



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

# Product Technical Information

June 25, 2020

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

<b>Model Number:</b>	<b>5KS449XAA146D1</b>
<b>Catalog Number:</b>	<b>M9374</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:

<b>MODEL NUMBER:</b>	<b>5KS449XAA146D1</b>	<b>Estimated Weight:</b>	2820 Lbs
<b>Outline Drawing:</b>	239C6800ZC	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG20	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEI-56128	<b>Encl Construction:</b>	841
<b>Design Code:</b>	49BD0194B	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	449TS	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	2	<b>Nominal Efficiency:</b>	95.8 %
<b>Output Power:</b>	300HP 222KW	<b>Guaranteed Efficiency:</b>	95.4 %
<b>RPM:</b>	3580	<b>3/4 Load Efficiency:</b>	96.4 %
<b>Voltage:</b>	575	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	49.0
<b>Amps - FL:</b>	253.0	<b>Power Factor:</b>	92.5
<b>Service Factor:</b>	1.00	<b>Bearing - DE:</b>	6314ZC3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	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 CW FACING ODE LEAD/PH SEQ 1-2-3/1-2-3  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS449XAA146D1 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 1.15SF 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 94 DBA; WINDING RISE 86 C



**Additional Information:**

2P - TS EXTN - SPLIT LEAD  
PAINTED FRAME ID & SHAFT,  
FAN COVER INSIDE & ODE E/S OUTSIDE  
1260 CU IN - 2(4.00" NPT) WITH DRAIN HOLES  
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:**

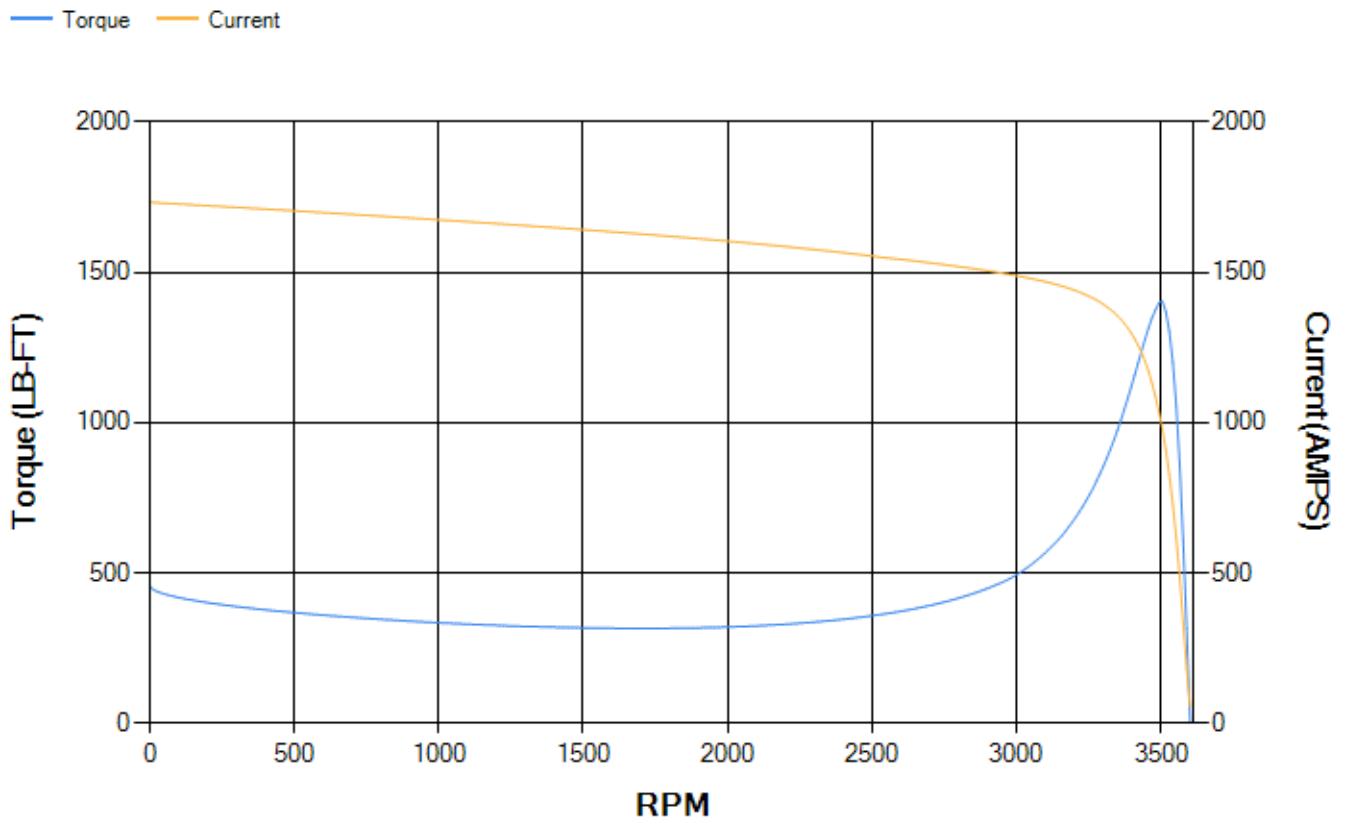
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.7	95.89	96.34	96.38	96.19	94.45	0.00
% PF	92.28	92.36	92.24	91.06	86.93	71.33	5.09
AMPS	317.95	291.67	252.79	191.98	134.32	83.35	54.94

<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		

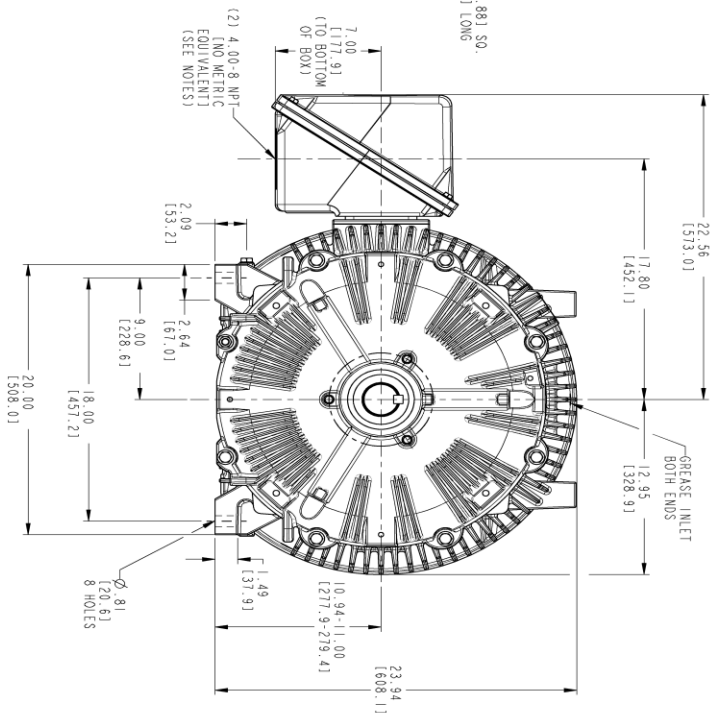
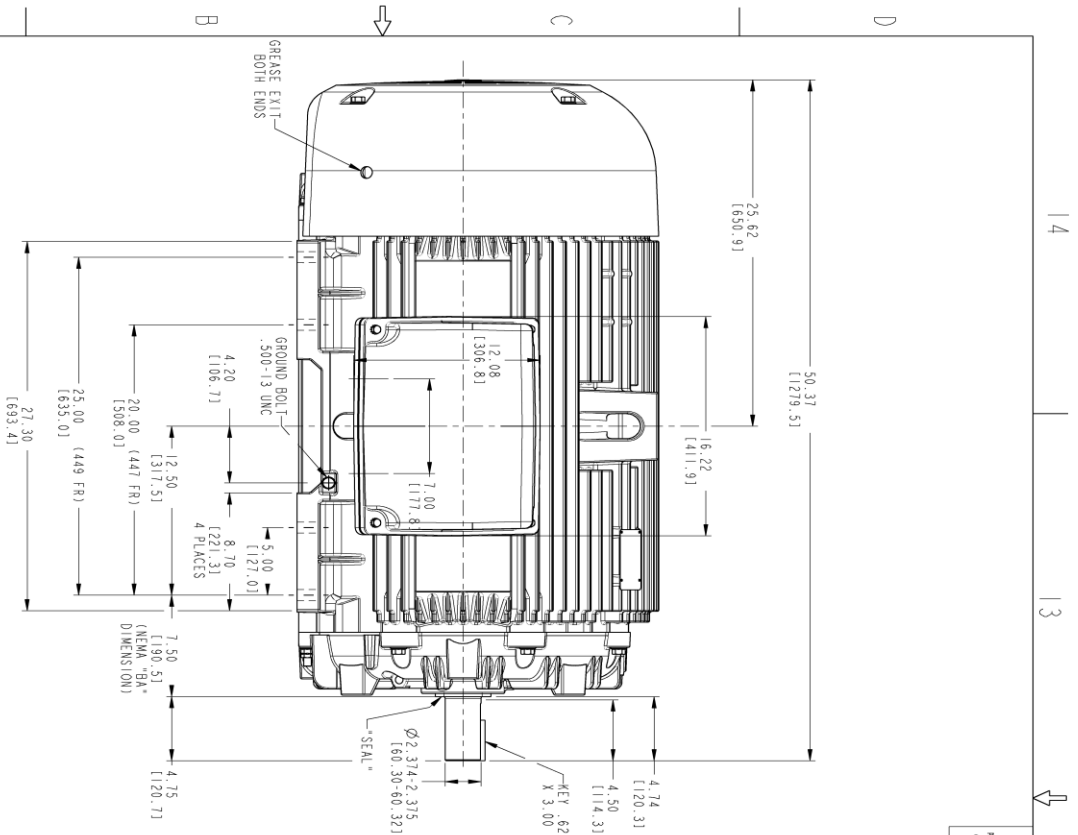
This motor is capable of two cold or one hot start with a maximum connected load inertia of 697 Lb-Ft Sq (29.34 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 30 seconds. Safe stall time at 100% 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	ISSAC 18-0869	11/22/18	PRASHANTH

239C6800ZC 001

NOTES:

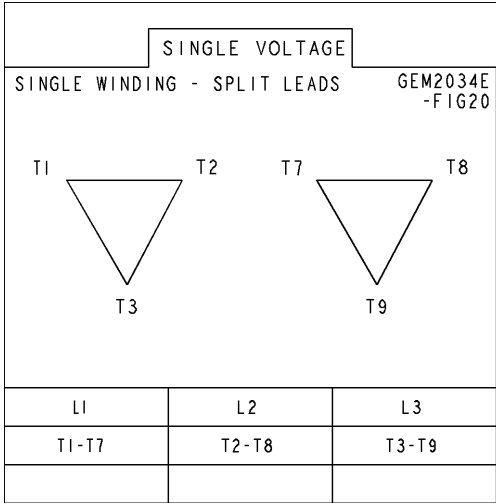
1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE DOWN, UP OR ON EITHER SIDE.
2. F-1 ASSEMBLY AS SHOWN.
3. F-2 ASSEMBLY CONDUIT BOX ON OPPOSITE SIDE.
4. ALL DIMENSIONS ARE IN INCHES. BRACKETED DIMENSIONS ARE METRIC (MILLIMETERS).
5. TOLERANCE ON PERMISSIBLE SHAFT EXTENSION ROUNDOFFS .0015 T.I.R.



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		

Marks:

**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	149C4261AK2
Fan Cover	128D6841AC1

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	179B9058AA-G02

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

