



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: | 5KS145SAA224D2 |
| Catalog Number: | M499 |
| 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: | 5KS145SAA224D2 | 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: | 14BD1130A | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | 145TC | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 4 | Nominal Efficiency: | 86.5 % |
| Output Power: | 1.5HP 1.1KW | Guaranteed Efficiency: | 85.5 % |
| RPM: | 1730 | 3/4 Load Efficiency: | -- |
| Voltage: | 230/460 | KVA Code: | M |
| Hertz: | 60 | Max KVAR: | 0.8 |
| Amps - FL: | 4.2/2.1 | Power Factor: | 76.5 |
| 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:5KS145SAA224D2 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:

4P - 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 ONLY
GROUND SCREW ON FRAME
SHAFT RUNOUT LIMIT .001" TIR
OIL RESISTANT SLEEVING ON LEADS



Performance Characteristics

1st Winding 1st Connection

Design: 14BD1130A

Marks:

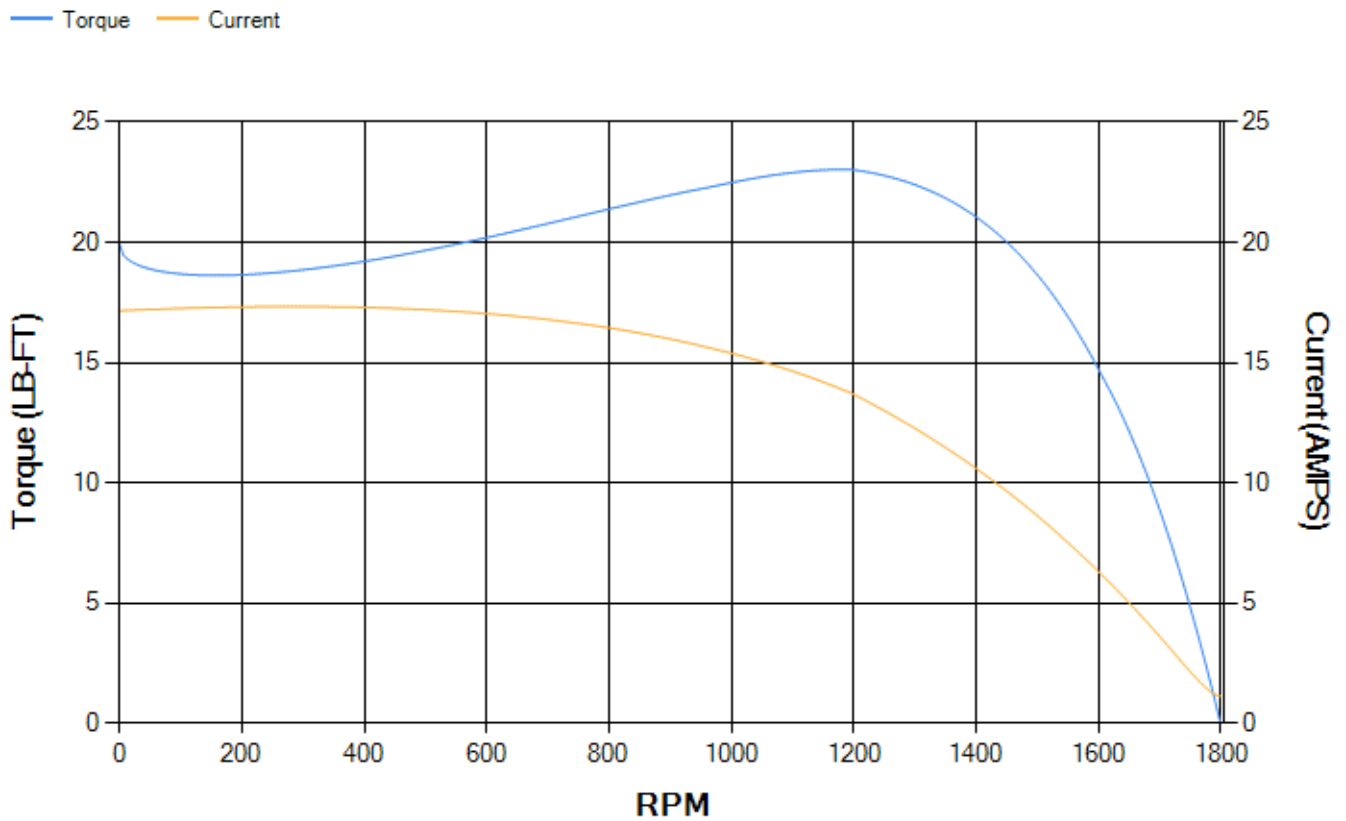
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF | 86.29 | 86.68 | 87.29 | 87.09 | 85.37 | 78.04 | 0.00 |
| % PF | 81.49 | 79.78 | 78.04 | 68.48 | 55.42 | 35.07 | 7.62 |
| AMPS | 2.5 | 2.33 | 2.05 | 1.77 | 1.48 | 1.28 | 1.11 |

TORQ(FL)#FT 4.51 **TORQ(LR)%FL** 441.58 **TORQ(BD)%FL** 492.3
AMPS(LR) 17.16 **PF AT START** 0.66

This motor is capable of two cold or one hot start with a maximum connected load inertia of 112 Lb-Ft Sq (4.72 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 36 seconds. Safe stall time at 100% voltage is 71 seconds cold, 61 seconds hot. Rotor inertia is 0.11 Lb-Ft Sq (0 Kg-meter Sq).

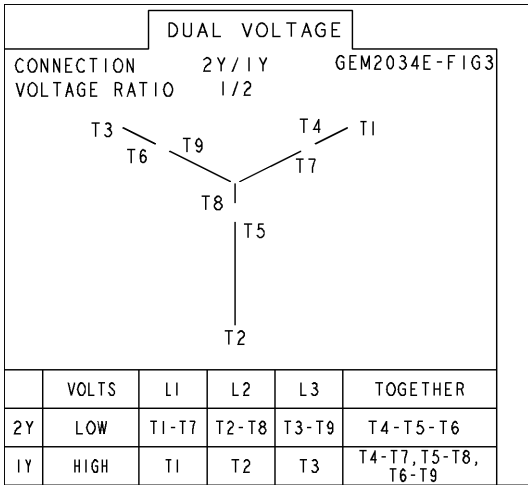
Open Circuit A-C: 0.141 **Short Circuit D-C:** 0.005
Short Circuit A-C: 0.005 **X/R Ratio:** 1.925
Stator Slots: 36 **Rotor Slots:** 48

Speed Torque Current Curve (First Connection, First Speed)



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 | |

