

Product Information Packet

May 26, 2017

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

Model Number:	5KAF405SAA221B
Catalog Number:	M9316
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG9
Outline Drawing:	239C5400AA

Accessory Connection Diagrams

Bearing Thermocouple:	None	Heater:	None
RTD:	None	Thermistor:	None
Thermostat:	None	Winding Thermocouple:	None
Bearing RTD:	None		

Table of Contents

Specification	01
Performance Characteristics	02
Outline Drawing	03
Connection Drawing(s)	04



Marks:

MODEL NUMBER:	5KAF405SAA221B		
Outline Drawing:	239C5400AA	Service Factor:	1.00
Connection Diagram:	GEM2034E-FIG9	Alt Service Factor:	1.00
Instruction Book:	GEI-56128	ASD Type:	PWM
Design Code:	40BD1059A	Time Rating:	CONT
Type:	KAF	Enclosure:	TEFC
Frame:	405T	Encl Construction:	A\$D
Phases:	3	Ambient Max (°C):	40
Poles:	4	Alt Ambient Max(°C):	65
Output Power:	100HP 74KW	Insulation Class:	H
Output Power (2):	100HP 74KW	NEMA Design:	--
Output Power (3):	0HP 0KW	Nominal Efficiency:	95.8 %
RPM:	2680	Guaranteed Efficiency:	95.0 %
RPM (2):	1790	3/4 Load Efficiency:	95.9 %
RPM (3):	0	KVA Code:	J
Voltage:	230/460	Max KVAR:	39.1
Voltage (2):	230/460	Power Factor:	82.0
Voltage (3):	4.5/9	Service Factor SINE:	1
Hertz:	90	Service Factor ASD:	1
Hertz – 2:	60	Min Supply Wires:	75 C
Hertz – 3:	0.5	IP:	55
Amps – FL:	224/112	Vibration Limit:	--
Amps – FL- 2:	238.0/119.0	Bearing Lubrication:	MOBIL POLYREX EM
Amps - FL- 3:	238.0/119.0	Bearing - DE:	6316ZC3
Speed Range RPM:	1-1790	Bearing - ODE:	6316ZC3
Const HP RPM:	1790-2680	Estimated Weight:	1460 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
 STAINLESS STEEL T DRAIN
 PAINTED ODE ACCESSORY RABBET
 SGR #235A4970AG7 MOUNTED ON DE BRG CAP



Performance Characteristics

1st Winding 1st Connection

Design: 40BD1059A

Marks:

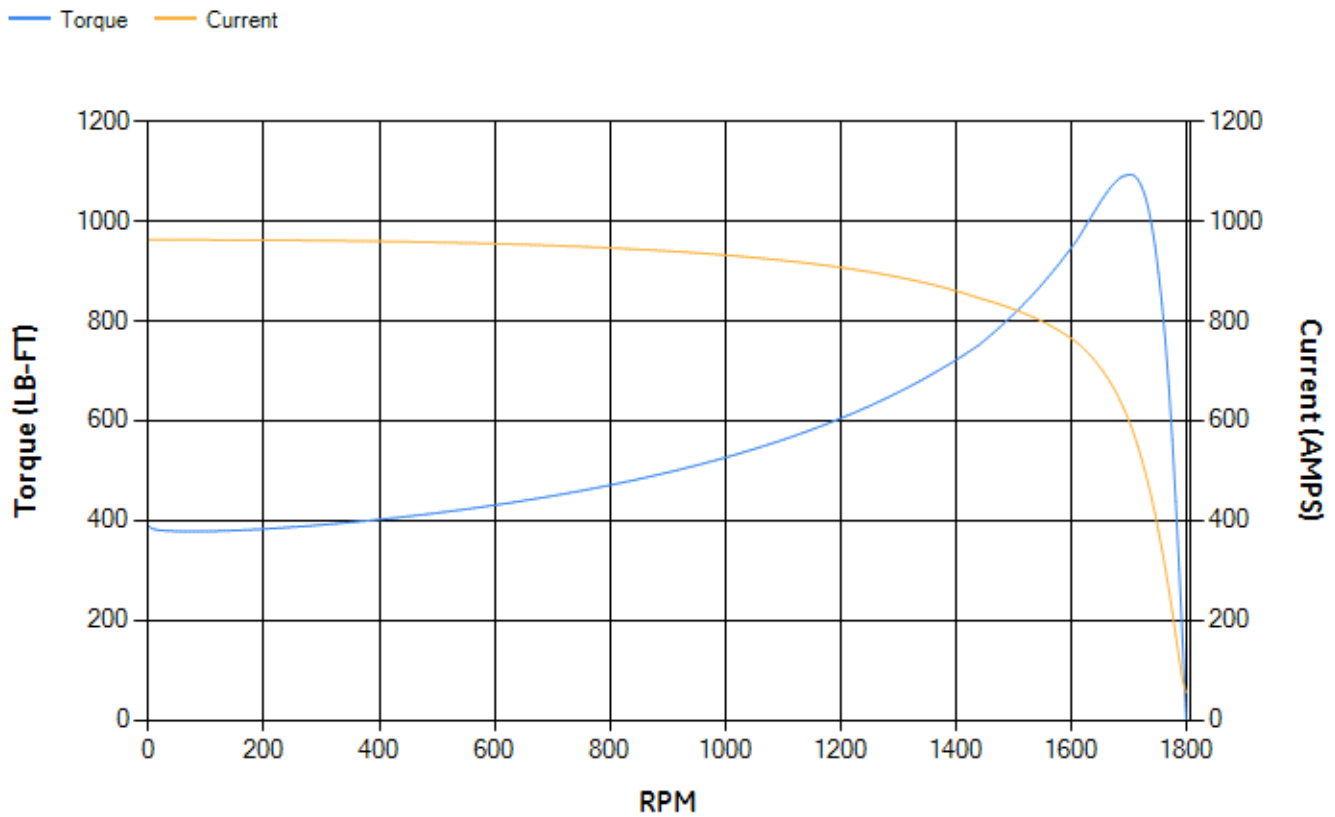
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.8	95.88	96.16	95.85	95.14	92.19	0.00
% PF	85.12	84.13	82.06	76.18	64.54	41.51	3.24
AMPS	143.47	133.43	118.63	96.13	76.21	61.14	54.35

TORQ(FL)#FT	293.61	TORQ(LR)%FL	132.25	TORQ(BD)%FL	371.41
AMPS(LR)	962.44	PF AT START	0.24		

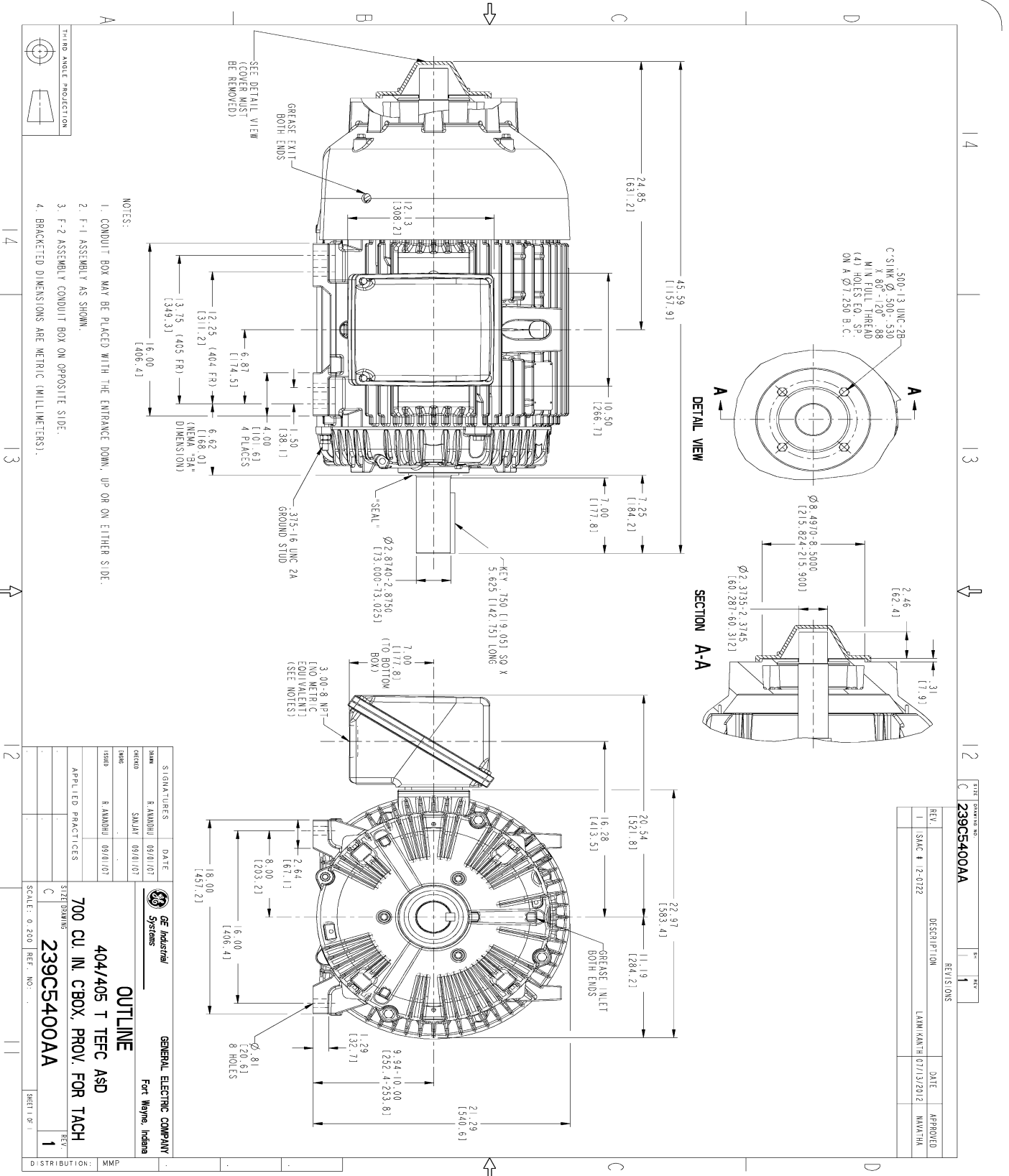
This motor is capable of two cold or one hot start with a maximum connected load inertia of 4395 Lb-Ft Sq (185.03 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 56 seconds. Safe stall time at 100% voltage is 122 seconds cold, 76 seconds hot. Rotor inertia is 23.36 Lb-Ft Sq (0.98 Kg-meter Sq).

Open Circuit A-C:	0.793	Short Circuit D-C:	0.027
Short Circuit A-C:	0.041	X/R Ratio:	10.223
Stator Slots:	72	Rotor Slots:	58

Speed Torque Current Curve (First Connection, First Speed)



Marks:



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

REV.	DESCRIPTION	DATE	APPROVED
1	SMC # 12-0122	LAKMIKANTH 07/13/2012	NAVATHA

SIGNATURES	DATE	GENERAL ELECTRIC COMPANY
R. ANANDHU	09/10/07	Fort Wayne, Indiana
SANJAY	09/10/07	
R. ANANDHU	09/10/07	

OUTLINE

404/405 T TEFC ASD

700 CU IN. CBOX, PROV. FOR TACH

239C5400AA

SCALE: 0.200 REF. NO. SHEET 1 OF 1

Marks:

Connection Diagram
GEM2034E-FIG9

