GE
Power Conversion

Product Information Packet

January 13, 2017

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

Model Number:	**5KS509XAA363**
Catalog Number:	**Q851**
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG20
Outline Drawing:	239C6A00JC

Accessory Connection Diagrams

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

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imagination at work

Marks:

MODEL NUMBER:	**5KS509XAA363**	**Estimated Weight:**	4563 Lbs
Outline Drawing:	239C6A00JC	**Time Rating:**	CONT
Connection Diagram:	GEM2034E-FIG20	**Enclosure:**	TEFC
Instruction Book:	GEI-56128	**Encl Construction:**	841
Design Code:	50BD3240B	**Ambient Max(°C):**	40
Type:	KS	**Alt Ambient Max(°C):**	--
Frame:	509LL	**Insulation Class:**	F
Phases:	3	**NEMA Design:**	B
Poles:	6	**Nominal Efficiency:**	95.8 %
Output Power:	300HP 222KW	**Guaranteed Efficiency:**	95.0
RPM:	1185	**3/4 Load Efficiency:**	95.9
Voltage:	575	**KVA Code:**	G
Hertz:	60	**Max KVAR:**	91.0
Amps - FL:	279.0	**Power Factor:**	84.0
Service Factor:	1.15	**Bearing - DE:**	6320ZC3
Alt Service Factor:	--	**Bearing - ODE:**	6315ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

EXCEPTION TO IEEE-STD-841-2009: SOUND POWER 93 DBA
TSTAT HTR LDS HE1-HE2 115V 200W
DE BRG 100BC03XP3, ODE BRG 75BC03XP3
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:5KS509XAA363 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 - LL EXTN - SPLIT LEAD
PAINTED FRAME ID & SHAFT, FAN COVER INSIDE &
ODE E/S OUTSIDE
1260 CU IN - 2(4.00" NPT) - 4 DRAIN HOLES
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 0HM 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: 50BD3240B**

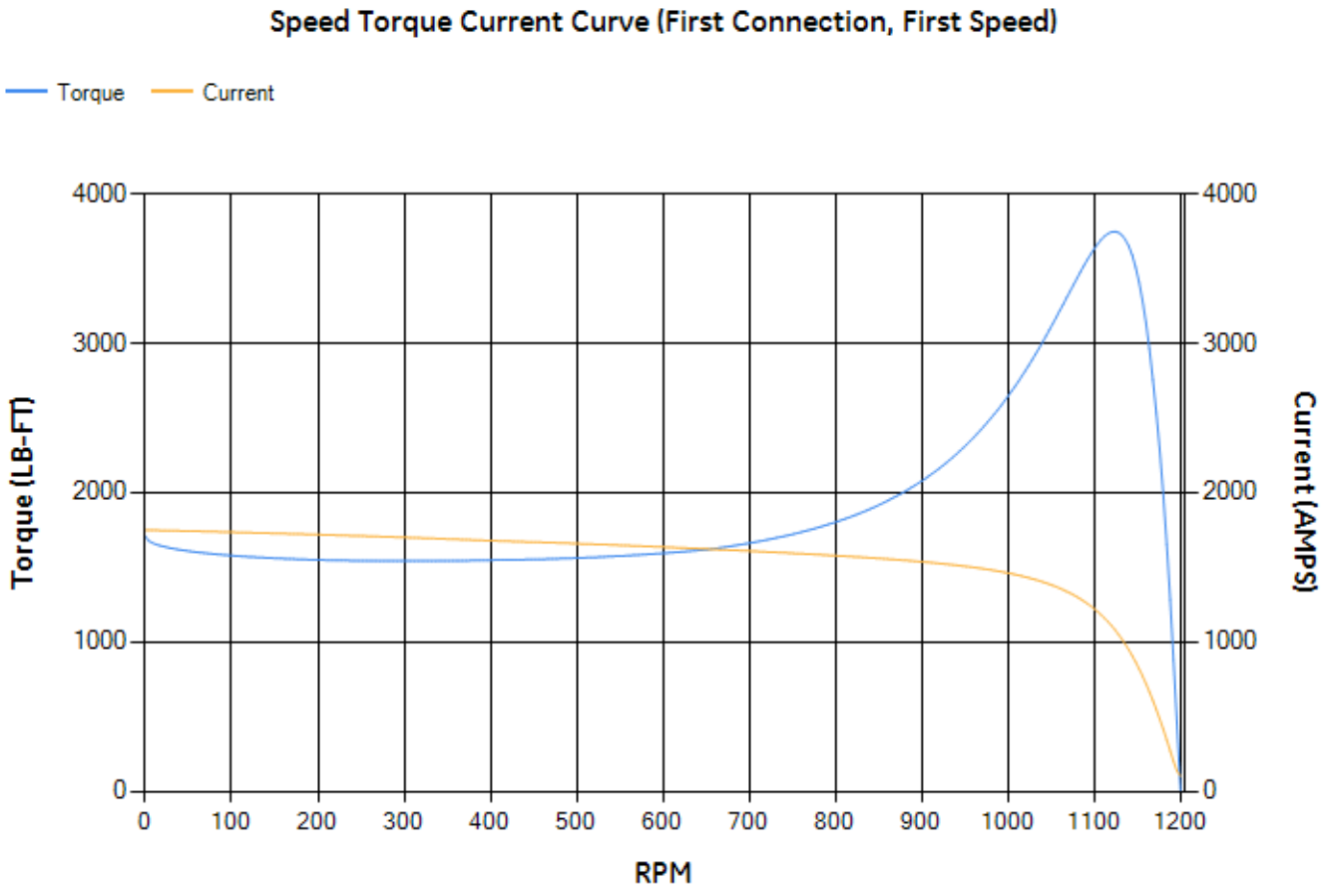
Marks:

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.1	95.33	95.81	95.87	95.62	93.57	0.00
% PF	85.29	84.95	83.94	80.22	71.23	49.2	3.25
AMPS	346.17	319	279.44	219.07	164.89	121.96	101.56

TORQ(FL)#FT	1327.45	**TORQ(LR)%FL**	128.53	**TORQ(BD)%FL**	281.63
AMPS(LR)	1749.86	**PF AT START**	0.24		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 13277 Lb-Ft Sq (558.96 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 35 seconds. Safe stall time at 100% voltage is 74 seconds cold, 42 seconds hot. Rotor inertia is 176.1 Lb-Ft Sq (7.41 Kg-meter Sq).

Open Circuit A-C:	0.627	**Short Circuit D-C:**	0.04
Short Circuit A-C:	0.035	**X/R Ratio:**	15.031
Stator Slots:	72	**Rotor Slots:**	58



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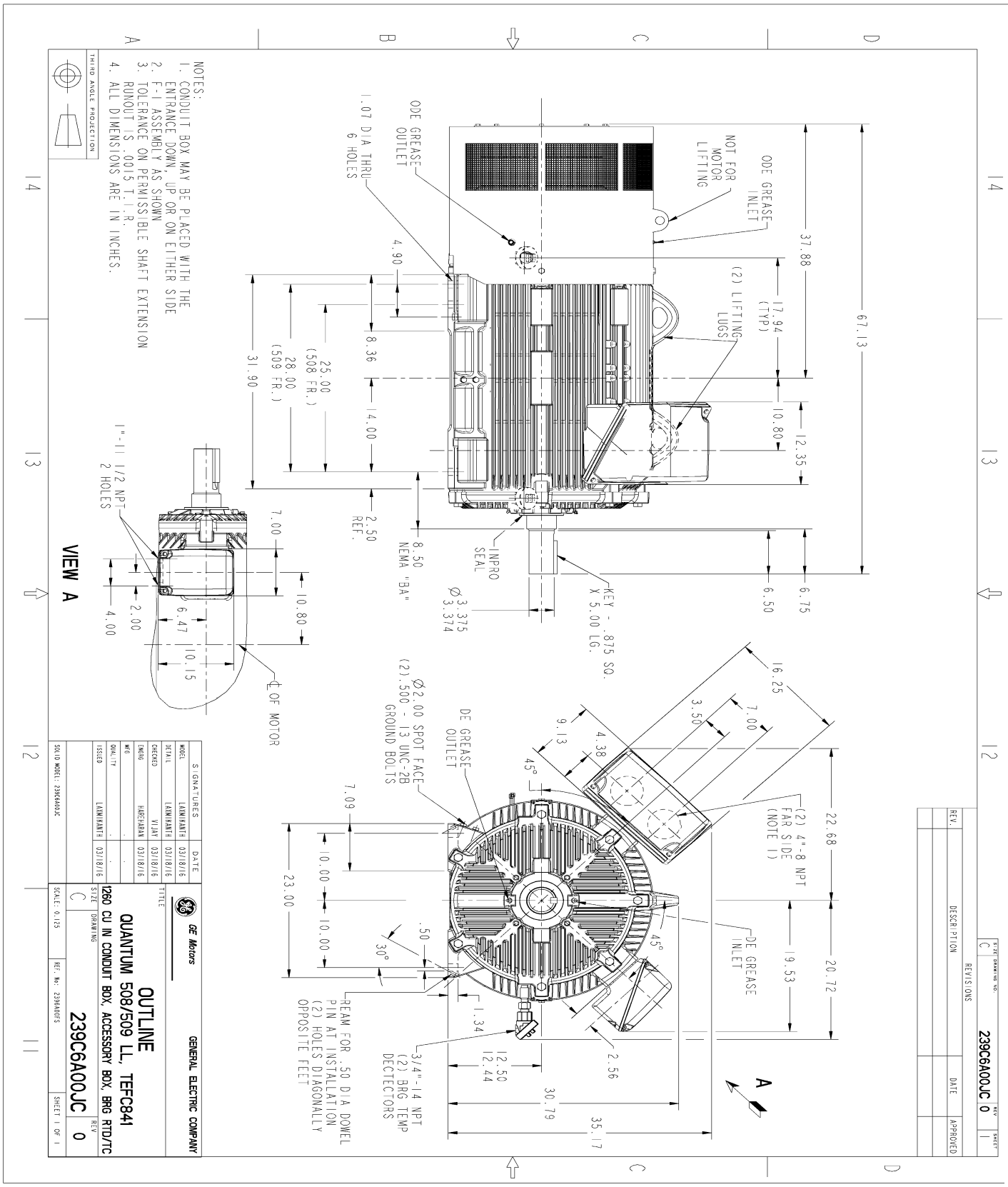


REVISIONS				
REV.	DESCRIPTION	DATE	APPROVED	

SIZE C | DRAWING NO. 239C6A00JC | REV 0 | SHEET 1

SIGNATURES		
	NAME	DATE
MODEL	LAXMINARTH	03/18/16
DETAIL	LAXMINARTH	03/18/16
CHECKED	VIJAY	03/18/16
ENGRG	HARIHARAN	03/18/16
MFG		
QUALITY		
ISSUED	LAXMINARTH	03/18/16

GE Motors — GENERAL ELECTRIC COMPANY

TITLE

OUTLINE
QUANTUM 508/509 LL, TEFC841
1260 CU IN CONDUIT BOX, ACCESSORY BOX, BRG RTD/TC

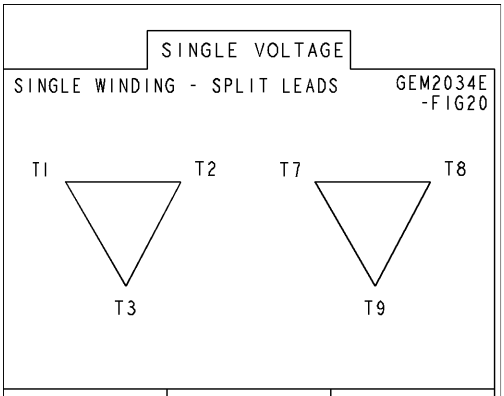
SOLID MODEL: 239C6A00JC

SIZE C | DRAWING 239C6A00JC | REV 0

SCALE: 0.125 | REF. No: 239A0085 | SHEET 1 OF 1

Marks:

Connection Diagram
GEM2034E-FIG20



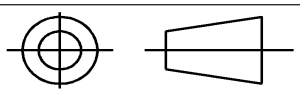
L1	L2	L3
T1-T7	T2-T8	T3-T9

Heater Connection
3027JE-1C

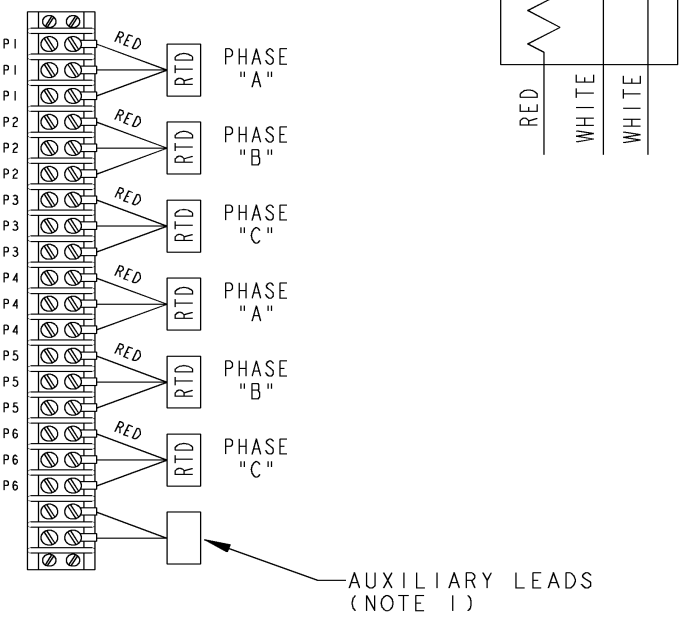
SUPPLY VOLTAGE LEADS	L1	L2
HEATER LEADS	HE1	HE2

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		

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TITLE **CONNECTION DIAGRAM**

WINDING RTD & AUXILIARY LEADS

SIZE	DRAWING	REV
A	235A3027XY	2

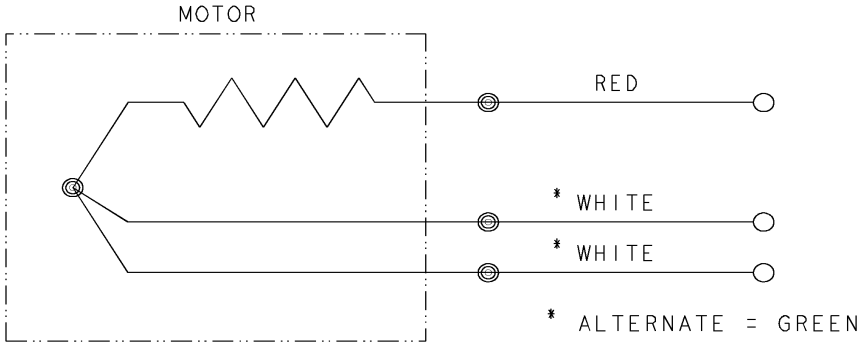
SCALE: N.T.S. | REF:- 235A4594AX | SHEET 1 of 1

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	

End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E5202AC1	115E5200AD1
Bearing	235A2523AF03	235A2513AG01
Slinger/Inproseal	235A4575GS9	235A4575GS8

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	148C8074AA2
Fan Cover	119D3661AA1

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	179B9058AA-G02

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	