

Product Information Packet

January 13, 2017

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

| | |
|----------------------------|----------------------|
| Model Number: | 5KS513XAA126A |
| Catalog Number: | Q840 |
| Instruction Manual: | GEI-56128 |
| Connection Diagram: | GEM2034E-FIG2 |
| Outline Drawing: | 239C6C00FW |

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

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Marks:

| | | | |
|----------------------------|----------------------|-------------------------------|-----------|
| MODEL NUMBER: | 5KS513XAA126A | Estimated Weight: | 6626 Lbs |
| Outline Drawing: | 239C6C00FW | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG2 | Enclosure: | TEFC |
| Instruction Book: | GEI-56128 | Encl Construction: | 841 |
| Design Code: | 50BD0082F | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | 5013ST | Insulation Class: | F |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 2 | Nominal Efficiency: | 95.4 % |
| Output Power: | 500HP 370KW | Guaranteed Efficiency: | 94.5 |
| RPM: | 3565 | 3/4 Load Efficiency: | 96.0 |
| Voltage: | 2300/4000 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 52.0 |
| Amps - FL: | 103.8/59.7 | Power Factor: | 94.5 |
| Service Factor: | 1.15 | Bearing - DE: | 6315ZC3S0 |
| Alt Service Factor: | -- | Bearing - ODE: | 6315ZC3S0 |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

EXCEPTION TO IEEE-STD-841-2009:
 SOUND POWER EXCEEDS 90 DBA & TEMP CODE T2D ;
 TSTAT HTR LDS HE1-HE2 115V 200W
 DE BRG 75BC03JP3026, ODE BRG 75BC03JP3026
 ROT CW FACING ODE LEAD/PH SEQUENCE 1-2-3/1-2-3
 MAXIMUM EXPOSED INTERNAL AND EXTERNAL SURFACE
 TEMPERATURES DO NOT EXCEED 215C UNDER USUAL
 SERVICE CONDITIONS AT 1.0SF
 MAXIMUM SPACE HEATER SURFACE TEMPERATURE FOR
 NORMAL OPERATION AT RATED CONDITIONS 172C
 GREASE MOBILITH SHC 100
 STAMP NP249A5499AP AS BELOW:
 MODEL:5KS513XAA126A S/N: XXX
 EX NA IIC -- GC CSA.09.2216219
 CLASS I, ZONE 2, AEX NA IIC --
 CLASS I, DIV 2, GROUPS A, B, C, D T2D
 -25C <= TAMB <= 40C
 FOR DIRECT COUPLED LOAD ONLY
 CUSTOM POLYSEAL

Additional Information:

2P - ST EXTN
 PAINTED FRAME ID & SHAFT, FAN COVER INSIDE &
 ODE E/S OUTSIDE
 CW ROTATION FACING OPPOSITE DRIVE END
 2500 CU IN - 2(4.00" 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.
HEAT STABILIZED BEARINGS
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: 50BD0082F

Marks:

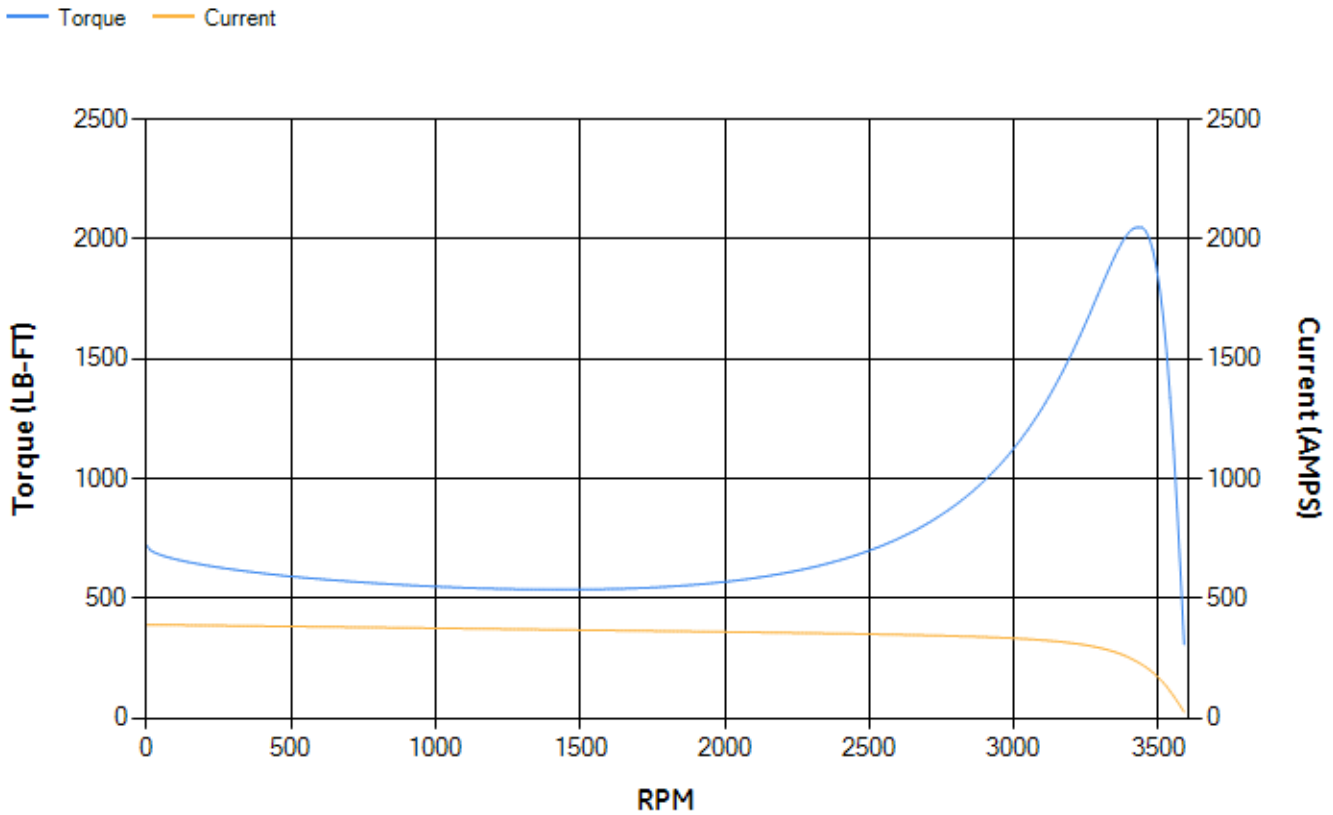
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF | 95.2 | 95.43 | 95.92 | 96.02 | 95.87 | 94.06 | 0.00 |
| % PF | 93.92 | 94.21 | 94.49 | 94.37 | 92.65 | 83.8 | 8.3 |
| AMPS | 75.24 | 68.84 | 59.29 | 44.54 | 30.29 | 17.07 | 8.34 |

| | | | | | |
|--------------------|--------|--------------------|-------|--------------------|--------|
| TORQ(FL)#FT | 735.86 | TORQ(LR)%FL | 97.88 | TORQ(BD)%FL | 278.24 |
| AMPS(LR) | 389.55 | PF AT START | 0.17 | | |

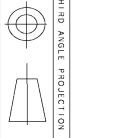
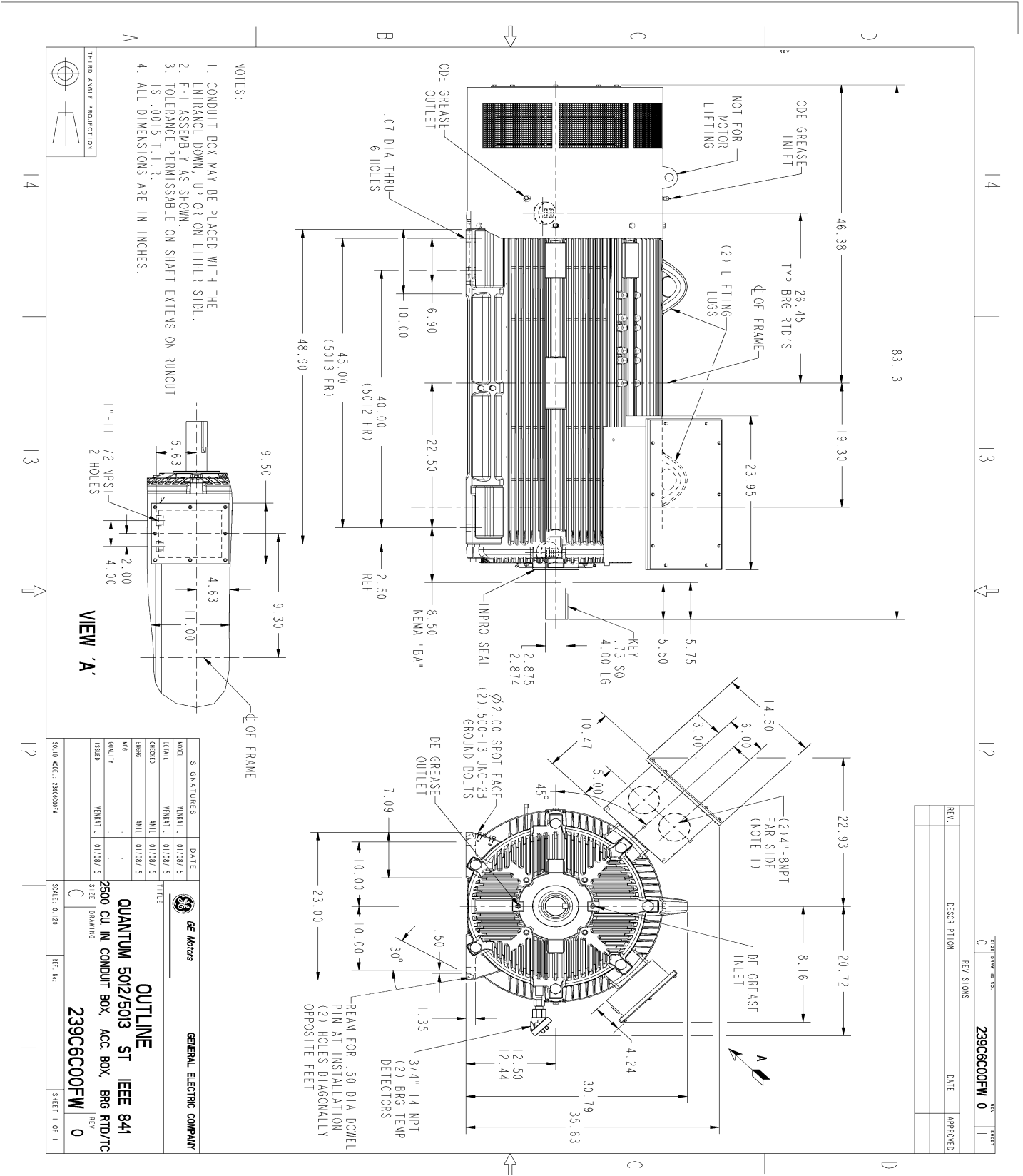
This motor is capable of two cold or one hot start with a maximum connected load inertia of 1230 Lb-Ft Sq (51.78 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 30 seconds. Safe stall time at 100% voltage is 64 seconds cold, 36 seconds hot. Rotor inertia is 145.08 Lb-Ft Sq (6.11 Kg-meter Sq).

| | | | |
|---------------------------|-------|---------------------------|--------|
| Open Circuit A-C: | 2.124 | Short Circuit D-C: | 0.037 |
| Short Circuit A-C: | 0.048 | X/R Ratio: | 14.046 |
| Stator Slots: | 48 | Rotor Slots: | 40 |

Speed Torque Current Curve (First Connection, First Speed)



Marks:



| REV | DESCRIPTION | DATE | APPROVED |
|--|---------------------|------|----------|
| C <td>REVISED DRAWING NO.</td> <td></td> <td></td> | REVISED DRAWING NO. | | |
| | REVIEWS: | | |
| | DESCRIPTION | DATE | APPROVED |
| | | | |
| | | | |

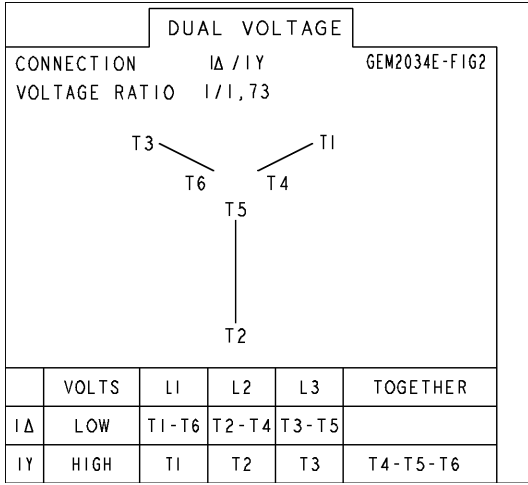
| SIGNATURES | DATE | REV | SHEET |
|-------------------|------|-----|-------|
| VENIAT J 01/08/15 | | 0 | 1 |
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| VENIAT J 01/08/15 | | | |

OUTLINE
 QUANTUM 5012/5013 ST IEEE 841
 2500 CU IN CONDUIT BOX, ACC. BOX, BRG RTD/TC

SOLID MODEL: 239C6C00FW
 SCALE: 0.120
 REF. NO:
 GENERAL ELECTRIC COMPANY
 239C6C00FW 0
 SHEET 1 OF 1

Marks:

Connection Diagram
GEM2034E-FIG2



Heater Connection
3027JE-1C



SHEET

REV

235A3027WN

SIZE DRAWING NO. A

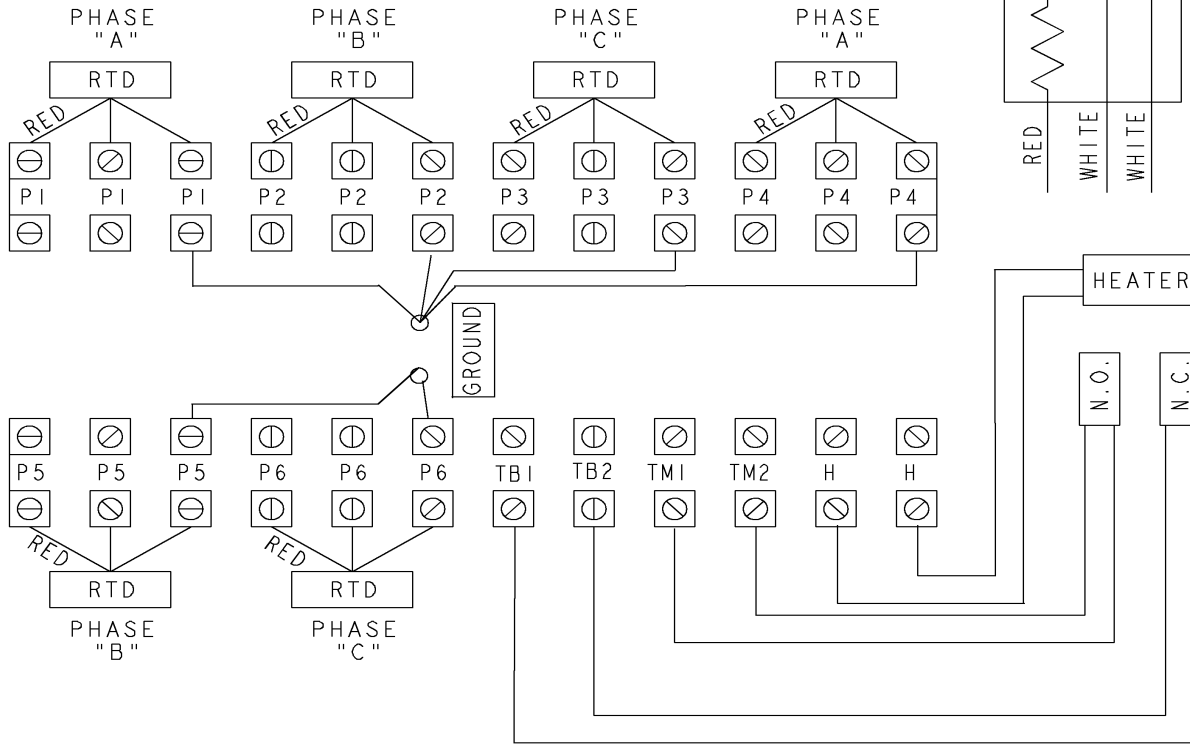
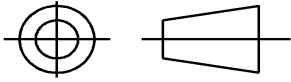
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REVISIONS

| 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 | MODEL | |
| DIMENSIONS ARE IN INCHES | DETAIL VIVEK | 07/19/13 |
| TOLERANCE ON: | CHECKED VIJAY | 07/19/13 |
| 1 PL DECIMALS ± 0.1 | ENGRG | |
| 2 PL DECIMALS ± 0.02 | MFG | |
| 3 PL DECIMALS ± 0.005 | QUALITY | |
| ANGLES ± 0.5 | ISSUED VIVEK | 07/19/13 |
| 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

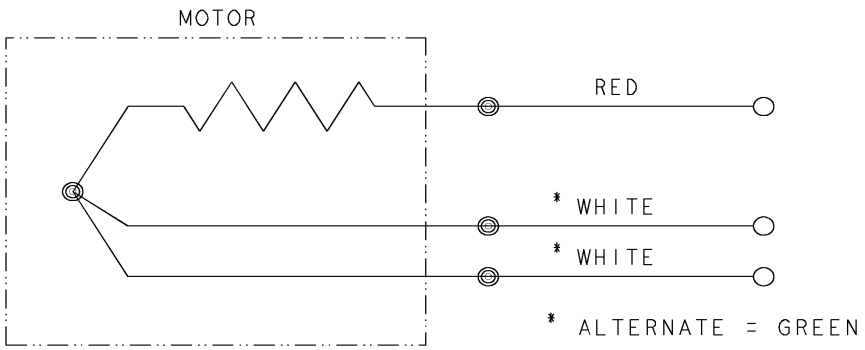


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|---------------------|------------------------|-----------|----------------|------|----------|
| REV SH 1 1 | THIRD ANGLE PROJECTION | REVISIONS | | | |
| | | REV | DESCRIPTION | DATE | APPROVED |
| | | 1 | ISAAC #12-1124 | HARI | 11/19/12 |

SIZE A
 DWG NO 235A3027NA

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BEARING RTDS



| | | |
|----------------------------|----------------------------|----------|
| UNLESS OTHERWISE SPECIFIED | SIGNATURES | DATE |
| DIMENSIONS ARE IN INCHES | DRAWN D.E. BAIR | 12/16/92 |
| TOLERANCES ON: | CHECKED D.E. BAIR | 12/16/92 |
| 2 PL DECIMALS ± | ENGRG K. DESAI | 12/16/92 |
| 3 PL DECIMALS ± | ISSUED D.E. BAIR | 12/16/92 |
| ANGLES ± | | |
| FRACTIONS ± | | |
| MATERIAL: | | |
| APPLIED PRACTICES: | CAD NO. F500:235A3027NA | |

GE Motors

Fort Wayne, Indiana

CONNECTION DIAGRAM

BEARING RTDS

| | | |
|--------------|-----------------|----------------------|
| SIZE A | FSCM NO | DWG NO 235A3027NA |
| SCALE 1/1 | SHEET 1 OF 1 | |

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