

Product Information Packet

May 26, 2017

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

Model Number:	5KAF324SAA222C
Catalog Number:	M9310
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG9
Outline Drawing:	239C5000AZ

Accessory Connection Diagrams			
Bearing Thermocouple:	None	Heater:	None
RTD:	None	Thermistor:	None
Thermostat:	3027JE-2A	Winding Thermocouple:	None
Bearing RTD:	None		

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Marks:

MODEL NUMBER:	5KAF324SAA222C		
Outline Drawing:	239C5000AZ	Service Factor:	1.15
Connection Diagram:	GEM2034E-FIG9	Alt Service Factor:	--
Instruction Book:	GEI-56128	ASD Type:	PWM
Design Code:	32BD1068A	Time Rating:	CONT
Type:	KAF	Enclosure:	TEFC
Frame:	324TFCZ	Encl Construction:	A\$D
Phases:	3	Ambient Max (°C):	40
Poles:	4	Alt Ambient Max(°C):	--
Output Power:	40HP 29.6KW	Insulation Class:	H
Output Power (2):	40HP 29.6KW	NEMA Design:	-
Output Power (3):	0HP 0KW	Nominal Efficiency:	94.5 %
RPM:	2670	Guaranteed Efficiency:	93.6 %
RPM (2):	1780	3/4 Load Efficiency:	94.5 %
RPM (3):	0	KVA Code:	G
Voltage:	230/460	Max KVAR:	14.4
Voltage (2):	230/460	Power Factor:	82.0
Voltage (3):	6/13	Service Factor SINE:	1
Hertz:	90	Service Factor ASD:	1
Hertz – 2:	60	Min Supply Wires:	75 C
Hertz – 3:	0.7	IP:	55
Amps – FL:	91.8/45.9	Vibration Limit:	0.04 mm/s
Amps – FL- 2:	96.6/48.3	Bearing Lubrication:	MOBIL POLYREX EM
Amps - FL- 3:	96.6/48.3	Bearing - DE:	6312ZC3
Speed Range RPM:	1-1780	Bearing - ODE:	6312ZC3
Const HP RPM:	1780-2670	Estimated Weight:	670 Lbs

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

ALTERNATE RATING FOR PWM CONTROL: 1.0SF 40C AMB
 INVERTER DUTY CONSTANT TORQUE RANGE: 0-60HZ
 THERMOSTAT LEADS TB1-TB2 TRIP
 CLASS H INS WITH CLASS F RISE AT 1.00SF,
 INVERTER DUTY PER NEMA MG1 PART 31
 WITH PWM CONTROL

Additional Information:

4P - T EXTN
 C/BOX 346 CU IN - 3.00" NPT
 OIL RESISTANT SLEEVING ON LEADS
 TACH PROVISION MOTOR
 (3)N.C. CL F TRIP TSTAT LDS TO MAIN CONDUIT BOX
 GROUND PAD
 F1 MOUNTING
 PAINTED ODE ACCESSORY RABBET
 SHAFT GROUNDING RING MOUNTED ON DE BRG CAP



WHEN TACH / ENCODER IS USED, ITS MANDATED TO BE
USED IN CONTROL CIRCUITS PER CLASS 2 CIRCUITS OF
CANADIAN ELECTRIC COMMISSION RULE 16-222(1)(A)

Performance Characteristics

1st Winding 1st Connection

Design: 32BD1068A

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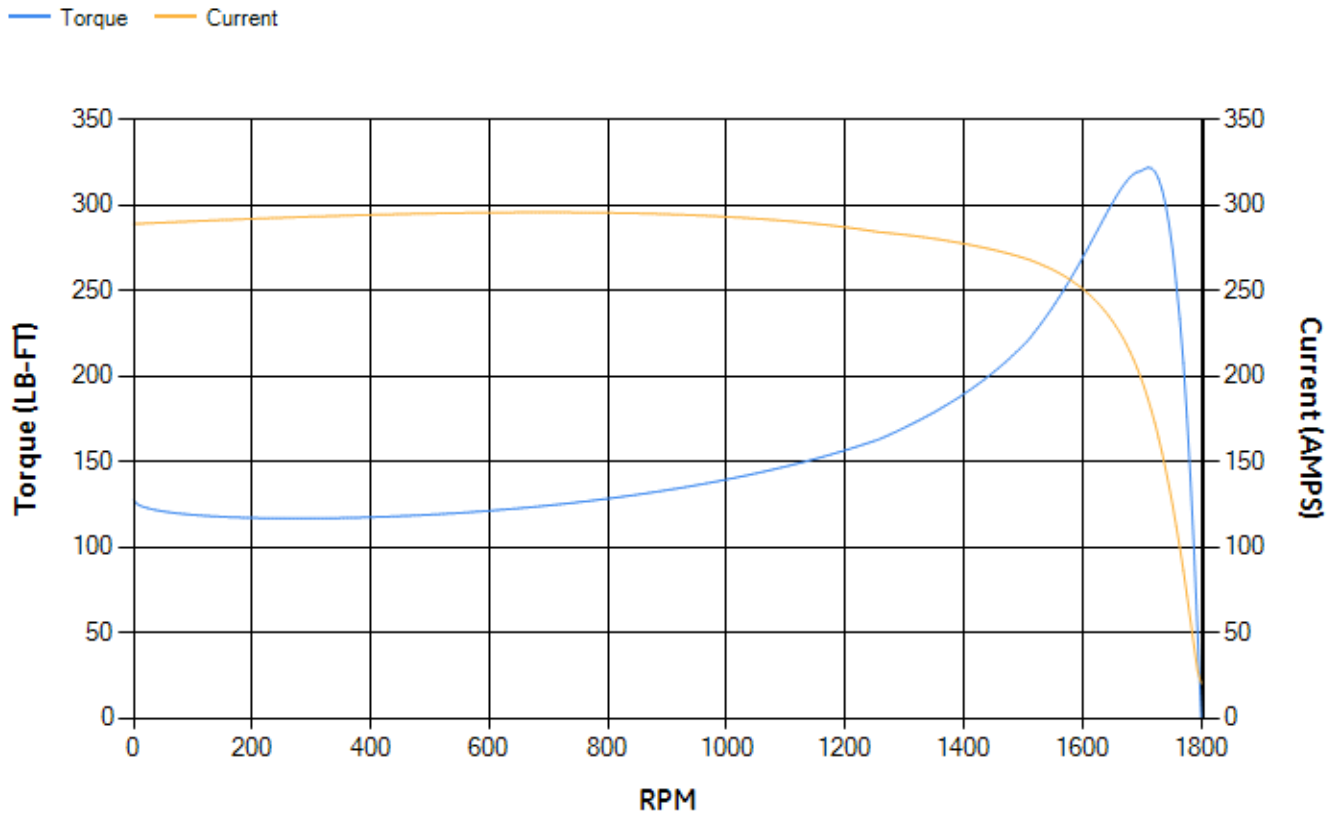
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	93.8	94.05	94.54	94.55	94.04	91.02	0.00
% PF	83.96	83.33	81.82	77	66.57	44.16	3.77
AMPS	59.42	54.94	48.3	38.57	29.9	23.28	20.13

TORQ(FL)#FT	118	TORQ(LR)%FL	108.24	TORQ(BD)%FL	270.44
AMPS(LR)	288.85	PF AT START	0.21		

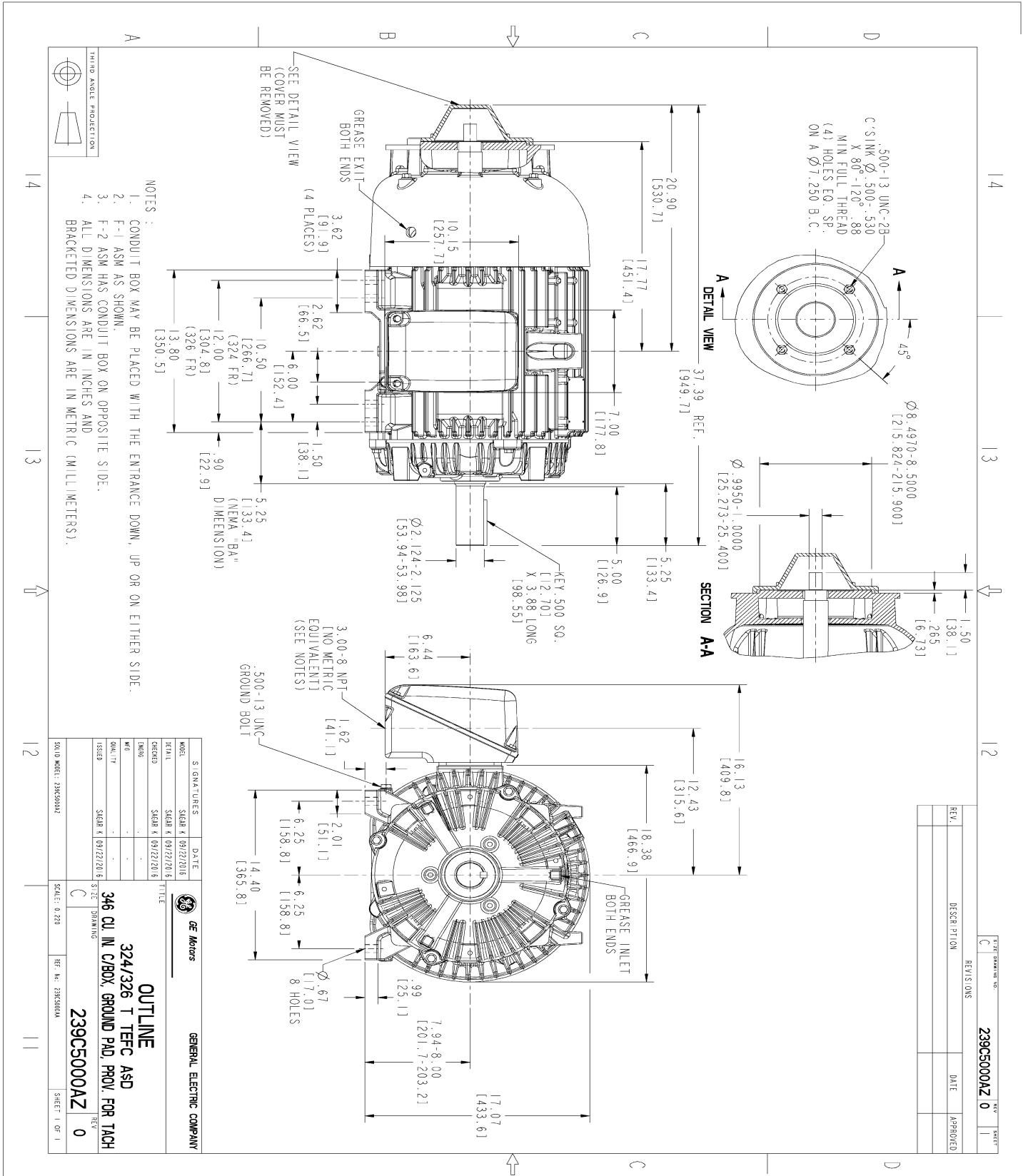
This motor is capable of two cold or one hot start with a maximum connected load inertia of 1840 Lb-Ft Sq (77.46 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 90 seconds. Safe stall time at 100% voltage is 194 seconds cold, 111 seconds hot. Rotor inertia is 7.33 Lb-Ft Sq (0.31 Kg-meter Sq).

Open Circuit A-C:	0.533	Short Circuit D-C:	0.021
Short Circuit A-C:	0.031	X/R Ratio:	8.075
Stator Slots:	48	Rotor Slots:	38

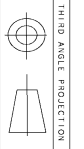
Speed Torque Current Curve (First Connection, First Speed)



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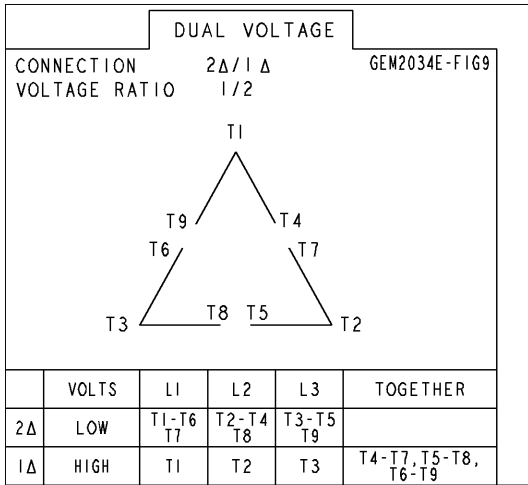


- NOTES:
1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE DOWN, UP OR ON EITHER SIDE.
 2. F-1 ASM AS SHOWN.
 3. F-2 ASM HAS CONDUIT BOX ON OPPOSITE SIDE.
 4. ALL DIMENSIONS ARE IN INCHES AND BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS).

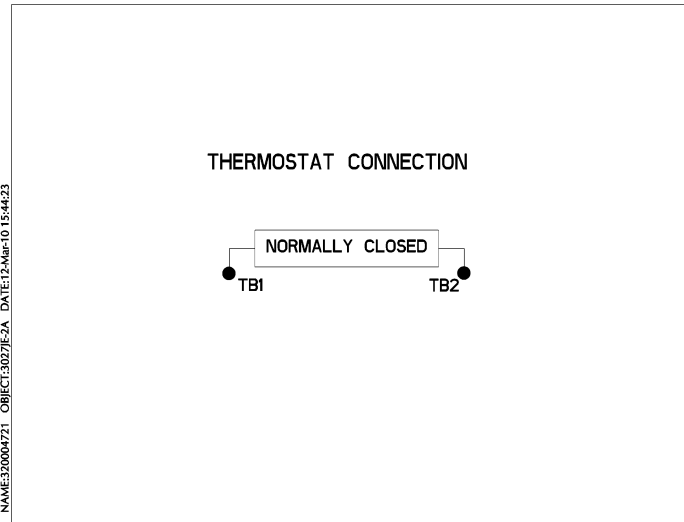


Marks:

Connection Diagram
GEM2034E-FIG9



Thermostat Connection
3027JE-2A



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E4200AA1	179B8801AA-G03
Bearing	235A2609AA01	235A2609AA01
Slinger/Inproseal	149C4399G04	149C4399G04

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C6900G04
Fan Cover	

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	149C4429AA2

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	