



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

# Product Technical Information

September 8, 2022

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

|                            |                     |
|----------------------------|---------------------|
| <b>Model Number:</b>       | <b>5KS256BAA205</b> |
| <b>Catalog Number:</b>     | <b>M1154</b>        |
| <b>Instruction Manual:</b> | GEI-56128           |
| <b>Connection Diagram:</b> | GEM2034E-FIG3       |
| <b>Outline Drawing:</b>    | 4002B5825GAP5201    |

## 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:

**MODEL NUMBER:** 5KS256BAA205  
**Outline Drawing:** 4002B5825GAP5201  
**Connection Diagram:** GEM2034E-FIG3  
**Instruction Book:** GEI-56128  
**Design Code:** 25BD1163A  
**Type:** KS  
**Frame:** 256T  
**Phases:** 3  
**Poles:** 4  
**Output Power:** 20HP 14.8KW  
**RPM:** 1775  
**Voltage:** 230/460  
**Hertz:** 60  
**Amps - FL:** 47.6/23.8  
**Service Factor:** 1.15  
**Alt Service Factor:** --

**Estimated Weight:** 350 Lbs  
**Time Rating:** CONT  
**Enclosure:** TEFC  
**Encl Construction:** GP  
**Ambient Max(°C):** 40  
**Alt Ambient Max(°C):** --  
**Insulation Class:** F  
**NEMA Design:** B  
**Nominal Efficiency:** 93.0 %  
**Guaranteed Efficiency:** 91.7 %  
**3/4 Load Efficiency:** --  
**KVA Code:** G  
**Max KVAR:** 6.2  
**Power Factor:** 84.5  
**Bearing - DE:** 6309-2ZC3  
**Bearing - ODE:** 6309-2ZC3

Enclosure is Totally Enclosed Fan-Cooled

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Stamped Nameplate Notes:

VT 0-60 HZ NEMA MG1-31; 208V-51.5A



**Additional Information:**

4P - T EXTN  
STANDARD FLOOR MOUNT  
C/BOX 137 CU IN-1.25 NPT  
F1 CONDUIT BOX MOUNTING  
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 -51.5 AMPS WITH 1.15 SF



**Performance Characteristics**

1st Winding 1st Connection

**Design: 25BD1163A**

**Marks:**

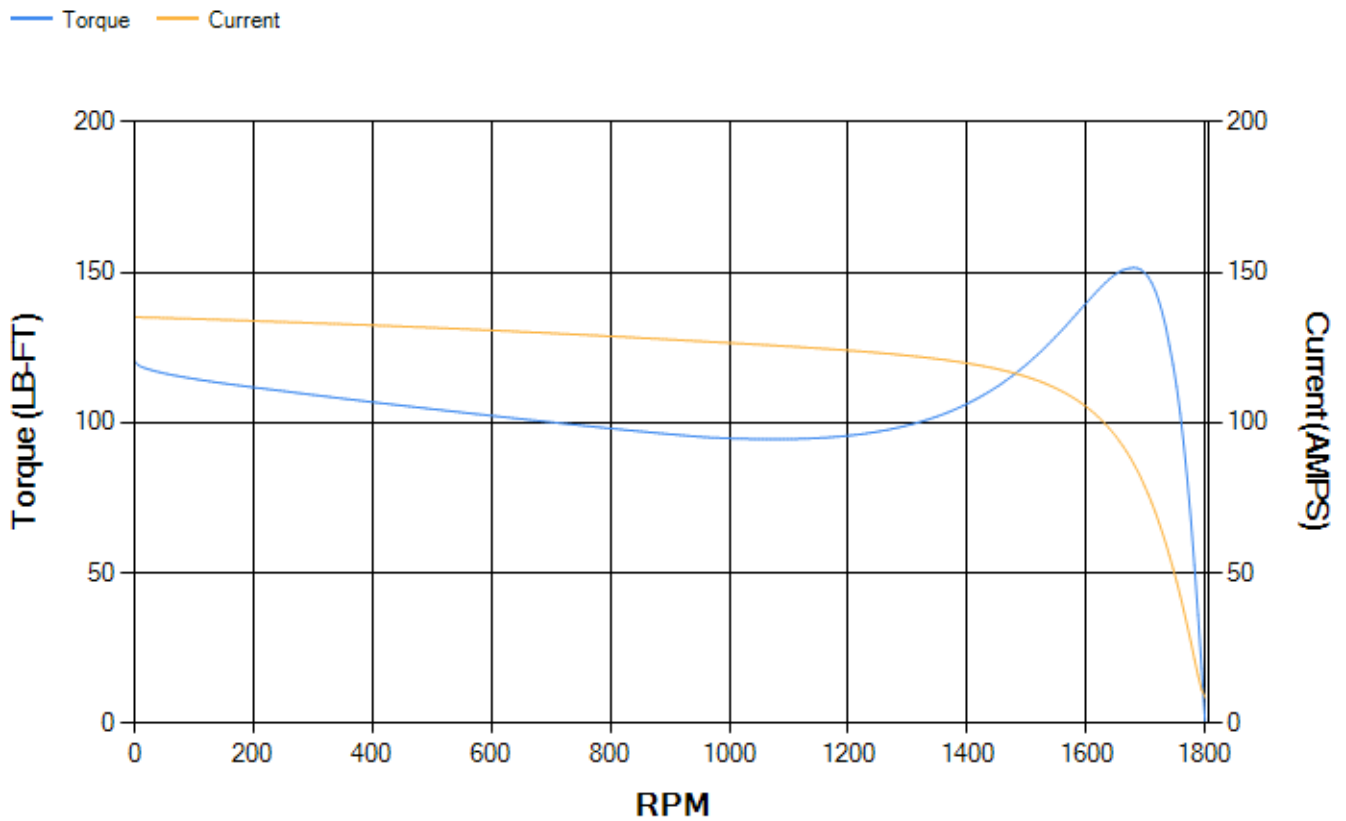
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0  | 50.0  | 25.0  | 0.0  |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF  | 92.13 | 92.56 | 93.31 | 93.72 | 93.6  | 91.02 | 0.00 |
| % PF   | 86.08 | 85.73 | 84.7  | 80.92 | 71.85 | 49.8  | 4.4  |
| AMPS   | 29.5  | 27.13 | 23.68 | 18.51 | 13.92 | 10.32 | 8.63 |

|                    |        |                    |        |                    |        |
|--------------------|--------|--------------------|--------|--------------------|--------|
| <b>TORQ(FL)#FT</b> | 59.21  | <b>TORQ(LR)%FL</b> | 203.52 | <b>TORQ(BD)%FL</b> | 254.89 |
| <b>AMPS(LR)</b>    | 135.13 | <b>PF AT START</b> | 0.45   |                    |        |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 653 Lb-Ft Sq (27.49 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 43 seconds. Safe stall time at 100% voltage is 98 seconds cold, 62 seconds hot. Rotor inertia is 3.01 Lb-Ft Sq (0.13 Kg-meter Sq).

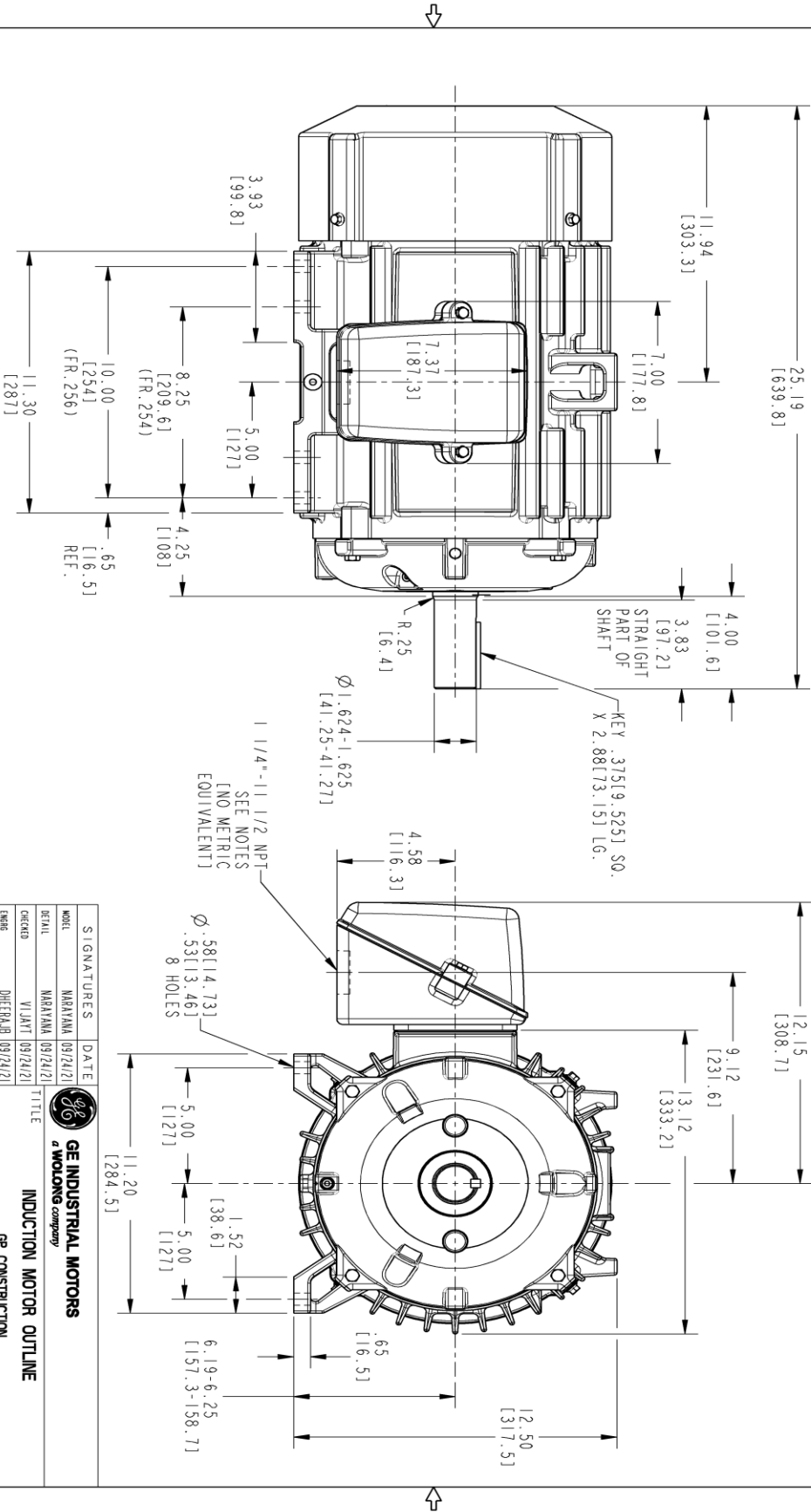
|                           |       |                           |       |
|---------------------------|-------|---------------------------|-------|
| <b>Open Circuit A-C:</b>  | 0.482 | <b>Short Circuit D-C:</b> | 0.014 |
| <b>Short Circuit A-C:</b> | 0.024 | <b>X/R Ratio:</b>         | 5.127 |
| <b>Stator Slots:</b>      | 48    | <b>Rotor Slots:</b>       | 40    |

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



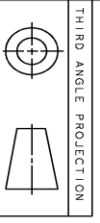
Marks:

NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.  
 NOTE 2: FT ASSEMBLY AS SHOWN.  
 NOTE 3: ALL DIMENSIONS ARE IN INCHES & BRACKETED DIMENSIONS ARE IN METRIC MM



PROPRIETARY INFORMATION  
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| SIZE      | DRAWING NO.       | REV  | SHEET    |
|-----------|-------------------|------|----------|
| B         | 4002B58256GAP5201 | 000  | 1        |
| REVISIONS |                   |      |          |
| REV.      | DESCRIPTION       | DATE | APPROVED |
|           |                   |      |          |



THIRD ANGLE PROJECTION

| SIGNATURES                    | DATE                | <br><b>GE INDUSTRIAL MOTORS</b><br><i>a wolong company</i> | TITLE  |
|-------------------------------|---------------------|--|--|
| MODEL                         | NARAYANA [09/24/21] |  | <b>INDUCTION MOTOR OUTLINE</b><br>GP CONSTRUCTION<br>FR 254/256 T TERC. I37 CULM C-BOX |
| DETAIL                        | NARAYANA [09/24/21] |  |  |
| DESIGN                        | VIJANT [09/24/21]   |  |  |
| ENGR                          | DHEERAJ [09/24/21]  |  |  |
| QC                            |                     |  |  |
| QUALITY                       | NARAYANA [09/24/21] | SCALE: 0.250   | REV. No.: 4002B58256GAP5201  |
| ISSUED                        |                     | SHEET DRAWING  | 4002B58256GAP5201  |
| SOLID MODEL: 4002B58256AP5201 |                     |  |  |

Marks:

**Connection Diagram**  
**GEM2034E-FIG3**



| End shield Assembly |               |                |
|---------------------|---------------|----------------|
| Part Description    | DE Side Part# | ODE Side Part# |
| End Shield          | 4004D5283PA1  | 4004D5283SB1   |
| Bearing             | 235A2607AA02  | 235A2607AA02   |
| Slinger/Inproseal   | 149C4399G02   |                |

| Fan & Fan Cover Assembly |              |
|--------------------------|--------------|
| Part Description         | Part#        |
| Fan                      | 159C6700G02  |
| Fan Cover                | 4003C5805PA1 |

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

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

