

Product Information Packet

November 9, 2016

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

| | |
|----------------------------|------------------------|
| Model Number: | 5KS284SAA118D10 |
| Catalog Number: | M994 |
| Instruction Manual: | GEI-56128 |
| Connection Diagram: | GEM2034E-FIG7 |
| Outline Drawing: | 4002B5828PAP5221 |

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

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Marks:

| | | | |
|----------------------------|------------------------|-------------------------------|---------|
| MODEL NUMBER: | 5KS284SAA118D10 | Estimated Weight: | 460 Lbs |
| Outline Drawing: | 4002B5828PAP5221 | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG7 | Enclosure: | TEFC |
| Instruction Book: | GEI-56128 | Encl Construction: | X\$D |
| Design Code: | 28BD0159A | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | 60 |
| Frame: | 284TS | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 2 | Nominal Efficiency: | 91.7 % |
| Output Power: | 25HP 18.5KW | Guaranteed Efficiency: | 91.0 |
| RPM: | 3550 | 3/4 Load Efficiency: | 92.5 |
| Voltage: | 460 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 4.7 |
| Amps - FL: | 28.0 | Power Factor: | 91.0 |
| Service Factor: | 1.15 | Bearing - DE: | 6310ZC3 |
| Alt Service Factor: | 1.00 | Bearing - ODE: | 6310ZC3 |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

STAMP NP249A5564P051 AS BELOW:
 MODEL:5KS284SAA118D10 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 260C AT 1.15SF ON SINE-WAVE PWR
 OR 200 C VT OR 215 C CT OR 215 C CHP PWM CONTROL
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB
 VT 0-60 HZ, CT 12-60 HZ , CHP 60-90 HZ.

Additional Information:

2P - TS EXTN
 STANDARD FLOOR MOUNT
 C/BOX 137 CU IN-1.50 NPT
 F1 CONDUIT BOX MOUNTING
 OIL RESISTANT SLEEVING ON LEADS

Performance Characteristics

1st Winding 1st Connection

Design: 28BD0159A

Marks:

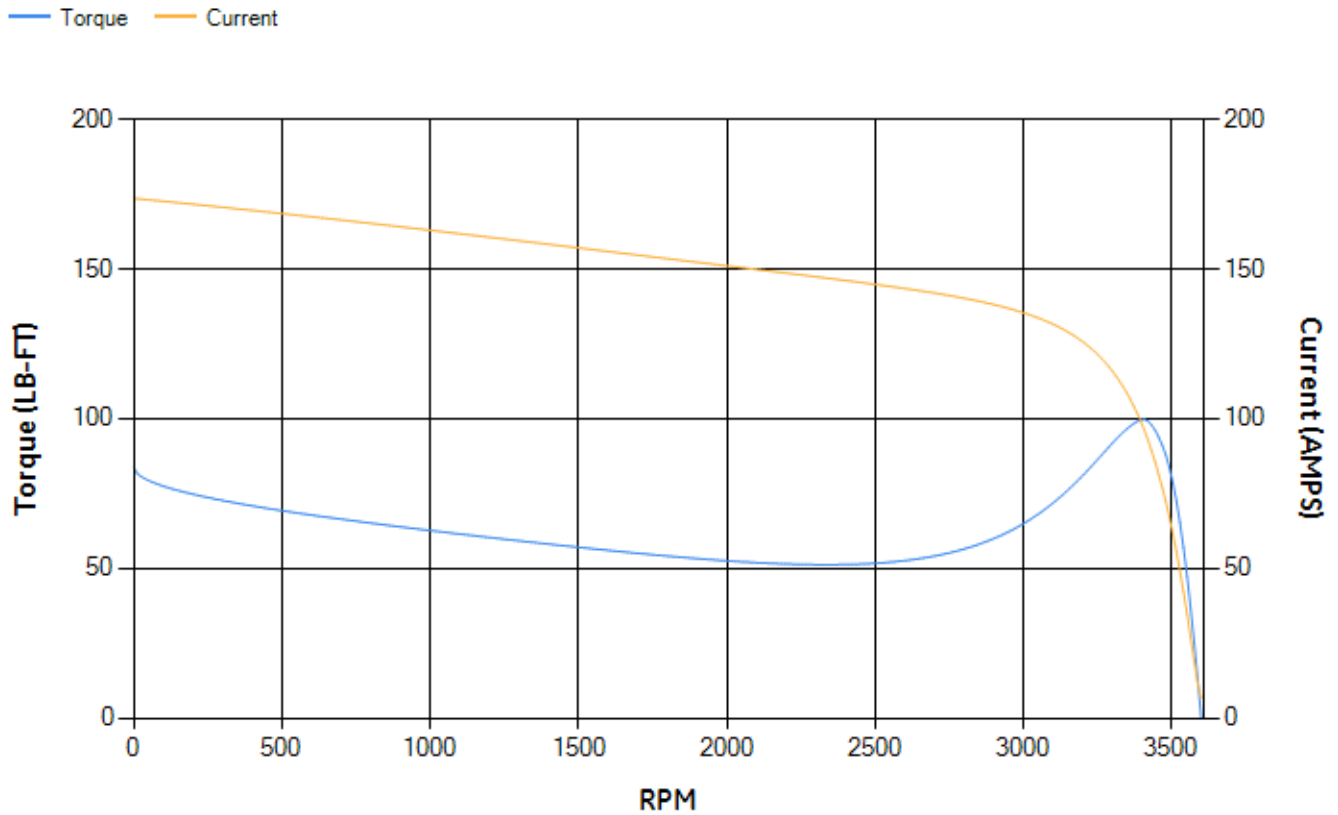
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF | 90.58 | 91.12 | 92 | 92.55 | 92.44 | 89.45 | 0.00 |
| % PF | 90.9 | 91.04 | 90.96 | 89.6 | 84.9 | 68.38 | 8.73 |
| AMPS | 35.52 | 32.44 | 27.96 | 21.16 | 14.91 | 9.56 | 6.61 |

| | | | | | |
|--------------------|-------|--------------------|--------|--------------------|--------|
| TORQ(FL)#FT | 36.99 | TORQ(LR)%FL | 226.67 | TORQ(BD)%FL | 268.66 |
| AMPS(LR) | 173.6 | PF AT START | 0.39 | | |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 79 Lb-Ft Sq (3.33 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 18 seconds. Safe stall time at 100% voltage is 40 seconds cold, 22 seconds hot. Rotor inertia is 2.13 Lb-Ft Sq (0.09 Kg-meter Sq).

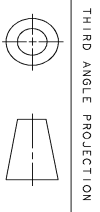
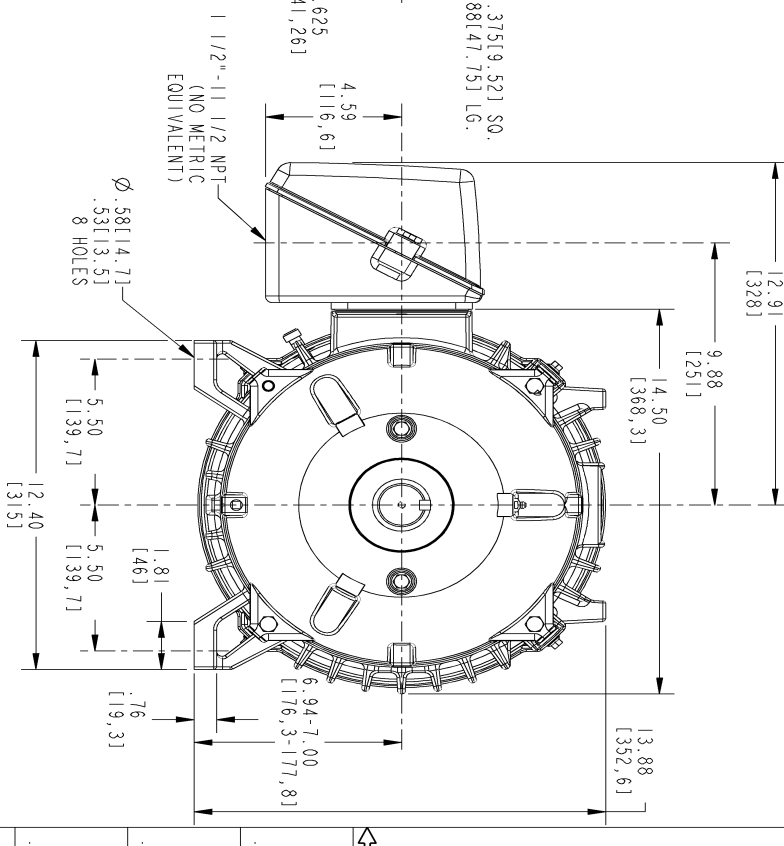
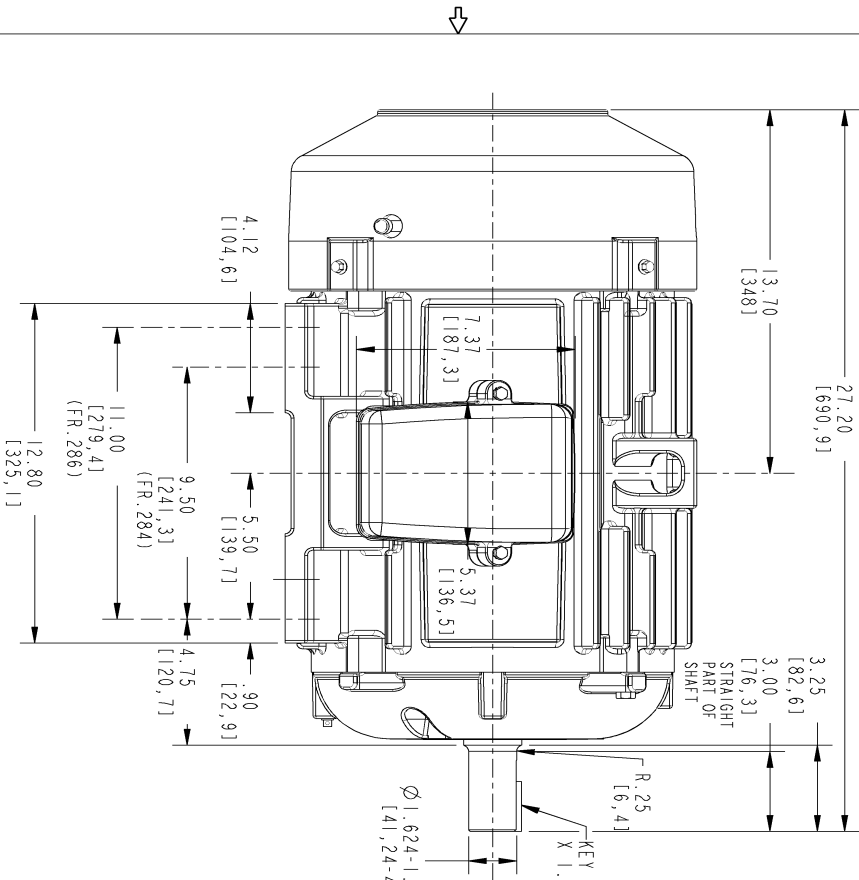
| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 0.798 | Short Circuit D-C: | 0.013 |
| Short Circuit A-C: | 0.027 | X/R Ratio: | 4.793 |
| Stator Slots: | 48 | Rotor Slots: | 38 |

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.
 NOTE 3: SHAFT RUNOUT WILL NOT EXCEED .002 T.I.R.
 NOTE 4: ALL DIMENSIONS ARE IN INCHES & BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS)



SIZE B DRAWING NO. 4002B5828PAP5221

| REV. | DESCRIPTION | DATE | APPROVED |
|------|----------------|----------|-------------|
| 1 | ISAC # 12-0882 | 08/30/12 | ADINARAYANA |

| SIGNATURES | DATE | REV. |
|----------------------|-----------|------|
| DRMAN GARY WARDNER | JUL 03/02 | 1 |
| CHECKED GARY WARDNER | JUL 03/02 | |
| ENGRB GARY WARDNER | JUL 03/02 | |
| ISSUED GARY WARDNER | JUL 03/02 | |
| APPLIED PRACTICES | | |

GE Industrial Systems
GENERAL ELECTRIC COMPANY
 Fort Wayne, Indiana
INDUCTION MOTOR OUTLINE
 STANDARD CONSTRUCTION
 FWE: FR284/286T'S TFC XSD ULTRA
 4002B5828PAP5221
 SCALE: 0.250 REF. NO.: 4002B5828PAP221 SHEET 0F 1

DISTRIBUTION: PMP-1BK15

Marks:

Connection Diagram
GEM2034E-FIG7



| End shield Assembly | | |
|---------------------|---------------|----------------|
| Part Description | DE Side Part# | ODE Side Part# |
| End Shield | 4004D5284PB1 | 4004D5284SE1 |
| Bearing | 235A2608AA01 | 235A2608AA01 |
| Slinger/Inproseal | 149C4399G03 | 149C4399G03 |

| Fan & Fan Cover Assembly | |
|--------------------------|--------------|
| Part Description | Part# |
| Fan | 159C6704G02 |
| Fan Cover | 4003C5789PA1 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-----------------|
| Part Description | Part# |
| Conduit Box | 4002B5728PA-G01 |

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