GE
Power Conversion

Product Information Packet

January 12, 2017

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

Model Number:	**5KS509SAA234C**
Catalog Number:	**Q507**
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG2
Outline Drawing:	239C6A00GT

Accessory Connection Diagrams

Bearing Thermocouple:	None	**Heater:**	3027JE-1C
RTD:	235A3027XY	**Thermistor:**	None
Thermostat:	None	**Winding Thermocouple:**	None
Bearing RTD:	235A3027NA		

Table of Contents

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

imagination at work

Marks:

MODEL NUMBER:	**5KS509SAA234C**	**Estimated Weight:**	3981 Lbs
Outline Drawing:	239C6A00GT	**Time Rating:**	CONT
Connection Diagram:	GEM2034E-FIG2	**Enclosure:**	TEFC
Instruction Book:	GEI-56128	**Encl Construction:**	SD
Design Code:	50BD1226E	**Ambient Max(°C):**	40
Type:	KS	**Alt Ambient Max(°C):**	--
Frame:	509LL	**Insulation Class:**	F
Phases:	3	**NEMA Design:**	B
Poles:	4	**Nominal Efficiency:**	95.0 %
Output Power:	250HP 185KW	**Guaranteed Efficiency:**	94.1
RPM:	1785	**3/4 Load Efficiency:**	95.3
Voltage:	2300/4000	**KVA Code:**	G
Hertz:	60	**Max KVAR:**	60.2
Amps - FL:	56.0/32.2	**Power Factor:**	88.0
Service Factor:	1.15	**Bearing - DE:**	6320ZC3
Alt Service Factor:	--	**Bearing - ODE:**	6315ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:
HTR LDS HE1-HE2 115V 350W
FOR DIRECT COUPLED LOAD ONLY

Additional Information:

4P - LL EXTN
2500 CU IN - 2(4.00" NPT)
100 0HM WINDING RTD LEADS TO AUX C/BOX OPP MAIN C/BOX
SUGGESTED WINDING RTD SETTINGS
ALARM 165C TRIP 175C
115V 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: 50BD1226E**

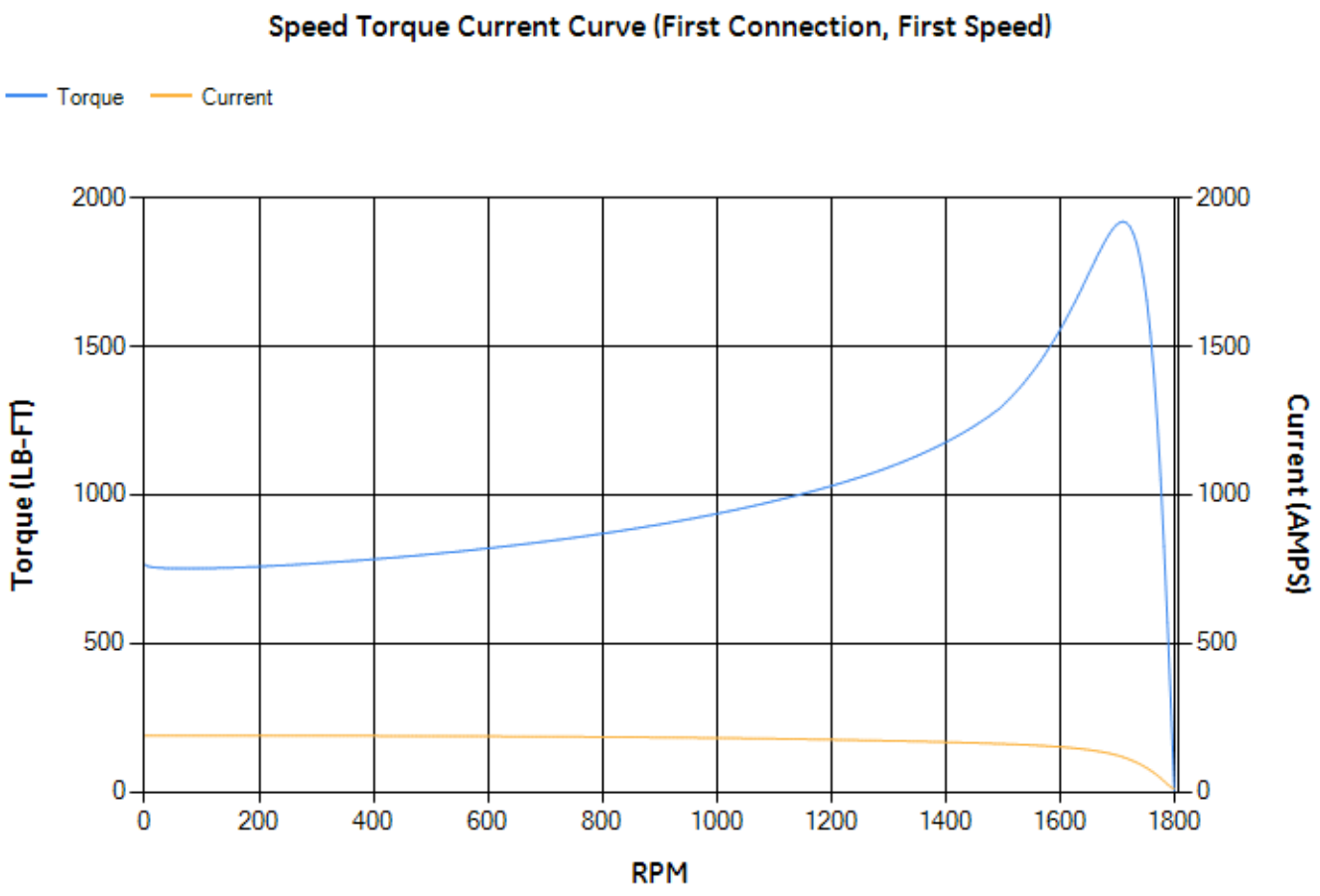
Marks:

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	94.81	95	95.41	95.32	94.78	91.98	0.00
% PF	88.56	88.47	87.94	85.48	78.65	58.67	5.43
AMPS	40.06	36.82	32.1	24.77	18.05	12.47	9.65

TORQ(FL)#FT	735.97	**TORQ(LR)%FL**	104.06	**TORQ(BD)%FL**	260.61
AMPS(LR)	189.27	**PF AT START**	0.26		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 4600 Lb-Ft Sq (193.66 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 36 seconds. Safe stall time at 100% voltage is 96 seconds cold, 58 seconds hot. Rotor inertia is 89.87 Lb-Ft Sq (3.78 Kg-meter Sq).

Open Circuit A-C:	0.945	**Short Circuit D-C:**	0.027
Short Circuit A-C:	0.043	**X/R Ratio:**	9.996
Stator Slots:	72	**Rotor Slots:**	58



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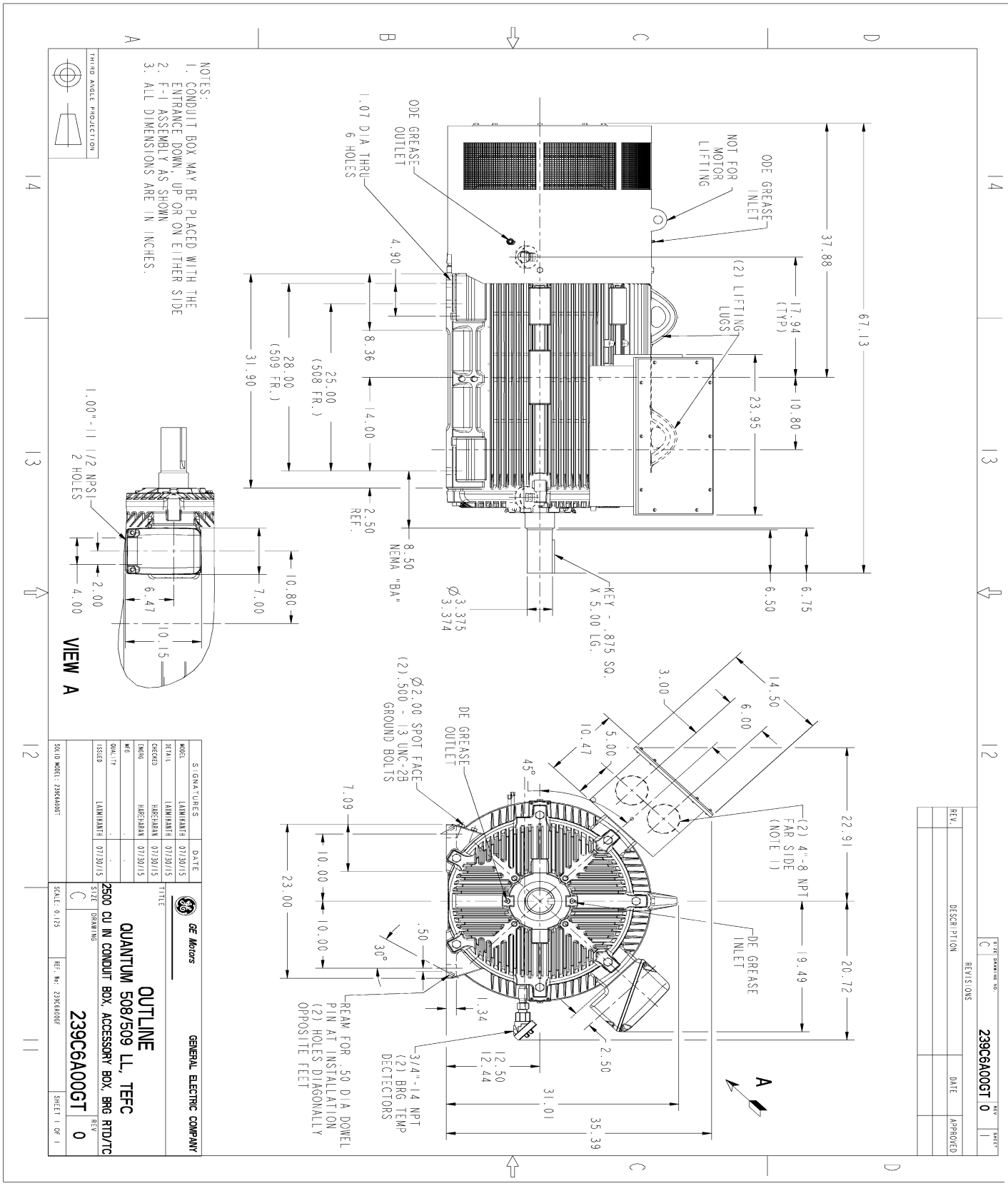
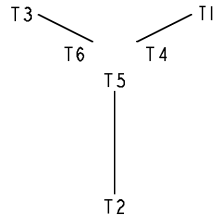

NOTES:
1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE DOWN, UP OR ON EITHER SIDE
2. F-1 ASSEMBLY AS SHOWN
3. ALL DIMENSIONS ARE IN INCHES.
THIRD ANGLE PROJECTION
ODE GREASE OUTLET
1.07 DIA THRU 6 HOLES
ODE GREASE INLET
NOT FOR MOTOR LIFTING
(2) LIFTING LUGS
37.88
17.94 (TYP)
10.80
23.95
67.13
4.90
8.36
14.00
25.00 (508 FR.)
28.00 (509 FR.)
31.90
2.50 REF.
8.50 NEMA "BA"
Ø3.375 3.374
KEY - .875 SQ. X 5.00 LG.
6.50
6.75
1.00"-11 1/2 NPSI 2 HOLES
2.00
4.00
6.47
10.15
7.00
10.80
VIEW A
Ø2.00 SPOT FACE (2).500 - 13 UNC-2B GROUND BOLTS
DE GREASE OUTLET
3.00
14.50
6.00
5.00
10.47
45°
7.09
10.00
23.00
10.00
.50
30°
1.34
REAM FOR .50 D.I.A DOWEL PIN AT INSTALLATION (2) HOLES DIAGONALLY OPPOSITE FEET
3/4"-14 NPT (2) BRG TEMP DETECTORS
2.50
12.50
12.44
31.01
35.39
(2) 4"-8 NPT FAR SIDE (NOTE 1)
22.91
DE GREASE INLET
19.49
20.72
A
A
SIGNATURES
MODEL LAXMINARTH 07/30/15
DETAIL LAXMINARTH 07/30/15
CHECKED HARESHRAN 07/30/15
ENGRG HARESHRAN 07/30/15
MFG
QUALITY
ISSUED LAXMINARTH 07/30/15
SOLID MODEL: 239C6A00GT
GE Motors
GENERAL ELECTRIC COMPANY
TITLE
OUTLINE
QUANTUM 508/509 LL, TEFC
2500 CU IN CONDUIT BOX, ACCESSORY BOX, BRG RTD/TC
SIZE C
DRAWING
239C6A00GT
REV 0
SCALE: 0.125
REF. No: 239C6A00GF
SHEET 1 OF 1
REVISIONS
REV. DESCRIPTION DATE APPROVED
SIZE C DRAWING NO. 239C6A00GT REV 0 SHEET 1

Connection Diagram
GEM2034E-FIG2

DUAL VOLTAGE

CONNECTION IΔ / IY GEM2034E-FIG2
VOLTAGE RATIO 1/1,73



	VOLTS	L1	L2	L3	TOGETHER
IΔ	LOW	T1-T6	T2-T4	T3-T5	
IY	HIGH	T1	T2	T3	T4-T5-T6

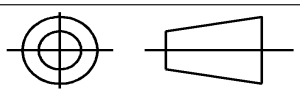
Heater Connection
3027JE-1C

HEATER CONNECTION

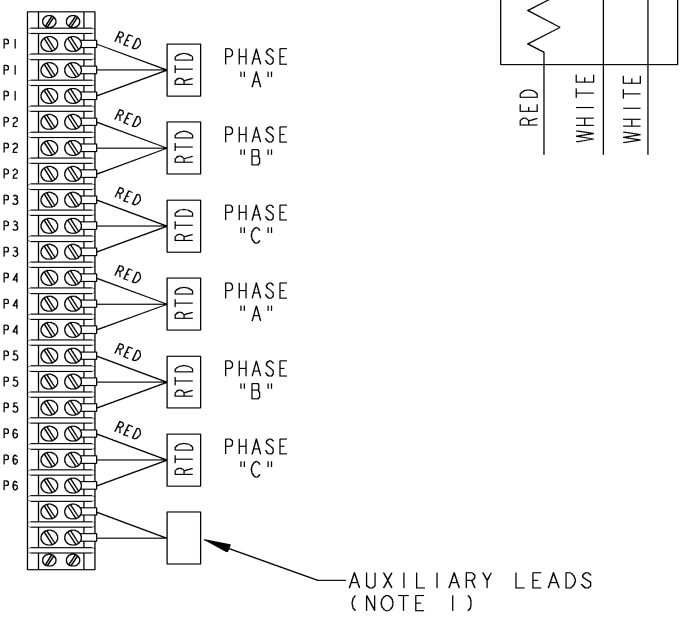
SUPPLY VOLTAGE LEADS	L1	L2
HEATER LEADS	HE1	HE2

SHEET 1 | REV 2 | 235A3027XY | SIZE A | DRAWING NO.

THIRD ANGLE PROJECTION



REVISIONS				
REV.	DESCRIPTION		DATE	APPROVED
1	ISAAC# 15-0790	HARIKIRAN	07/28/15	DHEERAJ
2	ISAAC# 16-0422	SAGAR K	05/04/2016	ADINARAYANA



NOTE 1: AUXILIARY LEADS SHOWN MAY OR MAY NOT BE PROVIDED IN 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.

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	06/26/15
TOLERANCE ON:	CHECKED	KARTHIK	06/26/15
1 PL DECIMALS ± 0.1	ENGRG		
2 PL DECIMALS ± 0.02	MFG		
3 PL DECIMALS ± 0.005	QUALITY		
ANGLES ± 0.5	ISSUED	VIVEK	06/26/15
FRACTIONS ±			
FINISH ✓			
MATERIAL	SOLID MODEL: MODEL NAME		

GE Motors GENERAL ELECTRIC COMPANY

TITLE **CONNECTION DIAGRAM**

WINDING RTD & AUXILIARY LEADS

SIZE	DRAWING	REV
A	235A3027XY	2

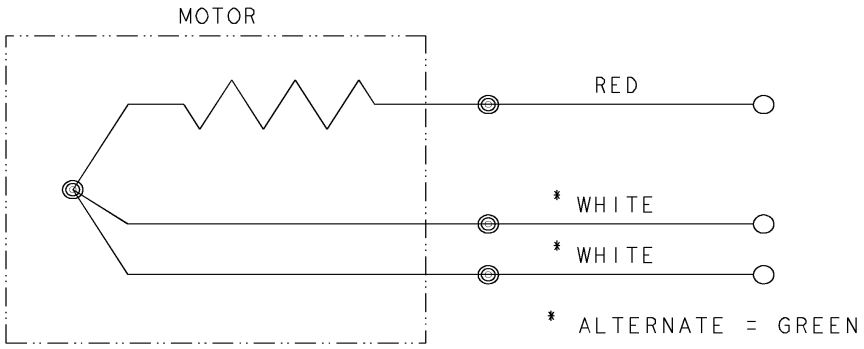
SCALE: N.T.S. | REF:- 235A4594AX | SHEET 1 of 1

REV I | SH I | DWG NO 235A3027NA | SIZE A

THIRD ANGLE PROJECTION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
I	ISAAC #12-1124 HARI	11/19/12	KARTHIK

BEARING RTDS



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

GE Motors — Fort Wayne, Indiana

CONNECTION DIAGRAM

BEARING RTDS

SIZE	FSCM NO	DWG NO	DISTR TO
A		235A3027NA	-

SCALE 1/1 | SHEET 1 OF 1