



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

# Product Technical Information

March 5, 2021

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

<b>Model Number:</b>	<b>5KS449SAA208D9</b>
<b>Catalog Number:</b>	<b>M9933</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG25
<b>Outline Drawing:</b>	239C6800APZ

## 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>5KS449SAA208D9</b>	<b>Estimated Weight:</b>	3100 Lbs
<b>Outline Drawing:</b>	239C6800APZ	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG25	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEI-56128	<b>Encl Construction:</b>	841
<b>Design Code:</b>	49BD1241A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	449T	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	4	<b>Nominal Efficiency:</b>	96.5 %
<b>Output Power:</b>	250HP 185KW	<b>Guaranteed Efficiency:</b>	96.2 %
<b>RPM:</b>	1790	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	54.5
<b>Amps - FL:</b>	274.0	<b>Power Factor:</b>	88.5
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	NU 318
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	6318ZC3

Enclosure is Totally Enclosed Fan-Cooled

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Stamped Nameplate Notes:

IEEE-STD-841-2009

ROLLER BEARING - FOR BELTED LOAD ONLY

DE BRG 90RU03M, ODE BRG 90BC03JP3

STAMP NP249A5564P051 AS BELOW:

MODEL:5KS449SAA208D9 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 -40C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR

SURF TEMP 260C AT 1.15SF ON SINE-WAVE PWR

OR 200C VT OR 230C CT OR 200C CHP PWM CONTROL

ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB

VT 0-60 HZ, CT 30-60 HZ, CHP 60-75 HZ.

MAX RADIAL LOAD: 5350 LBF AT 4.25"

FROM SHAFT SHOULDER



**Additional Information:**

4P - T 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  
OIL RESISTANT SLEEVING ON LEADS  
.002" TIR SHAFT RUNOUT  
ROUTINE TEST REPORT AND 5 POINT VIBRATION TEST  
REPORT INCLUDED IN C/B  
B5F4C4 HIGH FATIGUE STEEL AISI 4142 SHAFT MATERIAL  
GROUND PAD  
F1 MOUNTING



**Performance Characteristics**

1st Winding 1st Connection

**Design: 49BD1241A**

**Marks:**

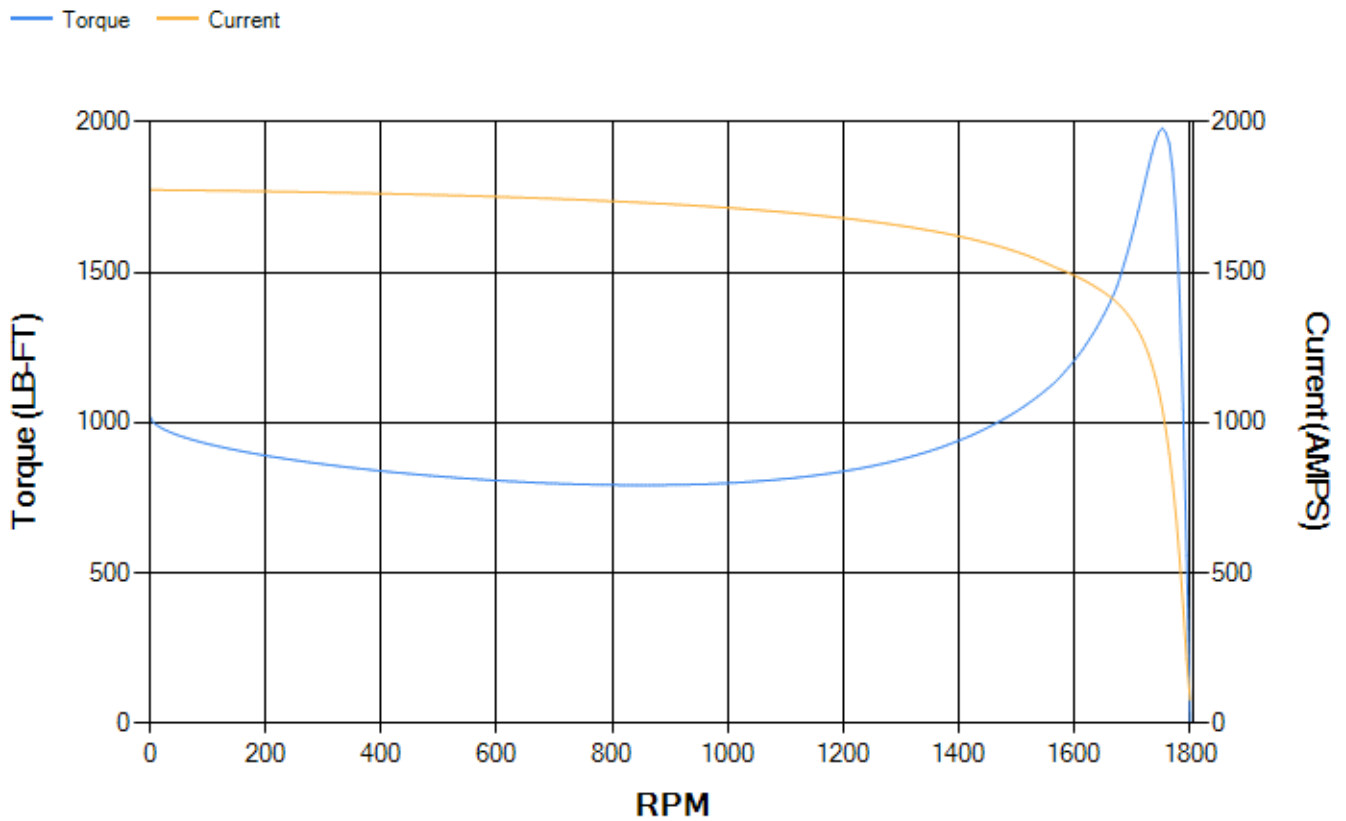
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	96.2	96.38	96.82	96.86	96.74	95.32	0.00
% PF	89.22	89.16	88.72	86.53	80.22	60.6	3.15
AMPS	340.74	313.11	272.41	209.38	150.76	101.26	76

<b>TORQ(FL)#FT</b>	732.88	<b>TORQ(LR)%FL</b>	139.77	<b>TORQ(BD)%FL</b>	269.92
<b>AMPS(LR)</b>	1774.89	<b>PF AT START</b>	0.23		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 8521 Lb-Ft Sq (358.73 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 73 seconds. Safe stall time at 100% voltage is 172 seconds cold, 88 seconds hot. Rotor inertia is 137.24 Lb-Ft Sq (5.78 Kg-meter Sq).

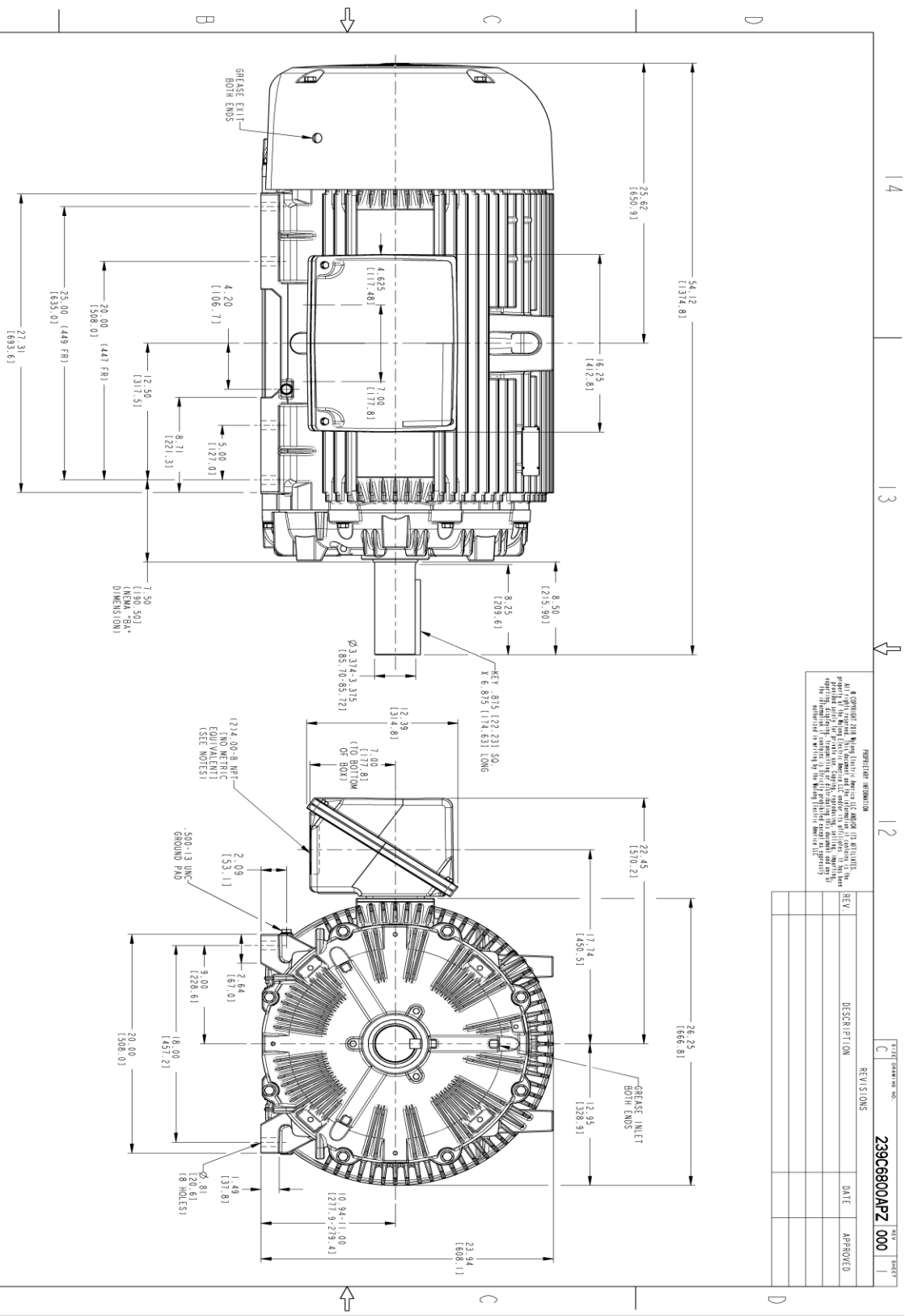
<b>Open Circuit A-C:</b>	1.866	<b>Short Circuit D-C:</b>	0.038
<b>Short Circuit A-C:</b>	0.072	<b>X/R Ratio:</b>	14.172
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

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

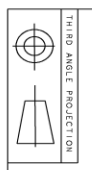


Marks:

REVISION INFORMATION				
REV.	DESCRIPTION	DATE	APPROVED	REVISED



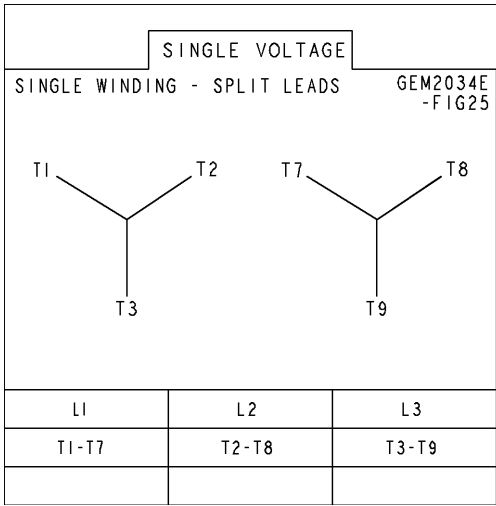
- NOTES:
- 1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE DOWN, UP OR ON EITHER SIDE.
  - 2. F-1 ASSEMBLY AS SHOWN.
  - 3. ALL DIMENSIONS ARE IN INCHES, BRACKETED DIMENSIONS ARE METRIC (MILLIMETERS).



SIGNATURES		DATE	
WMSI	11/10/20	WMSI	11/10/20
CHECKED		TITLE	
VJLW	11/10/20	<b>GE INDUSTRIAL MOTORS</b>	
DRAWN		BY	
SWMWH	11/10/20	447/449 T, TEFC	
QUALITY		1260 CU IN CONDUIT BOX, GROUND PAD	
WMSI	11/10/20	239C6800APZ 000	
SCALE: 0.180		REF. NO: 239C6800M	
SHEET 1 OF 1		REV	

Marks:

**Connection Diagram**  
**GEM2034E-FIG25**



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E4355AA1	115E4355LF1
Bearing	235A2519AA01	235A2514AG01
Slinger/Inproseal	149C4399G07	149C4399G07

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C7100AA2
Fan Cover	128D6841AA1

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

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

