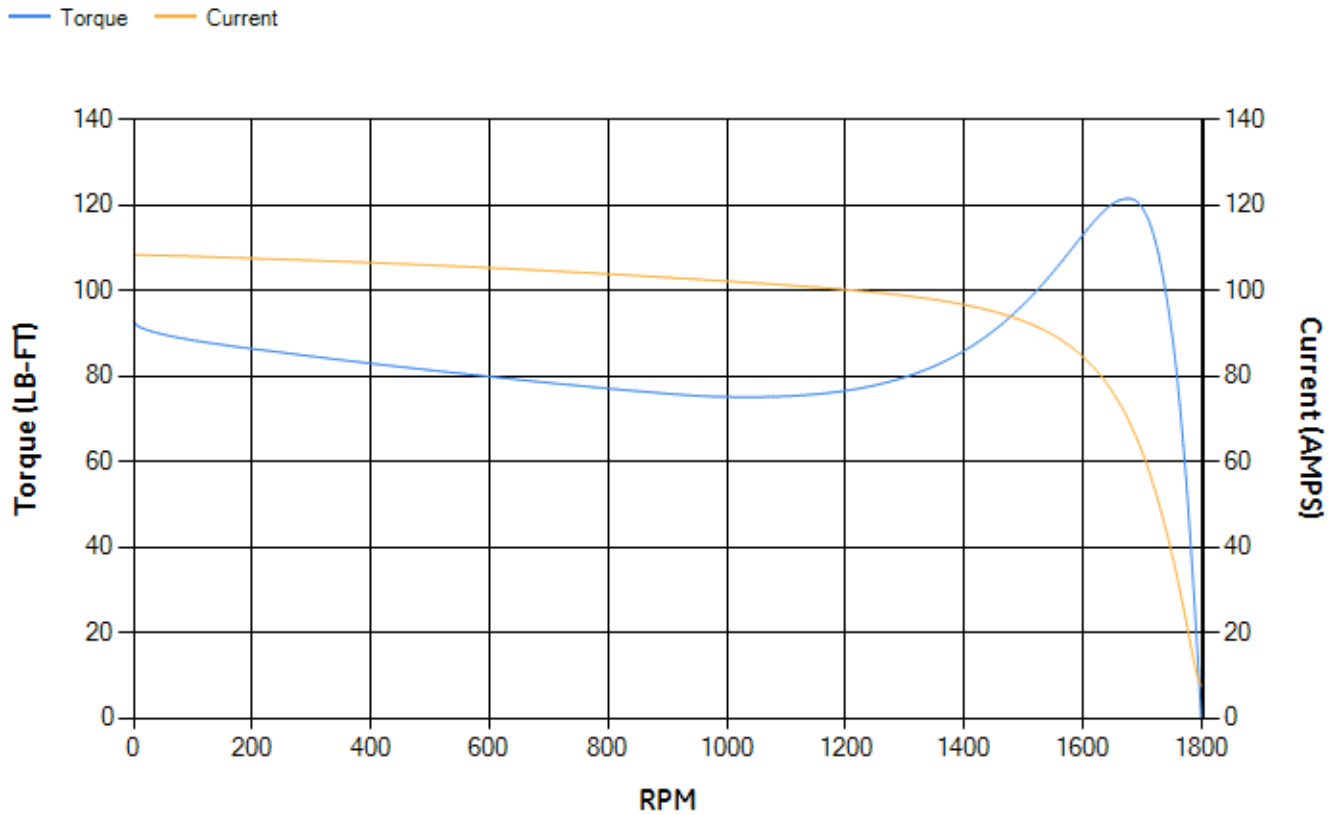
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF | 92.03 | 92.4 | 93.05 | 93.25 | 92.82 | 89.49 | 0.00 |
| % PF | 84.92 | 84.29 | 82.78 | 77.96 | 67.53 | 45.06 | 4.62 |
| AMPS | 22.45 | 20.73 | 18.23 | 14.48 | 11.2 | 8.7 | 7.55 |

| | | | | | |
|--------------------|--------|--------------------|--------|--------------------|--------|
| TORQ(FL)#FT | 44.35 | TORQ(LR)%FL | 209.27 | TORQ(BD)%FL | 272.81 |
| AMPS(LR) | 108.35 | PF AT START | 0.45 | | |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 532 Lb-Ft Sq (22.4 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 44 seconds. Safe stall time at 100% voltage is 98 seconds cold, 67 seconds hot. Rotor inertia is 2.31 Lb-Ft Sq (0.1 Kg-meter Sq).

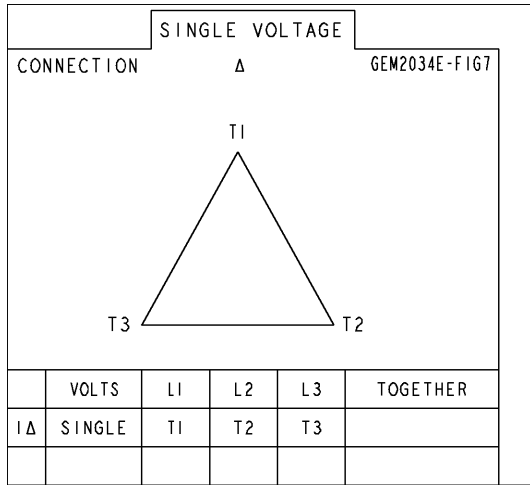
| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 0.453 | Short Circuit D-C: | 0.013 |
| Short Circuit A-C: | 0.025 | X/R Ratio: | 4.808 |
| Stator Slots: | 48 | Rotor Slots: | 40 |

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 | 128D6106PM1 | 4004D5283SE1 |
| Bearing | 235A2608AA01 | 235A2607AA01 |
| Slinger/Inproseal | 235A4575GC20 | 4002B5914AG4 |

| Fan & Fan Cover Assembly | |
|--------------------------|-----------------|
| Part Description | Part# |
| Fan | 159C6700G02 |
| Fan Cover | 4003C5525BN-G01 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-----------------|
| Part Description | Part# |
| Conduit Box | 4002B5728PA-G04 |

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