



**GE INDUSTRIAL MOTORS**  
a **WOLONG** company

# Product Technical Information

June 24, 2020

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

|                            |                       |
|----------------------------|-----------------------|
| <b>Model Number:</b>       | <b>5KS184XAA1022D</b> |
| <b>Catalog Number:</b>     | <b>M9411</b>          |
| <b>Instruction Manual:</b> | GEI-56128             |
| <b>Connection Diagram:</b> | GEM2034E-FIG1         |
| <b>Outline Drawing:</b>    | 4002B5818PDP5310      |

## 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>5KS184XAA1022D</b> | <b>Estimated Weight:</b>      | 101 Lbs |
| <b>Outline Drawing:</b>    | 4002B5818PDP5310      | <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>        | 18BD0103A             | <b>Ambient Max(°C):</b>       | 40      |
| <b>Type:</b>               | KS                    | <b>Alt Ambient Max(°C):</b>   | --      |
| <b>Frame:</b>              | 184TC                 | <b>Insulation Class:</b>      | H       |
| <b>Phases:</b>             | 3                     | <b>NEMA Design:</b>           | B       |
| <b>Poles:</b>              | 2                     | <b>Nominal Efficiency:</b>    | 88.5 %  |
| <b>Output Power:</b>       | 5HP 3.7KW             | <b>Guaranteed Efficiency:</b> | 87.5 %  |
| <b>RPM:</b>                | 3530                  | <b>3/4 Load Efficiency:</b>   | 89.3 %  |
| <b>Voltage:</b>            | 460                   | <b>KVA Code:</b>              | J       |
| <b>Hertz:</b>              | 60                    | <b>Max KVAR:</b>              | 1.9     |
| <b>Amps - FL:</b>          | 6.6                   | <b>Power Factor:</b>          | 80.5    |
| <b>Service Factor:</b>     | 1.15                  | <b>Bearing - DE:</b>          | 6307ZC3 |
| <b>Alt Service Factor:</b> | --                    | <b>Bearing - ODE:</b>         | 6206ZC3 |

Enclosure is Totally Enclosed Fan-Cooled

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Stamped Nameplate Notes:

IEEE-STD-841-2009  
 DE BRG 35BC03JP30 ODE BRG 30BC02JP30  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS184XAA1022D 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 215 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:**

2P - T EXTN  
C/BOX 55 CU IN-1.00 NPT  
"C" FACE AT DE ENDSHIELD ROUND FRAME  
VERTICAL MOUNT SHAFT DOWN WITH DRIPCOVER  
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  
BURNDY SERVIT POST 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: 18BD0103A**

**Marks:**

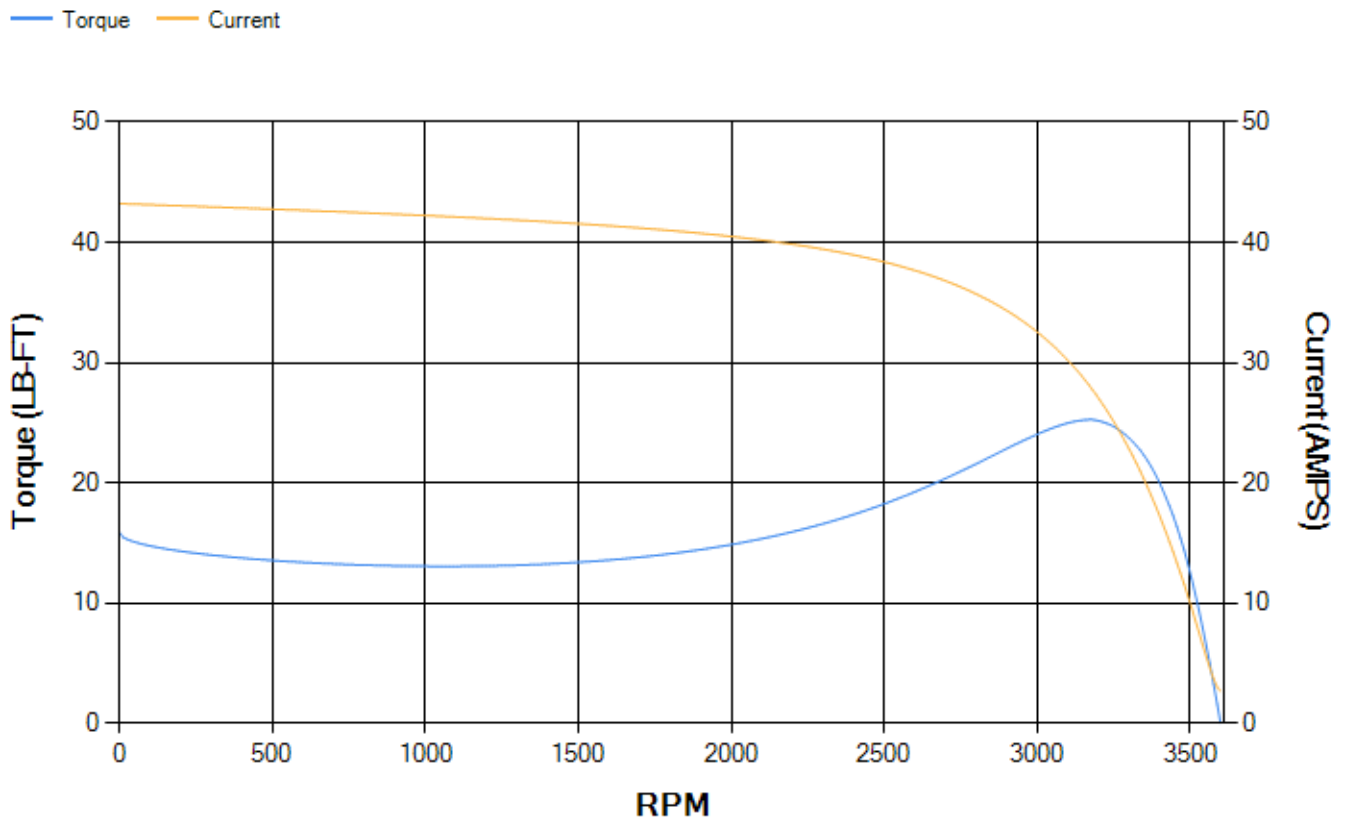
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0  | 50.0  | 25.0  | 0.0  |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF  | 88.54 | 88.88 | 89.44 | 89.25 | 87.78 | 81.41 | 0.00 |
| % PF   | 83.05 | 82.11 | 83.84 | 74.24 | 62.93 | 41.64 | 8.89 |
| AMPS   | 7.96  | 7.37  | 6.24  | 5.3   | 4.24  | 3.45  | 2.67 |

|                    |       |                    |        |                    |        |
|--------------------|-------|--------------------|--------|--------------------|--------|
| <b>TORQ(FL)#FT</b> | 7.44  | <b>TORQ(LR)%FL</b> | 213.15 | <b>TORQ(BD)%FL</b> | 336.72 |
| <b>AMPS(LR)</b>    | 43.22 | <b>PF AT START</b> | 0.4    |                    |        |

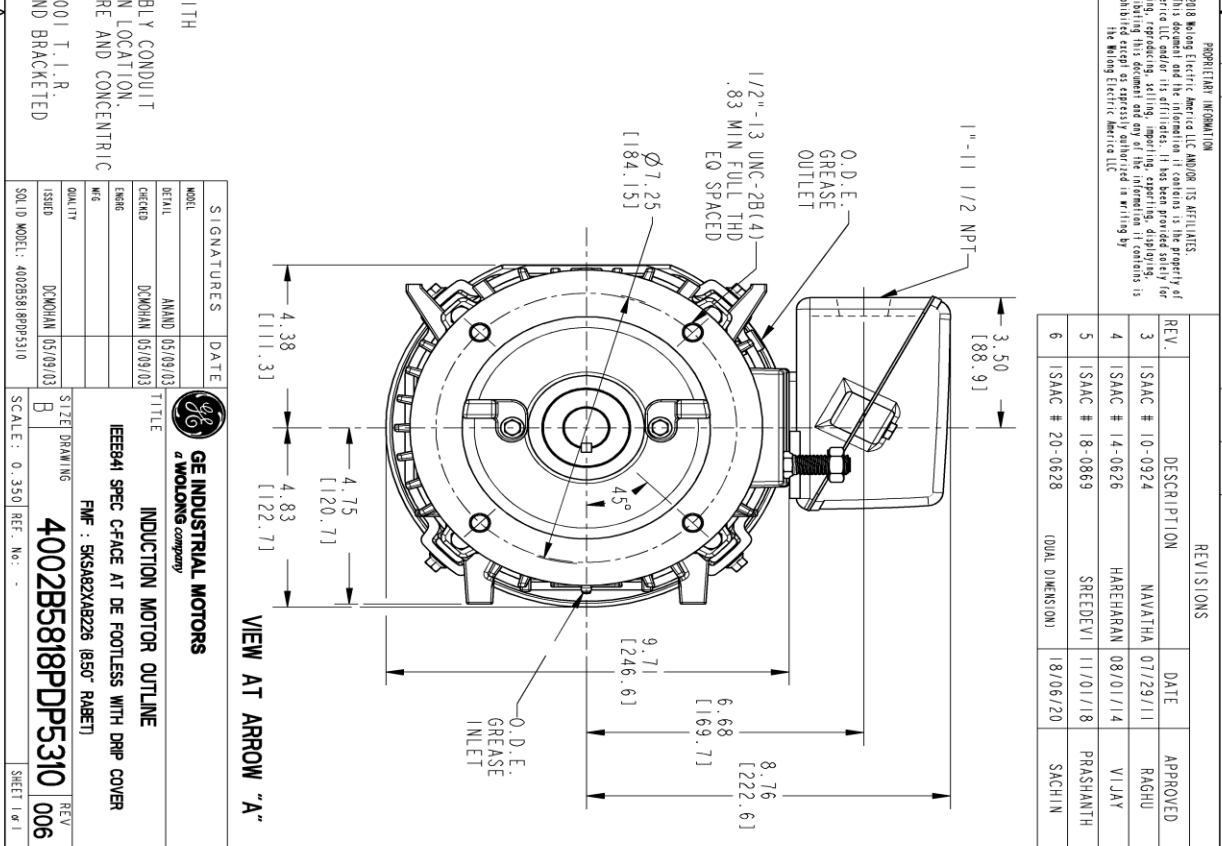
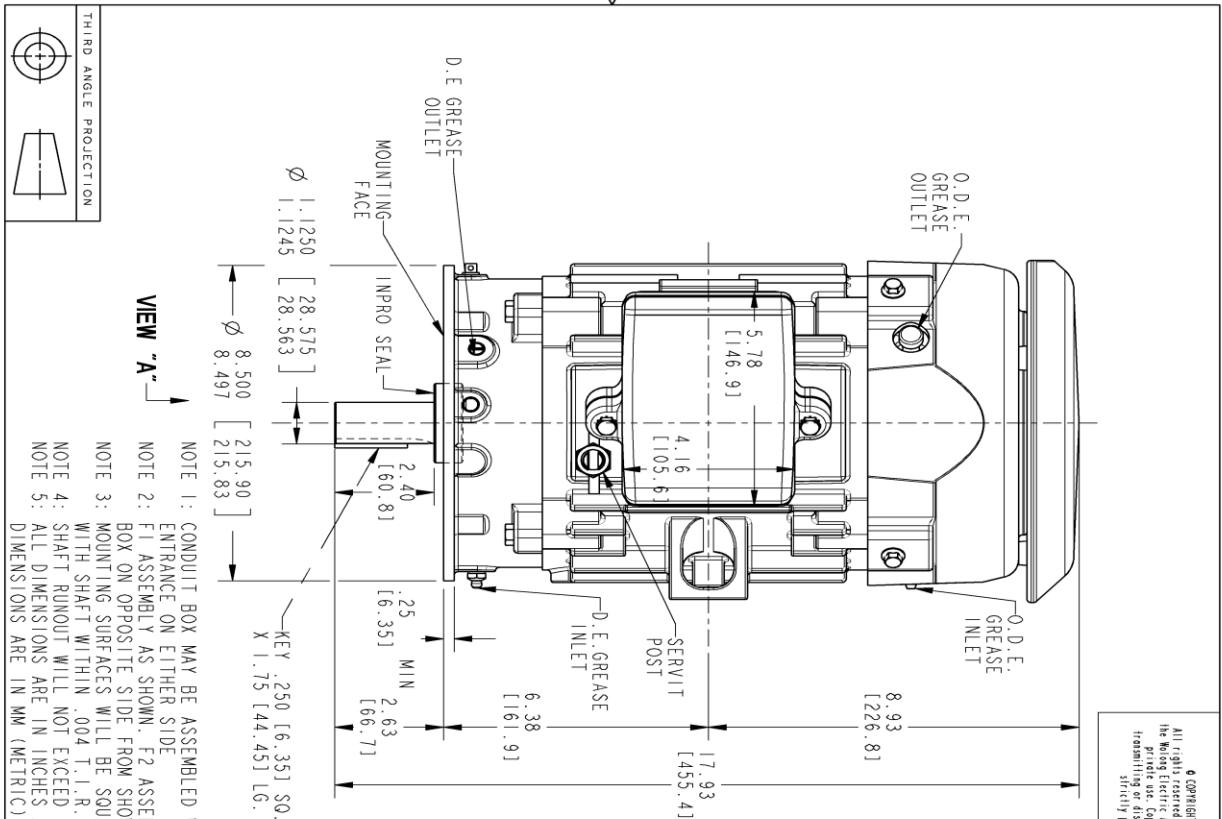
This motor is capable of two cold or one hot start with a maximum connected load inertia of 45 Lb-Ft Sq (1.89 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 38 seconds. Safe stall time at 100% voltage is 78 seconds cold, 57 seconds hot. Rotor inertia is 0.15 Lb-Ft Sq (0.01 Kg-meter Sq).

|                           |       |                           |       |
|---------------------------|-------|---------------------------|-------|
| <b>Open Circuit A-C:</b>  | 0.299 | <b>Short Circuit D-C:</b> | 0.01  |
| <b>Short Circuit A-C:</b> | 0.017 | <b>X/R Ratio:</b>         | 3.957 |
| <b>Stator Slots:</b>      | 36    | <b>Rotor Slots:</b>       | 28    |

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



Marks:



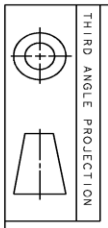
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| REV. | DESCRIPTION    | DATE               | APPROVED  |
|------|----------------|--------------------|-----------|
| 3    | ISAC # 10-0924 | NAVATHA 07/29/11   | RAGHU     |
| 4    | ISAC # 14-0626 | HAREHARAN 08/01/14 | VIJAY     |
| 5    | ISAC # 18-0869 | SREEDevi 11/01/18  | PRASHANTH |
| 6    | ISAC # 20-0628 | (DUAL DIMENSION)   | SACHIN    |

|              |                  |          |
|--------------|------------------|----------|
| SIGNATURES   |                  | DATE     |
| MODEL        | AAAD             | 05/09/03 |
| DETAIL       | DCMOHAN          | 05/09/03 |
| CREATED      | DCMOHAN          | 05/09/03 |
| ENGR         |                  |          |
| CHKD         |                  |          |
| QUALITY      |                  |          |
| ISSUED       | DCMOHAN          | 05/09/03 |
| SOLID MODEL: | 4002B5818PDP5310 |          |

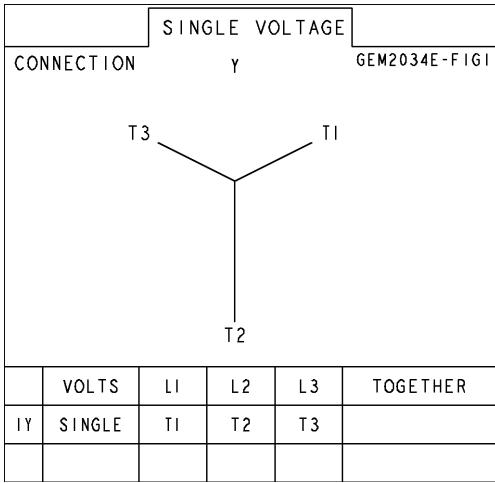
  

|   |                  |
|---|------------------|
| TITLE   |                  |
| INDUCTION MOTOR OUTLINE                           |                  |
| IEE8941 SPEC C/FACE AT DE FOOTLESS WITH DRP COVER |                  |
| FWF : 5KS184XAA226 (850° RABET)                   |                  |
| SCALE:  | 0.350 REF. No. - |



**Marks:**

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



| End shield Assembly |               |                |
|---------------------|---------------|----------------|
| Part Description    | DE Side Part# | ODE Side Part# |
| End Shield          | 4004D5286PE1  | 4004D5281SG1   |
| Bearing             | 235A2501AE01  | 235A2502AM01   |
| Slinger/Inproseal   | 316A5384AJ1   | 4002B5914AG2   |

| Fan & Fan Cover Assembly |                 |
|--------------------------|-----------------|
| Part Description         | Part#           |
| Fan                      | 4001A5914AM-G01 |
| Fan Cover                | 4003C5518BN-G01 |

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

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

