



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

# Product Technical Information

October 11, 2022

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

|                            |                     |
|----------------------------|---------------------|
| <b>Model Number:</b>       | <b>5KS256BAA100</b> |
| <b>Catalog Number:</b>     | <b>M1072</b>        |
| <b>Instruction Manual:</b> | GEI-56128           |
| <b>Connection Diagram:</b> | GEM2034E-FIG9       |
| <b>Outline Drawing:</b>    | 4002B5825GBP5201    |

## 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>5KS256BAA100</b> | <b>Estimated Weight:</b>      | 350 Lbs |
| <b>Outline Drawing:</b>    | 4002B5825GBP5201    | <b>Time Rating:</b>           | CONT    |
| <b>Connection Diagram:</b> | GEM2034E-FIG9       | <b>Enclosure:</b>             | TEFC    |
| <b>Instruction Book:</b>   | GEI-56128           | <b>Encl Construction:</b>     | GP      |
| <b>Design Code:</b>        | 25BD0065A           | <b>Ambient Max(°C):</b>       | 40      |
| <b>Type:</b>               | KS                  | <b>Alt Ambient Max(°C):</b>   | --      |
| <b>Frame:</b>              | 256TC               | <b>Insulation Class:</b>      | F       |
| <b>Phases:</b>             | 3                   | <b>NEMA Design:</b>           | B       |
| <b>Poles:</b>              | 2                   | <b>Nominal Efficiency:</b>    | 91.0 %  |
| <b>Output Power:</b>       | 20HP 14.8KW         | <b>Guaranteed Efficiency:</b> | 89.5 %  |
| <b>RPM:</b>                | 3540                | <b>3/4 Load Efficiency:</b>   | --      |
| <b>Voltage:</b>            | 230/460             | <b>KVA Code:</b>              | G       |
| <b>Hertz:</b>              | 60                  | <b>Max KVAR:</b>              | 2.3     |
| <b>Amps - FL:</b>          | 45.2/22.6           | <b>Power Factor:</b>          | 91.0    |
| <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:

VT 0-60 HZ NEMA MG1-31; 208V-51.1A



**Additional Information:**

2P - TC EXTN  
STANDARD FLOOR MOUNT  
C/BOX 137 CU IN-1.25 NPT  
F1 CONDUIT BOX MOUNTING  
"C" FACE AT DE ENDSHIELD AK=8 1/2  
INVERTER DUTY PER NEMA MG1 PART 31  
ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT  
VAR TORQUE RANGE 0-60 HZ  
SUITABLE FOR 208V -51.1 AMPS WITH 1.00 SF



**Performance Characteristics**

1st Winding 1st Connection

**Design: 25BD0065A**

**Marks:**

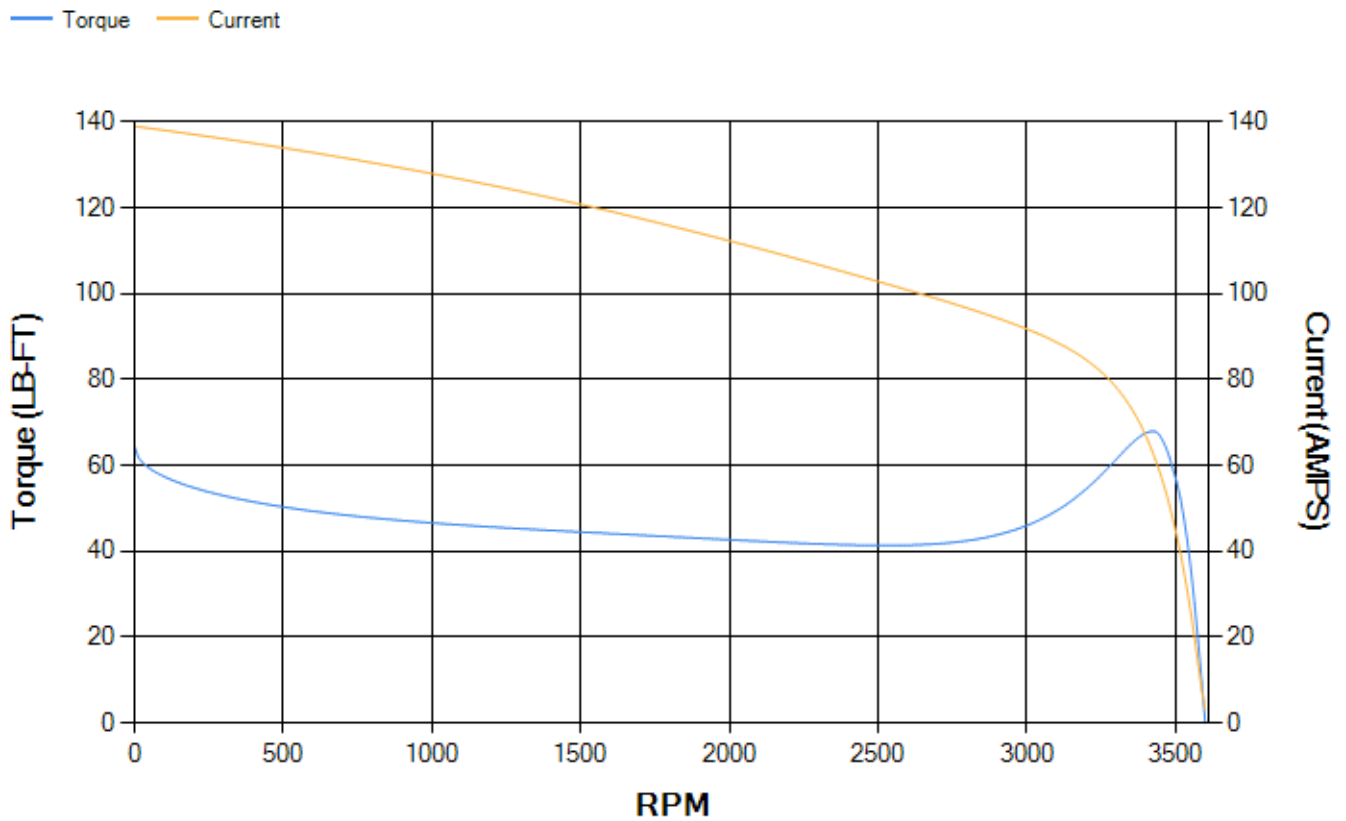
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0  | 50.0  | 25.0  | 0.0   |
|--------|-------|-------|-------|-------|-------|-------|-------|
| % EFF  | 89.26 | 90.15 | 91.45 | 92.55 | 93.01 | 91.04 | 0.00  |
| % PF   | 88.86 | 89.88 | 90.97 | 91.68 | 90.29 | 81.18 | 11.53 |
| AMPS   | 29.5  | 26.57 | 22.5  | 16.54 | 11.15 | 6.33  | 3.19  |

|                    |        |                    |        |                    |        |
|--------------------|--------|--------------------|--------|--------------------|--------|
| <b>TORQ(FL)#FT</b> | 29.65  | <b>TORQ(LR)%FL</b> | 217.26 | <b>TORQ(BD)%FL</b> | 228.28 |
| <b>AMPS(LR)</b>    | 139.04 | <b>PF AT START</b> | 0.33   |                    |        |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 143 Lb-Ft Sq (6.02 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 44 seconds. Safe stall time at 100% voltage is 94 seconds cold, 55 seconds hot. Rotor inertia is 1.88 Lb-Ft Sq (0.08 Kg-meter Sq).

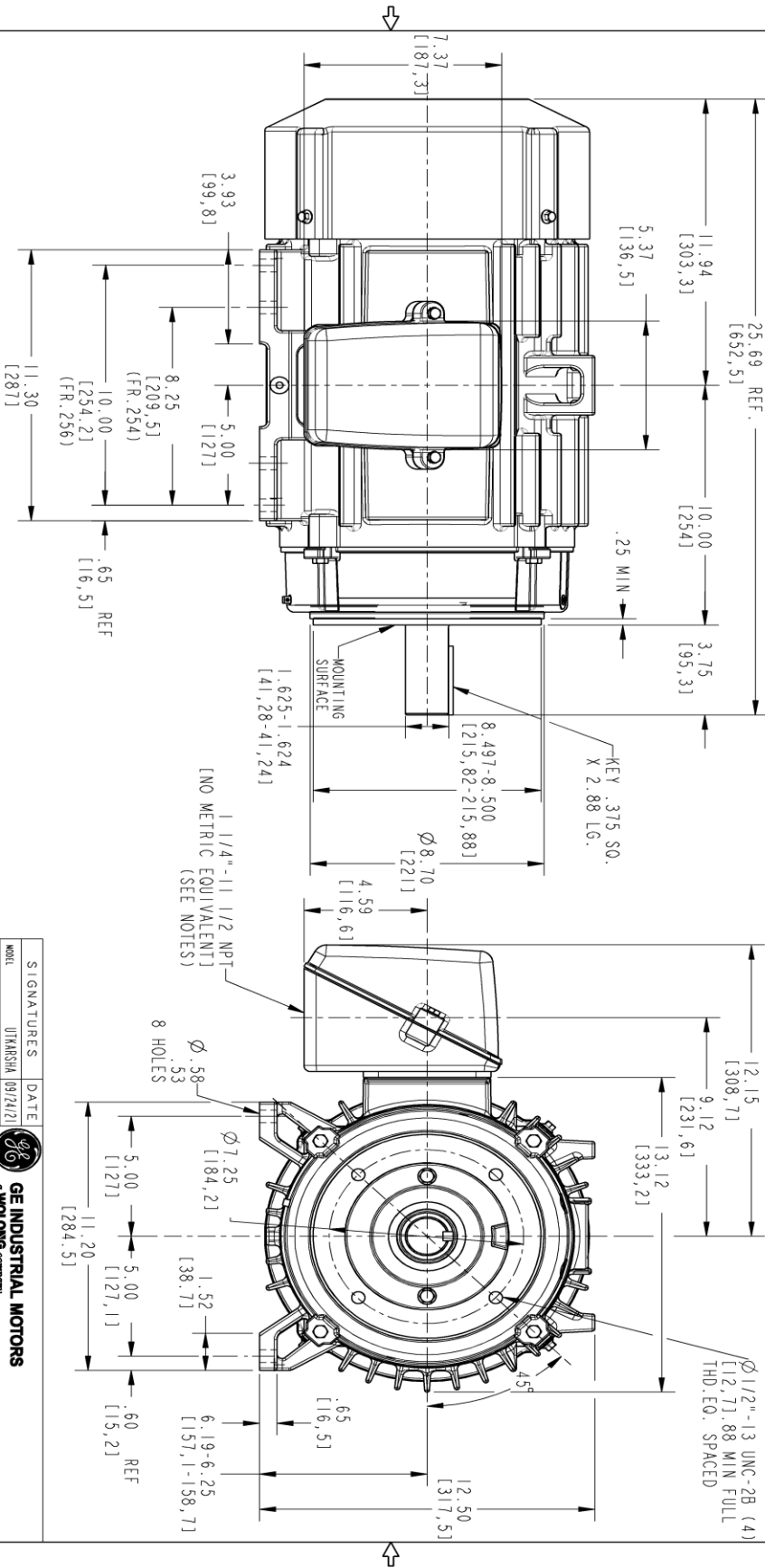
|                           |       |                           |       |
|---------------------------|-------|---------------------------|-------|
| <b>Open Circuit A-C:</b>  | 1.246 | <b>Short Circuit D-C:</b> | 0.013 |
| <b>Short Circuit A-C:</b> | 0.028 | <b>X/R Ratio:</b>         | 4.894 |
| <b>Stator Slots:</b>      | 36    | <b>Rotor Slots:</b>       | 26    |

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



Marks:

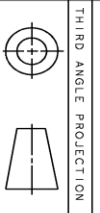
- NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.
- NOTE 2: FL ASSEMBLY AS SHOWN.
- NOTE 3: MOUNTING SURFACES WILL BE SQUARE AND CONCENTRIC WITH SHAFT WITHIN .004 T.I.R.
- NOTE 4: SHAFT RUNOUT WILL NOT EXCEED .002 T.I.R.
- NOTE 5: ALL DIMENSIONS ARE INCHES. BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS).



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| REV. | DESCRIPTION | DATE | APPROVED |
|------|-------------|------|----------|
|      |             |      |          |

|                   |   |     |     |       |   |
|-------------------|---|-----|-----|-------|---|
| SIZE: DRAWING NO. | B | REV | 000 | SHEET | 1 |
| 4002B58256BP5201  |   |     |     |       |   |
| REVOLUTIONS       |   |     |     |       |   |

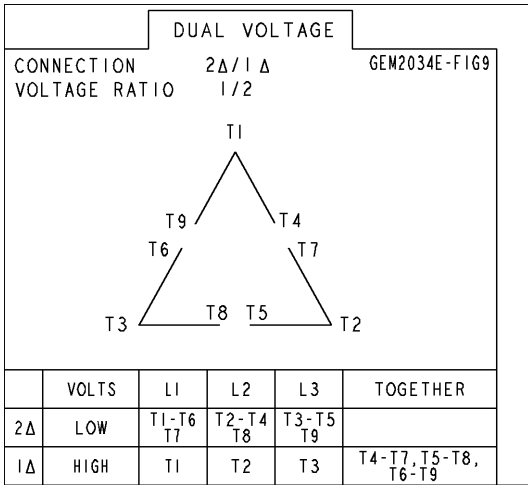


THIRD ANGLE PROJECTION

|   |                      |  |
|---|----------------------|--|
| SIGNATURES                              | DATE                 | <p><b>GE INDUSTRIAL MOTORS</b><br/>                 a Wolog company</p>  |
| MODEL                                   | UTKASNA [09/24/21]   |  |
| DETAIL                                  | DHEEMAJ B [09/24/21] |  |
| CREATED                                 | DHEEMAJ B [09/24/21] |  |
| ENGR                                    | -                    | <p><b>INDUCTION MOTOR OUTLINE</b><br/>                 GP CONSTRUCTION</p> <p>250TC TERC GP ULTRA C-FACIESO/RABEET/137 CUM. CB0X</p> |
| QUALITY                                 | -                    |  |
| ISSUED                                  | UTKASNA [09/24/21]   |  |
| SOLID MODEL                             | 4002B58256BP5201     |  |
| SCALE: 0.250 REF. No.: 4002B58256BP5201 |                      | <p>SIZE: DRAWING</p> <p><b>4002B58256BP5201</b></p> <p>REV 000</p> <p>SHEET 1 of 1</p>   |

Marks:

**Connection Diagram**  
**GEM2034E-FIG9**



| End shield Assembly |               |                |
|---------------------|---------------|----------------|
| Part Description    | DE Side Part# | ODE Side Part# |
| End Shield          | 128D6106PZ1   | 4004D5283SB1   |
| Bearing             | 235A2608AA01  | 235A2607AA01   |
| Slinger/Inproseal   | 149C4399G03   |                |

| Fan & Fan Cover Assembly |              |
|--------------------------|--------------|
| Part Description         | Part#        |
| Fan                      | 159C6704G02  |
| Fan Cover                | 4003C5805PB1 |

| Conduit & Accessories Box Assembly |                 |
|------------------------------------|-----------------|
| Part Description                   | Part#           |
| Conduit Box                        | 4002B5728SH-G04 |

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

