



GE INDUSTRIAL MOTORS
a **WOLONG** company

Product Technical Information

April 11, 2021

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

| | |
|----------------------------|-----------------------|
| Model Number: | 5KS145SAA302D1 |
| Catalog Number: | M498 |
| Instruction Manual: | GEI-56128 |
| Connection Diagram: | GEM2034E-FIG3 |
| Outline Drawing: | 4002B5814PBP5311 |

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: | 5KS145SAA302D1 | Estimated Weight: | 50 Lbs |
| Outline Drawing: | 4002B5814PBP5311 | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG3 | Enclosure: | TEFC |
| Instruction Book: | GEI-56128 | Encl Construction: | 841 |
| Design Code: | 14BD3013AA | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | 145TC | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 6 | Nominal Efficiency: | 82.5 % |
| Output Power: | 1HP 0.7KW | Guaranteed Efficiency: | 81.5 % |
| RPM: | 1154 | 3/4 Load Efficiency: | -- |
| Voltage: | 230/460 | KVA Code: | N |
| Hertz: | 60 | Max KVAR: | 0.9 |
| Amps - FL: | 3.6/1.8 | Power Factor: | 62.5 |
| Service Factor: | 1.15 | Bearing - DE: | 6206ZC3 |
| Alt Service Factor: | -- | Bearing - ODE: | 6205ZC3 |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

DE BRG 30BC02JP30 ODE BRG 25BC02JP30
 EXCEPTION TO IEEE-STD-841-2009: DUAL VOLTAGE
 STAMP NP249A5564P051 AS BELOW:
 MODEL:5KS145SAA302D1 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 200C AT 1.15SF ON SINE-WAVE PWR
 OR 200C VT OR 200C CT OR 200C CHP PWM CONTROL
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB
 VT 0 - 60 HZ, CT 3-60 HZ, CHP 60-90 HZ.



Additional Information:

6P - T EXTN
STANDARD FLOOR MOUNT
C/BOX 30 CU IN-0.75 NPT
F1 CONDUIT BOX MOUNTING
"C" FACE AT DE ENDSHIELD AK=4 1/2"
PAINTED FRAME ID & SHAFT,
FAN COVER INSIDE & ODE E/S OUTSIDE
ROUTINE AND 5 POINT VIBRATION TESTS INCL IN C/BOX
INPRO SEAL DE / SLINGER ODE
GROUND SCREW ON FRAME
SHAFT RUNOUT LIMIT .001" TIR
OIL RESISTANT SLEEVING ON LEADS



Performance Characteristics

1st Winding 1st Connection

Design: 14BD3013AA

Marks:

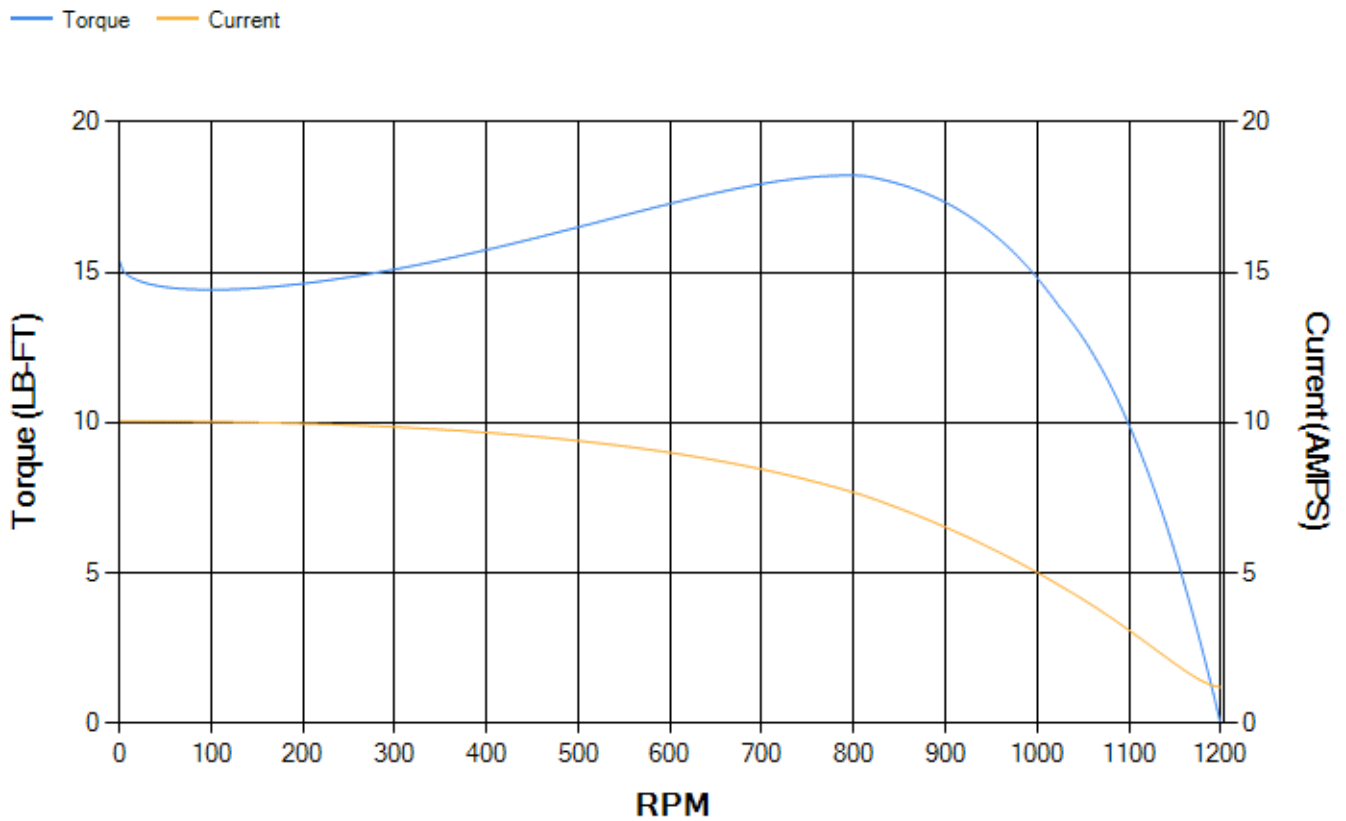
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF | 82.19 | 82.64 | 83.26 | 82.78 | 80.18 | 70.58 | 0.00 |
| % PF | 68.87 | 66.5 | 64.12 | 53.07 | 40.69 | 25.05 | 7.05 |
| AMPS | 2.07 | 1.96 | 1.75 | 1.6 | 1.43 | 1.32 | 1.2 |

| | | | | | |
|--------------------|-------|--------------------|--------|--------------------|--------|
| TORQ(FL)#FT | 4.55 | TORQ(LR)%FL | 337.77 | TORQ(BD)%FL | 386.93 |
| AMPS(LR) | 10.05 | PF AT START | 0.59 | | |

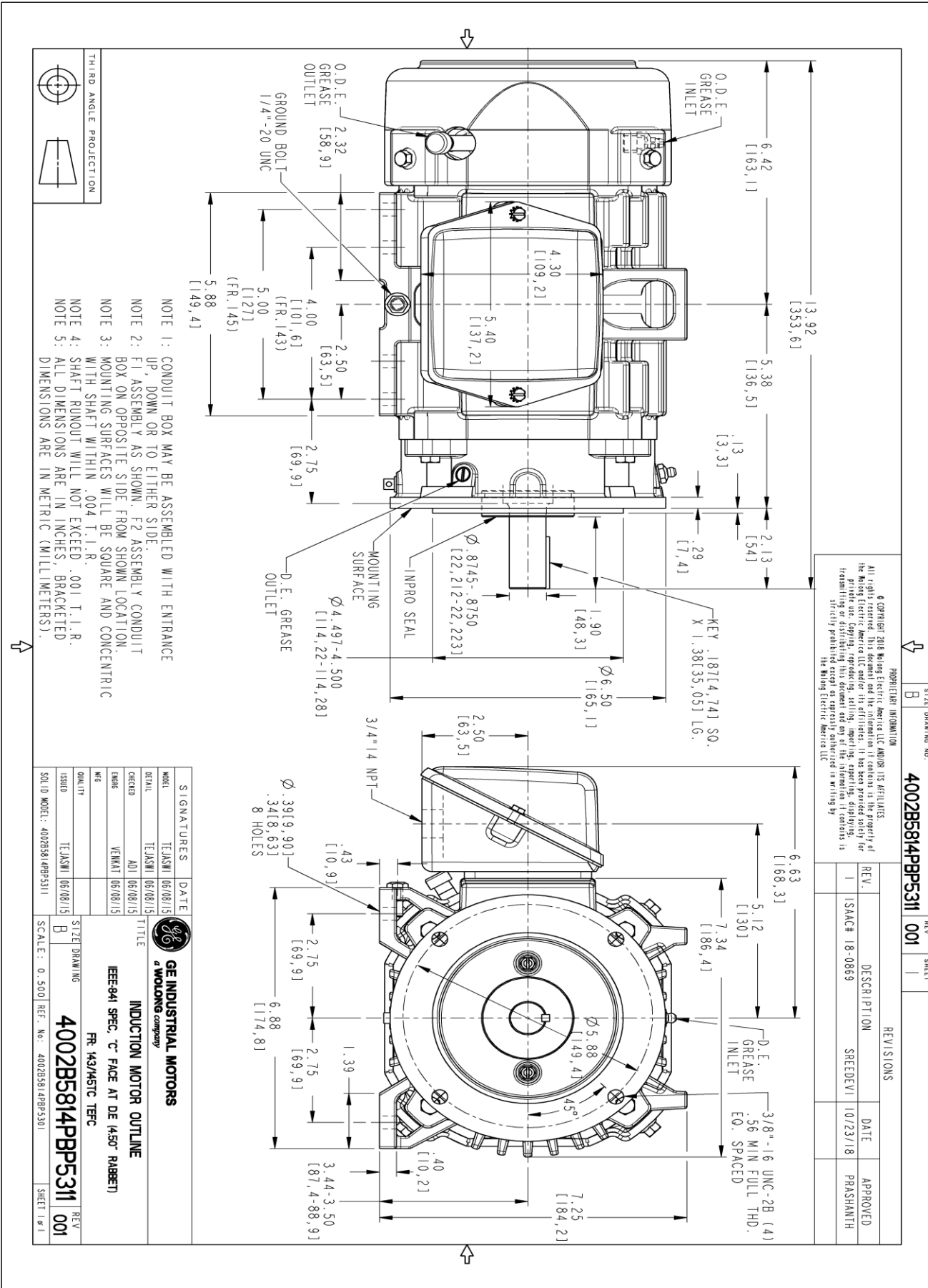
This motor is capable of two cold or one hot start with a maximum connected load inertia of 218 Lb-Ft Sq (9.18 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 59 seconds. Safe stall time at 100% voltage is 131 seconds cold, 101 seconds hot. Rotor inertia is 0.11 Lb-Ft Sq (0 Kg-meter Sq).

| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 0.079 | Short Circuit D-C: | 0.006 |
| Short Circuit A-C: | 0.007 | X/R Ratio: | 2.353 |
| Stator Slots: | 36 | Rotor Slots: | 48 |

Speed Torque Current Curve (First Connection, First Speed)



Marks:



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| REV. | DESCRIPTION | DATE | APPROVED |
|------|---------------|------------------|-----------|
| 1 | ISAC# 18-0869 | SREDEV1 10/23/18 | PRASHANTH |

| REV | SHEET |
|-----|-------|
| 001 | 1 |

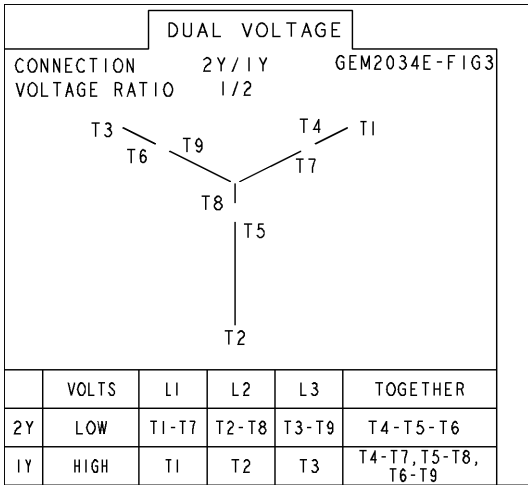
- NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.
- NOTE 2: F1 ASSEMBLY AS SHOWN. F2 ASSEMBLY CONDUIT BOX ON OPPOSITE SIDE FROM SHOWN LOCATION.
- NOTE 3: MOUNTING SURFACES WILL BE SQUARE AND CONCENTRIC WITH SHAFT WITHIN .004 T.I.R.
- NOTE 4: SHAFT RUNOUT WILL NOT EXCEED .001 T.I.R.
- NOTE 5: ALL DIMENSIONS ARE IN INCHES, BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS).

| SIGNATURES | DATE |
|-------------------------------|----------|
| MODEL: TEJASNI | 06/08/15 |
| DETAIL: TEJASNI | 06/08/15 |
| DESIGN: ADI | 06/08/15 |
| ENGR: VENKAT | 06/08/15 |
| QC: [Blank] | [Blank] |
| QUALITY: [Blank] | [Blank] |
| ISSUED: TEJASNI | 06/08/15 |
| SOLID MODEL: 4002B5814PBP5311 | [Blank] |

GE INDUSTRIAL MOTORS
 a WOLONG company
INDUCTION MOTOR OUTLINE
 IEEE-841 SPEC, "C" FACE AT DE (450° RABBIT)
 FR. 143/METC TERC
4002B5814PBP5311
 SCALE: 0.500 REF. No.: 4002B5814PBP5301

Marks:

Connection Diagram
GEM2034E-FIG3



| End shield Assembly | | |
|---------------------|---------------|----------------|
| Part Description | DE Side Part# | ODE Side Part# |
| End Shield | 4004D5289PB1 | 4004D5280SG1 |
| Bearing | 235A2502AM01 | 235A2500AF01 |
| Slinger/Inproseal | 4002B5914AM1 | 149C4399G15 |

| Fan & Fan Cover Assembly | |
|--------------------------|-----------------|
| Part Description | Part# |
| Fan | 4001A5914AM-G01 |
| Fan Cover | 4003C5785PA1 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-----------------|
| Part Description | Part# |
| Conduit Box | 4002B5718PA-G01 |

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

