

Product Information Packet

November 29, 2018

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

Model Number:	5KGS405SAA221D1
Catalog Number:	M8994
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG1
Outline Drawing:	239C6400AA

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:	5KGS405SAA221D1	Estimated Weight:	1550 Lbs
Outline Drawing:	239C6400AA	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG1	Enclosure:	TEFC
Instruction Book:	GEI-56128	Encl Construction:	X\$D
Design Code:	40BD1161A	Ambient Max(°C):	40
Type:	KGS	Alt Ambient Max(°C):	--
Frame:	405T	Insulation Class:	H
Phases:	3	NEMA Design:	C
Poles:	4	Nominal Efficiency:	95.4 %
Output Power:	100HP 74KW	Guaranteed Efficiency:	95.0 %
RPM:	1780	3/4 Load Efficiency:	95.8 %
Voltage:	460	KVA Code:	G
Hertz:	60	Max KVAR:	28.6
Amps - FL:	115.0	Power Factor:	85.5
Service Factor:	1.15	Bearing - DE:	NU 316
Alt Service Factor:	--	Bearing - ODE:	6316ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

400V, 50HZ 134.0 AMPS AT 1.0SF
 ROLLER BEARING - FOR BELTED LOAD ONLY
 THERMOSTAT LEADS TB1-TB2 TRIP
 STAMP NP249A5564P051 AS BELOW:
 MODEL:5KGS405SAA221D1 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 --C CHP PWM CONTROL
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB
 VT 0 - 60 HZ, CT 20-60 HZ, CHP -- HZ.

Additional Information:

4P - T EXTN
 700 CU IN - 3.00" NPT
 OIL RESISTANT SLEEVING ON LEADS
 B5F4C4 HIGH FATIGUE STEEL AISI 4142 SHAFT MATERIAL
 N.C. TRIP TSTAT LDS TO MAIN CONDUIT BOX
 F1 MOUNTING

Performance Characteristics

1st Winding 1st Connection

Design: 40BD1161A

Marks:

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	94.69	94.98	95.55	95.77	95.72	94.04	0.00
% PF	86.51	86.23	85.35	81.92	73.36	51.34	3
AMPS	142.82	131.42	114.77	89.47	66.64	48.46	39.91

TORQ(FL)#FT 295.33
AMPS(LR) 720.3

TORQ(LR)%FL 274.67
PF AT START 0.46

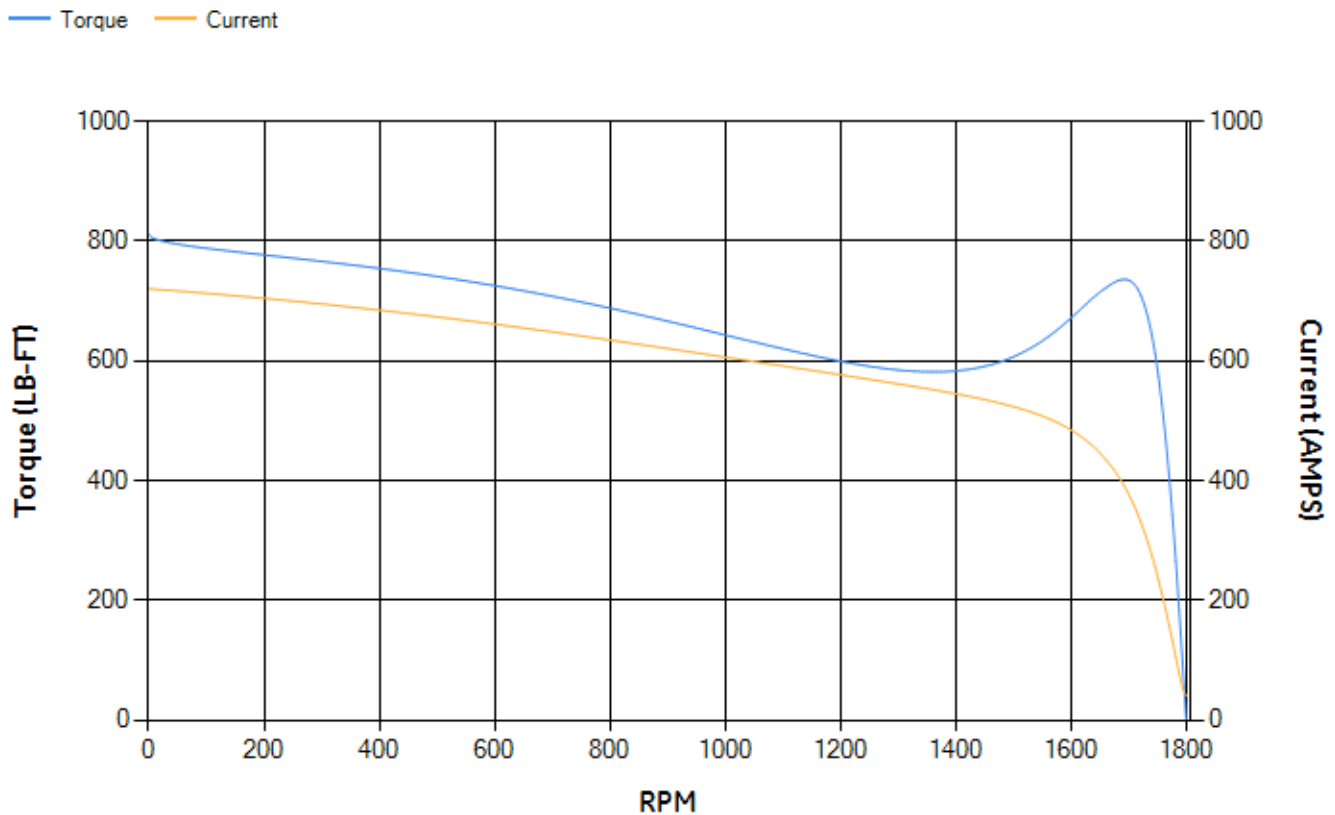
TORQ(BD)%FL 248.77

This motor is capable of two cold or one hot start with a maximum connected load inertia of 1924 Lb-Ft Sq (81 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 19 seconds. Safe stall time at 100% voltage is 44 seconds cold, 23 seconds hot. Rotor inertia is 30.61 Lb-Ft Sq (1.29 Kg-meter Sq).

Open Circuit A-C: 0.601
Short Circuit A-C: 0.026
Stator Slots: 72

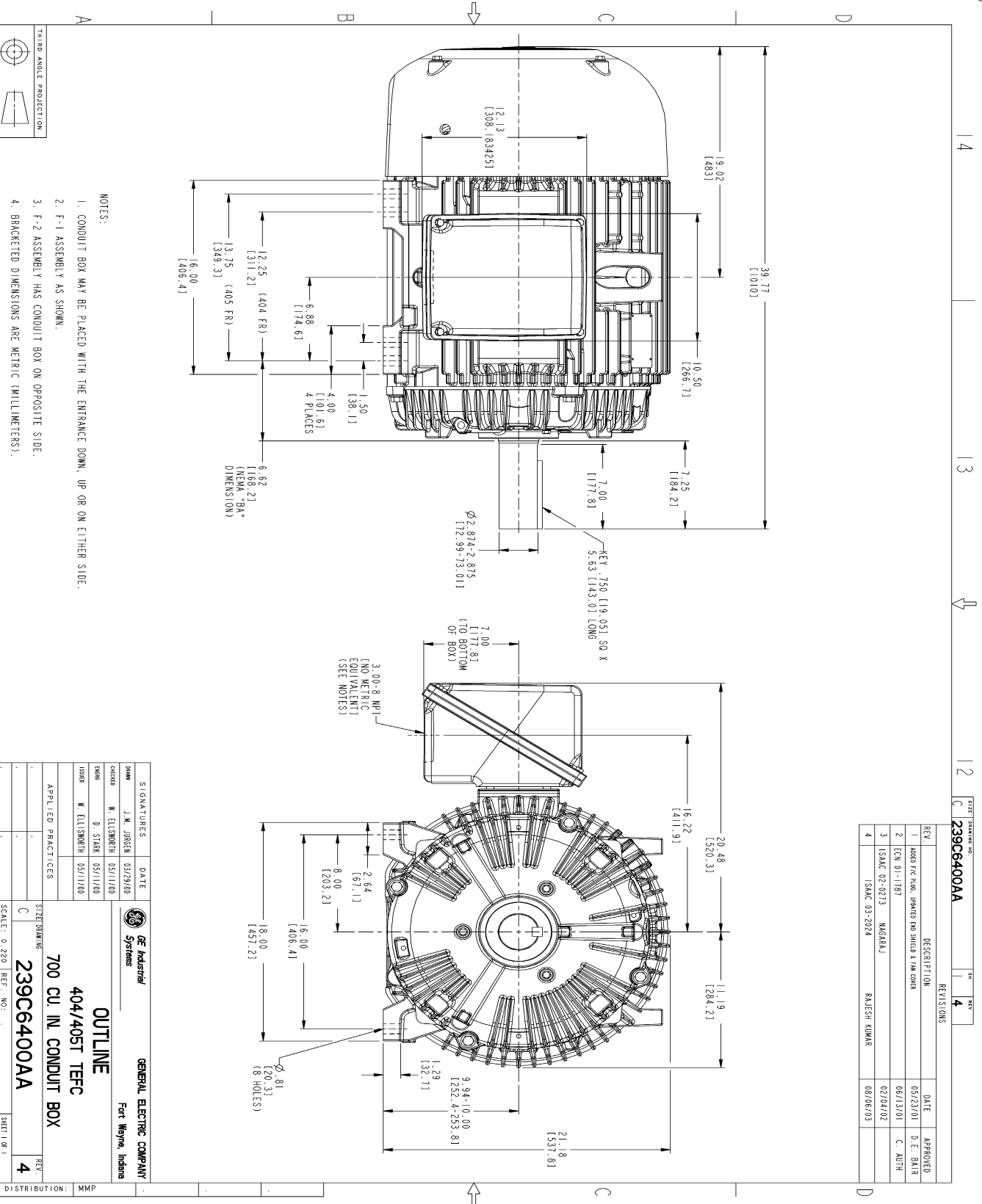
Short Circuit D-C: 0.021
X/R Ratio: 8.059
Rotor Slots: 58

Speed Torque Current Curve (First Connection, First Speed)



NAME: 103016807 OBJECT: 239C6400AA DATE: 08-Aug-03 09:32:41

Marks:



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

REV.	DESCRIPTION	DATE	APPROVED
1	ADDED FFC RING, IMPROVED END SHIELD & FAN COVER	05/23/01	D. E. BAIR
2	ECN 01-1183	06/13/01	C. ALTH
3	ISMAC 02-0273 MARGRAJ	02/04/02	
4	ISMAC 03-2024 RAJESH KUMAR	08/06/03	

SIGNATURES	DATE	GENERAL ELECTRIC COMPANY
DWG: J.M. JUREN	03/29/00	Fort Wayne, Indiana
checked: W. ELLISWORTH	05/11/00	
Drawn: D. STARK	05/11/00	
checked: W. ELLISWORTH	05/11/00	

OUTLINE
404/405T TEFC
700 CU. IN. CONDUIT BOX

SCALE: 0.220 REF. NO.:
SHEET 1 OF 1

SIZE DRAWING NO. 239C6400AA

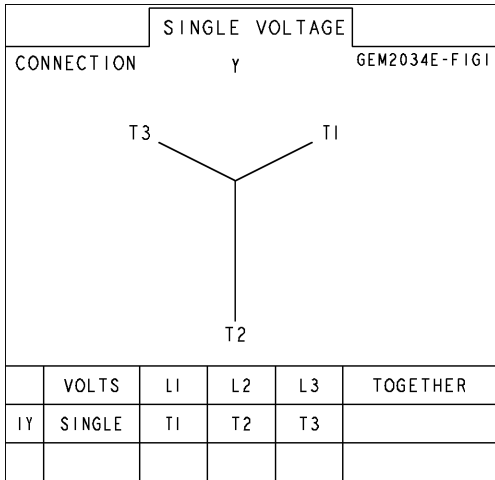
REV 4

REVISIONS

DISTRIBUTION: MMP

Marks:

Connection Diagram
GEM2034E-FIG1



Thermostat Connection
3027JE-2A



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E4304AA1	115E4304LK1
Bearing	235A2526AA01	235A2518AC01
Slinger/Inproseal	149C4399G06	149C4399G06

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C7100AA1
Fan Cover	128D6832AA1

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	118D4408AD2

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	