

Product Information Packet

January 12, 2017

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

| | |
|----------------------------|----------------------|
| Model Number: | 5KS511XAA156A |
| Catalog Number: | Q8100 |
| Instruction Manual: | GEI-56128 |
| Connection Diagram: | GEM2034E-FIG20 |
| Outline Drawing: | 239C6B00KW |

| Accessory Connection Diagrams | | | |
|-------------------------------|------------|------------------------------|----------|
| Bearing Thermocouple: | None | Heater: | 3027JE-1 |
| RTD: | 235A3027WN | Thermistor: | None |
| Thermostat: | None | Winding Thermocouple: | None |
| Bearing RTD: | 235A3027NA | | |

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Marks:

| | | | |
|----------------------------|----------------------|-------------------------------|----------|
| MODEL NUMBER: | 5KS511XAA156A | Estimated Weight: | 5335 Lbs |
| Outline Drawing: | 239C6B00KW | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG20 | Enclosure: | TEFC |
| Instruction Book: | GEI-56128 | Encl Construction: | 841 |
| Design Code: | 50BD0173A | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | 5011LS | Insulation Class: | F |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 2 | Nominal Efficiency: | 95.8 % |
| Output Power: | 350HP 259KW | Guaranteed Efficiency: | 95.0 |
| RPM: | 3570 | 3/4 Load Efficiency: | 95.8 |
| Voltage: | 460 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 39.2 |
| Amps - FL: | 364.0 | Power Factor: | 94.0 |
| Service Factor: | 1.15 | Bearing - DE: | 6315ZC3 |
| Alt Service Factor: | -- | Bearing - ODE: | 6315ZC3 |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

EXCEPTION TO IEEE-STD-841-2009: SOUND POWER 94 DBA
TSTAT HTR LDS H 115V 200W
DE BRG 75BC03XP3, ODE BRG 75BC03XP3
ROT CCW FACING ODE LEAD/PH SEQUENCE 3-2-1/1-2-3
INVERTER DUTY PER NEMA MG1 PART 31
ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT
VAR TORQUE RANGE 0-60 HZ
MAXIMUM EXPOSED INTERNAL AND EXTERNAL SURFACE
TEMPERATURES DO NOT EXCEED 200C UNDER USUAL
SERVICE CONDITIONS AT 1.0SF
MAXIMUM SPACE HEATER SURFACE TEMPERATURE FOR
NORMAL OPERATION AT RATED CONDITIONS 160C
STAMP NP249A5499AP AS BELOW:
MODEL:5KS511XAA156A S/N: XXX
EX NA IIC T3 GC CSA.09.2216219
CLASS I, ZONE 2, AEX NA IIC T3
CLASS I, DIV 2, GROUPS A, B, C, D T3
-25C <= TAMB <= 40C
FOR DIRECT COUPLED LOAD ONLY

Additional Information:

2P - LS EXTN - SPLIT LEAD
PAINTED FRAME ID & SHAFT, FAN COVER INSIDE &
ODE E/S OUTSIDE
CCW ROTATION FACING OPPOSITE DRIVE END
1260 CU IN - 2(4.00" NPT) - 4 DRAIN HOLES
C/B GRD PLATE

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.
100 OHM WINDING RTD LEADS TO AUX C/BOX OPP MAIN C/BOX
SUGGESTED WINDING RTD SETTINGS
ALARM 165C TRIP 175C
115V TSTAT CTRLD HTR LDS TO AUX BOX OPP MAIN CONDUIT BOX
SPACE HEATER CAUTION NAMEPLATE
BEARING RTD 100 OHM ON BOTH ENDS
SUGGESTED BEARING RTD SETTINGS
ALARM 115C TRIP 125C
NEMA TYPE GRD PAD
F1 MOUNTING

Performance Characteristics

1st Winding 1st Connection

Design: 50BD0173A

Marks:

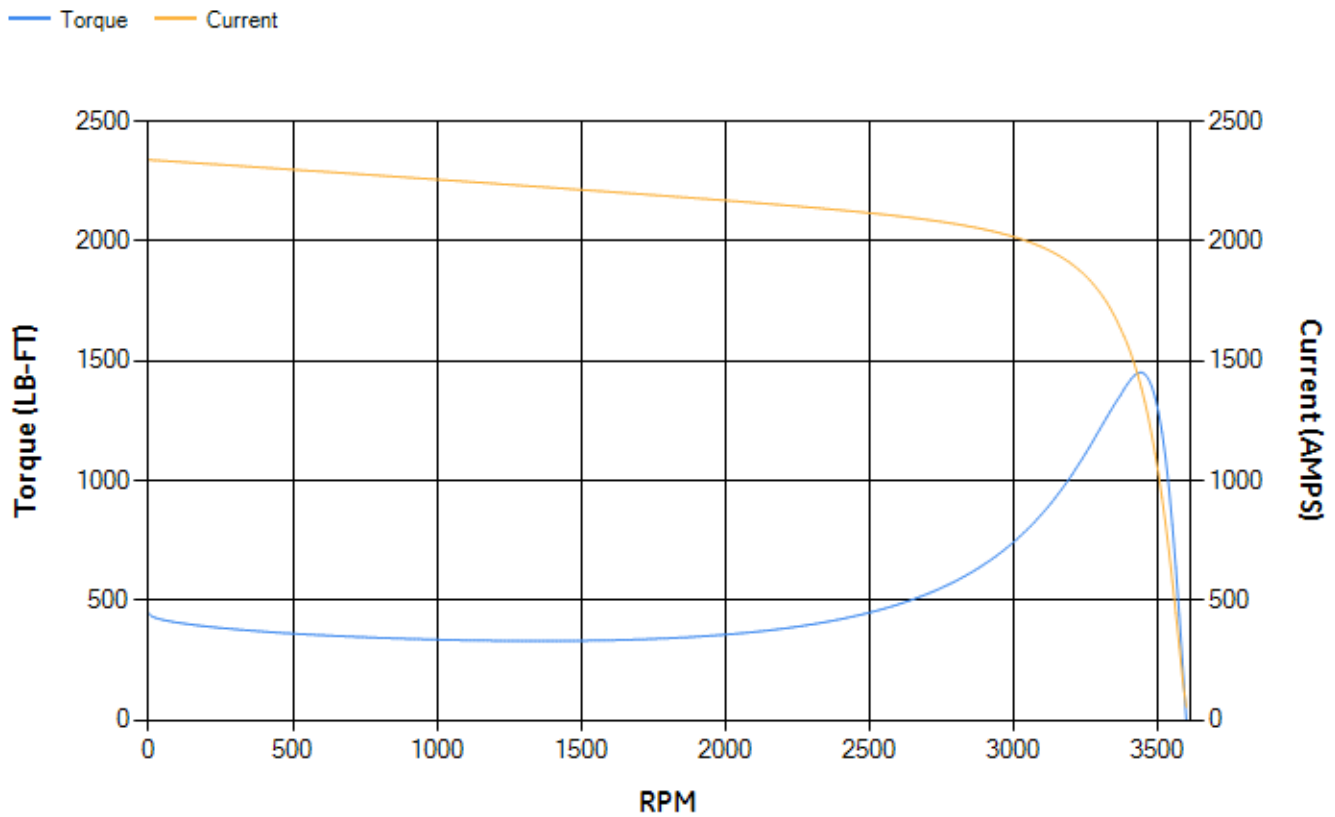
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|--------|--------|--------|--------|--------|--------|-------|
| % EFF | 95.33 | 95.5 | 95.89 | 95.79 | 95.33 | 92.83 | 0.00 |
| % PF | 93.73 | 93.99 | 94.22 | 93.99 | 92.03 | 82.49 | 9.86 |
| AMPS | 458.26 | 419.68 | 361.99 | 272.88 | 186.69 | 106.94 | 54.44 |

| | | | | | |
|--------------------|---------|--------------------|-------|--------------------|--------|
| TORQ(FL)#FT | 514.47 | TORQ(LR)%FL | 86.46 | TORQ(BD)%FL | 281.87 |
| AMPS(LR) | 2339.34 | PF AT START | 0.15 | | |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 1223 Lb-Ft Sq (51.49 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 47 seconds. Safe stall time at 100% voltage is 79 seconds cold, 57 seconds hot. Rotor inertia is 105.51 Lb-Ft Sq (4.44 Kg-meter Sq).

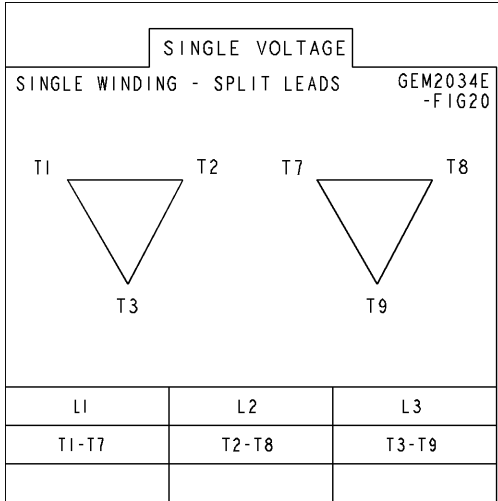
| | | | |
|---------------------------|-------|---------------------------|--------|
| Open Circuit A-C: | 2.285 | Short Circuit D-C: | 0.045 |
| Short Circuit A-C: | 0.057 | X/R Ratio: | 17.004 |
| Stator Slots: | 48 | Rotor Slots: | 40 |

Speed Torque Current Curve (First Connection, First Speed)



Marks:

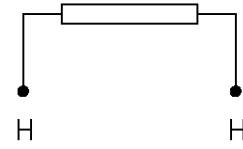
Connection Diagram
GEM2034E-FIG20



Heater Connection

3027JE-1

FIG. 1
HEATER CONN.



| | | |
|--------------|----|----|
| CONTROL | L1 | L2 |
| VOLTAGE ONLY | H | H |

SHEET

REV

235A3027WN

SIZE DRAWING NO. A

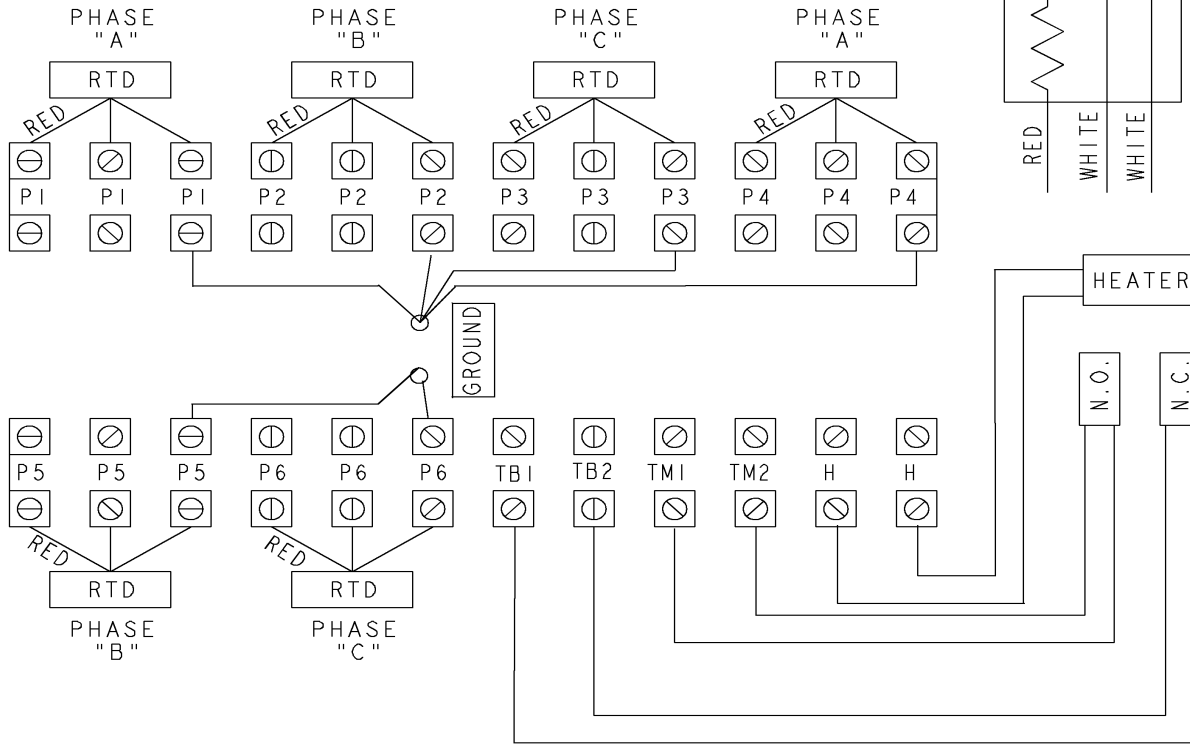
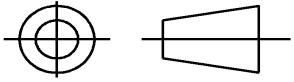
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REVISIONS

| REV. | DESCRIPTION | DATE | APPROVED |
|------|-------------|------|----------|
| | | | |

THIRD ANGLE PROJECTION



- NOTE 1: TERMINAL LABELS ARE PROVIDED FOR ACCESSORIES THAT MAY OR MAY NOT BE INCLUDED WITH THE MOTOR.
- NOTE 2: SPARE RTDS (P7 & P8) FURNISHED IN CASE OF FAILURE IN OTHER RTDS (P1-P6). PHASE LOCATION WILL DEPEND UPON NUMBER OF POLES WINDING CONFIGURATION.
- NOTE 3: IT IS RECOMMENDED THAT RTDS BE GROUNDED AT EITHER THE MACHINE OR CONNECTED TO A GROUNDED CONTROL CIRCUIT. FOR PROPER OPERATION DO NOT GROUND AT THE MACHINE IF CONNECTED TO A GROUND CIRCUIT AT THE CONTROL.

Part must conform to SI 900000 Sect. 4, Toxicity Procedure

| FOR ADDITIONAL INFO REFER TO: | SIGNATURES | DATE |
|-------------------------------|-------------------------|------|
| APPLIED PRACTICES | | |
| DIMENSIONS ARE IN INCHES | | |
| TOLERANCE ON: | | |
| 1 PL DECIMALS ± 0.1 | | |
| 2 PL DECIMALS ± 0.02 | | |
| 3 PL DECIMALS ± 0.005 | | |
| ANGLES ± 0.5 | | |
| FRACTIONS ± | | |
| FINISH ✓ | | |
| MATERIAL | SOLID MODEL: MODEL NAME | |

GE Motors GENERAL ELECTRIC COMPANY

TITLE
CONNECTION DIAGRAM
WINDING RTD'S & T'STATS & HEATERS

SIZE DRAWING: **A** **235A3027WN** REV **0**

SCALE: NA SHEET 1 of 1

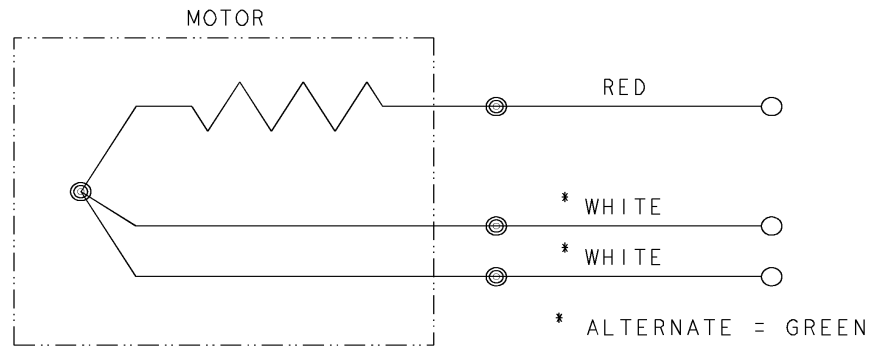


| | | | | | |
|---------------------|------------------------|-----|----------------|------|----------|
| REV SH 1 1 | THIRD ANGLE PROJECTION | | REVISIONS | | |
| | | REV | DESCRIPTION | DATE | APPROVED |
| | | 1 | ISAAC #12-1124 | HARI | 11/19/12 |

DWG NO 235A3027NA
 SIZE A

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BEARING RTDS



| | | | | |
|--|----------------------------|--------------|---|----------------------|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PL DECIMALS ± 3 PL DECIMALS ± ANGLES ± FRACTIONS ± MATERIAL: APPLIED PRACTICES: | SIGNATURES | DATE | GE Motors Fort Wayne, Indiana | |
| | DRAWN D.E. BAIR | 12/16/92 | | |
| | CHECKED D.E. BAIR | 12/16/92 | | |
| | ENGRG K. DESAI | 12/16/92 | | |
| | ISSUED D.E. BAIR | 12/16/92 | CONNECTION DIAGRAM BEARING RTDS | |
| | CAD NO. F500:235A3027NA | SIZE A | FSCM NO | DWG NO 235A3027NA |
| | | SCALE 1/1 | | SHEET 1 OF 1 |

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