



**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>5KS254XAA1044C</b> |
| <b>Catalog Number:</b>     | <b>M9507</b>          |
| <b>Instruction Manual:</b> | GEI-56128             |
| <b>Connection Diagram:</b> | GEM2034E-FIG1         |
| <b>Outline Drawing:</b>    | 4002B5825PDP5459      |

## 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>5KS254XAA1044C</b> | <b>Estimated Weight:</b>      | 315 Lbs |
| <b>Outline Drawing:</b>    | 4002B5825PDP5459      | <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>        | 25BD0090A             | <b>Ambient Max(°C):</b>       | 40      |
| <b>Type:</b>               | KS                    | <b>Alt Ambient Max(°C):</b>   | --      |
| <b>Frame:</b>              | 254TC                 | <b>Insulation Class:</b>      | H       |
| <b>Phases:</b>             | 3                     | <b>NEMA Design:</b>           | B       |
| <b>Poles:</b>              | 2                     | <b>Nominal Efficiency:</b>    | 91 %    |
| <b>Output Power:</b>       | 15HP 11.1KW           | <b>Guaranteed Efficiency:</b> | 90.2 %  |
| <b>RPM:</b>                | 3550                  | <b>3/4 Load Efficiency:</b>   | 91.8 %  |
| <b>Voltage:</b>            | 460                   | <b>KVA Code:</b>              | G       |
| <b>Hertz:</b>              | 60                    | <b>Max KVAR:</b>              | 2.9     |
| <b>Amps - FL:</b>          | 17.3                  | <b>Power Factor:</b>          | 89.0    |
| <b>Service Factor:</b>     | 1.15                  | <b>Bearing - DE:</b>          | 6310ZC3 |
| <b>Alt Service Factor:</b> | --                    | <b>Bearing - ODE:</b>         | 6309ZC3 |

Enclosure is Totally Enclosed Fan-Cooled

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Stamped Nameplate Notes:

IEEE-STD-841-2009

DE BRG 50BC03JP30 ODE BRG 45BC03JP30

STAMP NP249A5564P051 AS BELOW:

MODEL:5KS254XAA1044C 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 -25C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR

SURF TEMP 230C AT 1.15SF ON SINE-WAVE PWR

OR 200C VT OR 215C CT OR 200C CHP PWM CONTROL

ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB

VT 0 - 60 HZ, CT 3-60HZ, CHP 60-90HZ.



**Additional Information:**

2P - T EXTN  
C/BOX 137 CU IN-1.25 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  
E/SHLD GROUND STUD MTD ON DE C/BOX SIDE NEAR FOOT  
ROTATE D.E. E/SHIELD 90 DEG. PER OUTLINE  
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:**

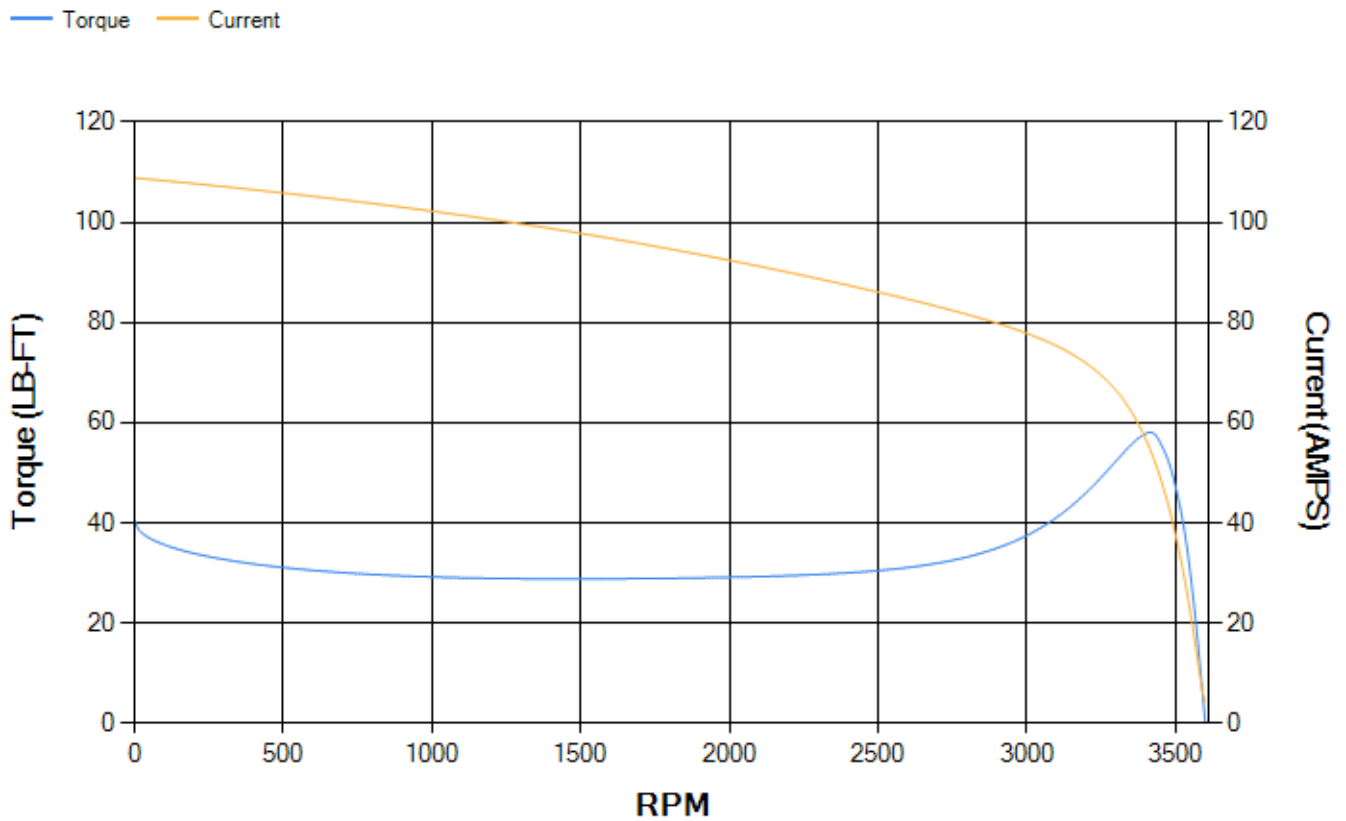
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0  | 50.0  | 25.0  | 0.0  |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF  | 89.45 | 90.12 | 91.14 | 91.82 | 91.72 | 88.47 | 0.00 |
| % PF   | 88.54 | 88.94 | 89.15 | 88.13 | 83.62 | 67.44 | 9.49 |
| AMPS   | 22.16 | 20.14 | 17.28 | 13.01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

|                    |        |                    |        |                    |        |
|--------------------|--------|--------------------|--------|--------------------|--------|
| <b>TORQ(FL)#FT</b> | 22.19  | <b>TORQ(LR)%FL</b> | 182.46 | <b>TORQ(BD)%FL</b> | 260.69 |
| <b>AMPS(LR)</b>    | 108.88 | <b>PF AT START</b> | 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).

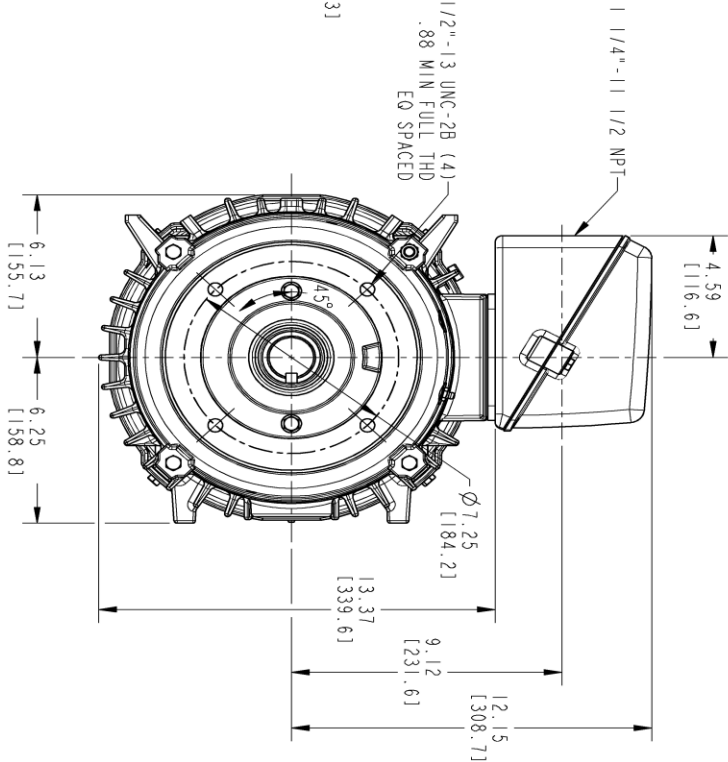
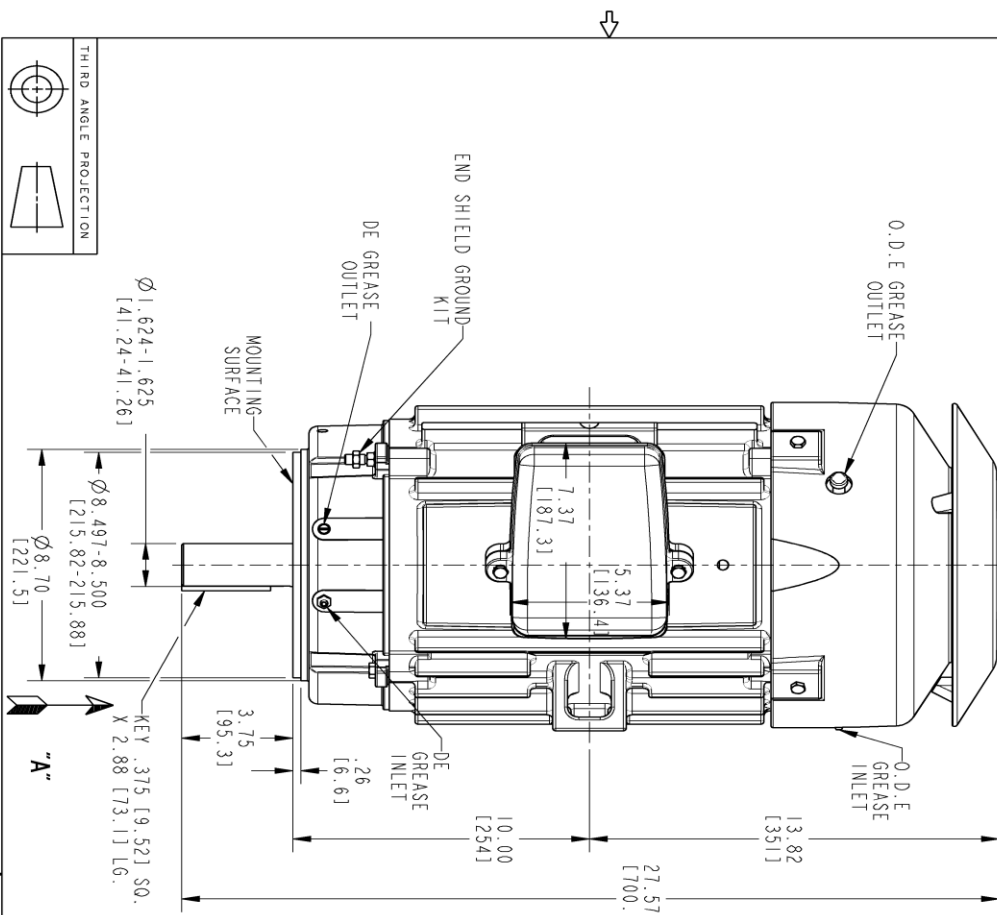
|                           |       |                           |       |
|---------------------------|-------|---------------------------|-------|
| <b>Open Circuit A-C:</b>  | 0.836 | <b>Short Circuit D-C:</b> | 0.013 |
| <b>Short Circuit A-C:</b> | 0.031 | <b>X/R Ratio:</b>         | 4.8   |
| <b>Stator Slots:</b>      | 36    | <b>Rotor Slots:</b>       | 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: MOUNTING SURFACES TO BE SQUARE AND CONCENTRIC WITH SHAFT WITHIN .004 T.I.R.  
 NOTE 4: SHAFT RUNOUT WILL NOT EXCEED .001 T.I.R.  
 NOTE 5: DE ENDSHIELD ROTATED 90° COUNTER CLOCKWISE  
 NOTE 6: ALL DIMENSIONS ARE IN INCHES, BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS)



VIEW AT "A"

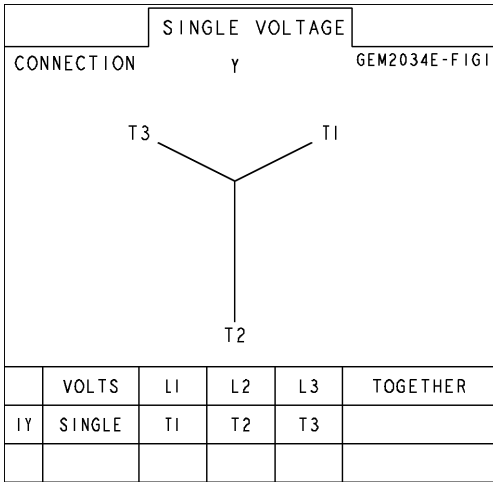
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| REV. | DESCRIPTION   | DATE     | APPROVED  |
|------|---------------|----------|-----------|
| 1    | ISAC# 18-0869 | 11/05/18 | PRASHANTH |

|                               |                       |  |
|-------------------------------|-----------------------|--|
| SIGNATURES                    | DATE                  | <p><b>GE INDUSTRIAL MOTORS</b><br/>                 a Wolog company</p> <p><b>INDUCTION MOTOR OUTLINE</b><br/>                 137 CU. IN. DRP COVER, EXT<br/>                 FIVE KS254TCV TFC "C" FACE FOOTLESS IEEB-94</p> |
| MODEL                         | LAXMIKANTH 03/03/2017 |  |
| DETAIL                        | LAXMIKANTH 03/03/2017 |  |
| CREATED                       | PYUSH 03/03/2017      |  |
| CHKD                          | PYUSH 03/03/2017      |  |
| QUALITY                       | LAXMIKANTH 03/03/2017 | SCALE: 0.250   |
| ISSUED                        | LAXMIKANTH 03/03/2017 | REV  |
| SOLID MODEL: 4002B5825PDP5459 | SIZE: DRAWING         | 4002B5825PDP5459   |
|                               |                       | 001  |
|                               |                       | SHEET 1 OF 1   |

**Marks:**

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



| End shield Assembly |               |                |
|---------------------|---------------|----------------|
| Part Description    | DE Side Part# | ODE Side Part# |
| End Shield          | 128D6106RF1   | 4004D5283SE1   |
| Bearing             | 235A2508EC01  | 235A2507EB01   |
| Slinger/Inproseal   | 4002B5914GF4  | 4002B5914AG4   |

| Fan & Fan Cover Assembly |                 |
|--------------------------|-----------------|
| Part Description         | Part#           |
| Fan                      | 159C6704G02     |
| Fan Cover                | 4003C5525BN-G01 |

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

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

