

# Product Information Packet

November 8, 2016

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

|                            |                      |
|----------------------------|----------------------|
| <b>Model Number:</b>       | <b>5KS143SAA408C</b> |
| <b>Catalog Number:</b>     | <b>M9167</b>         |
| <b>Instruction Manual:</b> | GEI-56128            |
| <b>Connection Diagram:</b> | GEM2034E-FIG1        |
| <b>Outline Drawing:</b>    | 4002B5814PAP5201     |

| Accessory Connection Diagrams |      |                              |      |
|-------------------------------|------|------------------------------|------|
| <b>Bearing Thermocouple:</b>  | None | <b>Heater:</b>               | None |
| <b>RTD:</b>                   | None | <b>Thermistor:</b>           | None |
| <b>Thermostat:</b>            | None | <b>Winding Thermocouple:</b> | None |
| <b>Bearing RTD:</b>           | None |                              |      |

## Table of Contents

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



**Marks:**

|                            |                      |                               |         |
|----------------------------|----------------------|-------------------------------|---------|
| <b>MODEL NUMBER:</b>       | <b>5KS143SAA408C</b> | <b>Estimated Weight:</b>      | 43 Lbs  |
| <b>Outline Drawing:</b>    | 4002B5814PAP5201     | <b>Time Rating:</b>           | CONT    |
| <b>Connection Diagram:</b> | GEM2034E-FIG1        | <b>Enclosure:</b>             | TEFC    |
| <b>Instruction Book:</b>   | GEI-56128            | <b>Encl Construction:</b>     | X\$D    |
| <b>Design Code:</b>        | 14BD4007AA           | <b>Ambient Max(°C):</b>       | 40      |
| <b>Type:</b>               | KS                   | <b>Alt Ambient Max(°C):</b>   | 65      |
| <b>Frame:</b>              | 143T                 | <b>Insulation Class:</b>      | H       |
| <b>Phases:</b>             | 3                    | <b>NEMA Design:</b>           | --      |
| <b>Poles:</b>              | 8                    | <b>Nominal Efficiency:</b>    | 66 %    |
| <b>Output Power:</b>       | 0.5HP 0.4KW          | <b>Guaranteed Efficiency:</b> | 64.0    |
| <b>RPM:</b>                | 845                  | <b>3/4 Load Efficiency:</b>   | 69.1    |
| <b>Voltage:</b>            | 460                  | <b>KVA Code:</b>              | R       |
| <b>Hertz:</b>              | 60                   | <b>Max KVAR:</b>              | 0.7     |
| <b>Amps - FL:</b>          | 1.3                  | <b>Power Factor:</b>          | 55.5    |
| <b>Service Factor:</b>     | 1.25                 | <b>Bearing - DE:</b>          | 6205ZC3 |
| <b>Alt Service Factor:</b> | 1.00                 | <b>Bearing - ODE:</b>         | 6205ZC3 |

**Enclosure is Totally Enclosed Fan-Cooled**

---

**Stamped Nameplate Notes:**

SF AMPS 1.4  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS143SAA408C S/N: XXX  
 CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200C GC  
 CL 1 ZONE2 AEX NA IIC 200C;CL 1 DIV2 GRP ABCD 200C  
 IN -40C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR  
 SURF TEMP 200C AT 1.25SF ON SINE-WAVE PWR  
 OR 200 C VT OR 200 C CT OR 200 C CHP PWM CONTROL  
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB  
 VT 0-60 HZ, CT 3-60 HZ , CHP 60-90 HZ.

**Additional Information:**

8P - T EXTN  
 STANDARD FLOOR MOUNT  
 C/BOX 30 CU IN-0.75 NPT  
 F1 CONDUIT BOX MOUNTING  
 OIL RESISTANT SLEEVING ON LEADS

**Performance Characteristics**

1st Winding 1st Connection

**Design: 14BD4007AA**

**Marks:**

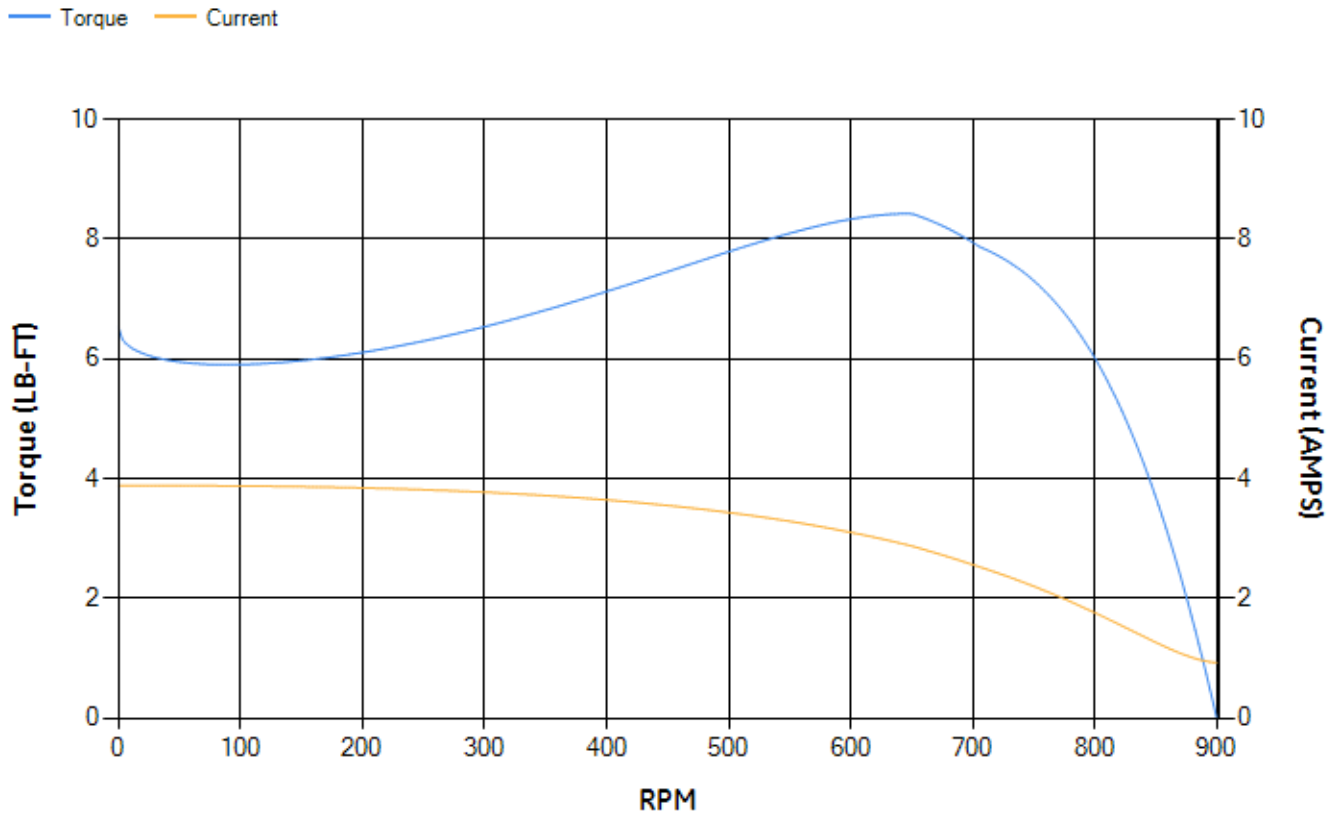
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0  | 50.0  | 25.0  | 0.0   |
|--------|-------|-------|-------|-------|-------|-------|-------|
| % EFF  | 68.32 | 69.22 | 70.12 | 69.1  | 64.42 | 50.73 | 0.00  |
| % PF   | 62.84 | 60.05 | 57.24 | 46.22 | 35.56 | 23.8  | 10.95 |
| AMPS   | 1.36  | 1.29  | 1.18  | 1.1   | 1.02  | 0.97  | 0.92  |

|             |      |             |        |             |        |
|-------------|------|-------------|--------|-------------|--------|
| TORQ(FL)#FT | 3.11 | TORQ(LR)%FL | 210.09 | TORQ(BD)%FL | 260.16 |
| AMPS(LR)    | 3.88 | PF AT START | 0.62   |             |        |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 163 Lb-Ft Sq (6.86 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 78 seconds. Safe stall time at 100% voltage is 173 seconds cold, 118 seconds hot. Rotor inertia is 0.07 Lb-Ft Sq (0 Kg-meter Sq).

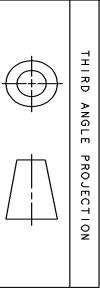
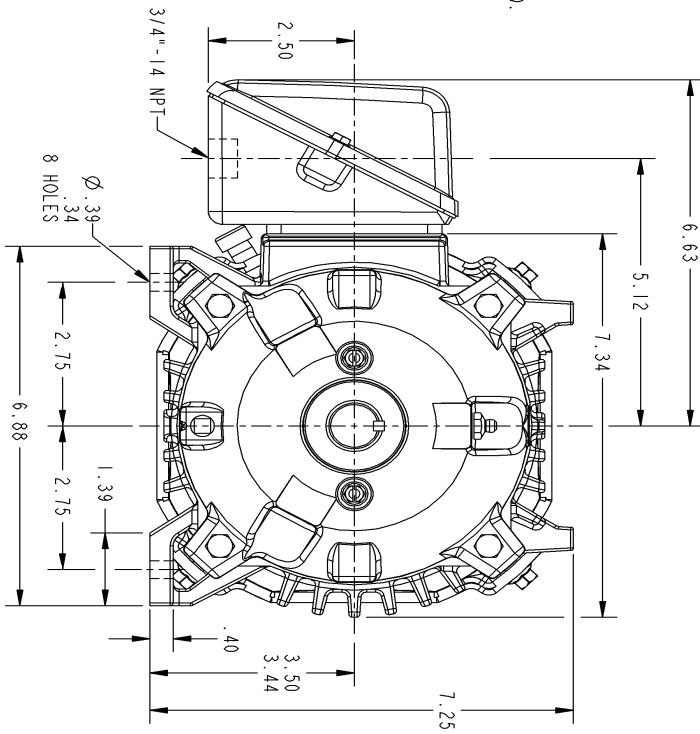
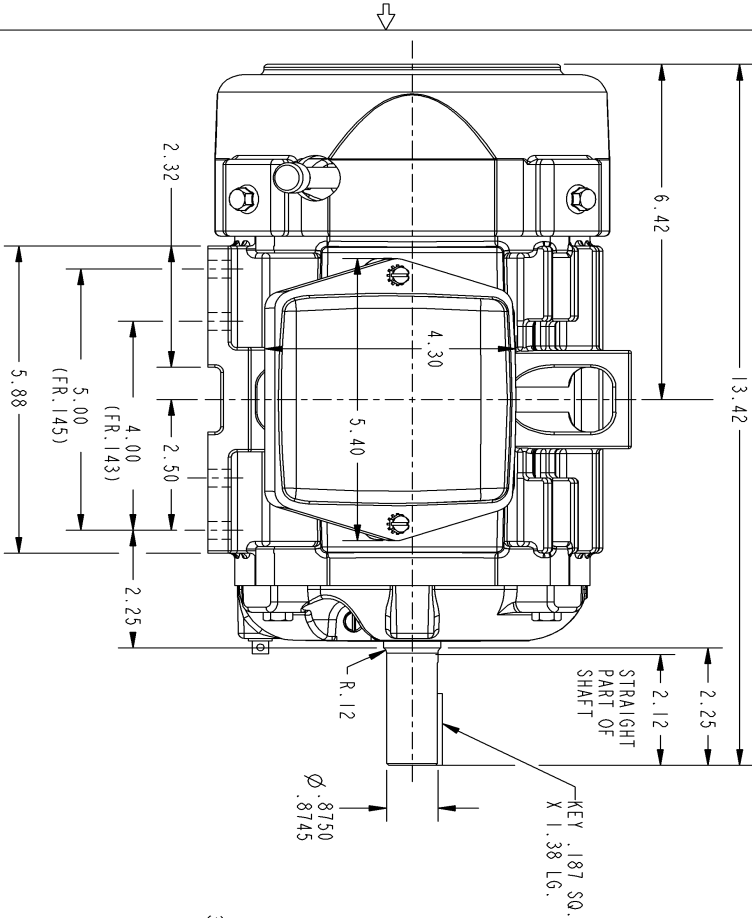
|                    |       |                    |       |
|--------------------|-------|--------------------|-------|
| Open Circuit A-C:  | 0.044 | Short Circuit D-C: | 0.005 |
| Short Circuit A-C: | 0.007 | X/R Ratio:         | 1.814 |
| Stator Slots:      | 36    | Rotor Slots:       | 48    |

**Speed Torque Current Curve (First Connection, First Speed)**



Marks:

NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.  
 NOTE 2: F1 ASSEMBLY AS SHOWN. F2 ASSEMBLY CONDUIT BOX ON OPPOSITE SIDE FROM SHOWN LOCATION.



SIZE DRAWING NO.  
 B 4002B5814PAP5201

SM REV  
 1 1

| REV. | DESCRIPTION                        | DATE     | APPROVED |
|------|------------------------------------|----------|----------|
| 1.   | REMOVED - ULTRA - FROM DESCRIPTION | 05/21/03 | DCMOHAN  |

| SIGNATURES            | DATE      | GE Logo | GENERAL ELECTRIC COMPANY |
|-----------------------|-----------|---------|--------------------------|
| DRWN: GART WARRINE    | OCT 24/01 | Systems | Fort Wayne, Indiana      |
| CHECKED: GART WARRINE | MAY 22/02 |         |                          |
| ISSUED: GART WARRINE  | JUN 05/02 |         |                          |

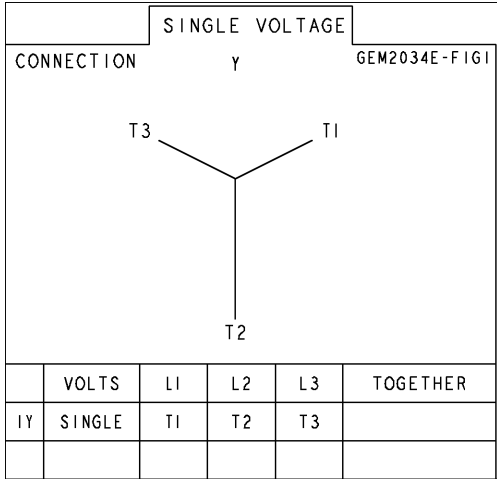
**INDUCTION MOTOR OUTLINE**  
 STANDARD CONSTRUCTION  
 FME: FR1A0T TEFC

SIZE DRAWING: B  
 SCALE: 0.500 REF. NO.: 4002B5814PAP5201 SHEET 1 OF 1

DISTRIBUTION: PMP-18K15

Marks:

**Connection Diagram**  
**GEM2034E-FIG1**



| End shield Assembly |               |                |
|---------------------|---------------|----------------|
| Part Description    | DE Side Part# | ODE Side Part# |
| End Shield          | 4004D5280PB1  | 4004D5280SG1   |
| Bearing             | 235A2600AA01  | 235A2600AA01   |
| Slinger/Inproseal   | 149C4399G15   | 149C4399G15    |

| Fan & Fan Cover Assembly |                 |
|--------------------------|-----------------|
| Part Description         | Part#           |
| Fan                      | 4001A5914AM-G01 |
| Fan Cover                | 4003C5785PA1    |

| Conduit & Accessories Box Assembly |                 |
|------------------------------------|-----------------|
| Part Description                   | Part#           |
| Conduit Box                        | 4002B5718PA-G01 |

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