



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.

| | |
|----------------------------|-----------------------|
| Model Number: | 5KS286XAA308D3 |
| Catalog Number: | M9440 |
| Instruction Manual: | GEI-56128 |
| Connection Diagram: | GEM2034E-FIG7 |
| Outline Drawing: | 4002B5828PAP5311 |

| 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: 5KS286XAA308D3
Outline Drawing: 4002B5828PAP5311
Connection Diagram: GEM2034E-FIG7
Instruction Book: GEI-56128
Design Code: 28BD3094A
Type: KS
Frame: 286T
Phases: 3
Poles: 6
Output Power: 20HP 14.8KW
RPM: 1180
Voltage: 460
Hertz: 60
Amps - FL: 26.2
Service Factor: 1.15
Alt Service Factor: --

Estimated Weight: 510 Lbs
Time Rating: CONT
Enclosure: TEFC
Encl Construction: 841
Ambient Max(°C): 40
Alt Ambient Max(°C): --
Insulation Class: H
NEMA Design: B
Nominal Efficiency: 91.7 %
Guaranteed Efficiency: 91.0 %
3/4 Load Efficiency: 92.4 %
KVA Code: G
Max KVAR: 8.6
Power Factor: 78.0
Bearing - DE: 6310ZC3
Bearing - ODE: 6310ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

IEEE-STD-841-2009
 DE BRG 50BC03JP30 ODE BRG 50BC03JP30
 STAMP NP249A5564P051 AS BELOW:
 MODEL:5KS286XAA308D3 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 200 C VT OR 215 C CT OR 200 C CHP PWM CONTROL
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB
 VT 0-60 HZ, CT 7.5-60 HZ, CHP 60-90 HZ.



Additional Information:

6P - T EXTN
STANDARD FLOOR MOUNT
C/BOX 137 CU IN-1.50 NPT
F1 CONDUIT BOX MOUNTING
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
GROUND SCREW ON FRAME
SHAFT RUNOUT LIMIT .0015" 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: 28BD3094A

Marks:

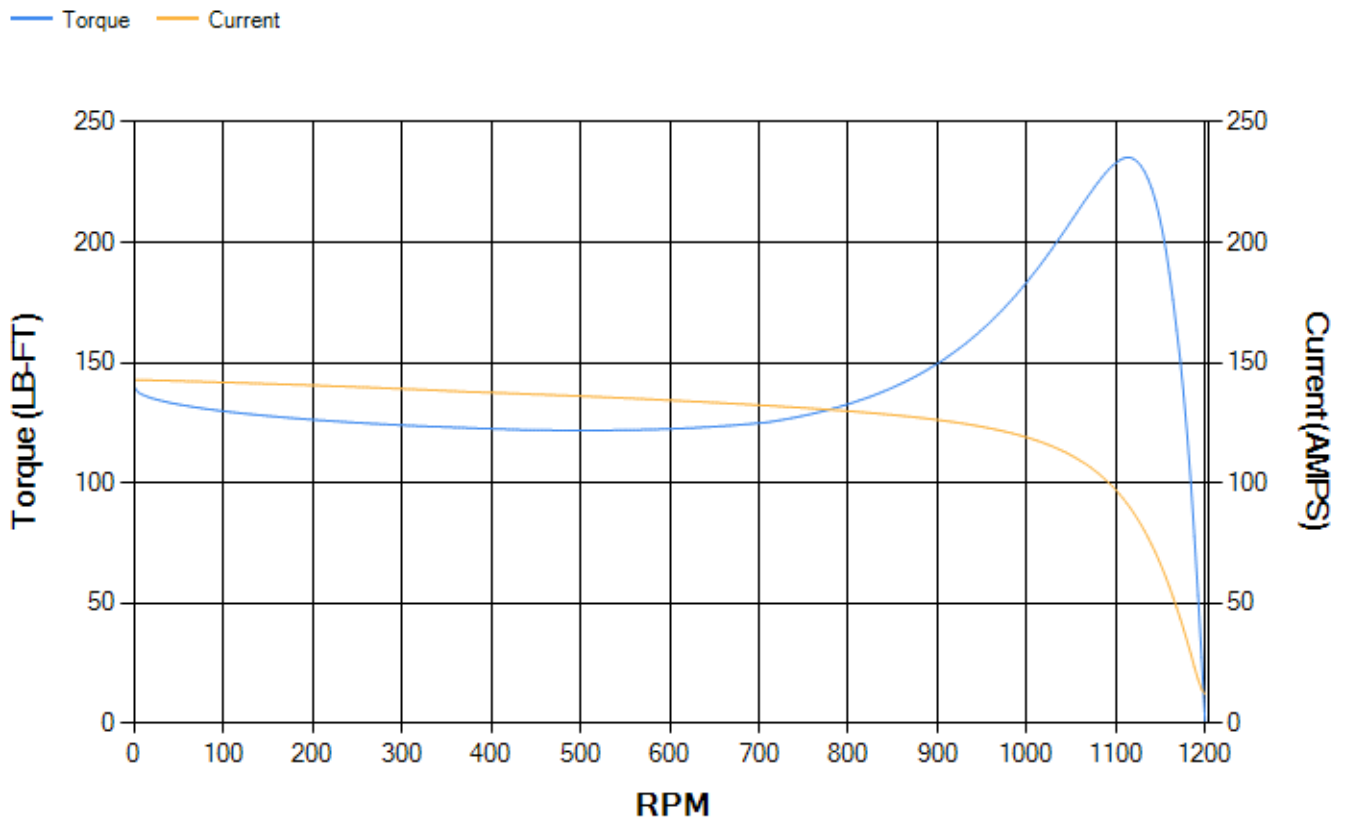
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|-------|
| % EFF | 90.76 | 91.25 | 92.05 | 92.43 | 92.06 | 88.54 | 0.00 |
| % PF | 80.29 | 79.61 | 77.9 | 72.43 | 61.17 | 39.32 | 4.16 |
| AMPS | 32.11 | 29.63 | 26.12 | 20.97 | 16.62 | 13.44 | 12.04 |

| | | | | | |
|--------------------|--------|--------------------|--------|--------------------|--------|
| TORQ(FL)#FT | 88.9 | TORQ(LR)%FL | 157.11 | TORQ(BD)%FL | 264.08 |
| AMPS(LR) | 142.83 | PF AT START | 0.36 | | |

This motor is capable of two cold or one hot start with a maximum connected load inertia of 1029 Lb-Ft Sq (43.32 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 35 seconds. Safe stall time at 100% voltage is 89 seconds cold, 52 seconds hot. Rotor inertia is 6.1 Lb-Ft Sq (0.26 Kg-meter Sq).

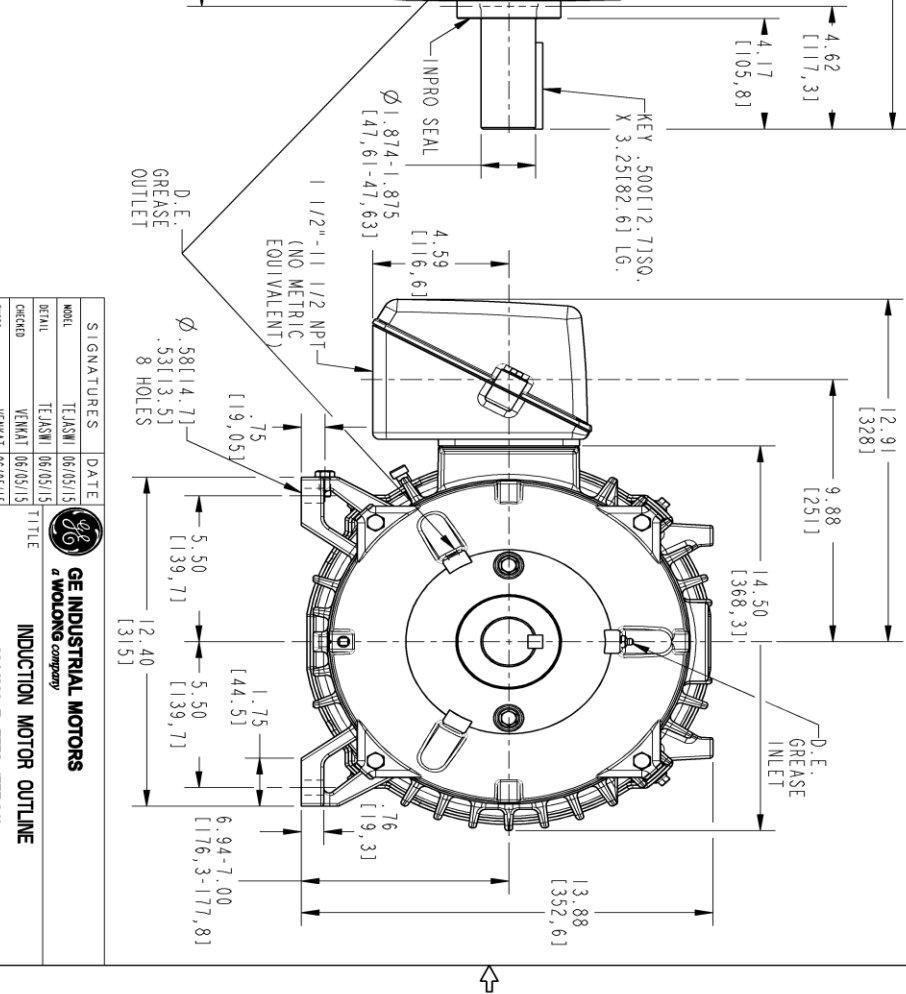
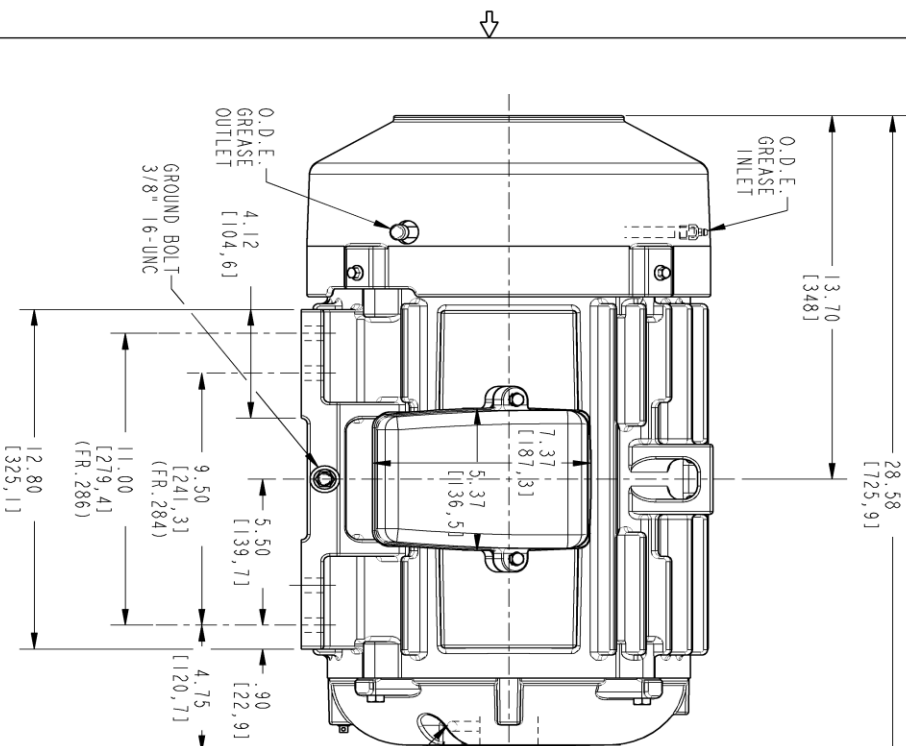
| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 0.346 | Short Circuit D-C: | 0.013 |
| Short Circuit A-C: | 0.026 | X/R Ratio: | 4.937 |
| Stator Slots: | 54 | Rotor Slots: | 42 |

Speed Torque Current Curve (First Connection, First Speed)



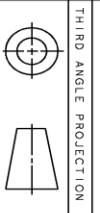
Marks:

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: SHAFT RUNOUT WILL NOT EXCEED .0015 T.I.R.
 NOTE 4: ALL DIMENSIONS ARE IN INCHES. BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS).



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| REV. | DESCRIPTION | DATE | APPROVED |
|------|---------------|----------|-----------|
| 1 | ISAC# 18-0869 | 11/08/18 | PRASHANTH |



THIRD ANGLE PROJECTION

| SIGNATURES | DATE |
|-----------------|----------|
| MODEL: TEJASNI | 06/05/19 |
| DETAIL: TEJASNI | 06/05/19 |
| CHECKED: VENKAT | 06/05/19 |
| ENGR: VENKAT | 06/05/19 |
| QC: VENKAT | 06/05/19 |
| ISSUED: TEJASNI | 06/05/19 |

GE INDUSTRIAL MOTORS
 a Wolog company

INDUCTION MOTOR OUTLINE
 284/286 T, TFC, IEE-94I

CBOX 137 CUL - 150 NPT, IMPRO SEAL, GROUND PAD

4002B5828PAP5311

SCALE: 0.250 REF. No.: 4002B5828PAP5301

| REV. | DESCRIPTION |
|------|--------------|
| 001 | SIZE DRAWING |

Marks:

Connection Diagram
GEM2034E-FIG7



| End shield Assembly | | |
|---------------------|---------------|----------------|
| Part Description | DE Side Part# | ODE Side Part# |
| End Shield | 4004D5284PB1 | 4004D5284SE1 |
| Bearing | 235A2508EC01 | 235A2508EC01 |
| Slinger/Inproseal | 4002B5914AF5 | 4002B5914AG5 |

| Fan & Fan Cover Assembly | |
|--------------------------|--------------|
| Part Description | Part# |
| Fan | 159C6900G01 |
| Fan Cover | 4003C5789PA1 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-----------------|
| Part Description | Part# |
| Conduit Box | 4002B5728PA-G01 |

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

