

Product Information Packet

January 13, 2017

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

Model Number:	5KS513XAA322A
Catalog Number:	Q874
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG20
Outline Drawing:	239C6C00FT

Accessory Connection Diagrams			
Bearing Thermocouple:	None	Heater:	3027JE-1
RTD:	235A3027WN	Thermistor:	None
Thermostat:	None	Winding Thermocouple:	None
Bearing RTD:	235A3027NA		

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Marks:

MODEL NUMBER:	5KS513XAA322A	Estimated Weight:	6859 Lbs
Outline Drawing:	239C6C00FT	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG20	Enclosure:	TEFC
Instruction Book:	GEI-56128	Encl Construction:	841
Design Code:	50BD3181A	Ambient Max(°C):	40
Type:	KS	Alt Ambient Max(°C):	--
Frame:	5013S	Insulation Class:	F
Phases:	3	NEMA Design:	--
Poles:	6	Nominal Efficiency:	96.2 %
Output Power:	500HP 370KW	Guaranteed Efficiency:	95.4
RPM:	1190	3/4 Load Efficiency:	96.5
Voltage:	460	KVA Code:	G
Hertz:	60	Max KVAR:	112.6
Amps - FL:	559.0	Power Factor:	87.0
Service Factor:	1.15	Bearing - DE:	6320ZC3
Alt Service Factor:	--	Bearing - ODE:	6320ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

EXCEPTION TO IEEE-STD-841-2009: SOUND POWER 93 DBA
TSTAT HTR LDS H 115V 200W
DE BRG 100BC03XP3, ODE BRG 100BC03XP3
INVERTER DUTY PER NEMA MG1 PART 31
ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT
VAR TORQUE RANGE 0-60 HZ
MAXIMUM EXPOSED INTERNAL AND EXTERNAL SURFACE
TEMPERATURES DO NOT EXCEED 200C UNDER USUAL
SERVICE CONDITIONS AT 1.0SF
MAXIMUM SPACE HEATER SURFACE TEMPERATURE FOR
NORMAL OPERATION AT RATED CONDITIONS 160C
STAMP NP249A5499AP AS BELOW:
MODEL:5KS513XAA322A S/N: XXX
EX NA IIC T3 GC CSA.09.2216219
CLASS I, ZONE 2, AEX NA IIC T3
CLASS I, DIV 2, GROUPS A, B, C, D T3
-25C <= TAMB <= 40C
FOR DIRECT COUPLED LOAD ONLY

Additional Information:

6P - S EXTN - SPLIT LEAD
PAINTED FRAME ID & SHAFT, FAN COVER INSIDE &
ODE E/S OUTSIDE
2500 CU IN - 2(4.00" NPT)
C/B GRD PLATE
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.
100 OHM WINDING RTD LEADS TO AUX C/BOX OPP MAIN C/BOX
SUGGESTED WINDING RTD SETTINGS
ALARM 165C TRIP 175C
115V TSTAT CTRLD HTR LDS TO AUX BOX OPP MAIN CONDUIT BOX
SPACE HEATER CAUTION NAMEPLATE
BEARING RTD 100 OHM ON BOTH ENDS
SUGGESTED BEARING RTD SETTINGS
ALARM 115C TRIP 125C
NEMA TYPE GRD PAD
F1 MOUNTING

Performance Characteristics

1st Winding 1st Connection

Design: 50BD3181A

Marks:

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.48	95.76	96.32	96.54	96.61	95.44	0.00
% PF	87.21	87.33	87.11	85.15	78.9	59.25	2.88
AMPS	702.46	643.52	557.99	426.93	306.96	206.88	156.53

TORQ(FL)#FT 2207.64
AMPS(LR) 3382.54

TORQ(LR)%FL 108.5
PF AT START 0.22

TORQ(BD)%FL 248.35

This motor is capable of two cold or one hot start with a maximum connected load inertia of 23430 Lb-Ft Sq (986.4 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 49 seconds. Safe stall time at 100% voltage is 107 seconds cold, 61 seconds hot. Rotor inertia is 340.65 Lb-Ft Sq (14.34 Kg-meter Sq).

Open Circuit A-C: 1.042

Short Circuit D-C: 0.038

Short Circuit A-C: 0.046

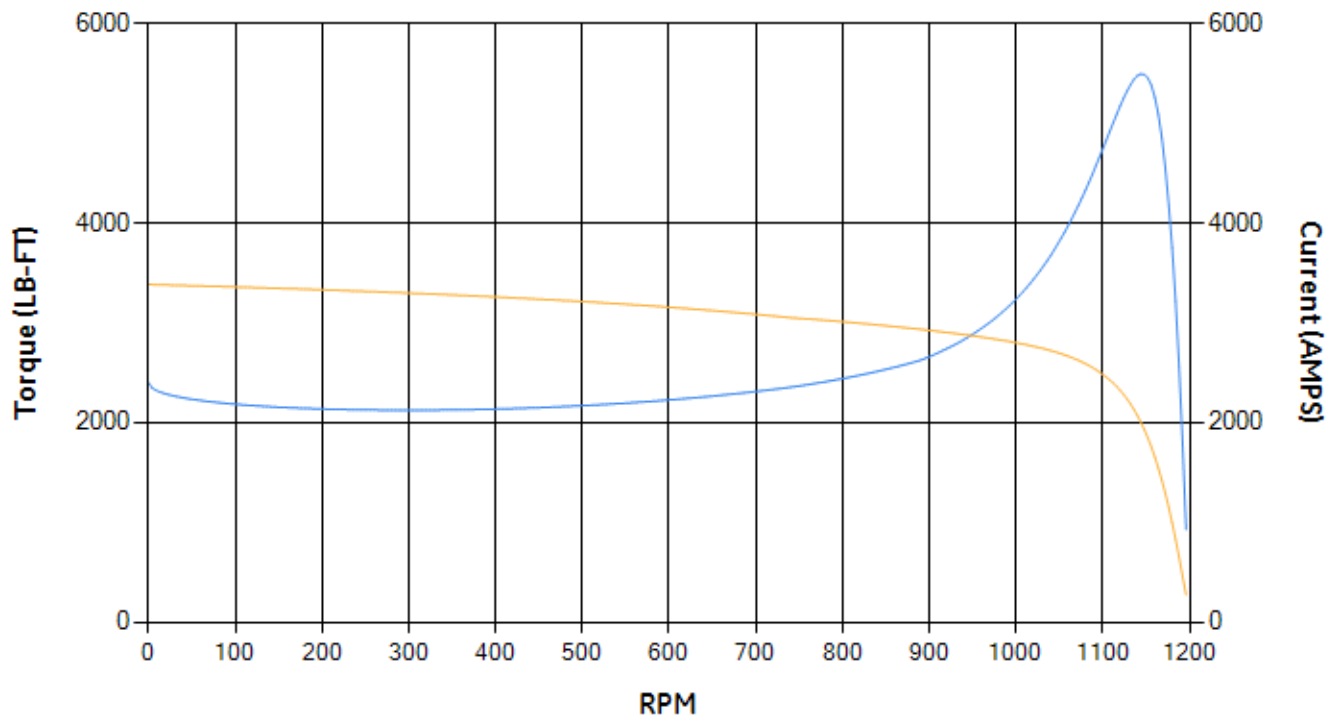
X/R Ratio: 14.434

Stator Slots: 72

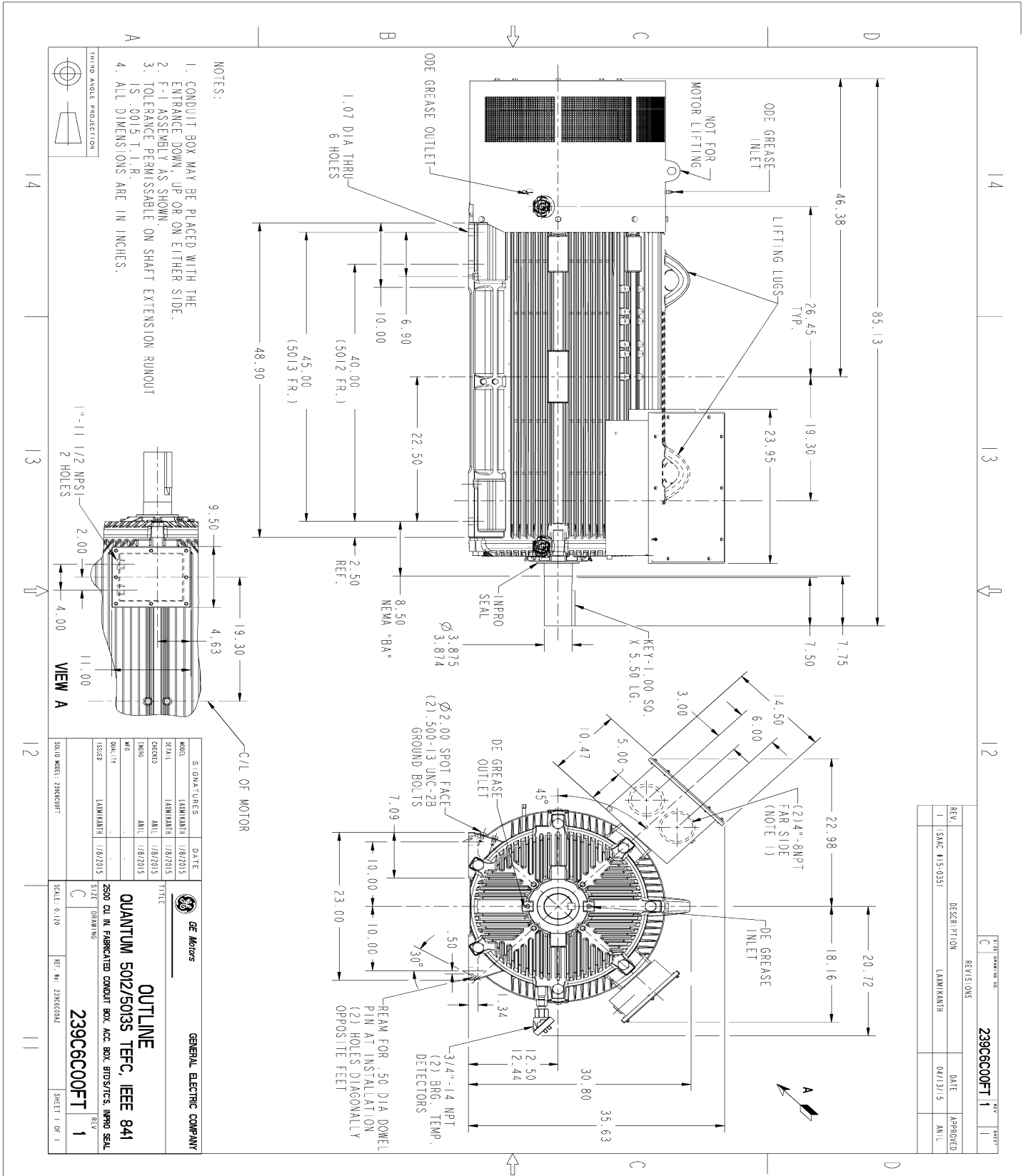
Rotor Slots: 58

Speed Torque Current Curve (First Connection, First Speed)

— Torque — Current



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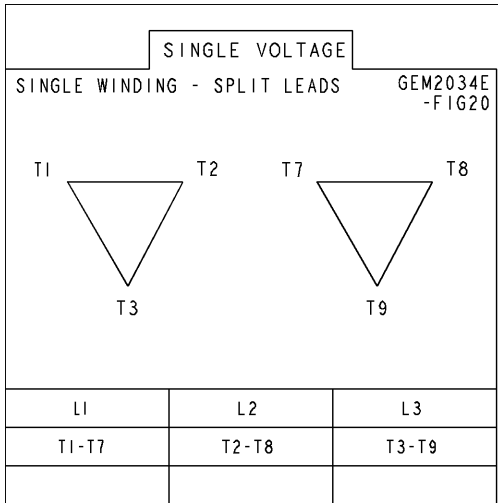


REV.	DESCRIPTION	DATE	APPROVED
1	SMAC #15-0351	04/13/15	ANIL

SIGNATURES	DATE
MODEL: LAMINANTH	1/8/2015
DESIGN: ANIL	1/8/2015
DATE: ANIL	1/8/2015
DATE: LAMINANTH	1/8/2015

Marks:

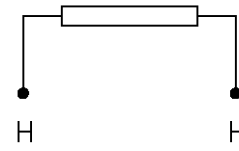
Connection Diagram
GEM2034E-FIG20



Heater Connection

3027JE-1

FIG. 1
HEATER CONN.



CONTROL	L1	L2
VOLTAGE ONLY	H	H

SHEET

REV

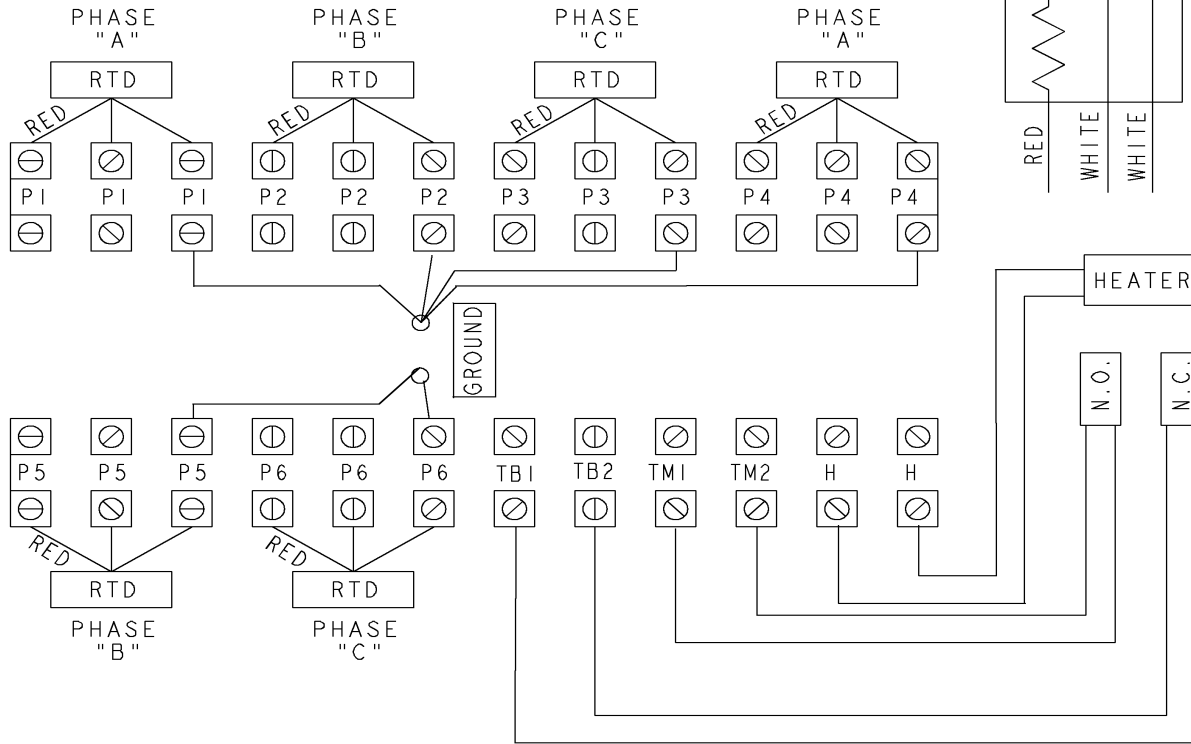
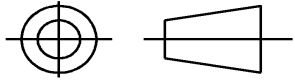
235A3027WN

SIZE DRAWING NO. A

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

THIRD ANGLE PROJECTION



- NOTE 1: TERMINAL LABELS ARE PROVIDED FOR ACCESSORIES THAT MAY OR MAY NOT BE INCLUDED WITH THE MOTOR.
- NOTE 2: SPARE RTDS (P7 & P8) FURNISHED IN CASE OF FAILURE IN OTHER RTDS (P1-P6). PHASE LOCATION WILL DEPEND UPON NUMBER OF POLES WINDING CONFIGURATION.
- NOTE 3: IT IS RECOMMENDED THAT RTDS BE GROUNDED AT EITHER THE MACHINE OR CONNECTED TO A GROUNDED CONTROL CIRCUIT. FOR PROPER OPERATION DO NOT GROUND AT THE MACHINE IF CONNECTED TO A GROUND CIRCUIT AT THE CONTROL.

Part must conform to SI 900000 Sect. 4, Toxicity Procedure

FOR ADDITIONAL INFO REFER TO:	SIGNATURES	DATE
APPLIED PRACTICES	MODEL	
DIMENSIONS ARE IN INCHES	DETAIL VIVEK	07/19/13
TOLERANCE ON:	CHECKED VIJAY	07/19/13
1 PL DECIMALS ± 0.1	ENGRG	
2 PL DECIMALS ± 0.02	MFG	
3 PL DECIMALS ± 0.005	QUALITY	
ANGLES ± 0.5	ISSUED VIVEK	07/19/13
FRACTIONS ±		
FINISH ✓		
MATERIAL	SOLID MODEL: MODEL NAME	

GE Motors GENERAL ELECTRIC COMPANY

TITLE **CONNECTION DIAGRAM**

WINDING RTD'S & T'STATS & HEATERS

SIZE DRAWING **A** **235A3027WN** REV **0**

SCALE: NA SHEET 1 of 1

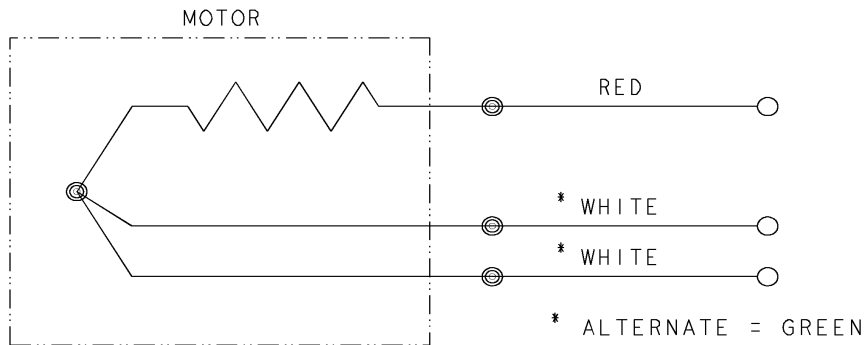


REV 1 SH SIZE A DWG NO 235A3027NA	THIRD ANGLE PROJECTION		REVISIONS			
			REV	DESCRIPTION	DATE	APPROVED
	1	ISAAC #12-1124	HARI	11/19/12	KARTHIK	

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BEARING RTDS



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PL DECIMALS ± 3 PL DECIMALS ± ANGLES ± FRACTIONS ± MATERIAL: APPLIED PRACTICES:	SIGNATURES		DATE		Fort Wayne, Indiana <h2>CONNECTION DIAGRAM</h2> BEARING RTDS
	DRAWN D.E. BAIR		12/16/92		
	CHECKED D.E. BAIR		12/16/92		
	ENGRG K. DESAI		12/16/92		
ISSUED D.E. BAIR		12/16/92			
CAD NO. F500:235A3027NA		SIZE A	FSCM NO	DWG NO 235A3027NA	DISTR TO
		SCALE 1/1		SHEET 1 OF 1	

