

Product Information Packet

May 26, 2017

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

Model Number:	5KAF445SAA220A
Catalog Number:	M9320
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG7
Outline Drawing:	239C5600AA

Accessory Connection Diagrams			
Bearing Thermocouple:	None	Heater:	None
RTD:	None	Thermistor:	None
Thermostat:	None	Winding Thermocouple:	None
Bearing RTD:	None		

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Marks:

MODEL NUMBER:	5KAF445SAA220A		
Outline Drawing:	239C5600AA	Service Factor:	1.15
Connection Diagram:	GEM2034E-FIG7	Alt Service Factor:	1.00
Instruction Book:	GEI-56128	ASD Type:	PWM
Design Code:	44BD1049A	Time Rating:	CONT
Type:	KAF	Enclosure:	TEFC
Frame:	445T	Encl Construction:	A\$D
Phases:	3	Ambient Max (°C):	40
Poles:	4	Alt Ambient Max(°C):	65
Output Power:	150HP 111KW	Insulation Class:	H
Output Power (2):	150HP 111KW	NEMA Design:	--
Output Power (3):	0HP 0KW	Nominal Efficiency:	95.8 %
RPM:	2685	Guaranteed Efficiency:	95.0 %
RPM (2):	1790	3/4 Load Efficiency:	96.1 %
RPM (3):	0	KVA Code:	H
Voltage:	460	Max KVAR:	48.8
Voltage (2):	460	Power Factor:	85.0
Voltage (3):	7	Service Factor SINE:	1
Hertz:	90	Service Factor ASD:	1
Hertz – 2:	60	Min Supply Wires:	75 C
Hertz – 3:	0.4	IP:	55
Amps – FL:	163	Vibration Limit:	--
Amps – FL- 2:	172.0	Bearing Lubrication:	MOBIL POLYREX EM
Amps - FL- 3:	172.0	Bearing - DE:	6318ZC3
Speed Range RPM:	1-1790	Bearing - ODE:	6318ZC3-VL0241
Const HP RPM:	1790-2685	Estimated Weight:	1880 Lbs

Enclosure is Totally Enclosed Fan-Cooled**Stamped Nameplate Notes:**

ALTERNATE RATING INVERTER DUTY 1.0 SF 40C AMBIENT
 SUITABLE FOR CONSTANT TORQUE;PWM OPERATION;0-60HZ
 THERMOSTAT LEADS PC-PC TRIP

Additional Information:

4P - T EXTN
 700 CU IN - 3.00" NPT
 E/S GROUND BOLT MTD ON DE C/BOX SIDE NEAR FOOT
 OIL RESISTANT SLEEVING ON LEADS
 TACH PROVISION MOTOR
 N.C. TRIP TSTAT LDS TO MAIN CONDUIT BOX
 PAINTED ODE ACCESSORY RABBET
 SHAFT GROUND RING #235A4970AG8 MOUNTED ON
 DE BEARING CAP



Performance Characteristics

1st Winding 1st Connection

Design: 44BD1049A

Marks:

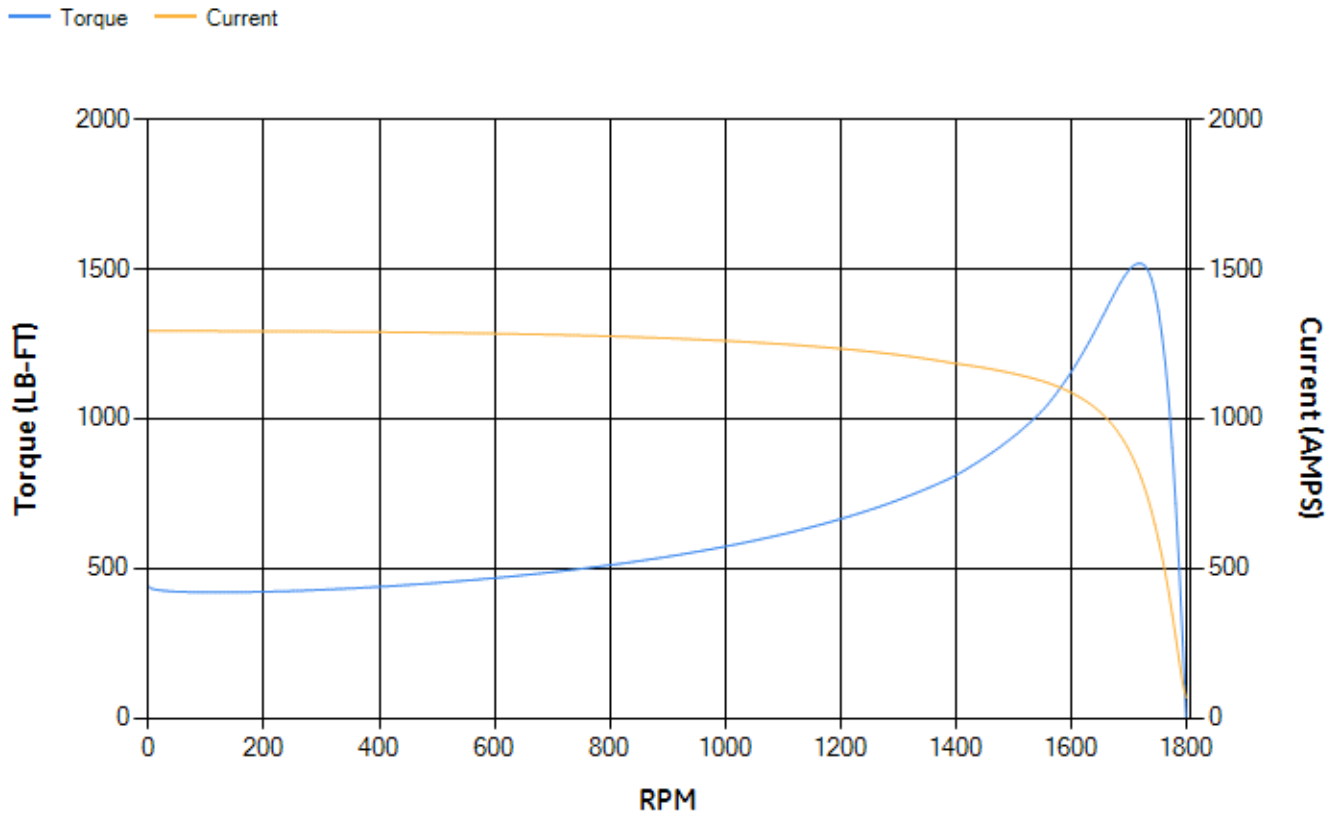
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.91	96.02	96.34	96.12	95.57	93.01	0.00
% PF	87.23	86.57	85.09	80.5	70.46	47.59	3.42
AMPS	209.74	194.22	171.28	136.07	104.25	79.29	67.73

TORQ(FL)#FT	440.36	TORQ(LR)%FL	99.66	TORQ(BD)%FL	344.41
AMPS(LR)	1292.6	PF AT START	0.19		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 4919 Lb-Ft Sq (207.09 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 58 seconds. Safe stall time at 100% voltage is 133 seconds cold, 69 seconds hot. Rotor inertia is 54.77 Lb-Ft Sq (2.31 Kg-meter Sq).

Open Circuit A-C:	0.969	Short Circuit D-C:	0.03
Short Circuit A-C:	0.048	X/R Ratio:	11.475
Stator Slots:	72	Rotor Slots:	58

Speed Torque Current Curve (First Connection, First Speed)



Marks:

Connection Diagram
GEM2034E-FIG7

