



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.

| | |
|----------------------------|-----------------------|
| Model Number: | 5KS254XAA108D3 |
| Catalog Number: | M9434 |
| Instruction Manual: | GEI-56128 |
| Connection Diagram: | GEM2034E-FIG1 |
| Outline Drawing: | 4002B5825PAP5311 |

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: | 5KS254XAA108D3 | Estimated Weight: | 315 Lbs |
| Outline Drawing: | 4002B5825PAP5311 | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG1 | Enclosure: | TEFC |
| Instruction Book: | GEI-56128 | Encl Construction: | 841 |
| Design Code: | 25BD0090A | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | 254T | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 2 | Nominal Efficiency: | 91 % |
| Output Power: | 15HP 11.1KW | Guaranteed Efficiency: | 90.2 % |
| RPM: | 3550 | 3/4 Load Efficiency: | 91.8 % |
| Voltage: | 460 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 2.9 |
| Amps - FL: | 17.3 | Power Factor: | 89.0 |
| Service Factor: | 1.15 | Bearing - DE: | 6309ZC3 |
| Alt Service Factor: | -- | Bearing - ODE: | 6309ZC3 |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

IEEE-STD-841-2009
 DE BRG 45BC03JP30 ODE BRG 45BC03JP30
 STAMP NP249A5564P051 AS BELOW:
 MODEL:5KS254XAA108D3 S/N: XXX
 CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200 C GC
 CL1ZONE2 AEXNAIIC 200 C; CL1DIV2 GRP ABCD 200 C
 IN -25C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR
 SURF TEMP 230 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
STANDARD FLOOR MOUNT
C/BOX 137 CU IN-1.25 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: 25BD0090A

Marks:

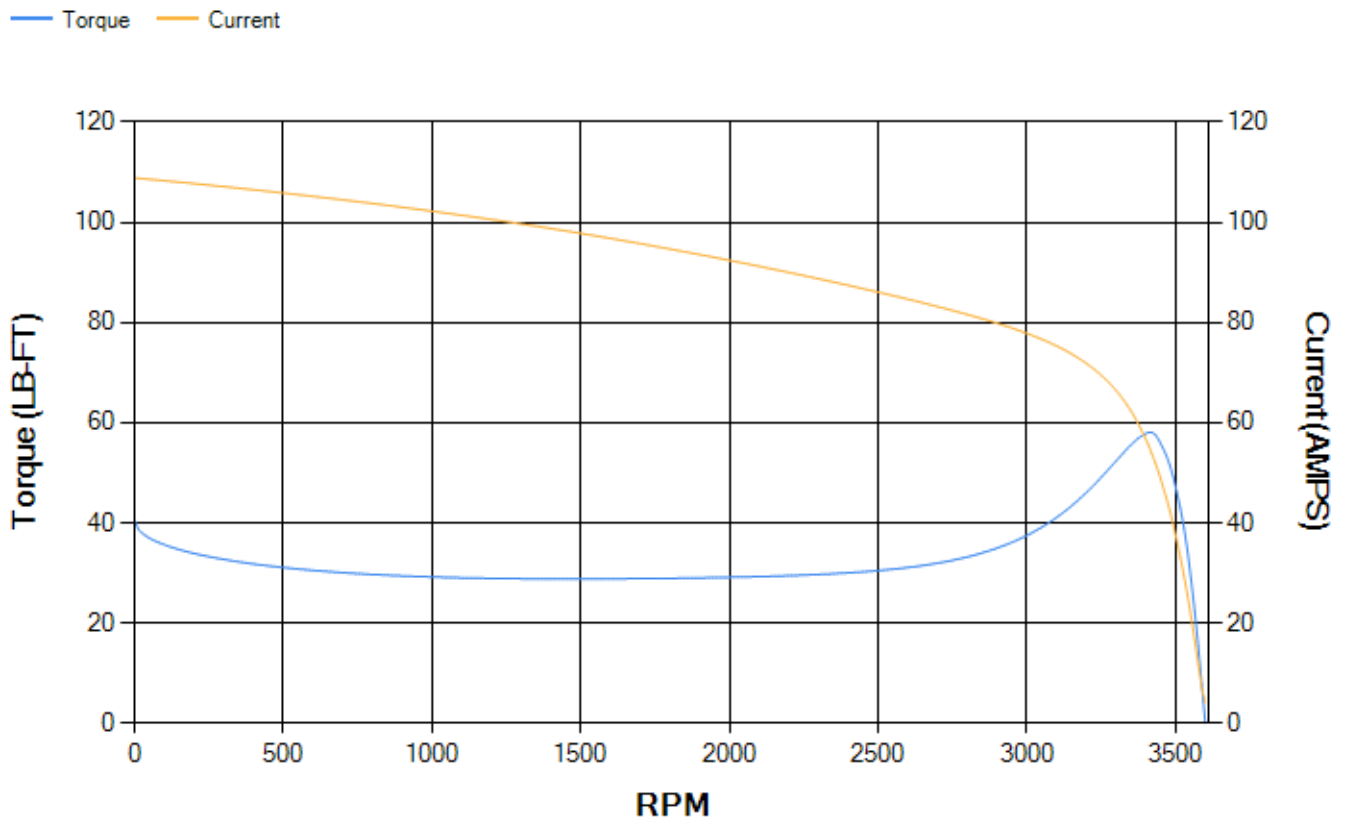
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF | 89.45 | 90.12 | 91.14 | 91.82 | 91.72 | 88.47 | 0.00 |
| % PF | 88.54 | 88.94 | 89.15 | 88.13 | 83.62 | 67.44 | 9.49 |
| AMPS | 22.16 | 20.14 | 17.28 | 13.01 | 9.15 | 5.88 | 4.05 |

| | | | | | |
|--------------------|--------|--------------------|--------|--------------------|--------|
| TORQ(FL)#FT | 22.19 | TORQ(LR)%FL | 182.46 | TORQ(BD)%FL | 260.69 |
| AMPS(LR) | 108.88 | PF AT START | 0.3 | | |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 109 Lb-Ft Sq (4.59 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 50 seconds. Safe stall time at 100% voltage is 94 seconds cold, 60 seconds hot. Rotor inertia is 1.04 Lb-Ft Sq (0.04 Kg-meter Sq).

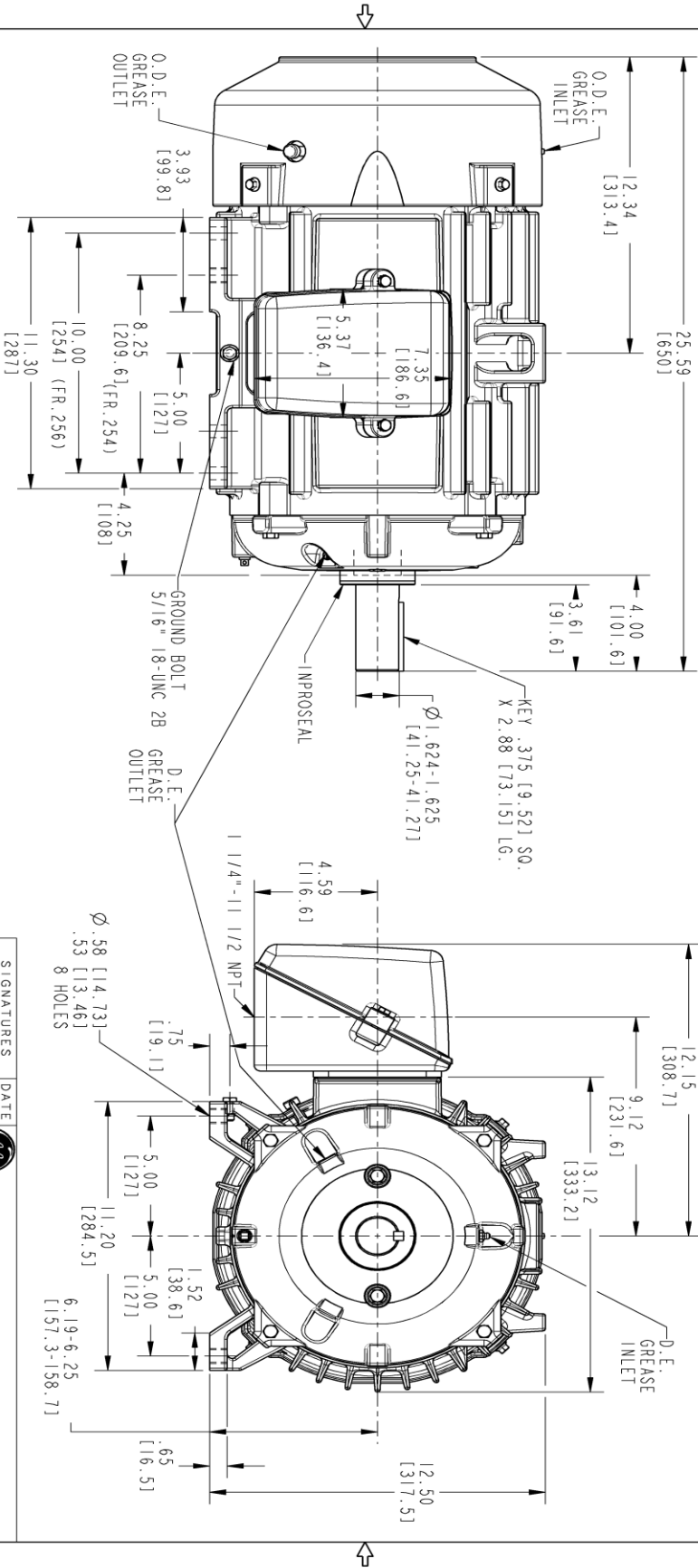
| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 0.836 | Short Circuit D-C: | 0.013 |
| Short Circuit A-C: | 0.031 | X/R Ratio: | 4.8 |
| Stator Slots: | 36 | Rotor Slots: | 26 |

Speed Torque Current Curve (First Connection, First Speed)



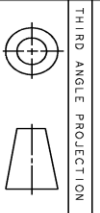
Marks:

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.



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| REV. | DESCRIPTION | DATE | APPROVED |
|------|---------------|----------|-----------|
| 1 | ISAC# 18-0869 | 11/05/18 | PRASHANTH |



THIRD ANGLE PROJECTION

| SIGNATURES | DATE |
|------------|----------|
| TEJASNI | 05/18/15 |
| TEJASNI | 05/18/15 |
| KARTHIK | 05/18/15 |
| SRIVANTHI | 05/18/15 |

TITLE
GE INDUSTRIAL MOTORS
 INDUCTION MOTOR OUTLINE
 STANDARD CONSTRUCTION FOR IEEE-941 SPEC.
 FMR FR250T TERC X8D ULTRA

SCALE: 0.250 REF. No.: 4002B5825PAP5311

4002B5825PAP5311

REV. 001

Marks:

Connection Diagram
GEM2034E-FIG1



| End shield Assembly | | |
|---------------------|---------------|----------------|
| Part Description | DE Side Part# | ODE Side Part# |
| End Shield | 4004D5283PB1 | 4004D5283SE1 |
| Bearing | 235A2507EB01 | 235A2507EB01 |
| Slinger/Inproseal | 4002B5914AF4 | 4002B5914AG4 |

| Fan & Fan Cover Assembly | |
|--------------------------|--------------|
| Part Description | Part# |
| Fan | 159C6704G02 |
| Fan Cover | 4003C5788PA1 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-----------------|
| Part Description | Part# |
| Conduit Box | 4002B5728PA-G04 |

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

