



GE INDUSTRIAL MOTORS
a **WOLONG** company

Product Technical Information

July 17, 2020

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

| | |
|----------------------------|-----------------------|
| Model Number: | 5KE324DAJ6020B |
| Catalog Number: | VF105 |
| Instruction Manual: | GEI-M1045 |
| Connection Diagram: | GEM2034E-FIG254 |
| Outline Drawing: | 148CB32VMHKBCAA0001 |

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: | 5KE324DAJ6020B | Estimated Weight: | 700 Lbs |
| Outline Drawing: | 148CB32VMHKBCAA0001 | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG254 | Enclosure: | WPI |
| Instruction Book: | GEI-M1045 | Encl Construction: | OPEN |
| Design Code: | 32BD1278A | Ambient Max(°C): | 40 |
| Type: | KE | Alt Ambient Max(°C): | -- |
| Frame: | L324TP16 | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 4 | Nominal Efficiency: | 93.0 % |
| Output Power: | 40HP 29.6KW | Guaranteed Efficiency: | 91.7 % |
| RPM: | 1780 | 3/4 Load Efficiency: | 93.7 % |
| Voltage: | 230/460 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 15.2 |
| Amps - FL: | 99.4/49.7 | Power Factor: | 80.5 |
| Service Factor: | 1.15 | Bearing - DE: | 6212C3 |
| Alt Service Factor: | -- | Bearing - ODE: | 235A2523AD01 |

Enclosure is Weather Protected One

Stamped Nameplate Notes:

NEMA ENCLOSURE WP-I, CSA ENCL DP
 ROT CCW FACING TOP LEAD/PH SEQ 1-2-3/1-2-3
 INVERTER DUTY PER NEMA MG1 PART 31
 ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT
 VAR TORQUE RANGE 5 -60 HZ
 UPPER BRG LUBE OIL: 2.1 QTS
 0 DEG C TO 40 DEG C : ISO 32(MINERAL OR SYNTHETIC)
 -15 DEG C TO 0 DEG C : ISO 32 SYNTHETIC



Additional Information:

4P, VERT HOLLOW SHAFT HIGH THRUST (1D)
C/BOX 346 CU IN - 3.00" NPT
OIL RESISTANT SLEEVING ON LEADS
BEARING LIFE 8760 HRS AT 6320 LB THRUST
CG:13.86 IN FROM P-BASE FACE, STAT DEF:0.0025 IN
RCF:3600 CPM AT C/BOX SIDE, 3870 CPM AT
90 DEG FROM C/ BOX SIDE
NON-REVERSE BALL CARRIER,
BOLTED COUPLING, BX = 1.251, EW=.250
FIRE PUMP MOTOR
WYE START DELTA RUN AT BOTH VOLTAGES
PART WINDING START AT LOW VOLTAGE ONLY
"CONNECTIONS TO BE VERIFIED BEFORE USING THIS MODEL"



Performance Characteristics

1st Winding 1st Connection

Design: 32BD1278A

Marks:

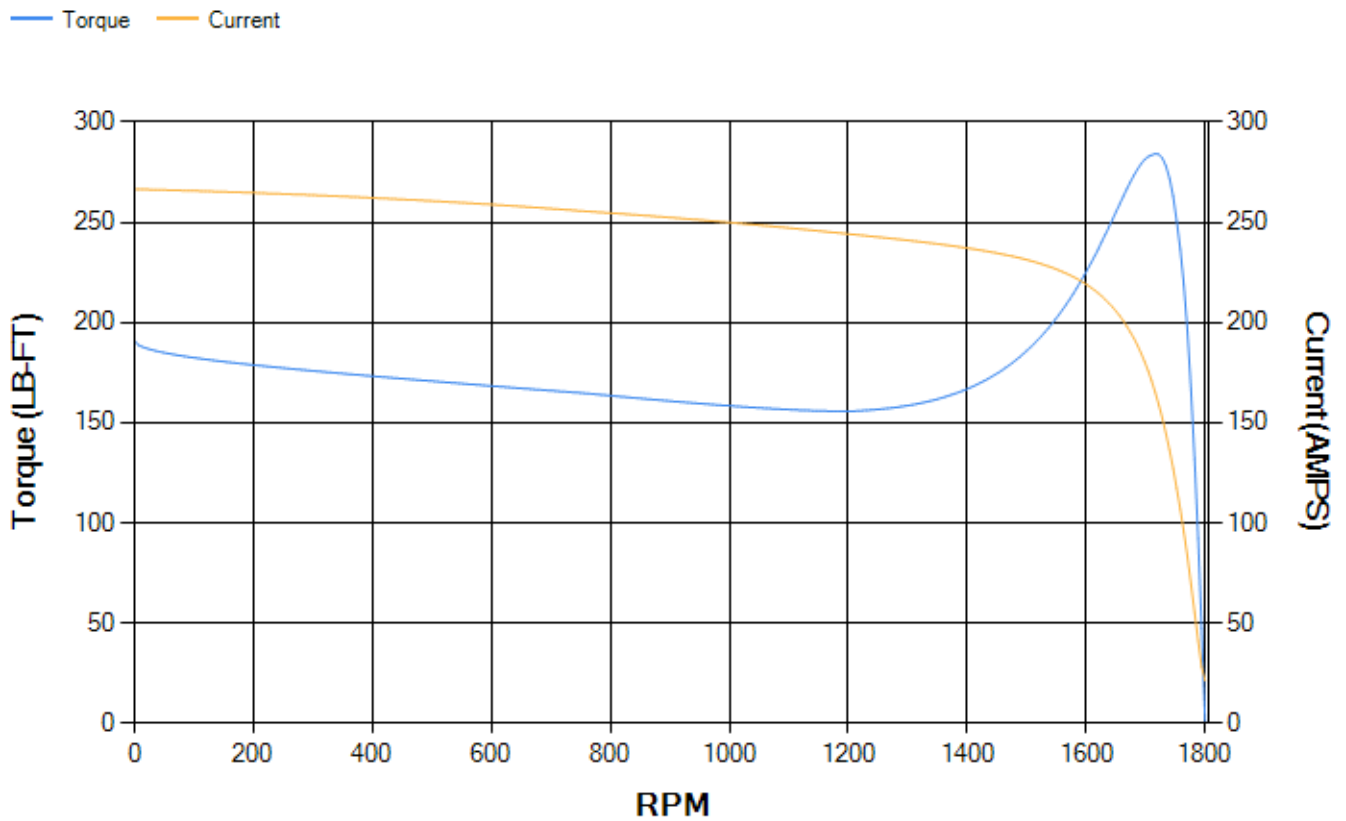
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|-------|
| % EFF | 93.05 | 93.3 | 93.78 | 93.69 | 92.92 | 89.09 | 0.00 |
| % PF | 82.23 | 81.67 | 80.24 | 75.45 | 65.05 | 43.12 | 4.57 |
| AMPS | 61.16 | 56.5 | 49.63 | 39.72 | 30.97 | 24.36 | 21.17 |

| | | | | | |
|--------------------|--------|--------------------|--------|--------------------|-----|
| TORQ(FL)#FT | 117.97 | TORQ(LR)%FL | 161.79 | TORQ(BD)%FL | 240 |
| AMPS(LR) | 266.57 | PF AT START | 0.34 | | |

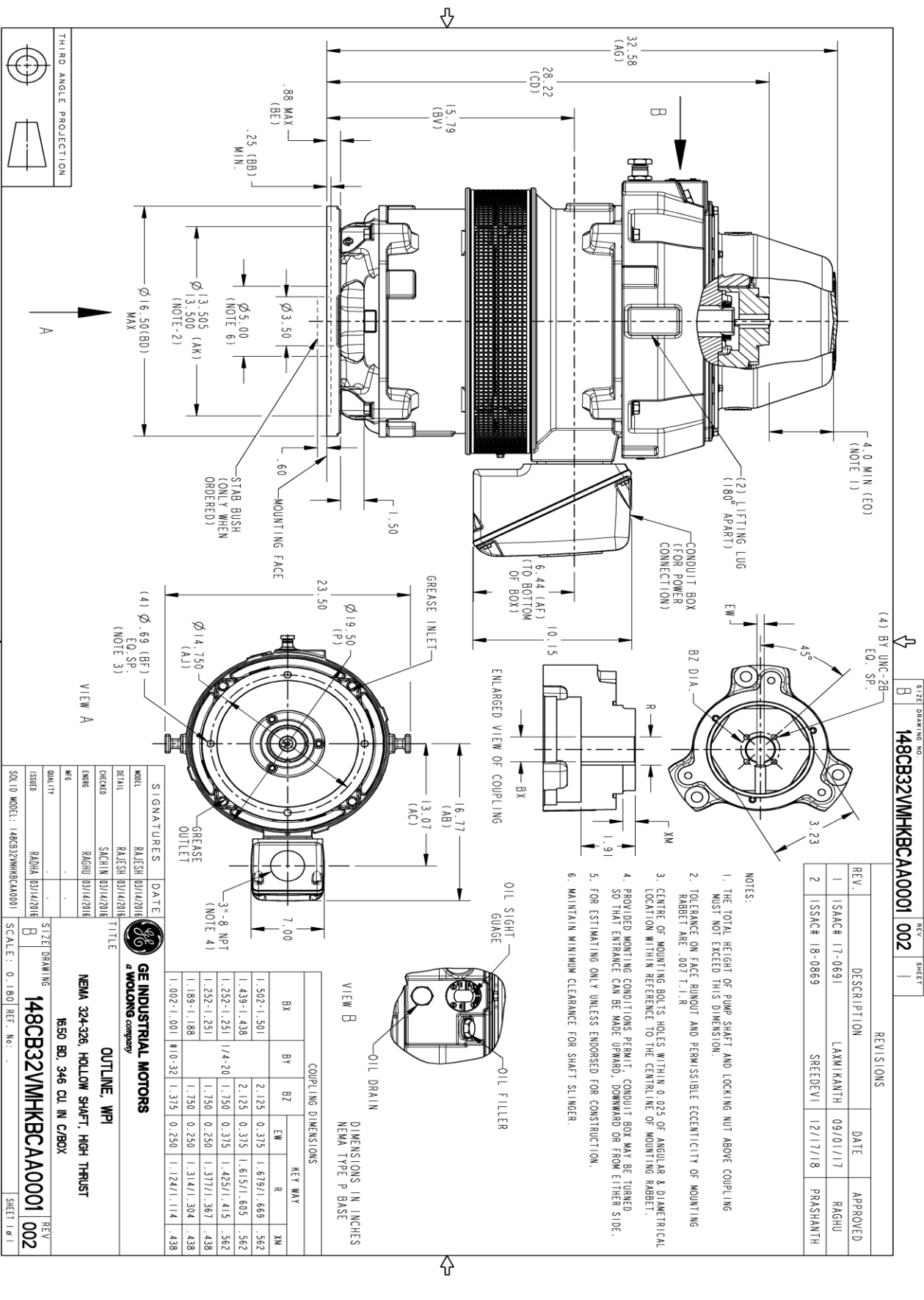
This motor is capable of two cold or one hot start with a maximum connected load inertia of 1219 Lb-Ft Sq (51.32 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 51 seconds. Safe stall time at 100% voltage is 88 seconds cold, 61 seconds hot. Rotor inertia is 6.94 Lb-Ft Sq (0.29 Kg-meter Sq).

| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 0.533 | Short Circuit D-C: | 0.021 |
| Short Circuit A-C: | 0.035 | X/R Ratio: | 8.091 |
| Stator Slots: | 48 | Rotor Slots: | 38 |

Speed Torque Current Curve (First Connection, First Speed)



Marks:



REV. DESCRIPTION DATE APPROVED

| | | | |
|---|----------------|----------|-----------|
| 1 | ISAC# 17-0691 | 09/01/17 | LAGHU |
| 2 | ISSAC# 18-0869 | 12/17/18 | PRASHANTH |

- NOTES:
1. THE TOTAL HEIGHT OF PUMP SHAFT AND LOCKING NUT ABOVE COUPLING MUST NOT EXCEED THIS DIMENSION.
 2. TOLERANCE ON FACE RIMOUT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBIT ARE .007 T. I. R
 3. CENTRE OF MOUNTING BOLTS HOLES WITHIN 0.025 OF ANGULAR & DIAMETRICAL LOCATION WITHIN REFERENCE TO THE CENTRAL LINE OF MOUNTING RABBIT.
 4. PROVIDED MONTING CONDITIONS PERMIT, CONDUIT BOX MAY BE TURNED SO THAT ENTRANCE CAN BE MADE UPWARD, DOWNWARD OR FROM EITHER SIDE.
 5. FOR ESTIMATING ONLY UNLESS ENDORSED FOR CONSTRUCTION.
 6. MAINTAIN MINIMUM CLEARANCE FOR SHAFT SLINGER.

COUPLING DIMENSIONS

| BX | BY | BZ | KEY WAY | | | |
|-------------|--------|-------|-------------|------|----|--|
| | | | EW | R | XM | |
| 1.502-1.501 | 2.125 | 0.375 | 1.679/1.669 | .562 | | |
| 1.439-1.438 | 2.125 | 0.375 | 1.615/1.605 | .562 | | |
| 1.292-1.291 | 1/4-20 | 1.750 | 1.425/1.415 | .562 | | |
| 1.252-1.251 | | 1.750 | 1.377/1.367 | .438 | | |
| 1.189-1.188 | | 0.250 | 1.314/1.304 | .438 | | |
| 1.002-1.001 | #10-32 | 1.315 | 1.124/1.114 | .438 | | |

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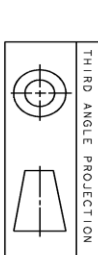
OUTLINE, WPI

NEMA 324-326, HOLLOW SHAFT, HIGH THRUST

6550 BD, 346 CU IN C/BOX

SIGNATURES DATE

| | | |
|--------------|---------------------|------------|
| MOEL | RAJESH | 03/14/2016 |
| DETAIL | RAJESH | 03/14/2016 |
| DESIGN | SACHIN | 03/14/2016 |
| ENGR | RAGHU | 03/14/2016 |
| CHK | | |
| QUALITY | | |
| ISSUED | RAJESH | 03/14/2016 |
| SOLID MODEL: | 148CB32VMHKBCAA0001 | |



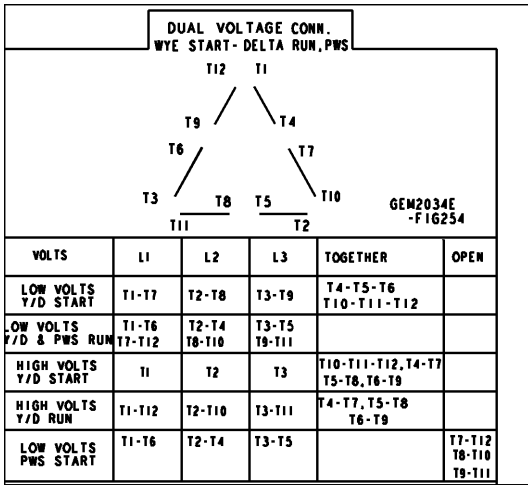
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148CB32VMHKBCAA0001 002

SHEET 1 OF 1

Marks:

Connection Diagram
GEM2034E-FIG254



| End shield Assembly | | |
|---------------------|---------------|----------------|
| Part Description | DE Side Part# | ODE Side Part# |
| End Shield | 115E7205AA1 | 115E7208LJ1 |
| Bearing | 235A2509BE01 | 235A2523AD01 |
| Slinger/Inproseal | 235A2300FM1 | |

| Fan & Fan Cover Assembly | |
|--------------------------|-------------|
| Part Description | Part# |
| Fan | |
| Fan Cover | 161C1052AA1 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-------------|
| Part Description | Part# |
| Conduit Box | 149C4429AA2 |

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

