

# Product Information Packet

November 9, 2016

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

<b>Model Number:</b>	<b>5KS449SAA204D9</b>
<b>Catalog Number:</b>	<b>M9851</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG20
<b>Outline Drawing:</b>	239C6800AA

<b>Accessory Connection Diagrams</b>			
<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>5KS449SAA204D9</b>	<b>Estimated Weight:</b>	3100 Lbs
<b>Outline Drawing:</b>	239C6800AA	<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>	X\$D
<b>Design Code:</b>	49BD1241B	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	60
<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>	96.9
<b>Voltage:</b>	575	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	52.4
<b>Amps - FL:</b>	218.0	<b>Power Factor:</b>	89.0
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	NU 318
<b>Alt Service Factor:</b>	1.00	<b>Bearing - ODE:</b>	6318ZC3

**Enclosure is Totally Enclosed Fan-Cooled**

**Stamped Nameplate Notes:**

ROLLER BEARING - FOR BELTED LOAD ONLY  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS449SAA204D9 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 200 C VT OR 230 C CT OR 200 C CHP PWM CONTROL  
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB  
 VT 0-60 HZ, CT 30-60 HZ, CHP 60-75 HZ.

**Additional Information:**

4P - T EXTN - SPLIT LEAD  
 700 CU IN - 3.00" NPT  
 OIL RESISTANT SLEEVING ON LEADS  
 B5F4C4 HIGH FATIGUE STEEL AISI 4142 SHAFT MATERIAL  
 F1 MOUNTING

**Performance Characteristics**

1st Winding 1st Connection

**Design: 49BD1241B**

**Marks:**

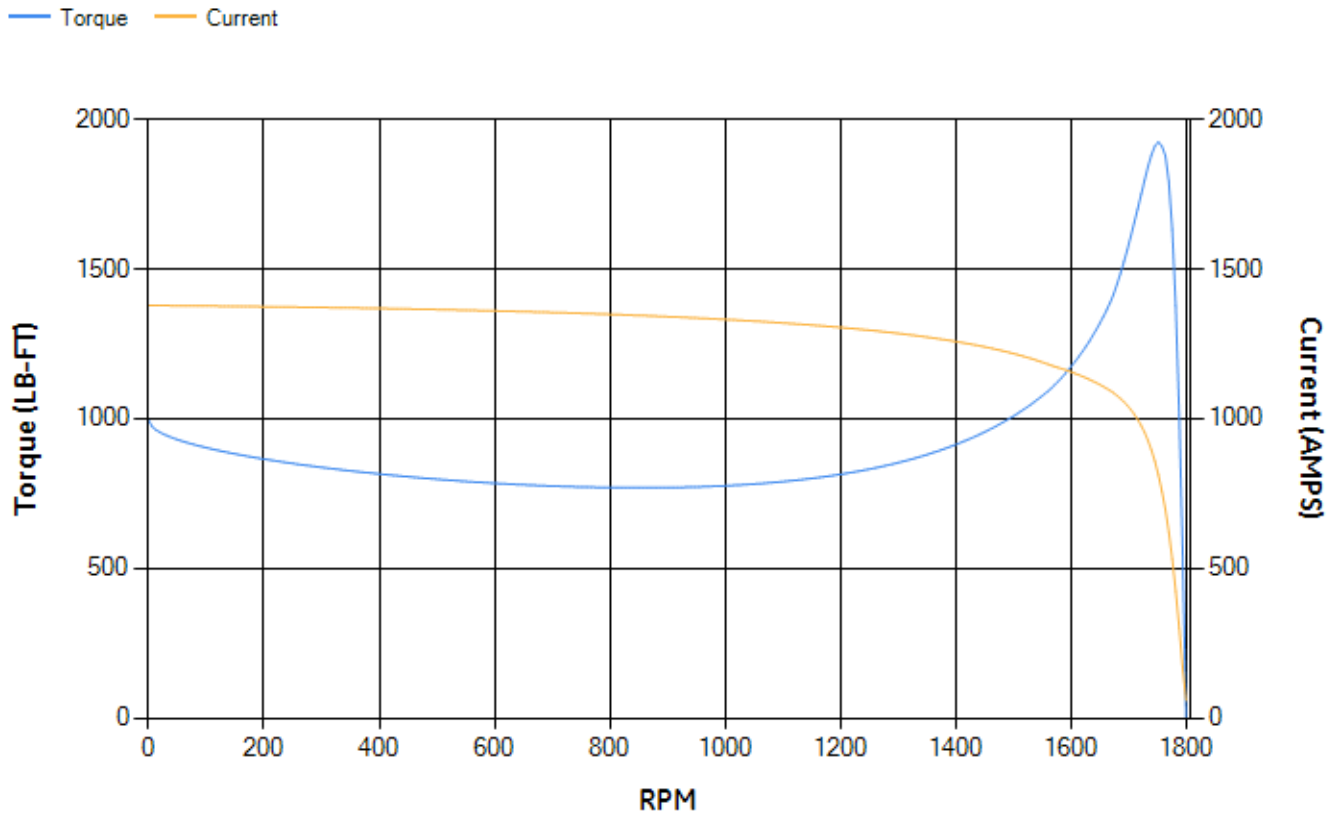
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	96.2	96.38	96.82	96.88	96.78	95.41	0.00
% PF	89.27	89.26	88.92	86.96	81.01	61.93	3.2
AMPS	272.48	250.2	217.41	166.65	119.37	79.2	58.45

<b>TORQ(FL)#FT</b>	733	<b>TORQ(LR)%FL</b>	135.72	<b>TORQ(BD)%FL</b>	262.22
<b>AMPS(LR)</b>	1378.13	<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 8394 Lb-Ft Sq (353.39 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 75 seconds. Safe stall time at 100% voltage is 176 seconds cold, 90 seconds hot. Rotor inertia is 138.63 Lb-Ft Sq (5.84 Kg-meter Sq).

<b>Open Circuit A-C:</b>	1.884	<b>Short Circuit D-C:</b>	0.04
<b>Short Circuit A-C:</b>	0.072	<b>X/R Ratio:</b>	14.919
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

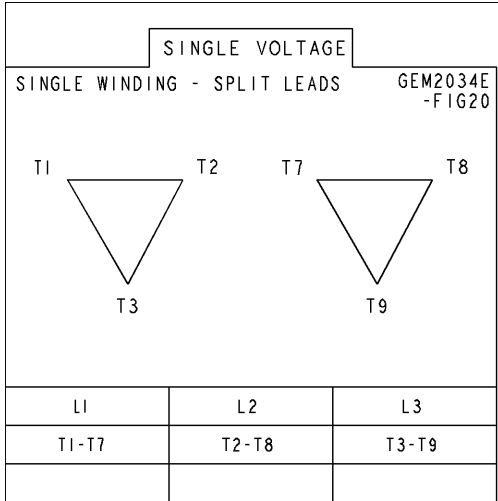
**Speed Torque Current Curve (First Connection, First Speed)**





Marks:

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



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E4355AA1	115E4355LL1
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	118D4408AD2

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	