



**GE INDUSTRIAL MOTORS**  
a **WOLONG** company

# Product Technical Information

October 23, 2020

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

<b>Model Number:</b>	<b>5KS449XAA145D2</b>
<b>Catalog Number:</b>	<b>M9373</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG20
<b>Outline Drawing:</b>	239C6800ZC

## Accessory Connection Diagrams

<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	None
<b>RTD:</b>	None	<b>Thermistor:</b>	None
<b>Thermostat:</b>	None	<b>Winding Thermocouple:</b>	None
<b>Bearing RTD:</b>	None		

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Marks:

**MODEL NUMBER:** 5KS449XAA145D2  
**Outline Drawing:** 239C6800ZC  
**Connection Diagram:** GEM2034E-FIG20  
**Instruction Book:** GEI-56128  
**Design Code:** 49BD0194B  
**Type:** KS  
**Frame:** 449TS  
**Phases:** 3  
**Poles:** 2  
**Output Power:** 300HP 222KW  
**RPM:** 3580  
**Voltage:** 575  
**Hertz:** 60  
**Amps - FL:** 255.0  
**Service Factor:** 1.00  
**Alt Service Factor:** --

**Estimated Weight:** 2820 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:** 95.8 %  
**Guaranteed Efficiency:** 95.4 %  
**3/4 Load Efficiency:** --  
**KVA Code:** G  
**Max KVAR:** 49.2  
**Power Factor:** 92.0  
**Bearing - DE:** 6314ZC3  
**Bearing - ODE:** 6314ZC3

**Enclosure is Totally Enclosed Fan-Cooled**

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**Stamped Nameplate Notes:**

FOR DIRECT COUPLED LOAD ONLY  
 DE BRG 70BC03JP30, ODE BRG 70BC03JP30  
 ROT CCW FACING ODE LEAD/PH SEQ 3-2-1/1-2-3  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS449XAA145D2 S/N: XXX  
 CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200 C 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 ---C AT 1.00SF ON SINE-WAVE PWR  
 OR ---C VT OR ---C CT OR ---C CHP PWM CONTROL  
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB  
 VT --- HZ, CT --- HZ, CHP --- HZ.  
 EXCEPTIONS TO IEEE-STD-841-2009:  
 SOUND POWER 95 DBA; WINDING RISE 82 C



**Additional Information:**

2P - TS EXTN - SPLIT LEAD  
PAINTED FRAME ID & SHAFT,  
FAN COVER INSIDE & ODE E/S OUTSIDE  
C/BOX 1260 CU IN - 2(4.00" NPT)  
C/B GRD PLATE  
INPRO SEAL BOTH ENDS  
OIL RESISTANT SLEEVING ON LEADS  
.0015" TIR SHAFT RUNOUT  
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.  
GROUND PAD  
F1 MOUNTING



**Performance Characteristics**

1st Winding 1st Connection

**Design: 49BD0194B**

**Marks:**

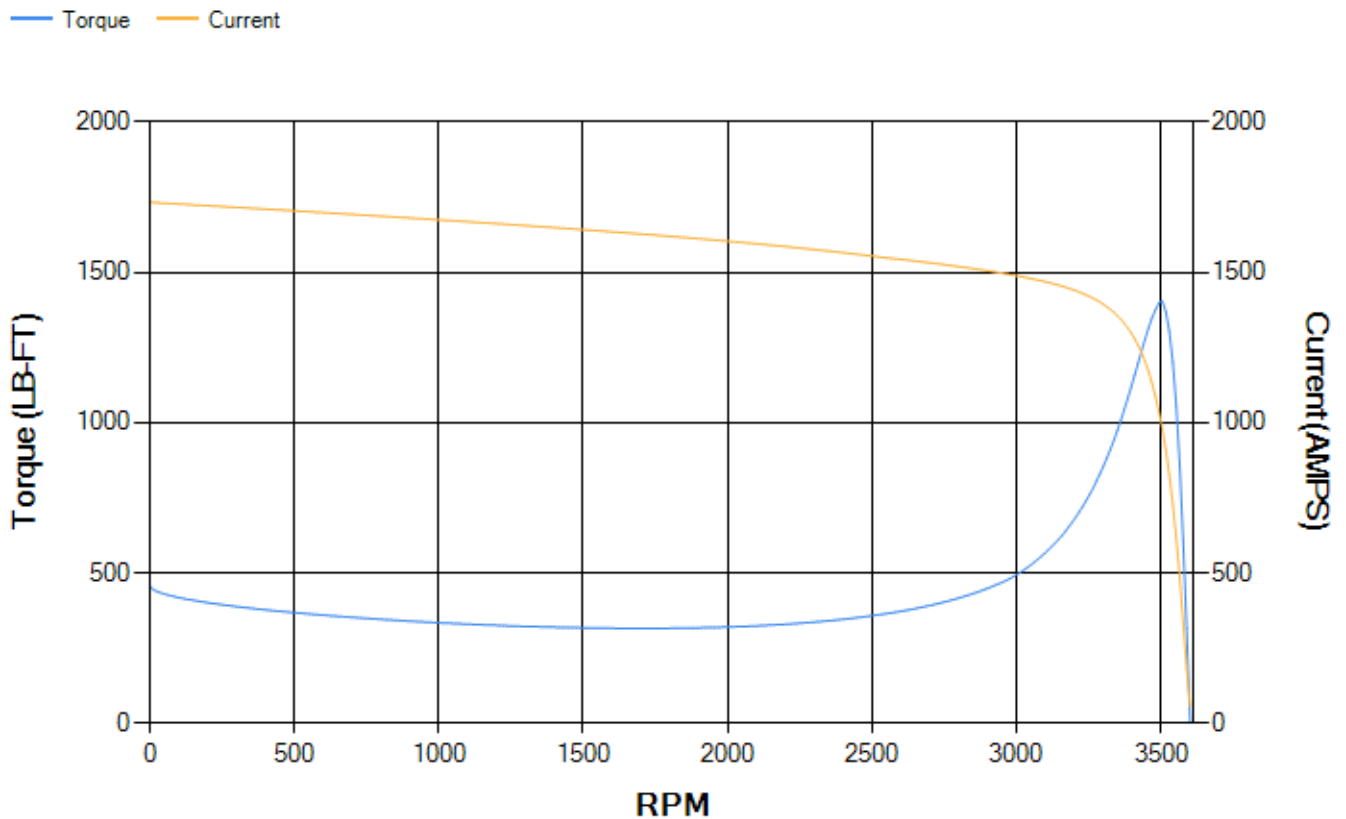
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.7	95.89	96.34	96.38	96.19	94.45	0.00
% PF	92.28	92.36	92.24	91.06	86.93	71.33	5.09
AMPS	317.95	291.67	252.79	191.98	134.32	83.35	54.94

<b>TORQ(FL)#FT</b>	440.03	<b>TORQ(LR)%FL</b>	104.14	<b>TORQ(BD)%FL</b>	319.31
<b>AMPS(LR)</b>	1733.4	<b>PF AT START</b>	0.18		

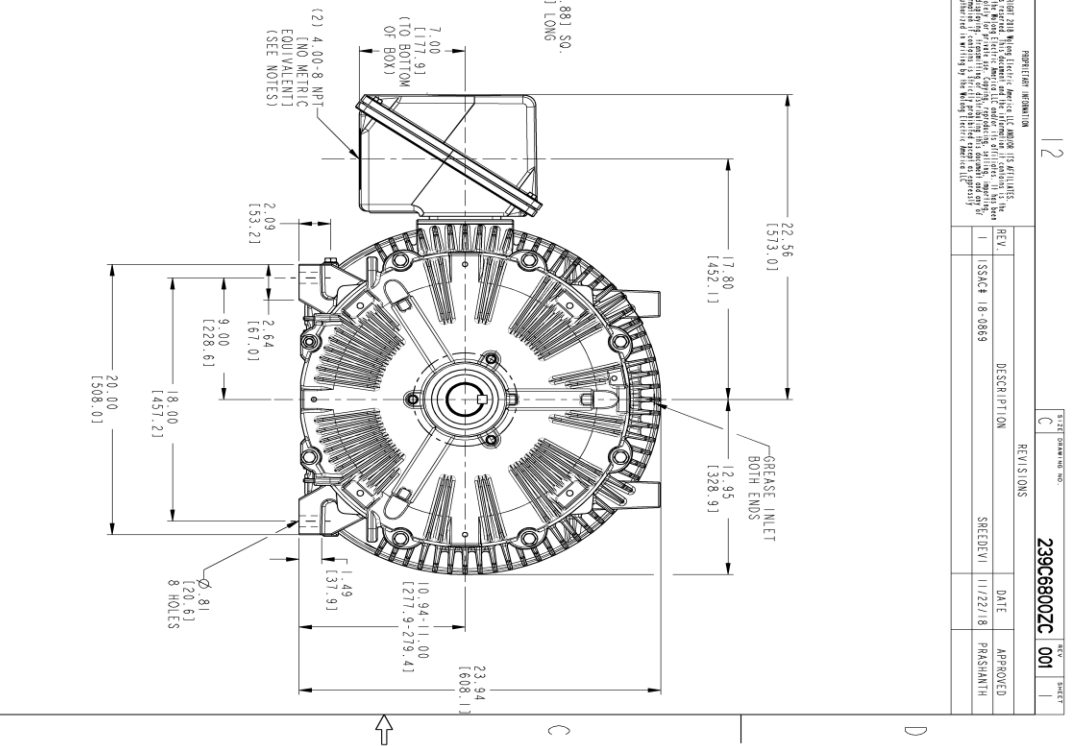
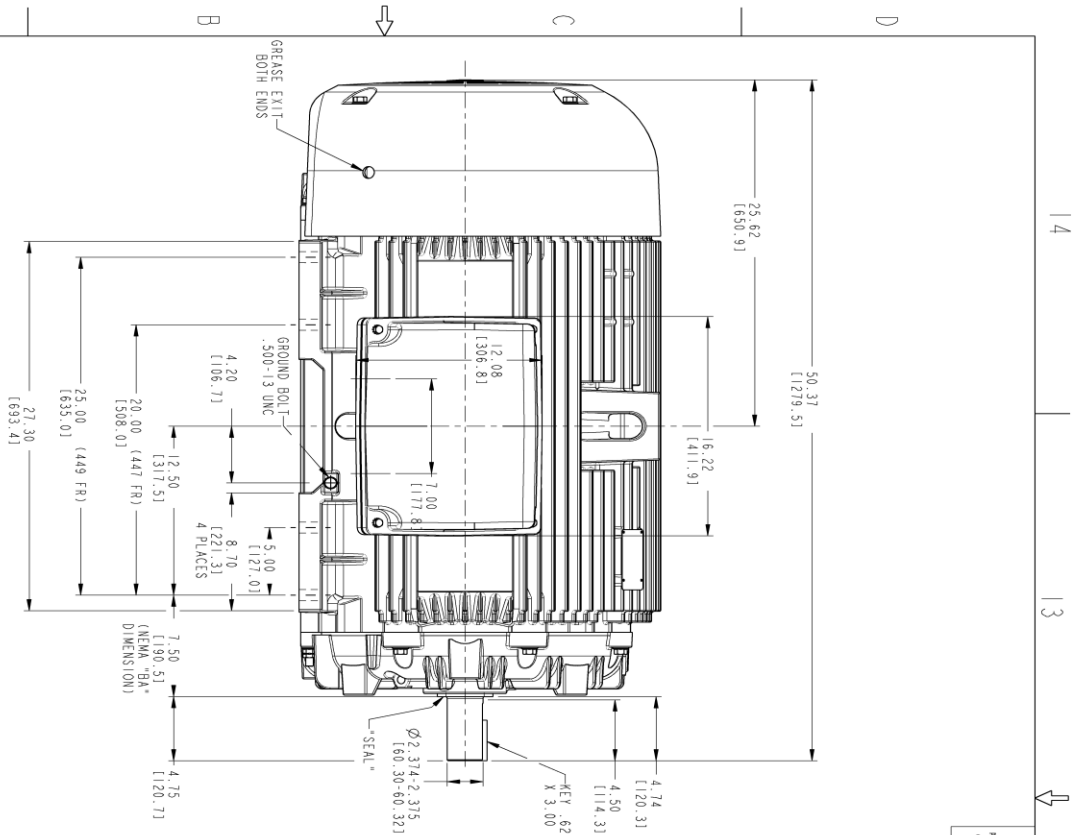
This motor is capable of two cold or one hot start with a maximum connected load inertia of 697 Lb-Ft Sq (29.34 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 30 seconds. Safe stall time at 100% voltage is 79 seconds cold, 36 seconds hot. Rotor inertia is 50.39 Lb-Ft Sq (2.12 Kg-meter Sq).

<b>Open Circuit A-C:</b>	2.142	<b>Short Circuit D-C:</b>	0.036
<b>Short Circuit A-C:</b>	0.071	<b>X/R Ratio:</b>	13.421
<b>Stator Slots:</b>	48	<b>Rotor Slots:</b>	38

**Speed Torque Current Curve (First Connection, First Speed)**



Marks:



REVISION INFORMATION

REV.	DESCRIPTION	DATE	APPROVED
1	ISSUE 18-0869	11/22/18	PRASHANTH

239C6800ZC 001

- NOTES:
1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE DOWN, UP OR ON EITHER SIDE.
  2. F-1 ASSEMBLY AS SHOWN.
  3. F-2 ASSEMBLY CONDUIT BOX ON OPPOSITE SIDE.
  4. ALL DIMENSIONS ARE IN INCHES. BRACKETED DIMENSIONS ARE METRIC (MILLIMETERS).
  5. TOLERANCE ON PERMISSIBLE SHAFT EXTENSION ROUNDOFF IS .0015 T.I.R.



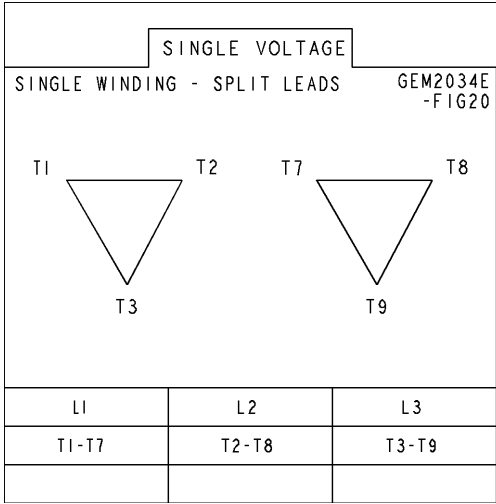
SIGNATURES	DATE	TITLE
DESIGNER: TEJASNI	08/10/15	<p><b>GE INDUSTRIAL MOTORS</b> A WOLSKEL COMPANY</p> <p><b>OUTLINE</b></p> <p>447/449 TS TEFC XSD 841</p> <p>280 CU. IN. C. BOX, GROUND PAD</p> <p>239C6800ZC</p>
CHECKED: ANIL	08/10/15	
DATE: 08/10/15		
SCALE: 0.180		

1 4 1 3 1 2 1 1

**Marks:**

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**Connection Diagram**  
**GEM2034E-FIG20**



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E4354AA1	115E4354LL1
Bearing	235A2516AC01	235A2516AC01
Slinger/Inproseal	235A4575GS3	235A4575GS3

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	149C4287AA2
Fan Cover	128D6841AC1

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

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

