



GE INDUSTRIAL MOTORS
a **WOLONG** company

Product Technical Information

February 17, 2023

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

| | |
|----------------------------|----------------------|
| Model Number: | 5KS445DAJ6089 |
| Catalog Number: | V4485 |
| Instruction Manual: | GEI-M1045 |
| Connection Diagram: | GEM2034E-FIG273 |
| Outline Drawing: | 148CB44VMJCLGAA0001 |

Accessory Connection Diagrams

| | | | |
|------------------------------|------|------------------------------|-----------|
| Bearing Thermocouple: | None | Heater: | 3027JE-1C |
| RTD: | None | Thermistor: | None |
| Thermostat: | None | Winding Thermocouple: | None |
| Bearing RTD: | None | | |

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Marks:

| | | | |
|----------------------------|----------------------|-------------------------------|--------------|
| MODEL NUMBER: | 5KS445DAJ6089 | Estimated Weight: | 2530 Lbs |
| Outline Drawing: | 148CB44VMJKLGAA0001 | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG273 | Enclosure: | WPI |
| Instruction Book: | GEI-M1045 | Encl Construction: | OPEN |
| Design Code: | 44BD1343A | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | L445TP20 | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 4 | Nominal Efficiency: | 95.8 % |
| Output Power: | 250HP 185KW | Guaranteed Efficiency: | 95.0 % |
| RPM: | 1775 | 3/4 Load Efficiency: | -- |
| Voltage: | 460/575 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 58.7 |
| Amps - FL: | 281.0/229.0 | Power Factor: | 87.5 |
| Service Factor: | 1.15 | Bearing - DE: | 6217C3 |
| Alt Service Factor: | -- | Bearing - ODE: | 235A2536AB01 |

Enclosure is Weather Protected One

Stamped Nameplate Notes:

NEMA ENCLOSURE WP-I, CSA ENCL DP
HTR LDS HE1-HE2 115V 145W
ROT CCW FACING ODE 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: 10.2 QTS
AMB 0 TO 40 DEG C : ISO 32(MINERAL OR SYNTHETIC)
AMB -15 TO 0 DEG C : ISO 32 SYNTHETIC
SUITABLE FOR 200 HP, 380V, 50 HZ WITH
274.0 AMPS AND 1480 RPM AT 1.00 SF



Additional Information:

4P, VERT HOLLOW SHAFT HIGH THRUST (2D)
C/BOX 1260 CU IN - 2(4.00" NPT)
C/B GRD PLATE
OIL RESISTANT SLEEVING ON LEADS
115V HTR LDS TO MAIN CONDUIT BOX
BEARING LIFE 8760 HRS AT 22500 LB THRUST
BEARING LIFE 9630 HRS AT 22000 LB THRUST
CG:22.60 IN FROM P-BASE FACE, STAT DEF:= 0.004 IN
RCF: 2923 CPM
NON-REVERSE BALL CARRIER,
BOLTED COUPLING, BX = 1.938 IN, EW= 0.500 IN
FIRE PUMP MOTOR
ESTIMATED SOUND PRESSURE 83 DBA AT 1 METER



Performance Characteristics

1st Winding 1st Connection

Design: 44BD1343A

Marks:

| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|--------|--------|-------|-------|--------|--------|-------|
| % EFF | 94.33 | 94.64 | 95.22 | 95.43 | 95.3 | 93.31 | 0.00 |
| % PF | 87.64 | 87.71 | 87.41 | 85.29 | 78.79 | 58.91 | 4.27 |
| AMPS | 353.78 | 324.16 | 281.1 | 215.6 | 155.81 | 106.41 | 81.82 |

TORQ(FL)#FT 738.43
AMPS(LR) 1496.2

TORQ(LR)%FL 163.57
PF AT START 0.33

TORQ(BD)%FL 227

This motor is capable of two cold or one hot start with a maximum connected load inertia of 2277 Lb-Ft Sq (95.86 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 16 seconds. Safe stall time at 100% voltage is 40 seconds cold, 20 seconds hot. Rotor inertia is 67.77 Lb-Ft Sq (2.85 Kg-meter Sq).

Open Circuit A-C: 0.727

Short Circuit D-C: 0.029

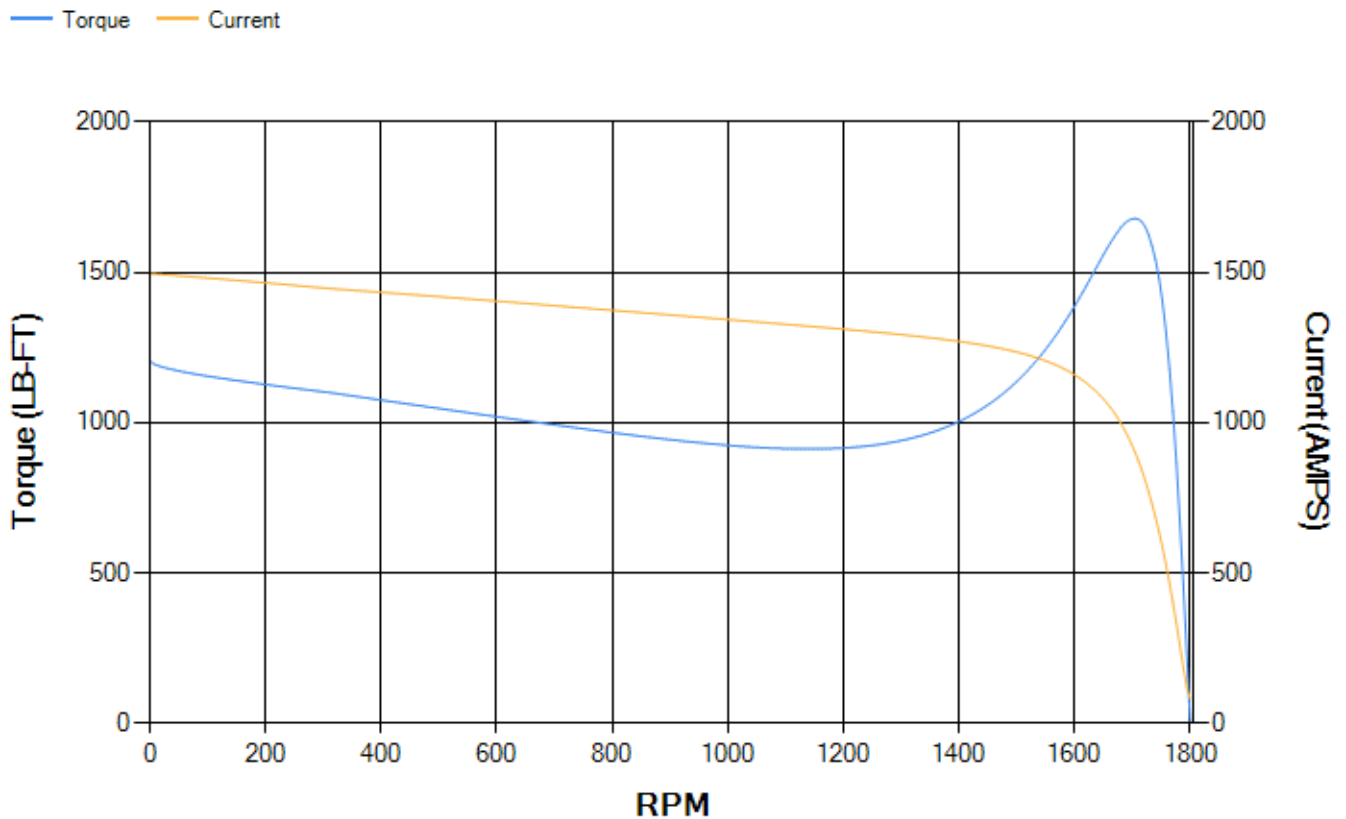
Short Circuit A-C: 0.036

X/R Ratio: 11.031

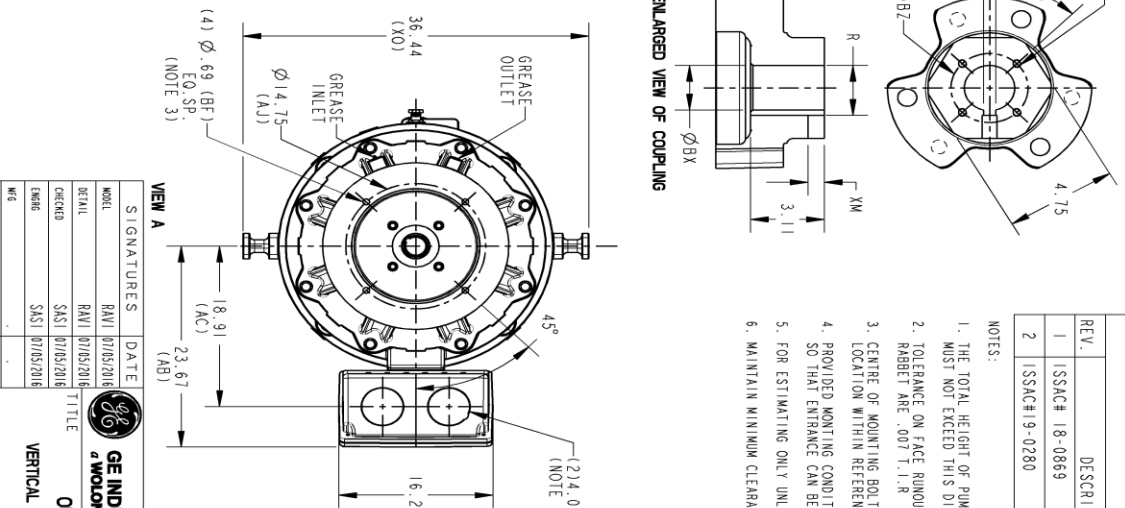
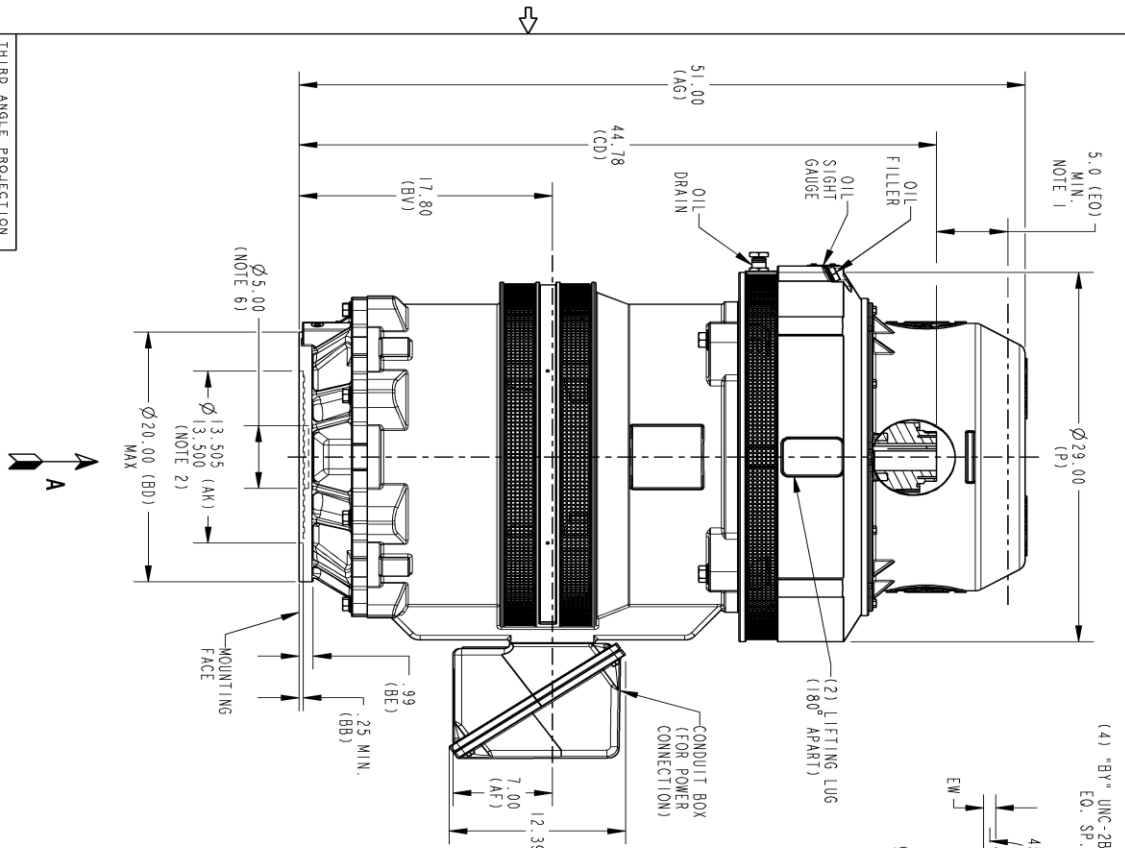
Stator Slots: 72

Rotor Slots: 58

Speed Torque Current Curve (First Connection, First Speed)



Marks:



REVISIONS

| REV. | DESCRIPTION | DATE | APPROVED |
|------|----------------|----------|-----------|
| 1 | ISSAC# 18-0869 | 12/28/18 | PRASHANTH |
| 2 | ISSAC#19-0280 | 03/20/19 | ANIL |

- NOTES:
1. THE TOTAL HEIGHT OF PUMP SHAFT AND LOCKING NUT ABOVE COUPLING MUST NOT EXCEED THIS DIMENSION.
 2. TOLERANCE ON FACE ROUNDOFF AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBET ARE .007 T.1.R
 3. CENTRE OF MOUNTING BOLTS HOLES WITHIN 0.025 OF ANGULAR & DIAMETRICAL LOCATION WITHIN REFERENCE TO THE CENTRILINE OF MOUNTING RABBET.
 4. PROVIDED MOUNTING 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.

DIMENSIONS IN INCHES
NEMA TYPE P BASE

| COUPLING DIMENSIONS | | | | KEY WAY | | | |
|---------------------|--------|-------|------|---------|------|--|--|
| BX | BY | BZ | EW | R | XM | | |
| 1.501 | 1/4-20 | 2.125 | .315 | 1.559 | .562 | | |
| 1.588 | 1/4-20 | 2.500 | .315 | 1.559 | .562 | | |
| 1.751 | 1/4-20 | 2.500 | .315 | 1.922 | .562 | | |
| 1.813 | 1/4-20 | 2.500 | .500 | 2.033 | .688 | | |
| 1.938 | 1/4-20 | 2.500 | .500 | 2.160 | .688 | | |
| 2.001 | 3/8-16 | 3.250 | .500 | 2.223 | .688 | | |
| 2.063 | 3/8-16 | 3.250 | .500 | 2.287 | .688 | | |
| 2.126 | 3/8-16 | 3.250 | .500 | 2.350 | .688 | | |
| 2.188 | 3/8-16 | 3.250 | .500 | 2.414 | .688 | | |
| 2.251 | 3/8-16 | 3.250 | .500 | 2.477 | .688 | | |
| 2.316 | 3/8-16 | 3.250 | .500 | 2.551 | .688 | | |
| 2.438 | 3/8-16 | 3.250 | .625 | 2.715 | .812 | | |
| 2.501 | 3/8-16 | 3.250 | .625 | 2.778 | .812 | | |

SIGNATURES

| MODEL | DATE | TITLE |
|-------|------------|--------------|
| RAVI | 07/05/2016 | DESIGNER |
| RAVI | 07/05/2016 | DRAWN |
| SASI | 07/05/2016 | CHECKED |
| SASI | 07/05/2016 | ENG'G |
| WIC | | ISSUED |
| | | QUALITY |
| | | SCALE: 0.120 |
| | | REF. NO.: |

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OUTLINE, NEMA WPI 444/445
VERTICAL HOLLOW SHAFT, HIGH THRUST GR5 LOWER
200 BD, 1260 CL IN C/BOX

SIZE DRAWING NO. **148CB44VMJKLGA0001 002**

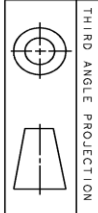
REV. 1

REVISIONS

148CB44VMJKLGA0001 002

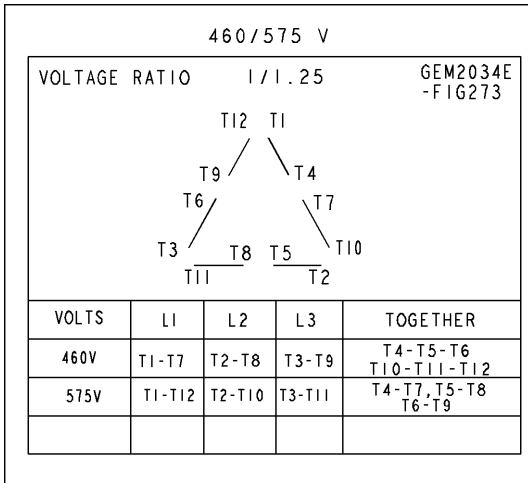
SCALE: 0.120 REF. NO.:

SHEET 1 OF 1



Marks:

Connection Diagram
GEM2034E-FIG273



Heater Connection
3027JE-1C



| End shield Assembly | | |
|---------------------|---------------|----------------|
| Part Description | DE Side Part# | ODE Side Part# |
| End Shield | 115E7661AA1 | 115E7670LM1 |
| Bearing | 235A2622AA01 | 235A2536AB01 |
| Slinger/Inproseal | 149C4399G06 | |

| Fan & Fan Cover Assembly | |
|--------------------------|-------------|
| Part Description | Part# |
| Fan | |
| Fan Cover | 161C1050AA1 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-------------|
| Part Description | Part# |
| Conduit Box | 179B9058G03 |

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

