

# Product Information Packet

January 12, 2017

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

<b>Model Number:</b>	<b>5KS509SAA125B</b>
<b>Catalog Number:</b>	<b>Q533</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG20
<b>Outline Drawing:</b>	239C6A00HP

Accessory Connection Diagrams			
<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	3027JE-1C
<b>RTD:</b>	None	<b>Thermistor:</b>	None
<b>Thermostat:</b>	None	<b>Winding Thermocouple:</b>	None
<b>Bearing RTD:</b>	235A3027NA		

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**Marks:**

<b>MODEL NUMBER:</b>	<b>5KS509SAA125B</b>	<b>Estimated Weight:</b>	4563 Lbs
<b>Outline Drawing:</b>	239C6A00HP	<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>	SD
<b>Design Code:</b>	50BD0233A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	509LS	<b>Insulation Class:</b>	F
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	2	<b>Nominal Efficiency:</b>	95.8 %
<b>Output Power:</b>	300HP 222KW	<b>Guaranteed Efficiency:</b>	95.0
<b>RPM:</b>	3565	<b>3/4 Load Efficiency:</b>	95.9
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	42.1
<b>Amps - FL:</b>	313.0	<b>Power Factor:</b>	93.5
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6315ZC3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	6315ZC3

**Enclosure is Totally Enclosed Fan-Cooled**

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**Stamped Nameplate Notes:**

HTR LDS HE1-HE2 115V 350W  
 ROT CCW FACING ODE LEAD/PH SEQUENCE 3-2-1/1-2-3  
 INVERTER DUTY PER NEMA MG1 PART 31  
 ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT  
 VAR TORQUE RANGE 0-60 HZ  
 FOR DIRECT COUPLED LOAD ONLY

**Additional Information:**

2P - LS EXTN - SPLIT LEAD  
 1260 CU IN - 2(4.00" NPT)  
 C/B GRD PLATE  
 115V HTR LDS TO AUX BOX OPP MAIN CONDUIT BOX  
 SPACE HEATER CAUTION NAMEPLATE  
 NEMA TYPE GRD PAD  
 F1 MOUNTING  
 PROVISION FOR BTD ON BOTH ENDS PLUGGED

**Performance Characteristics**

1st Winding 1st Connection

**Design: 50BD0233A**

**Marks:**

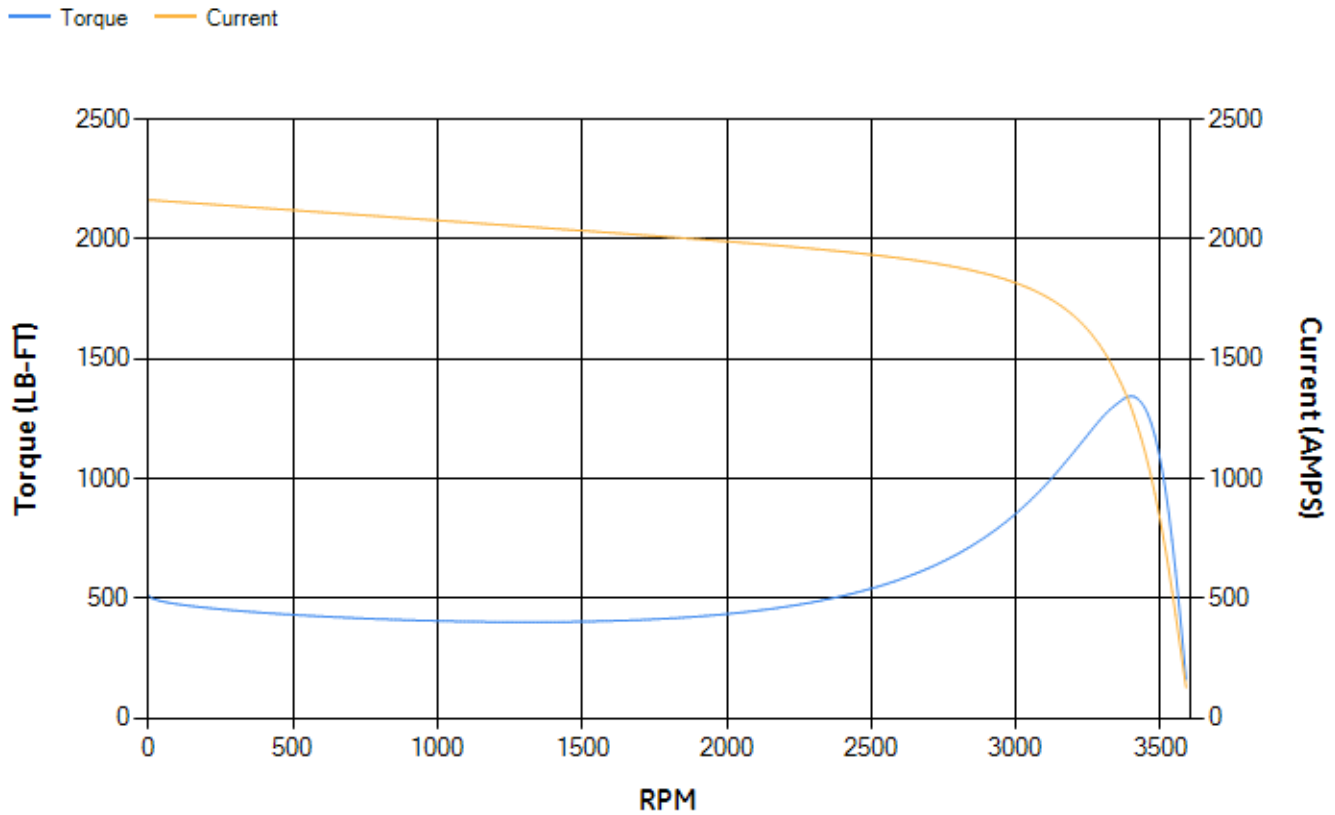
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.36	95.54	95.96	95.92	95.56	93.31	0.00
% PF	93.34	93.46	93.46	92.66	89.5	76.5	7.18
AMPS	394.31	361.59	312.61	236.94	164.14	98.34	58.74

<b>TORQ(FL)#FT</b>	441.91	<b>TORQ(LR)%FL</b>	115.7	<b>TORQ(BD)%FL</b>	303.57
<b>AMPS(LR)</b>	2163.44	<b>PF AT START</b>	0.17		

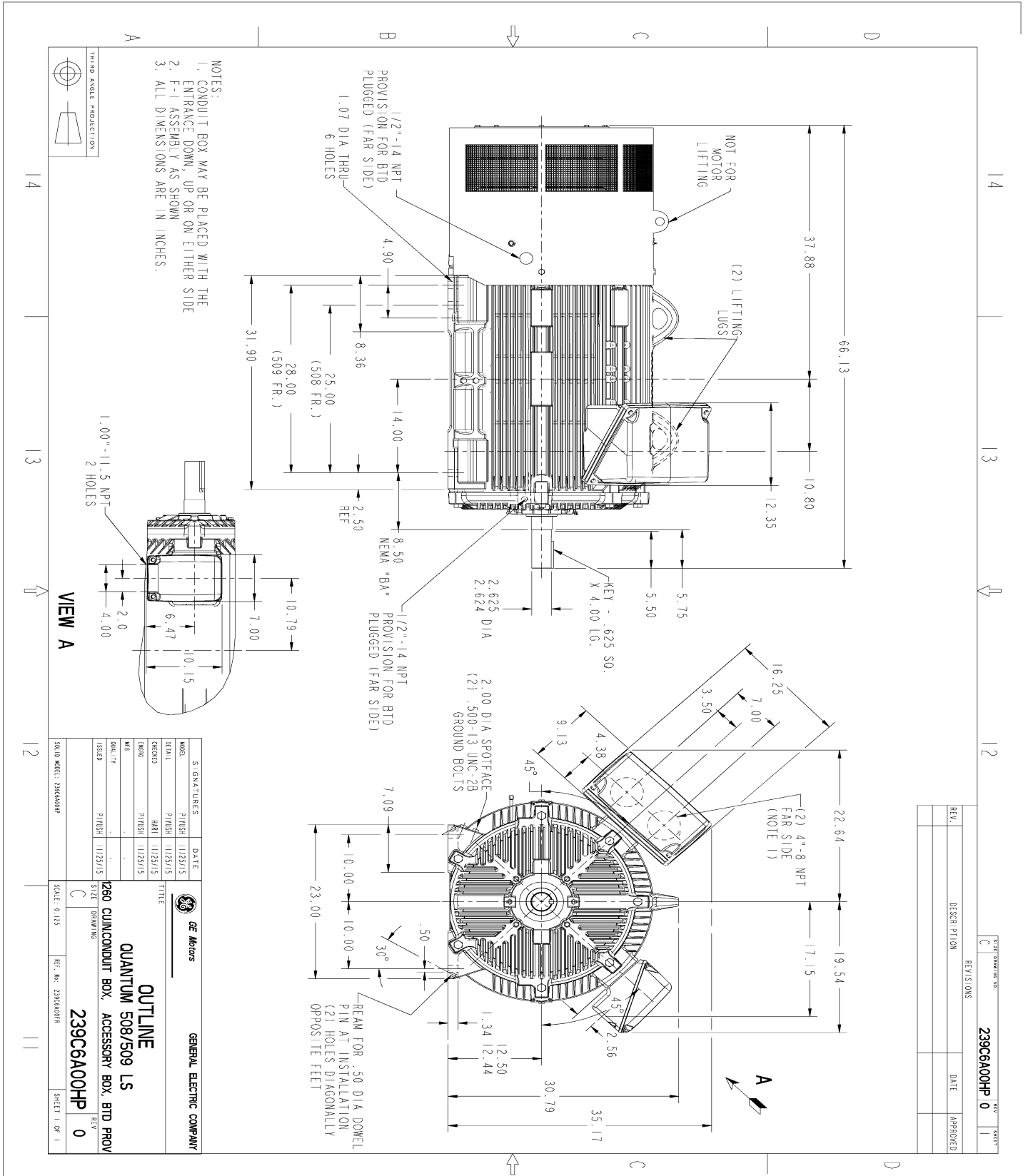
This motor is capable of two cold or one hot start with a maximum connected load inertia of 745 Lb-Ft Sq (31.36 Kg-meter Sq) at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 23 seconds. Safe stall time at 100% voltage is 46 seconds cold, 27 seconds hot. Rotor inertia is 80.45 Lb-Ft Sq (3.39 Kg-meter Sq).

<b>Open Circuit A-C:</b>	1.428	<b>Short Circuit D-C:</b>	0.047
<b>Short Circuit A-C:</b>	0.041	<b>X/R Ratio:</b>	17.639
<b>Stator Slots:</b>	48	<b>Rotor Slots:</b>	40

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



Marks:

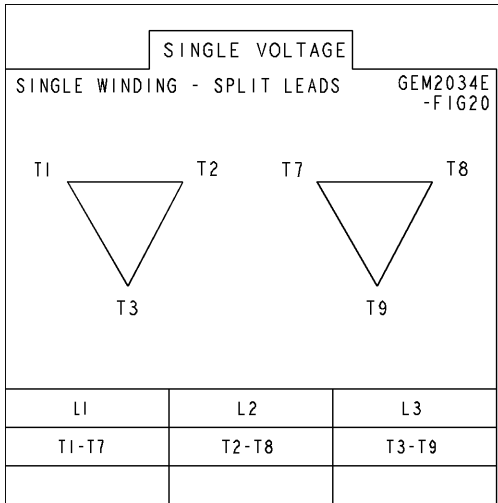


REV.	DESCRIPTION	DATE	APPROVED

SIGNATURES	DATE	 <b>GENERAL ELECTRIC COMPANY</b> <b>OUTLINE</b> <b>QUANTUM 508/509 LS</b> <b>1260 CONDUIT BOX, ACCESSORY BOX, BTD PROV</b> <b>239C6A00HP</b>
DESIGNER	11/29/15	
ENGINEER	11/29/15	
CHECKED	11/29/15	
DATE	11/29/15	
SCALE: 0.125	REF. NO. 239K400R	SHEET 1 OF 1

Marks:

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



**Heater Connection**  
**3027JE-1C**



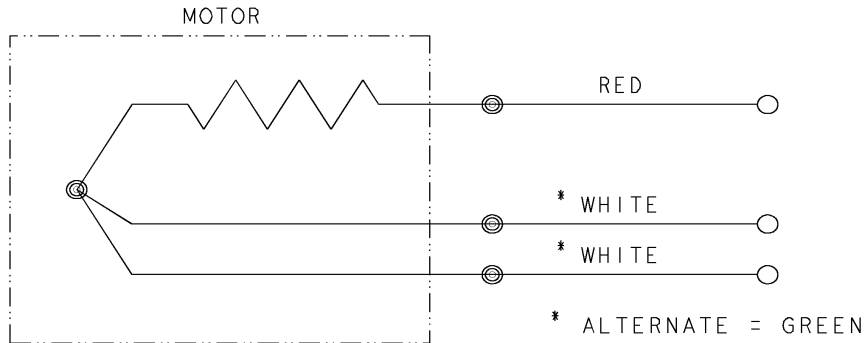


REV   1 SH   SIZE   A DWG NO   235A3027NA	THIRD ANGLE PROJECTION		REVISIONS			
			REV	DESCRIPTION	DATE	APPROVED
	1	ISAAC #12-1124	HARI	11/19/12	KARTHIK	

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# BEARING RTDS



UNLESS OTHERWISE SPECIFIED	SIGNATURES	DATE
DIMENSIONS ARE IN INCHES	DRAWN D.E. BAIR	12/16/92
TOLERANCES ON:	CHECKED D.E. BAIR	12/16/92
2 PL DECIMALS ±	ENGRG K. DESAI	12/16/92
3 PL DECIMALS ±	ISSUED D.E. BAIR	12/16/92
ANGLES ±		
FRACTIONS ±		
MATERIAL:		
APPLIED PRACTICES:	CAD NO. F500:235A3027NA	

**GE Motors**

Fort Wayne, Indiana

## CONNECTION DIAGRAM

BEARING RTDS

SIZE A	FSCM NO	DWG NO 235A3027NA
SCALE 1/1	SHEET 1 OF 1	

DISTR TO

End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E5200AE1	115E5200AD1
Bearing	235A2513AG01	235A2513AG01
Slinger/Inproseal	149C4399G10	149C4399G10

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	148C8068BA1
Fan Cover	119D3661AA4

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	179B9058G03

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	