

# Product Information Packet

January 12, 2017

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

|                            |                      |
|----------------------------|----------------------|
| <b>Model Number:</b>       | <b>5KS256CAA105B</b> |
| <b>Catalog Number:</b>     | <b>E9664</b>         |
| <b>Instruction Manual:</b> | GEI-56128            |
| <b>Connection Diagram:</b> | GEM2034E-FIG9        |
| <b>Outline Drawing:</b>    | 4002B5825RAP5201     |

| Accessory Connection Diagrams |           |                              |      |
|-------------------------------|-----------|------------------------------|------|
| <b>Bearing Thermocouple:</b>  | None      | <b>Heater:</b>               | None |
| <b>RTD:</b>                   | None      | <b>Thermistor:</b>           | None |
| <b>Thermostat:</b>            | 3027JE-2A | <b>Winding Thermocouple:</b> | None |
| <b>Bearing RTD:</b>           | None      |                              |      |

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**Marks:**

|                            |                      |                               |         |
|----------------------------|----------------------|-------------------------------|---------|
| <b>MODEL NUMBER:</b>       | <b>5KS256CAA105B</b> | <b>Estimated Weight:</b>      | 350 Lbs |
| <b>Outline Drawing:</b>    | 4002B5825RAP5201     | <b>Time Rating:</b>           | CONT    |
| <b>Connection Diagram:</b> | GEM2034E-FIG9        | <b>Enclosure:</b>             | TEFC    |
| <b>Instruction Book:</b>   | GEI-56128            | <b>Encl Construction:</b>     | XP      |
| <b>Design Code:</b>        | 25BD0010A            | <b>Ambient Max(°C):</b>       | 40      |
| <b>Type:</b>               | KS                   | <b>Alt Ambient Max(°C):</b>   | --      |
| <b>Frame:</b>              | 256T                 | <b>Insulation Class:</b>      | F       |
| <b>Phases:</b>             | 3                    | <b>NEMA Design:</b>           | B       |
| <b>Poles:</b>              | 2                    | <b>Nominal Efficiency:</b>    | 91 %    |
| <b>Output Power:</b>       | 20HP 14.8KW          | <b>Guaranteed Efficiency:</b> | 89.5    |
| <b>RPM:</b>                | 3540                 | <b>3/4 Load Efficiency:</b>   | 92.4    |
| <b>Voltage:</b>            | 230/460              | <b>KVA Code:</b>              | G       |
| <b>Hertz:</b>              | 60                   | <b>Max KVAR:</b>              | 2.6     |
| <b>Amps - FL:</b>          | 45.2/22.6            | <b>Power Factor:</b>          | 91.0    |
| <b>Service Factor:</b>     | 1.00                 | <b>Bearing - DE:</b>          | 6309ZC3 |
| <b>Alt Service Factor:</b> | --                   | <b>Bearing - ODE:</b>         | 6309ZC3 |

**Enclosure is Totally Enclosed Fan-Cooled**

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**Stamped Nameplate Notes:**

EXPLOSION PROOF MOTOR  
TEMP CODE T3C  
THERMOSTAT LEADS TB1-TB2  
STAMP NP249A5571AD "CL I (C & D) CL II (F & G)"

**Additional Information:**

2P - T EXTN  
STANDARD FLOOR MOUNT  
C/BOX 127 CU IN-1.25 NPT  
F1 CONDUIT BOX MOUNTING  
AUX LEADS EXIT WITH MOTOR LEADS  
CL I C & D CL II F & G EXPLOSION PROOF MOTOR

**Performance Characteristics**

1st Winding 1st Connection

**Design: 25BD0010A**

**Marks:**

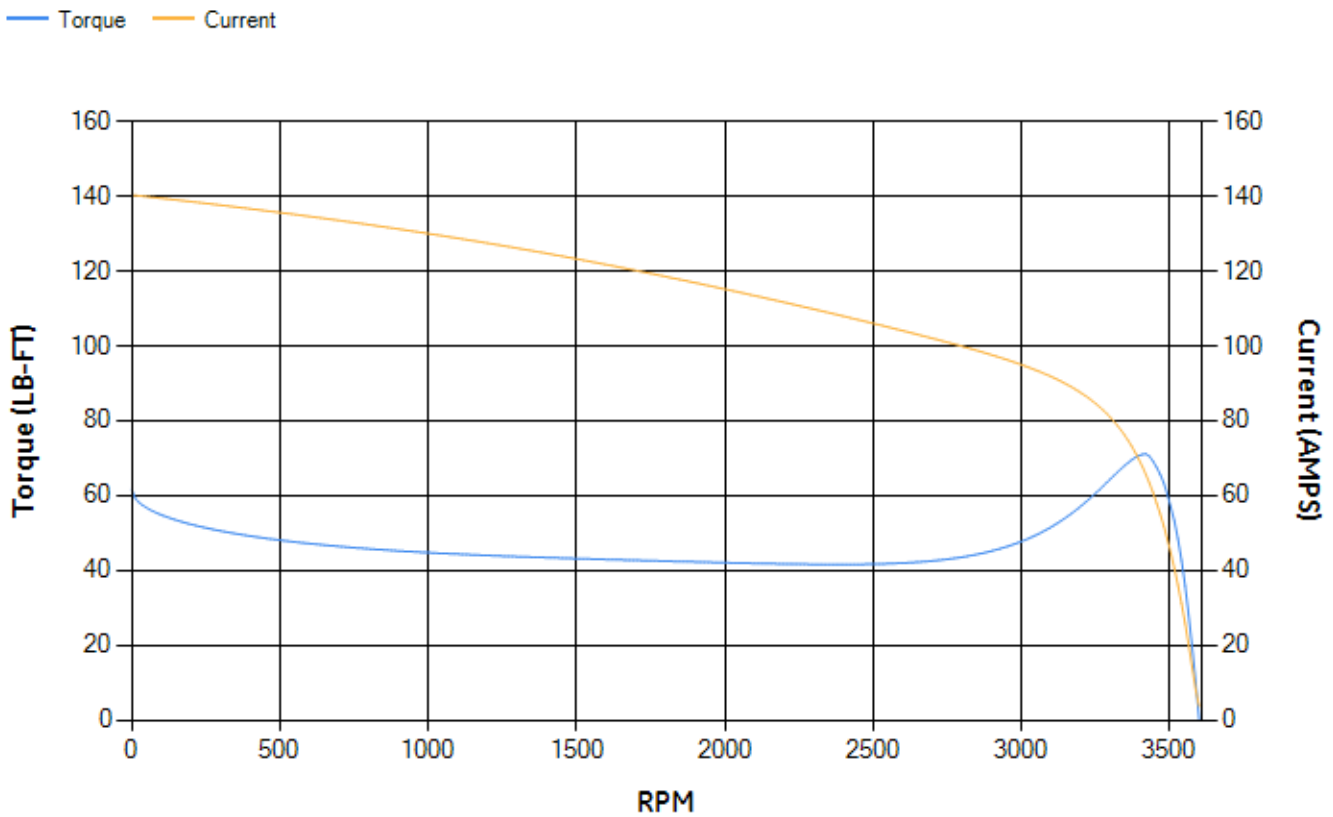
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0  | 50.0  | 25.0  | 0.0   |
|--------|-------|-------|-------|-------|-------|-------|-------|
| % EFF  | 89.26 | 90.11 | 91.37 | 92.44 | 92.85 | 90.76 | 0.00  |
| % PF   | 89.03 | 89.91 | 90.81 | 91.18 | 89.2  | 78.46 | 10.58 |
| AMPS   | 29.44 | 26.57 | 22.56 | 16.66 | 11.3  | 6.57  | 3.61  |

|             |        |             |       |             |        |
|-------------|--------|-------------|-------|-------------|--------|
| TORQ(FL)#FT | 29.65  | TORQ(LR)%FL | 208.1 | TORQ(BD)%FL | 238.68 |
| AMPS(LR)    | 140.31 | PF AT START | 0.32  |             |        |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 124 Lb-Ft Sq (5.22 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 39 seconds. Safe stall time at 100% voltage is 84 seconds cold, 47 seconds hot. Rotor inertia is 1.57 Lb-Ft Sq (0.07 Kg-meter Sq).

|                    |       |                    |       |
|--------------------|-------|--------------------|-------|
| Open Circuit A-C:  | 1.097 | Short Circuit D-C: | 0.013 |
| Short Circuit A-C: | 0.028 | X/R Ratio:         | 4.787 |
| Stator Slots:      | 36    | Rotor Slots:       | 26    |

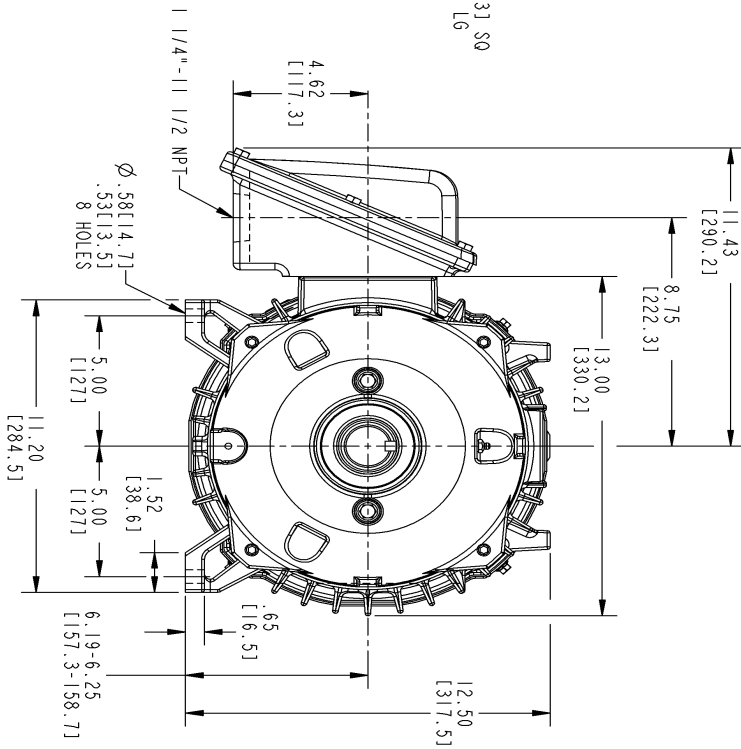
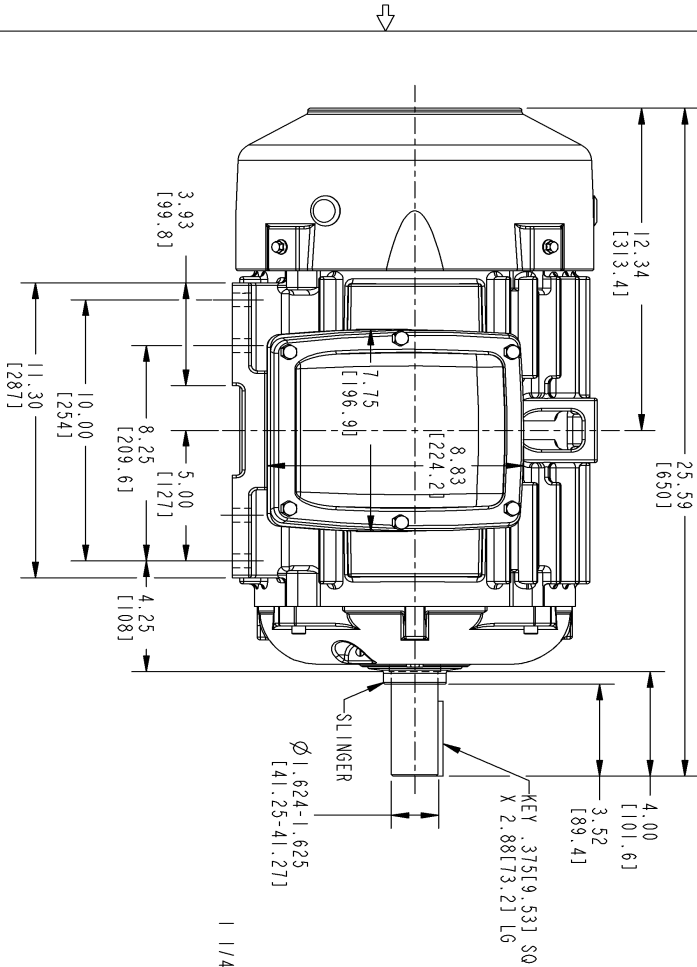
**Speed Torque Current Curve (First Connection, First Speed)**



NAME:500957145 OBJECT:4002B5825RAP5201 DATE:23-Nov-07 19:23:09

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.

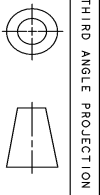


SIZE DRAWING NO. 4002B5825RAP5201

SH 1 REV

REVISIONS

| REV. | DESCRIPTION          | DATE             | APPROVED |
|------|----------------------|------------------|----------|
| 1    | DUAL DIMENSION ADDED | SMITHUN 11/23/07 | HEMANTH  |



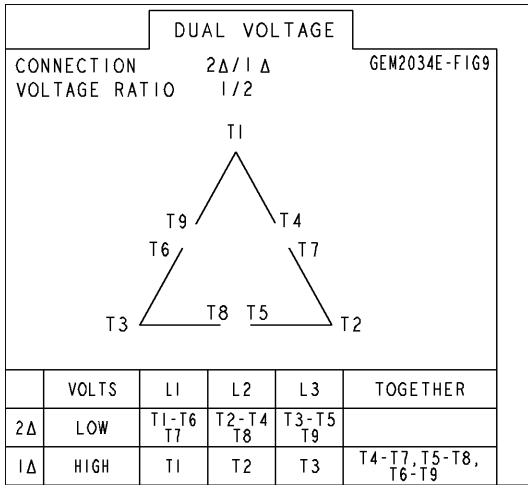
THIRD ANGLE PROJECTION

| SIGNATURES                             | DATE      | GE Industrial Systems | GENERAL ELECTRIC COMPANY   |
|--|-----------|-----------------------|--|
| DRAWN: GARY WARRNER                    | JUN 21/02 |                       | Fort Wayne, Indiana  |
| CHECKED: GARY WARRNER                  | JUN 21/02 |                       |  |
| ISSUED: GARY WARRNER                   | JUL 04/02 |                       |  |
| APPLIED PRACTICES                      |           | SIZE DRAWING: B       | INDUCTION MOTOR OUTLINE<br>STANDARD CONSTRUCTION<br>FME: FR250T FCXR XSD ULTRA |
| SCALE: 0.250 REF. NO: 4002B5825RAP5201 |           | SIZE DRAWING: B       | 4002B5825RAP5201 REV. 1  |

DISTRIBUTION: PMP-18K15

Marks:

**Connection Diagram**  
**GEM2034E-FIG9**



**Thermostat Connection**  
**3027JE-2A**

