

# Product Information Packet

November 9, 2016

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

|                            |                      |
|----------------------------|----------------------|
| <b>Model Number:</b>       | <b>5KS447LAA242A</b> |
| <b>Catalog Number:</b>     | <b>M7698</b>         |
| <b>Instruction Manual:</b> | GEI-56128            |
| <b>Connection Diagram:</b> | GEM2034E-FIG7        |
| <b>Outline Drawing:</b>    | 239CC800AA           |

| <b>Accessory Connection Diagrams</b> |      |                              |      |
|--------------------------------------|------|------------------------------|------|
| <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 |                              |      |

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**Marks:**

|                            |                      |                               |           |
|----------------------------|----------------------|-------------------------------|-----------|
| <b>MODEL NUMBER:</b>       | <b>5KS447LAA242A</b> | <b>Estimated Weight:</b>      | 2590 Lbs  |
| <b>Outline Drawing:</b>    | 239CC800AA           | <b>Time Rating:</b>           | CONT      |
| <b>Connection Diagram:</b> | GEM2034E-FIG7        | <b>Enclosure:</b>             | TEFC      |
| <b>Instruction Book:</b>   | GEI-56128            | <b>Encl Construction:</b>     | SD        |
| <b>Design Code:</b>        | 49BD1169B            | <b>Ambient Max(°C):</b>       | 40        |
| <b>Type:</b>               | KS                   | <b>Alt Ambient Max(°C):</b>   | --        |
| <b>Frame:</b>              | 447T                 | <b>Insulation Class:</b>      | F         |
| <b>Phases:</b>             | 3                    | <b>NEMA Design:</b>           | A         |
| <b>Poles:</b>              | 4                    | <b>Nominal Efficiency:</b>    | 96.2 %    |
| <b>Output Power:</b>       | 200HP 148KW          | <b>Guaranteed Efficiency:</b> | 95.4      |
| <b>RPM:</b>                | 1790                 | <b>3/4 Load Efficiency:</b>   | 96.5      |
| <b>Voltage:</b>            | 575                  | <b>KVA Code:</b>              | H         |
| <b>Hertz:</b>              | 60                   | <b>Max KVAR:</b>              | 58.7      |
| <b>Amps - FL:</b>          | 181.0                | <b>Power Factor:</b>          | 86.0      |
| <b>Service Factor:</b>     | 1.15                 | <b>Bearing - DE:</b>          | NU 318    |
| <b>Alt Service Factor:</b> | --                   | <b>Bearing - ODE:</b>         | 6318ZC3S0 |

**Enclosure is Totally Enclosed Fan-Cooled**

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**Stamped Nameplate Notes:**

ROLLER BEARING - FOR BELTED LOAD ONLY  
 INVERTER DUTY PER NEMA MG1 PART 31  
 ALTERNATE RATING FOR PWM CONTROL:  
 1.0 SF VAR TORQUE RANGE 0-60 HZ

**Additional Information:**

4P - T EXTN  
 700 CU IN - 3.00" NPT  
 OIL RESISTANT SLEEVING ON LEADS  
 B5F4C4 HIGH FATIGUE STEEL AISI 4142 SHAFT MATERIAL  
 F1 MOUNTING  
 VIBRATION LIMIT 0.0016 INCH PEAK TO PEAK

**Performance Characteristics**

1st Winding 1st Connection

**Design: 49BD1169B**

**Marks:**

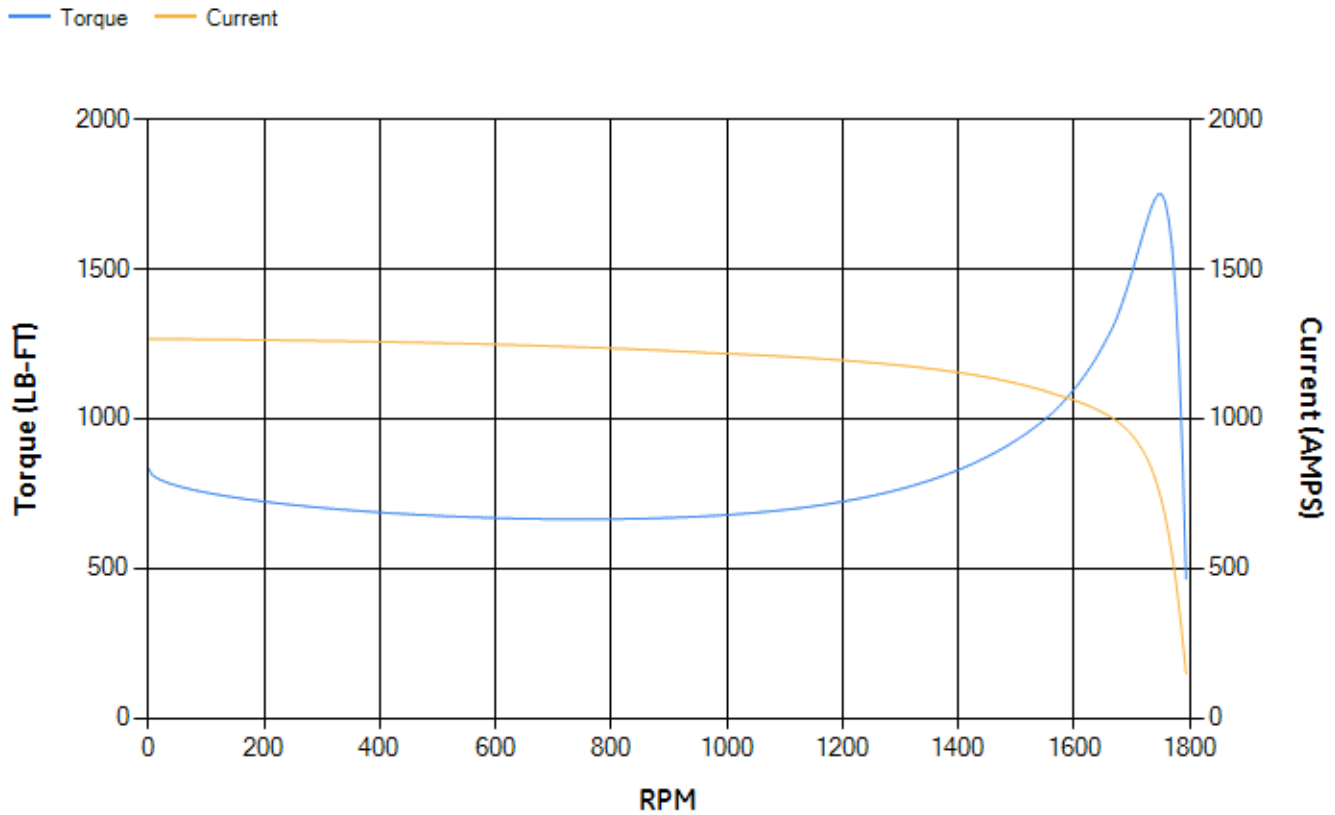
| LOAD % | 125.0  | 115.0  | 100.0  | 75.0   | 50.0   | 25.0  | 0.0   |
|--------|--------|--------|--------|--------|--------|-------|-------|
| % EFF  | 95.78  | 95.98  | 96.43  | 96.48  | 96.34  | 94.74 | 0.00  |
| % PF   | 87.4   | 86.95  | 85.83  | 82     | 72.93  | 50.41 | 2.61  |
| AMPS   | 223.61 | 206.35 | 180.94 | 141.95 | 106.56 | 78.39 | 65.28 |

|                    |         |                    |      |                    |        |
|--------------------|---------|--------------------|------|--------------------|--------|
| <b>TORQ(FL)#FT</b> | 586.25  | <b>TORQ(LR)%FL</b> | 142  | <b>TORQ(BD)%FL</b> | 298.68 |
| <b>AMPS(LR)</b>    | 1266.46 | <b>PF AT START</b> | 0.24 |                    |        |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 3932 Lb-Ft Sq (165.54 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 122 seconds cold, 61 seconds hot. Rotor inertia is 89 Lb-Ft Sq (3.75 Kg-meter Sq).

|                           |       |                           |       |
|---------------------------|-------|---------------------------|-------|
| <b>Open Circuit A-C:</b>  | 1.429 | <b>Short Circuit D-C:</b> | 0.026 |
| <b>Short Circuit A-C:</b> | 0.066 | <b>X/R Ratio:</b>         | 9.743 |
| <b>Stator Slots:</b>      | 72    | <b>Rotor Slots:</b>       | 58    |

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





Marks:

**Connection Diagram**  
**GEM2034E-FIG7**

