

# Product Information Packet

November 8, 2016

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

|                            |                       |
|----------------------------|-----------------------|
| <b>Model Number:</b>       | <b>5KS182XAA204D2</b> |
| <b>Catalog Number:</b>     | <b>M9489</b>          |
| <b>Instruction Manual:</b> | GEI-56128             |
| <b>Connection Diagram:</b> | GEM2034E-FIG1         |
| <b>Outline Drawing:</b>    | 4002B5818PAP5311      |

| 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 |                              |      |

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**Marks:**

|                            |                       |                               |         |
|----------------------------|-----------------------|-------------------------------|---------|
| <b>MODEL NUMBER:</b>       | <b>5KS182XAA204D2</b> | <b>Estimated Weight:</b>      | 76 Lbs  |
| <b>Outline Drawing:</b>    | 4002B5818PAP5311      | <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>     | 841     |
| <b>Design Code:</b>        | 18BD1124BA            | <b>Ambient Max(°C):</b>       | 40      |
| <b>Type:</b>               | KS                    | <b>Alt Ambient Max(°C):</b>   | --      |
| <b>Frame:</b>              | 182T                  | <b>Insulation Class:</b>      | H       |
| <b>Phases:</b>             | 3                     | <b>NEMA Design:</b>           | B       |
| <b>Poles:</b>              | 4                     | <b>Nominal Efficiency:</b>    | 89.5 %  |
| <b>Output Power:</b>       | 3HP 2.2KW             | <b>Guaranteed Efficiency:</b> | 88.5    |
| <b>RPM:</b>                | 1765                  | <b>3/4 Load Efficiency:</b>   | 90.3    |
| <b>Voltage:</b>            | 575                   | <b>KVA Code:</b>              | K       |
| <b>Hertz:</b>              | 60                    | <b>Max KVAR:</b>              | 1.4     |
| <b>Amps - FL:</b>          | 3.2                   | <b>Power Factor:</b>          | 77.5    |
| <b>Service Factor:</b>     | 1.15                  | <b>Bearing - DE:</b>          | 6206ZC3 |
| <b>Alt Service Factor:</b> | --                    | <b>Bearing - ODE:</b>         | 6206ZC3 |

**Enclosure is Totally Enclosed Fan-Cooled**

**Stamped Nameplate Notes:**

IEEE-STD-841-2009  
 DE BRG 30BC02JP30 ODE BRG 30BC02JP30  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS182XAA204D2 S/N: XXX  
 CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200 C GC  
 CL1 ZONE2 AEXNAIIC 200C FOR CL1DIV2 GRP ABCD 200C  
 IN -25C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR  
 SURF TEMP 200 C AT 1.15 SF ON SINE-WAVE PWR  
 OR 200 C VT OR 200 C CT OR 200 C CHP PWM CONTROL  
 ALTERNATE RATING FOR PWM CONTROL 1.0 SF 40 C AMB  
 VT 0-60 HZ, CT 3-60 HZ, CHP 60-90 HZ.

**Additional Information:**

4P - T EXTN  
 STANDARD FLOOR MOUNT  
 C/BOX 55 CU IN-1.00 NPT  
 F1 CONDUIT BOX MOUNTING  
 PAINTED FRAME ID & SHAFT,  
 FAN COVER INSIDE & ODE E/S OUTSIDE  
 ROUTINE AND 5 POINT VIBRATION TESTS INCL IN C/BOX  
 INPRO SEAL BOTH ENDS  
 GROUND SCREW ON FRAME  
 SHAFT RUNOUT LIMIT .001" TIR  
 COPPER WASHER UNDER HEADS OF BEARING CAP BOLTS  
 APPLY TITE-SEAL (A50CD427A) ON BEARING CAP SCREWS, RABBETS,  
 AND PLUG THREADS  
 OIL RESISTANT SLEEVING ON LEADS



**Performance Characteristics**

1st Winding 1st Connection

**Design: 18BD1124BA**

**Marks:**

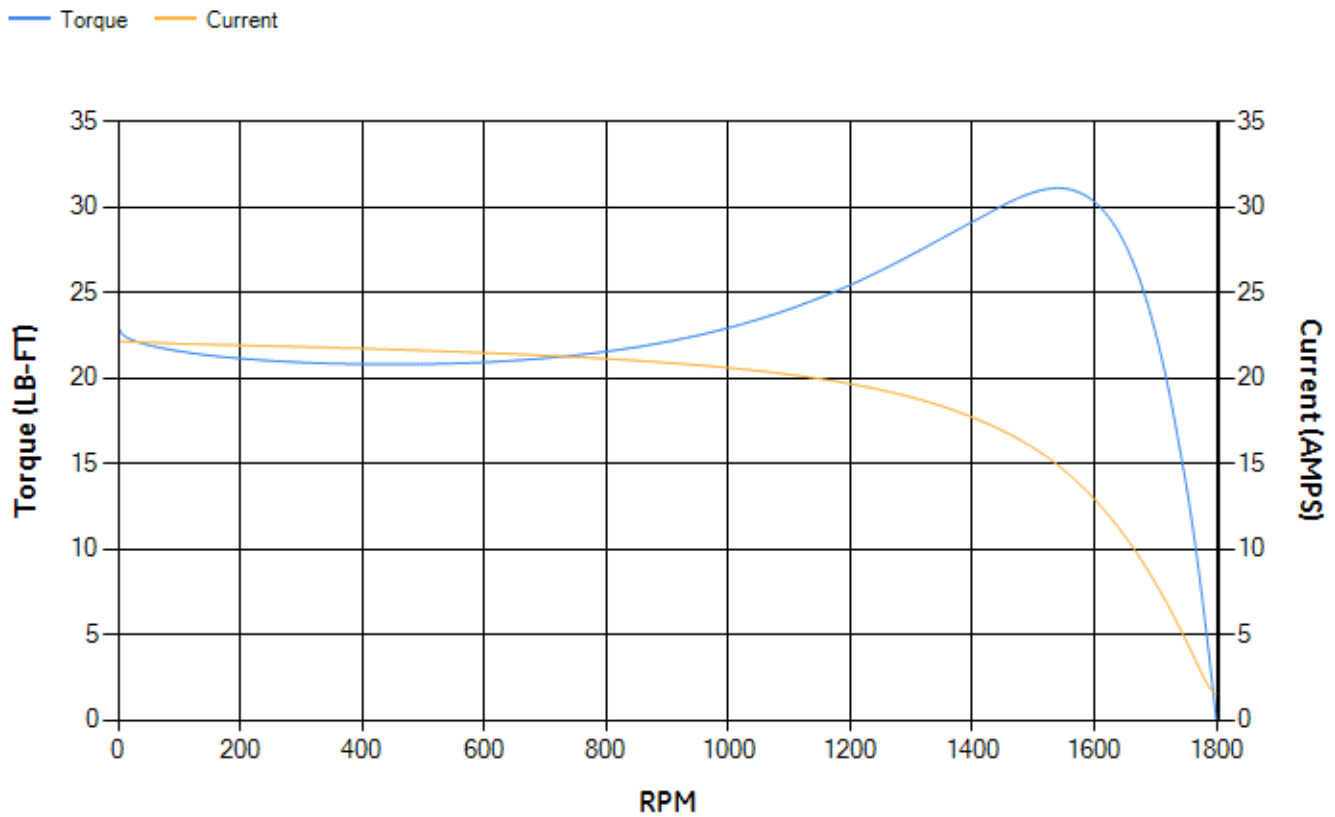
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0  | 50.0  | 25.0  | 0.0  |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF  | 89.36 | 89.73 | 90.35 | 90.31 | 89.15 | 83.58 | 0.00 |
| % PF   | 80.73 | 79.68 | 78.94 | 71.16 | 59.38 | 38.26 | 6.46 |
| AMPS   | 3.89  | 3.61  | 3.15  | 2.62  | 2.12  | 1.76  | 1.51 |

|                    |       |                    |      |                    |        |
|--------------------|-------|--------------------|------|--------------------|--------|
| <b>TORQ(FL)#FT</b> | 8.92  | <b>TORQ(LR)%FL</b> | 257  | <b>TORQ(BD)%FL</b> | 345.54 |
| <b>AMPS(LR)</b>    | 22.14 | <b>PF AT START</b> | 0.51 |                    |        |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 172 Lb-Ft Sq (7.24 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 49 seconds. Safe stall time at 100% voltage is 108 seconds cold, 84 seconds hot. Rotor inertia is 0.28 Lb-Ft Sq (0.01 Kg-meter Sq).

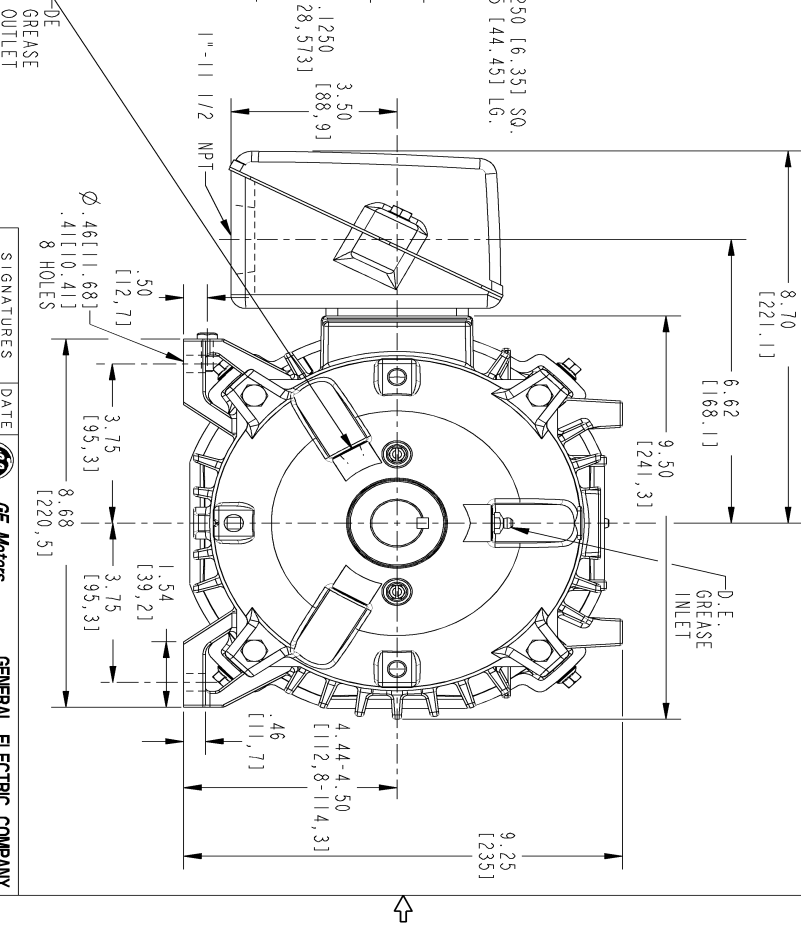
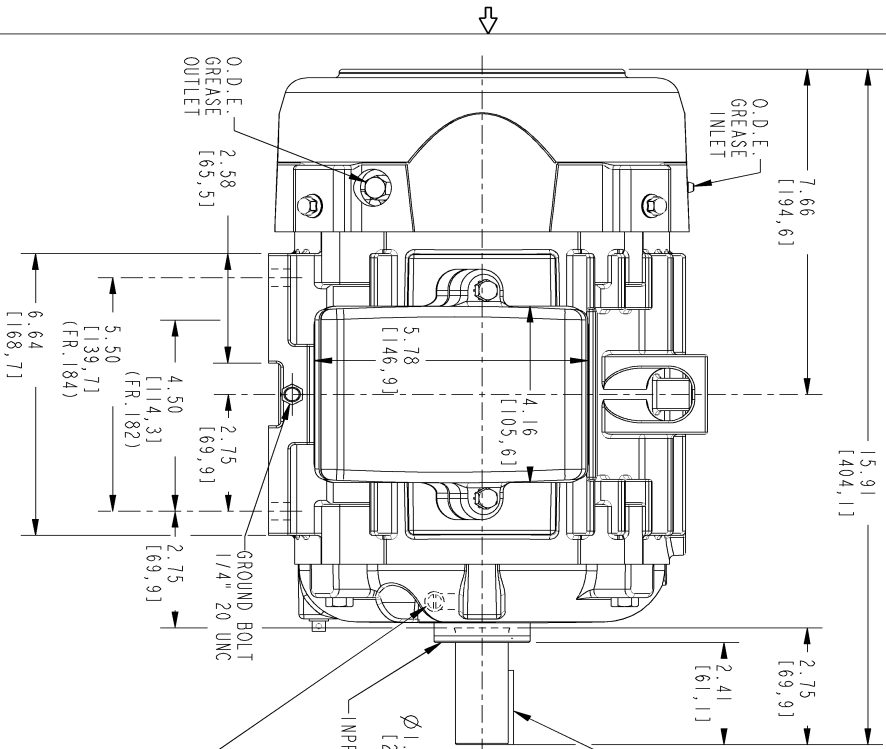
|                           |       |                           |       |
|---------------------------|-------|---------------------------|-------|
| <b>Open Circuit A-C:</b>  | 0.266 | <b>Short Circuit D-C:</b> | 0.009 |
| <b>Short Circuit A-C:</b> | 0.014 | <b>X/R Ratio:</b>         | 3.332 |
| <b>Stator Slots:</b>      | 36    | <b>Rotor Slots:</b>       | 28    |

**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 .001 T.I.R.  
 NOTE 4: ALL DIMENSIONS ARE IN INCHES, BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS).



SIZE DRAWING NO. B

4002B5818PAP5311 2

REV SHEET 1

| REV. | DESCRIPTION    | DATE     | APPROVED    |
|------|----------------|----------|-------------|
| 1    | ISAAC #15-0731 | 07/17/15 | KARTHIK     |
| 2    | ISAAC #16-0079 | 01/28/16 | SRAVANTHI D |

THIRD ANGLE PROJECTION



| SIGNATURES                              | DATE                      | GE Motors               | GENERAL ELECTRIC COMPANY |
|---|---------------------------|-------------------------|--------------------------|
| TEJASVI                                 | 06/04/15                  |                         |                          |
| TEJASVI                                 | 06/04/15                  |                         |                          |
| VENKAT                                  | 06/04/15                  |                         |                          |
| VENKAT                                  | 06/04/15                  |                         |                          |
| ISSUED                                  | TEJASVI                   | 06/04/15                |                          |
| QUALITY                                 |                           |                         |                          |
| SCALE: 0.400                            | REF. No. 4002B5818PAP5301 |                         |                          |
| TITLE                                   |                           | INDUCTION MOTOR OUTLINE |                          |
| STANDARD CONSTRUCTION FOR IEEE-841 SPEC |                           | FR182/184 T TEFC        |                          |
| SIZE DRAWING                            | 4002B5818PAP5311          | REV                     | 2                        |
|   |                           | SHEET                   | 1 of 1                   |

Marks:

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



| End shield Assembly |               |                |
|---------------------|---------------|----------------|
| Part Description    | DE Side Part# | ODE Side Part# |
| End Shield          | 4004D5281PB1  | 4004D5281SG1   |
| Bearing             | 235A2602AA01  | 235A2602AA01   |
| Slinger/Inproseal   | 4002B5914AF2  | 4002B5914AG2   |

| Fan & Fan Cover Assembly |                 |
|--------------------------|-----------------|
| Part Description         | Part#           |
| Fan                      | 4001A5914AM-G01 |
| Fan Cover                | 4003C5786PA1    |

| Conduit & Accessories Box Assembly |                 |
|------------------------------------|-----------------|
| Part Description                   | Part#           |
| Conduit Box                        | 4002B5721PA-G01 |

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