# **Product Information Packet**

May 26, 2017

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

Model Number: 5KS405XAJ5408A

Catalog Number: V4823

**Instruction Manual:** GEK-95351

**Connection Diagram:** GEM2034E-FIG7

Outline Drawing: 148CB40INHNCCLA0001

# **Accessory Connection Diagrams**

Bearing Thermocouple:NoneHeater:NoneRTD:NoneThermistor:NoneThermostat:NoneWinding Thermocouple:NoneBearing RTD:None

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#### Marks:

MODEL NUMBER: 5KS405XAJ5408A

Outline Drawing: 148CB40INHNCCLA0001

Connection Diagram: GEM2034E-FIG7

Instruction Book: GEK-95351

Design Code: 40BD0052AC

Type: KS

Frame: L405VP16

Phases: 3
Poles: 2

Output Power: 100HP 74KW

 RPM:
 3565

 Voltage:
 460

 Hertz:
 60

 Amps - FL:
 109.0

 Service Factor:
 1.15

 Alt Service Factor:
 - 

Alt Service Factor: --

**Estimated Weight:** 1950 Lbs CONT Time Rating: **Enclosure: TEFC Encl Construction:** 841 Ambient Max(°C): 40 Alt Ambient Max(°C): **Insulation Class:** Н **NEMA Design:** В **Nominal Efficiency:** 94.5 % **Guaranteed Efficiency:** 93.6 3/4 Load Efficiency: 95.5 **KVA Code:** G Max KVAR: 17.0

**Bearing - ODE:** 235A2532AA01

91.0

6215C3

**Power Factor:** 

**Bearing - DE:** 

## **Enclosure is Totally Enclosed Fan-Cooled**

## **Stamped Nameplate Notes:**

EXCEPTIONS TO IEEE-STD-841-2009:
ALUMINIUM FAN BACK PLATE
VERTICAL 841
DE BRG 75BC02J30, ODE BRG 110BT02MD00
INVERTER DUTY PER NEMA MG1 PART 31
ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT
VAR TORQUE RANGE 0-60 HZ
GE SELF DECLARED CLASS I DIV 2 MOTOR
MAX EXPOSED INTERNAL AND EXTERNAL SURFACE
TEMPERATURES UNDER USUAL SERVICE CONDITIONS
AT 1.00 S.F. DO NOT EXCEED 200 DEG C
API 610 12TH EDITION SHAFT DIMENSIONS

### **Additional Information:**

2 POLE, VERT SOLID SHAFT HIGH THRUST (1D)
PAINTED FRAME ID & SHAFT,
FAN COVER INSIDE & ODE E/S OUTSIDE
700 CU IN - 3.00" NPT
BEARING LIFE 8760 HRS AT 5102 LB THRUST
BEARING LIFE 26280 HRS AT 3440 LB THRUST
INPRO SEAL LOWER END
OIL RESISTANT SLEEVING ON LEADS
ROUTINE TEST REPORT AND 5 POINT VIBRATION TEST
REPORT INCLUDED IN C/B
COPPER WASHER UNDER HEADS OF BEARING CAP BOLTS,
APPLY TITE-SEAL (A50CD427A) ON BEARING CAP SCREWS,
RABBETS AND PLUG THREADS.



STAINLESS STEEL T-DRAINS FRAME GROUND PAD ACTUAL EFFICIENCY = 93.6% RCF: 1860 CPM AT C/BOX SIDE, 1860 CPM AT

90 DEG FROM C/ BOX SIDE CG: 21.64 IN FROM P-BASE FACE



138.07

126.57

**Performance Characteristics** 

**AMPS** 

May 26, 2017

23.71

Design: 40BD0052AC

37.28

| <u>Marks</u> : |       |       |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| LOAD %         | 125.0 | 115.0 | 100.0 | 75.0  | 50.0  | 25.0  | 0.0   |
| % EFF          | 93.23 | 93.34 | 93.59 | 93.06 | 91.63 | 86.41 | 0.00  |
| % PF           | 90.89 | 91 11 | 91 17 | 90.24 | 86 51 | 72 64 | 14 32 |

83.59

59.03

1st Winding 1st Connection

| TORQ(FL)#FT | 147.36 | TORQ(LR)%FL | 167.46 | TORQ(BD)%FL | 263.44 |
|-------------|--------|-------------|--------|-------------|--------|
| AMPS(LR)    | 720.22 | PF AT START | 0.25   |             |        |

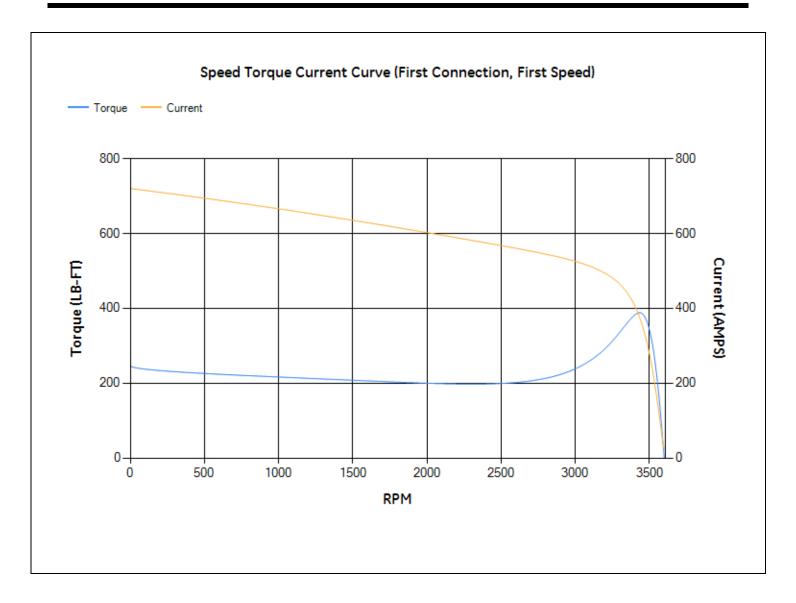
109.7

This motor is capable of two cold or one hot start with a maximum connected load inertia of 347 Lb-Ft Sq (14.61 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 24 seconds. Safe stall time at 100% voltage is 58 seconds cold, 28 seconds hot. Rotor inertia is 15.17 Lb-Ft Sq (0.64 Kg-meter Sq).

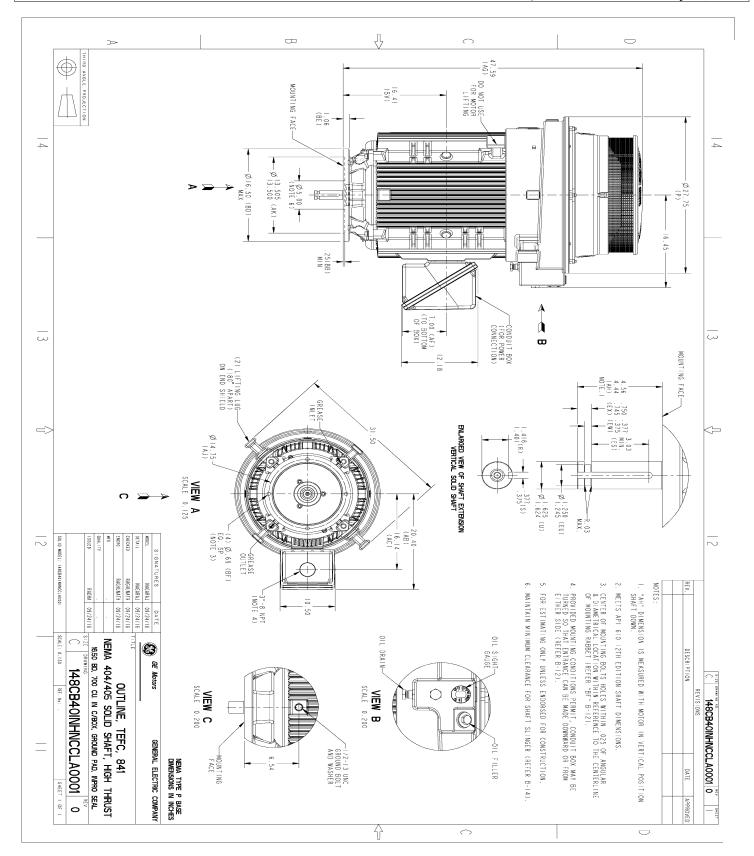
 Open Circuit A-C:
 1.202
 Short Circuit D-C:
 0.03

 Short Circuit A-C:
 0.043
 X/R Ratio:
 11.303

 Stator Slots:
 48
 Rotor Slots:
 38

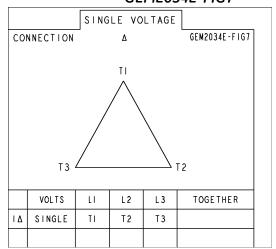






Marks:

## <u>Connection Diagram</u> <u>GEM2034E-FIG7</u>



| End shield Assembly |               |                |  |
|---------------------|---------------|----------------|--|
| Part Description    | DE Side Part# | ODE Side Part# |  |
| End Shield          | 115E8306AC1   | 115E8310LA1    |  |
| Bearing             | 235A2513AL01  | 235A2532AA01   |  |
| Slinger/Inproseal   | 235A4575GC44  |                |  |

|                  | Fan & Fan Cover Assembly |
|------------------|--------------------------|
| Part Description | Part#                    |
| Fan              | 153B1885G01              |
| Fan Cover        | 128D6845AA1              |

| Conduit & Accessories Box Assembly |             |  |
|------------------------------------|-------------|--|
| Part Description                   | Part#       |  |
| Conduit Box                        | 118D4408AD2 |  |

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