

Product Information Packet

January 12, 2017

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

| | |
|----------------------------|----------------------|
| Model Number: | 5KFS163XAA108 |
| Catalog Number: | N540 |
| Instruction Manual: | GEI-M1036 |
| Connection Diagram: | GEM2034E-FIG116 |
| Outline Drawing: | 240C1350AA |

| Accessory Connection Diagrams | | | |
|-------------------------------|------|------------------------------|------------|
| Bearing Thermocouple: | None | Heater: | None |
| RTD: | None | Thermistor: | 235A3027VD |
| Thermostat: | None | Winding Thermocouple: | None |
| Bearing RTD: | None | | |

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Marks:

| | | | |
|----------------------------|----------------------|-------------------------------|------------|
| MODEL NUMBER: | 5KFS163XAA108 | Estimated Weight: | 159 Kg |
| Outline Drawing: | 240C1350AA | Duty: | S1 |
| Connection Diagram: | GEM2034E-FIG116 | Enclosure: | TEFC |
| Connection: | DELTA | Encl Construction: | 841 |
| Instruction Book: | GEI-M1036 | Cooling(IC): | 411 |
| Design Code: | 25RD0009A | Protection (IP): | 55 |
| Type: | KFS | Ambient Max (°C): | 40 |
| Frame: | 160L | Alt Ambient Max (°C): | -- |
| Mounting(IM): | B3T | Ambient Min (°C): | -40 |
| Phases: | 3 | Insulation Class: | H |
| Poles: | 2 | IEC Design: | N |
| Output Power: | 18.5 KW | Nominal Efficiency: | IE3-91.7 % |
| RPM: | 3555 | Guaranteed Efficiency: | 90.5 |
| Voltage: | 460 | Max KVAR: | 3.7 |
| Hertz: | 60 | Power Factor: | 91.5 |
| Amps - FL: | 27.7 | Bearing - DE: | 6309ZC3 |
| Service Factor: | 1.00 | Bearing - ODE: | 6309ZC3 |
| Alt Service Factor: | -- | Vibration: | 1.4 mm/s |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

DE BRG 45BC03XP3 ODE BRG 45BC03XP3
 OVER TEMP PROT 2
 MAX EXPOSED INTERNAL AND EXTERNAL SURFACE
 TEMPERATURES UNDER USUAL SERVICE CONDITIONS
 AT 1.00 S.F. DO NOT EXCEED 200 DEG C
 STAMP NP249A5499AH AS BELOW:(REPLICATE-RUS SCRIPT)
 MODEL:5KFS163XAA108 S/N: XXX
 EX NA IIC T3 GC SIRA 11ATEX4118
 CLASS I, ZONE 2, AEX NA IIC T3 IECEX CSA.09.0012
 -40 DEG C <= TAMB <= 40 DEG C (RUSSIAN SCRIPT)

Additional Information:

2P - 42MM DIA X 110MM LONG EXTN - WYE START DELTA RUN
 FOOT MOUNTED
 137 CONDUIT BOX - GLAND PLATE (2) M40X1.5 - M6 TERM BLOCK CO
 170C THERMISTOR LEADS EXIT WITH MOTOR LEADS
 SPL PAINTED SURFACES: FRAME ID, SHAFT, INSIDE OF
 FAN COVER, AND ODE/SHLD TO PREVENT CORROSION
 ROUTINE AND 5 POINT VIBRATION TESTS INCL IN C/BOX
 GROUND SCREWS ON FRAME
 SHAFT RUNOUT LIMIT .038 MM TIR
 OIL RESISTANT SLEEVING ON LEADS
 CONDUIT BOX IS ON TOP

Performance Characteristics

1st Winding 1st Connection

Design: 25RD0009A

Marks:

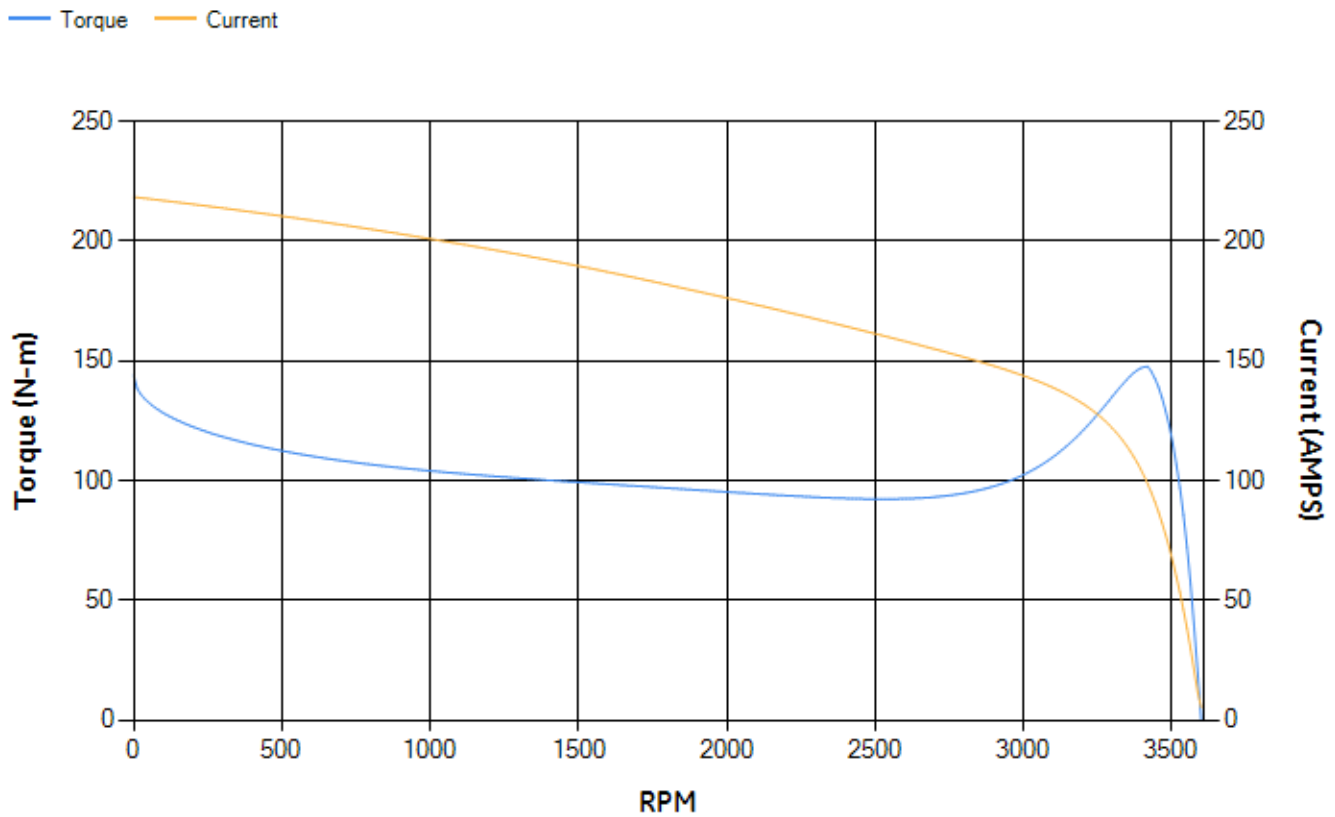
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF | 91.31 | 91.87 | 92.8 | 93.46 | 93.61 | 91.44 | 0.00 |
| % PF | 90.73 | 91.13 | 91.43 | 90.92 | 87.76 | 74.43 | 8.54 |
| AMPS | 35.03 | 31.89 | 27.37 | 20.49 | 14.13 | 8.53 | 5.2 |

| | | | | | |
|--------------------|--------|--------------------|--------|--------------------|--------|
| TORQ(FL)N-m | 49.69 | TORQ(LR)%FL | 289.65 | TORQ(BD)%FL | 295.59 |
| AMPS(LR) | 218.39 | PF AT START | 0.34 | | |

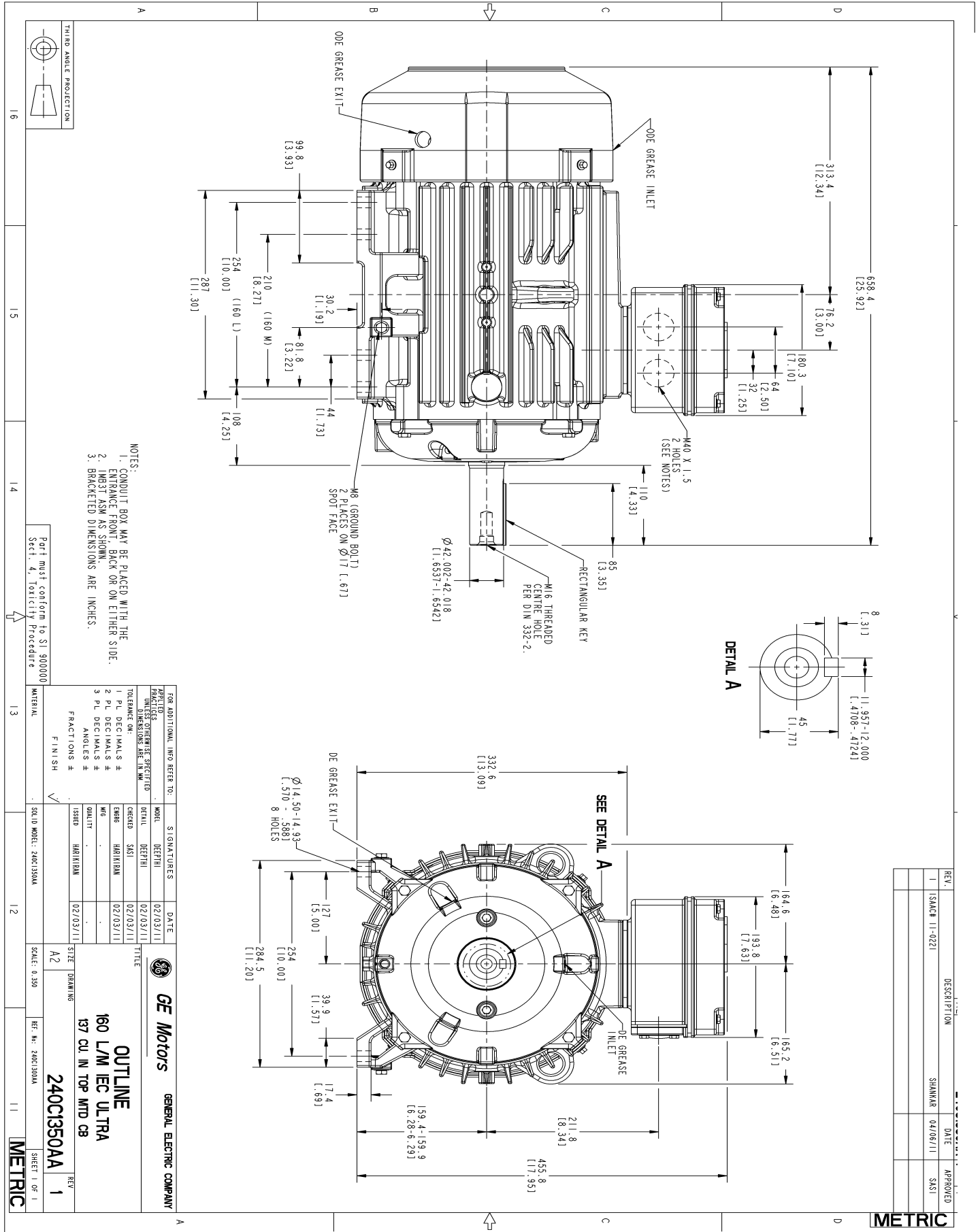
This motor is capable of two cold or one hot start with a maximum connected load inertia of 5.94 Kg-meter Sqat 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 25 seconds. Safe stall time at 100% voltage is 59 seconds cold, 33 seconds hot. Rotor inertia is 0.08 Kg-meter Sq.

| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 1.137 | Short Circuit D-C: | 0.012 |
| Short Circuit A-C: | 0.027 | X/R Ratio: | 4.561 |
| Stator Slots: | 36 | Rotor Slots: | 26 |

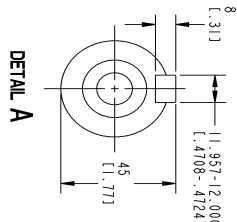
Speed Torque Current Curve (First Connection, First Speed)



Marks:



- NOTES:
1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE FRONT. BACK ON ON EITHER SIDE.
 2. IM3ST ASM AS SHOWN.
 3. BRACKETED DIMENSIONS ARE INCHES.



| REV. | DESCRIPTION | DATE | APPROVED |
|------|---------------|------------------|----------|
| 1 | ISAC# 11-0221 | SHANKAR 04/08/11 | SASTI |
| | | | |
| | | | |

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

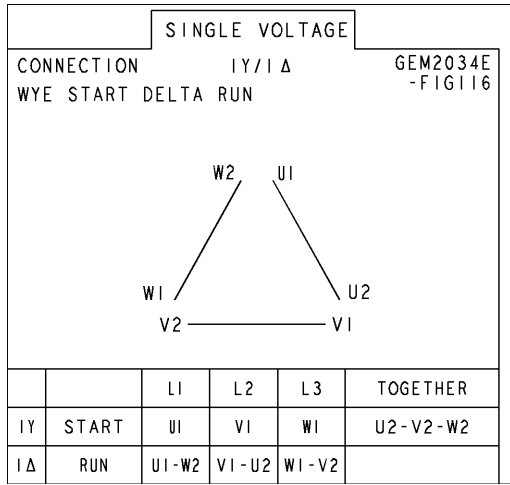
| FOR ADDITIONAL INFO REFER TO: | | SIGNATURES | | DATE | |
|---|---------|------------|---------|----------|----------|
| 1 | MODEL | DETAIL | DEPTH | 02/03/11 | 02/03/11 |
| 2 | CHECKED | SASTI | SHANKAR | 02/03/11 | 02/03/11 |
| 3 | ISSUED | SHANKAR | SHANKAR | 02/03/11 | 02/03/11 |
| TITLE: OUTLINE 160 L/M IEC ULTRA 137 CU IN TOP MTD CB 240C1350AA SCALE: 0.350 REF. NO. 240C1350AA SHEET 1 OF 1 | | | | | |

GE Motors
GENERAL ELECTRIC COMPANY

METRIC

Marks:

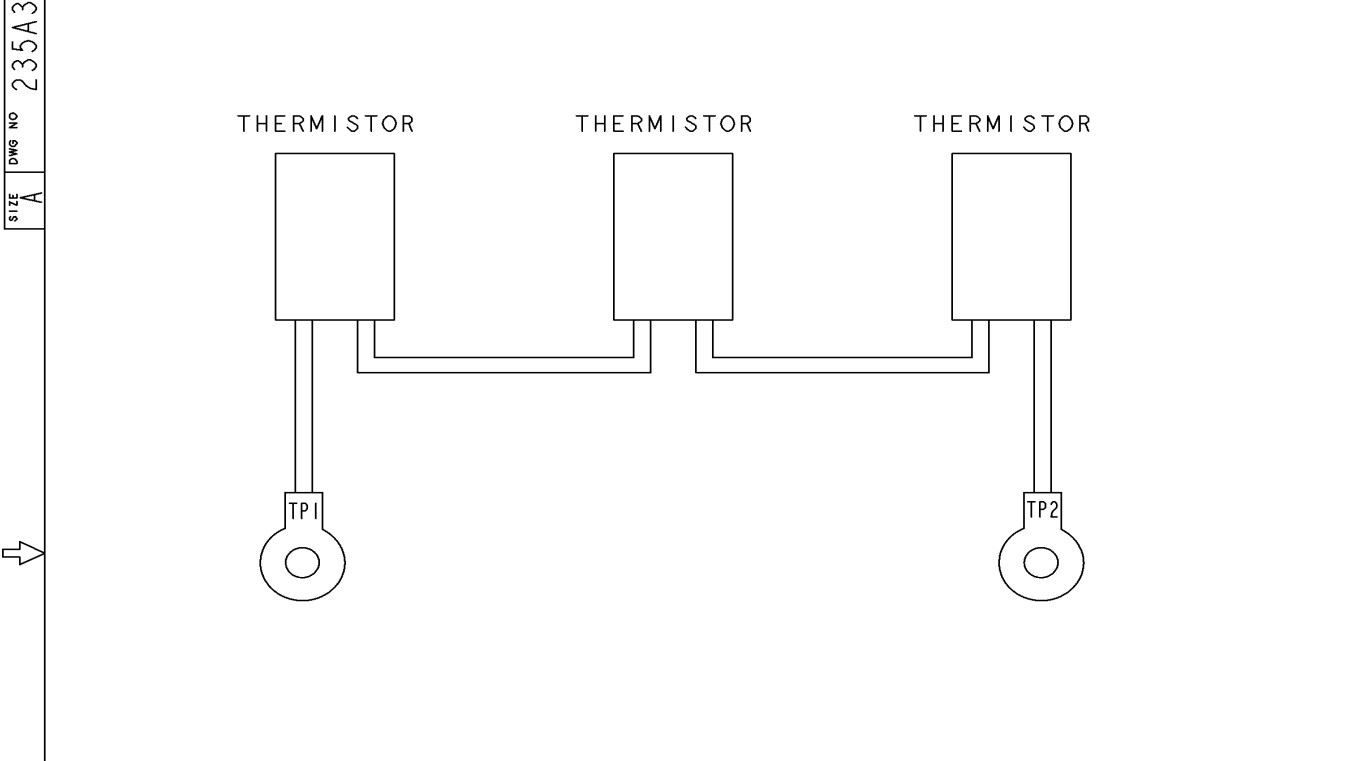
Connection Diagram
GEM2034E-FIG116





| | | | | | |
|----------------|------------------------|-----------|-------------|------|----------|
| SH REV 0 | THIRD ANGLE PROJECTION | REVISIONS | | | |
| | | REV | DESCRIPTION | DATE | APPROVED |

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NOTE:
 THREE THERMISTORS, ONE IN EACH PHASE, ARE CONNECTED IN SERIES.
 TWO LEADS ARE BROUGHT OUT INTO THE MAIN TERMINAL BOX OR AUXILIARY TERMINAL BOX.
 LEADS ARE MARKED WITH TP1 AND TP2.

| | | | | |
|--|-------------------------|-----------|---|-------------------|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PL DECIMALS ± 3 PL DECIMALS ± ANGLES ± 1 FRACTIONS ± MATERIAL: APPLIED PRACTICES: | SIGNATURES | DATE | GE Motors Fort Wayne, Indiana CONNECTION DIAGRAM PTC THERMISTORS SINGLE WINDING | |
| | DRAWN ARPIT | 11/10/09 | | |
| | CHECKED BHASKAR | 11/10/09 | | |
| | ISSUED BHASKAR | 11/10/09 | | |
| | CAD NO. F500:235A3027VD | SIZE A | FSCM NO | DWG NO 235A3027VD |
| | | SCALE 1:1 | | SHEET 1 OF 1 |

DISTR TO

