

# Product Information Packet

January 12, 2017

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

<b>Model Number:</b>	<b>5KGS445SAA220D3</b>
<b>Catalog Number:</b>	<b>M8996</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG20
<b>Outline Drawing:</b>	239C6600AA

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

## Table of Contents

Specification	01
Performance Characteristics	02
Outline Drawing	03
Connection Drawing(s)	04
Spare parts	05



**Marks:**

<b>MODEL NUMBER:</b>	<b>5KGS445SAA220D3</b>	<b>Estimated Weight:</b>	2060 Lbs
<b>Outline Drawing:</b>	239C6600AA	<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>	44BD1159A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KGS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	445T	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	C
<b>Poles:</b>	4	<b>Nominal Efficiency:</b>	95.8 %
<b>Output Power:</b>	150HP 111KW	<b>Guaranteed Efficiency:</b>	95.4
<b>RPM:</b>	1780	<b>3/4 Load Efficiency:</b>	96.0
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	42.9
<b>Amps - FL:</b>	170.0	<b>Power Factor:</b>	86.0
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	NU 318
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	6318ZC3

**Enclosure is Totally Enclosed Fan-Cooled**

**Stamped Nameplate Notes:**

ROLLER BEARING - FOR BELTED LOAD ONLY  
 THERMOSTAT LEADS TB1-TB2 TRIP  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KGS445SAA220D3 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 215C CT OR ---C CHP PWM CONTROL  
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB  
 VT 0 - 60 HZ, CT 45-60 HZ, CHP -- 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  
 N.C. TRIP TSTAT LDS TO MAIN CONDUIT BOX  
 F1 MOUNTING  
 TEFC XSD ULTRA STOCK 09/21/2016  
 ENGINEERED BY: BALASUBRAMANIANH/BILURP

**Performance Characteristics**

1st Winding 1st Connection

**Design: 44BD1159A**

**Marks:**

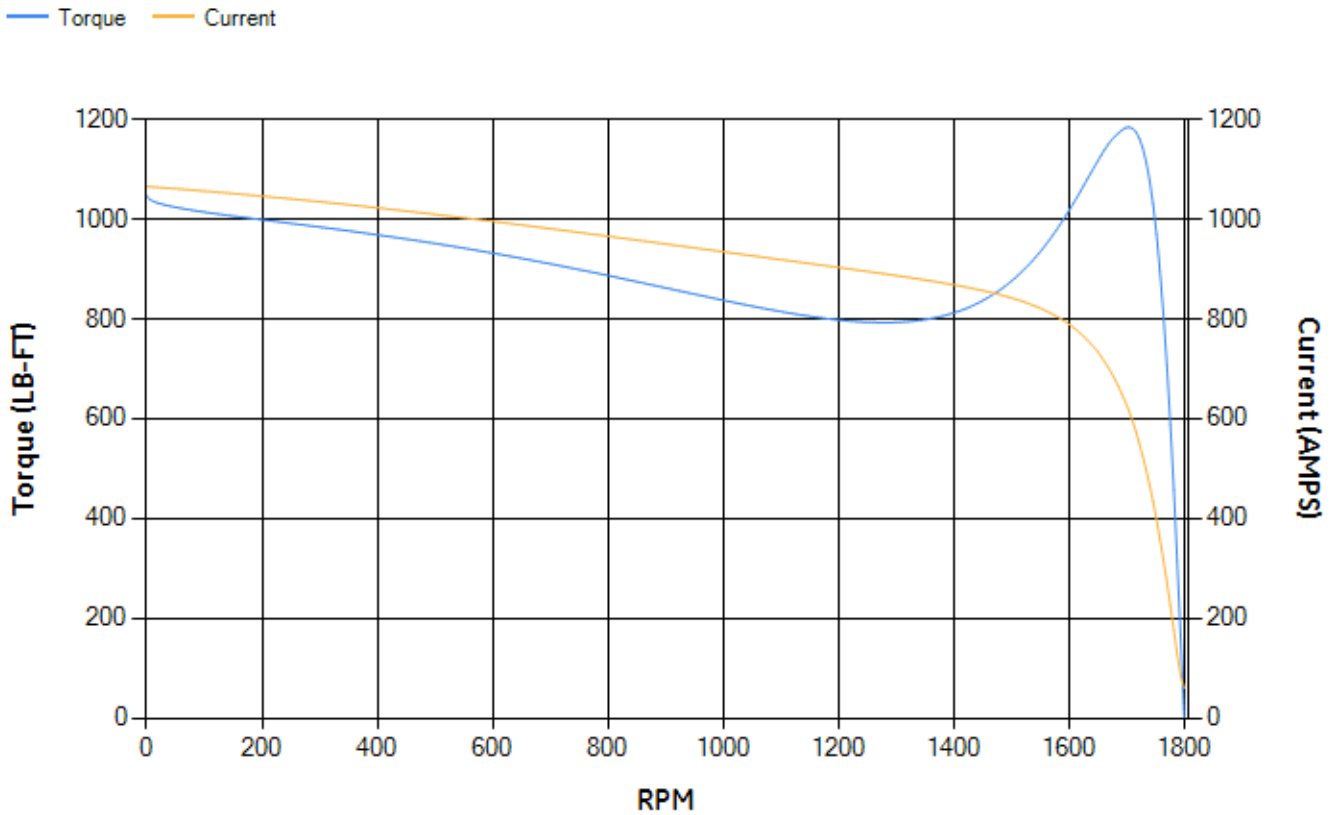
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.29	95.5	95.96	96	95.76	93.77	0.00
% PF	87.04	86.71	85.76	82.25	73.63	51.61	3.29
AMPS	211.58	194.97	170.6	133.34	99.55	72.53	59.76

<b>TORQ(FL)#FT</b>	442.26	<b>TORQ(LR)%FL</b>	236.6	<b>TORQ(BD)%FL</b>	267.39
<b>AMPS(LR)</b>	1065.36	<b>PF AT START</b>	0.41		

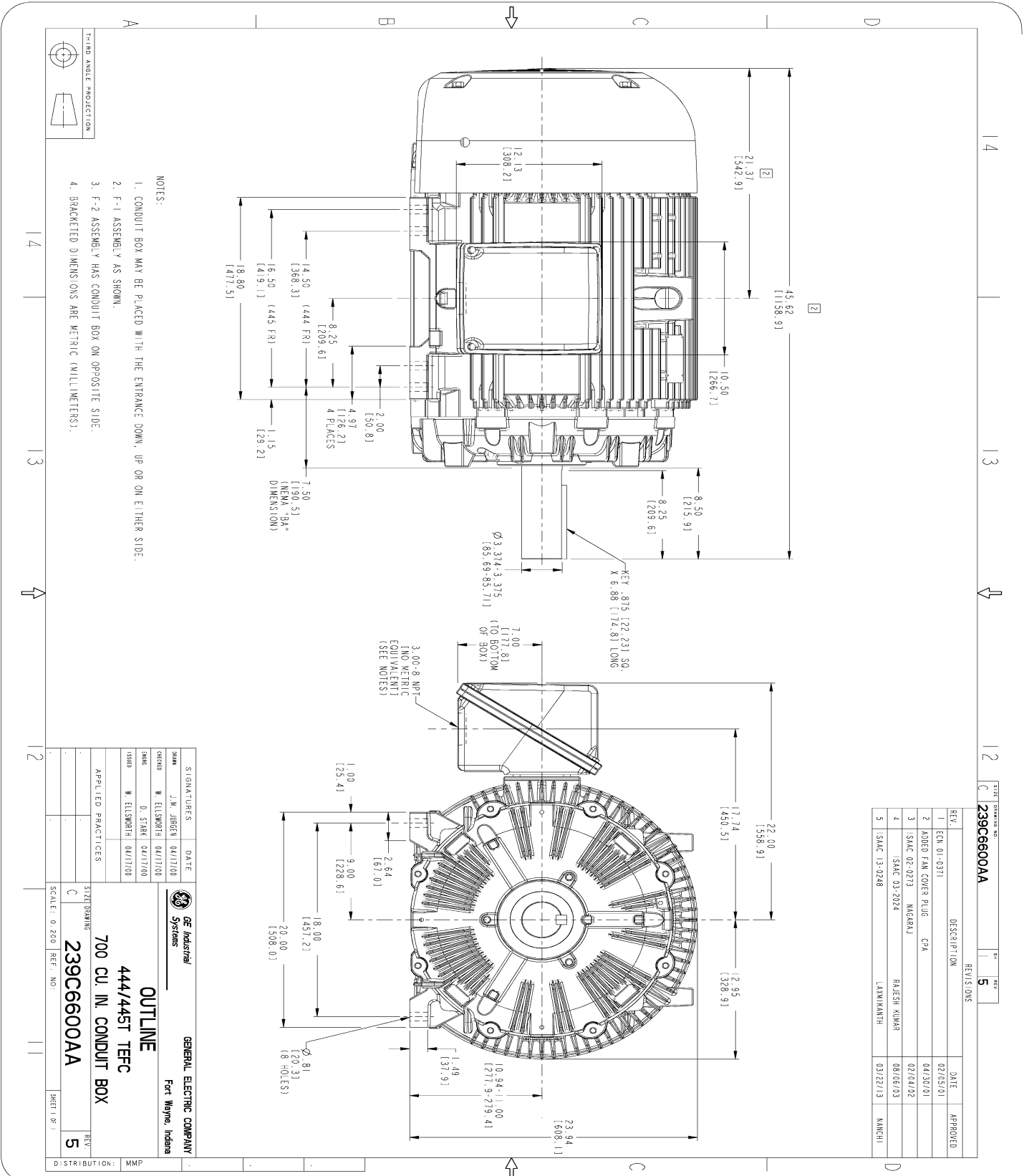
This motor is capable of two cold or one hot start with a maximum connected load inertia of 2408 Lb-Ft Sq (101.38 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 19 seconds. Safe stall time at 100% voltage is 43 seconds cold, 22 seconds hot. Rotor inertia is 71.88 Lb-Ft Sq (3.03 Kg-meter Sq).

<b>Open Circuit A-C:</b>	0.681	<b>Short Circuit D-C:</b>	0.029
<b>Short Circuit A-C:</b>	0.031	<b>X/R Ratio:</b>	10.907
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

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



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	ECH 01-0371	02/05/01	
2	ADDED FAN COVER FIG. CPA	04/30/01	
3	SAC 02-0273 MARGRAJ	02/04/02	
4	SAC 03-2024	08/06/03	
5	SAC 13-0248	03/22/13	MANCHI

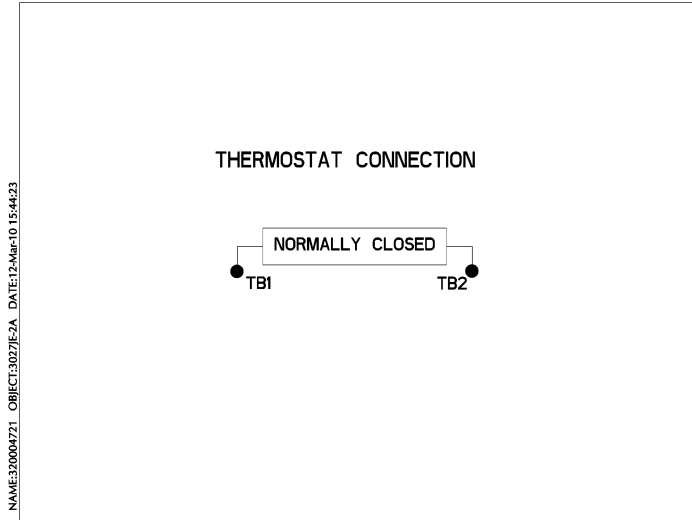
SIGNATURES	DATE	 <b>GENERAL ELECTRIC COMPANY</b> Fort Wayne, Indiana
J.M. JIRGEN 04/17/00 W. ELSWORTH 04/17/00 D. STARK 04/17/00 W. ELSWORTH 04/17/00		
APPLIED PRACTICES		700 CU. IN. CONDUIT BOX 239C6600AA S
SCALE: 0.200 REF. NO.		SHEET 1 OF 1

Marks:

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



**Thermostat Connection**  
**3027JE-2A**



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	

