

# Product Information Packet

November 8, 2016

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

<b>Model Number:</b>	<b>5KS324XAA408D9</b>
<b>Catalog Number:</b>	<b>M9441</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG7
<b>Outline Drawing:</b>	239C6000RJ

<b>Accessory Connection Diagrams</b>			
<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	None
<b>RTD:</b>	None	<b>Thermistor:</b>	None
<b>Thermostat:</b>	None	<b>Winding Thermocouple:</b>	None
<b>Bearing RTD:</b>	None		

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**Marks:**

<b>MODEL NUMBER:</b>	<b>5KS324XAA408D9</b>	<b>Estimated Weight:</b>	620 Lbs
<b>Outline Drawing:</b>	239C6000RJ	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG7	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEI-56128	<b>Encl Construction:</b>	841
<b>Design Code:</b>	32BD4036A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	324T	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	8	<b>Nominal Efficiency:</b>	90.2 %
<b>Output Power:</b>	20HP 14.8KW	<b>Guaranteed Efficiency:</b>	89.5
<b>RPM:</b>	880	<b>3/4 Load Efficiency:</b>	90.7
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	12.8
<b>Amps - FL:</b>	31.0	<b>Power Factor:</b>	67.0
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6312ZC3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	6312ZC3

**Enclosure is Totally Enclosed Fan-Cooled**

**Stamped Nameplate Notes:**

IEEE-STD-841-2009  
 DE BRG 60BC03JP30, ODE BRG 60BC03JP30  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS324XAA408D9 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 -25C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR  
 SURF TEMP 215C AT 1.15SF ON SINE-WAVE PWR  
 OR 200C VT OR 230C CT OR 200C CHP PWM CONTROL  
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB  
 VT 0-60 HZ, CT 4-60 HZ, CHP 60-90 HZ.

**Additional Information:**

8P - T EXTN  
 PAINTED FRAME ID & SHAFT,  
 FAN COVER INSIDE & ODE E/S OUTSIDE  
 346 CU IN - 3.00" NPT  
 INPRO SEAL BOTH ENDS  
 OIL RESISTANT SLEEVING ON LEADS  
 .0015" TIR SHAFT RUNOUT  
 ROUTINE TEST REPORT AND 5 POINT VIBRATION TEST  
 REPORT INCLUDED IN C/B  
 COPPER WASHER UNDER HEADS OF BEARING CAP BOLTS,  
 APPLY TITE-SEAL (A50CD427A) ON BEARING CAP SCREWS,  
 RABBETS AND PLUG THREADS.  
 GROUND PAD  
 F1 MOUNTING



**Performance Characteristics**

1st Winding 1st Connection

**Design: 32BD4036A**

**Marks:**

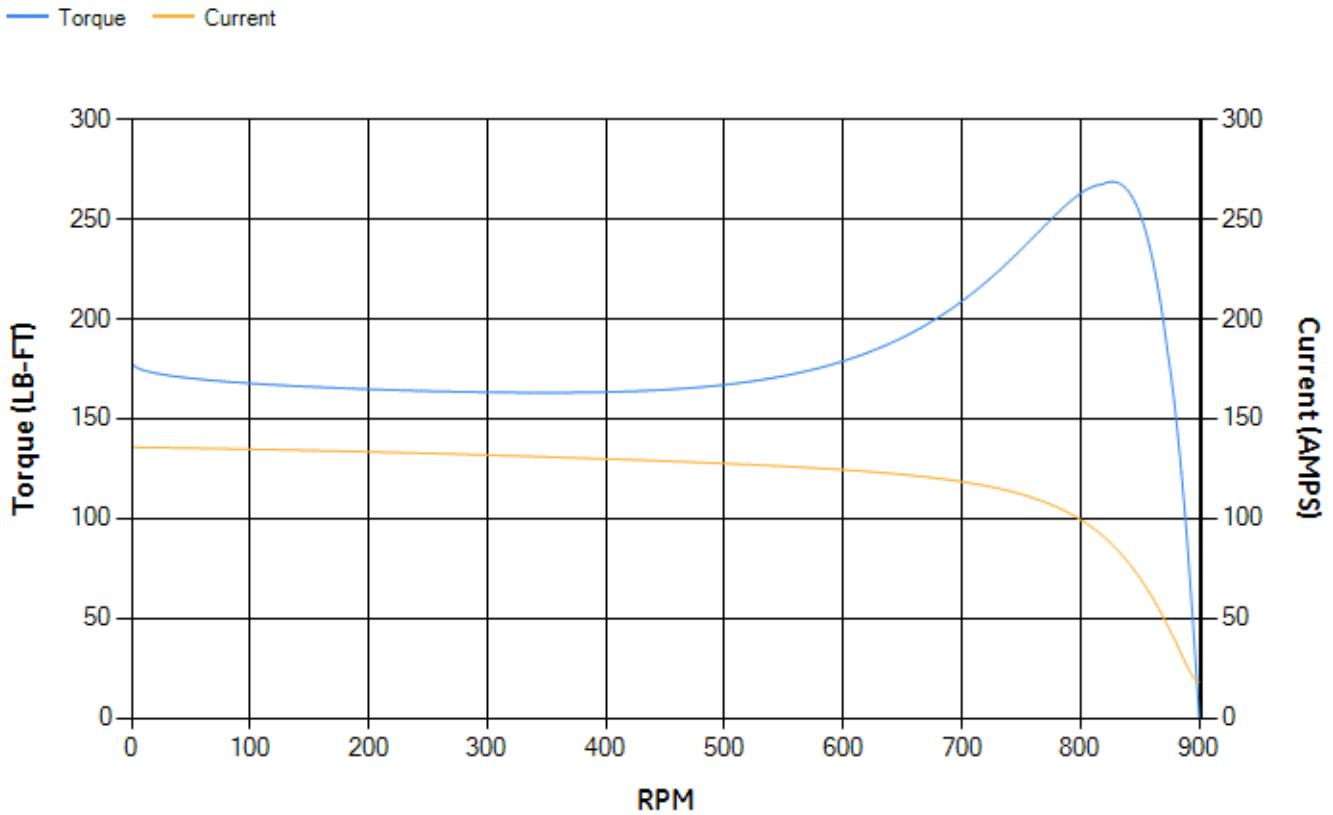
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	89.16	89.69	90.49	90.68	89.78	84.71	0.00
% PF	70.48	69.38	66.88	59.84	47.73	28.93	3.89
AMPS	37.24	34.59	30.9	25.87	21.84	19.1	17.85

<b>TORQ(FL)#FT</b>	119.3	<b>TORQ(LR)%FL</b>	149.36	<b>TORQ(BD)%FL</b>	223.27
<b>AMPS(LR)</b>	135.65	<b>PF AT START</b>	0.35		

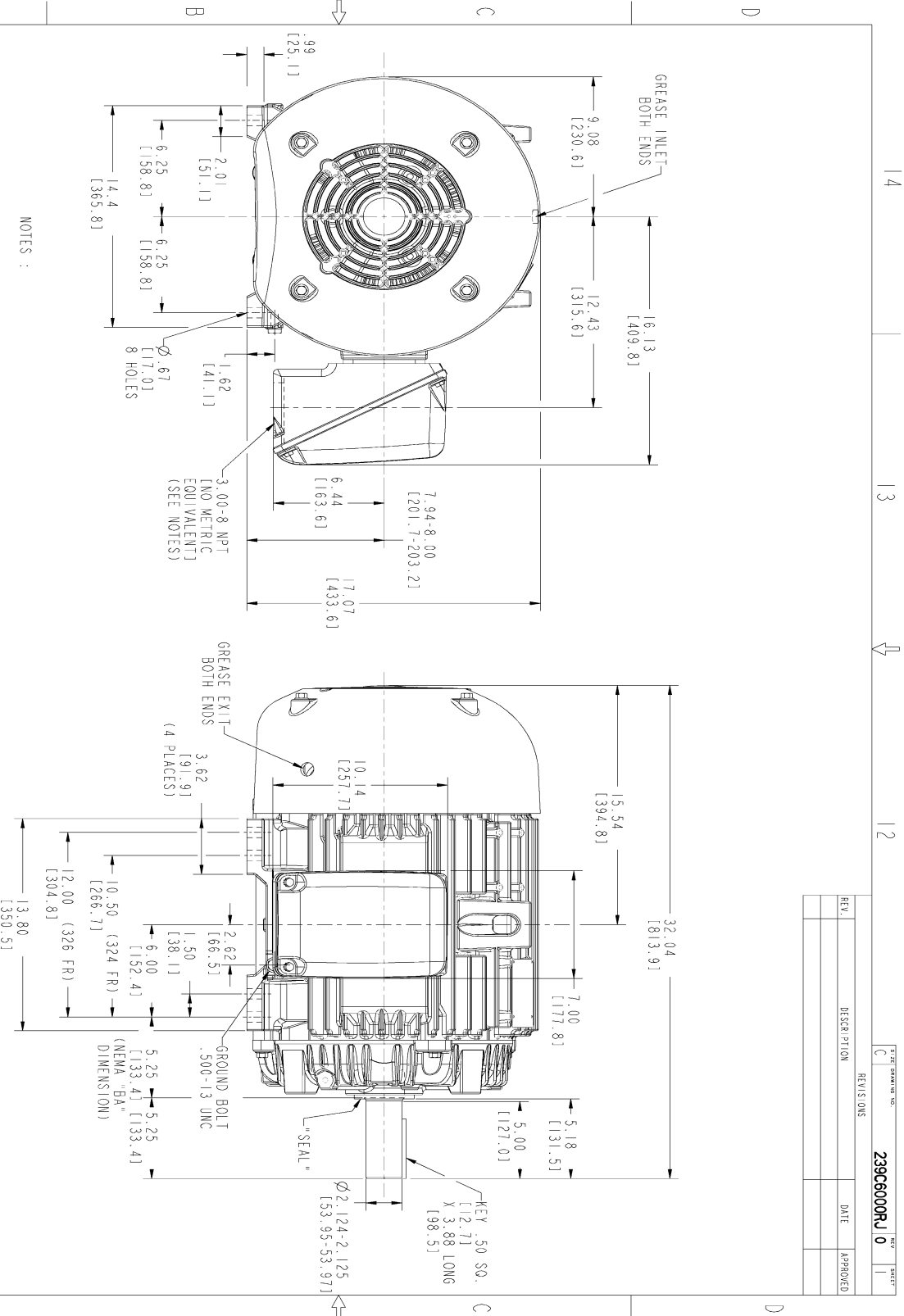
This motor is capable of two cold or one hot start with a maximum connected load inertia of 3547 Lb-Ft Sq (149.33 Kg-meter Sq) at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 71 seconds. Safe stall time at 100% voltage is 149 seconds cold, 85 seconds hot. Rotor inertia is 7.25 Lb-Ft Sq (0.31 Kg-meter Sq).

<b>Open Circuit A-C:</b>	0.185	<b>Short Circuit D-C:</b>	0.016
<b>Short Circuit A-C:</b>	0.02	<b>X/R Ratio:</b>	6.118
<b>Stator Slots:</b>	54	<b>Rotor Slots:</b>	40

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

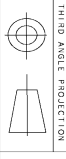


Marks:



NOTES :

1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE DOWN, UP OR ON EITHER SIDE.
2. F-1 ASM AS SHOWN.
3. BRACKETED DIMENSIONS ARE METRIC (MILLIMETERS).
4. TOLERANCE ON PERMISSIBLE SHAFT EXTENSION RUNOUT IS .0015 T.I.R.

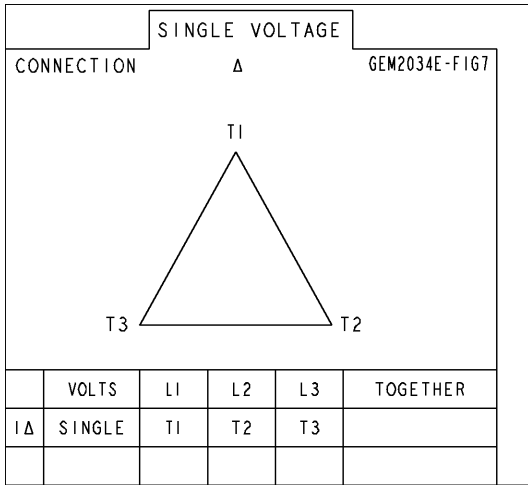


REV.	DESCRIPTION	DATE	APPROVED

SIGNATURES		DATE	
MODEL	TEJASNI	06/19/15	
SCALE	TEJASNI	06/19/15	
DESIGN	KANTHIK	06/19/15	
CHKD	VENKAT	06/19/15	
DATE	TEJASNI	06/19/15	
ISSUED	TEJASNI	06/19/15	
TITLE			
 <b>OUTLINE</b> 324/326 T TFC XSD 94I 346 CU IN CONDUIT BOX			
SCALE: 0.250			
REF. NO: 239C6000RJ			
SHEET 1 OF 1			

Marks:

**Connection Diagram**  
**GEM2034E-FIG7**



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E4200AA1	115E4200LA1
Bearing	235A2609AA01	235A2609AA01
Slinger/Inproseal	235A4575GS2	235A4575GS2

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C7000G01
Fan Cover	128D6800AA1

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

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	