

Product Information Packet

May 9, 2015

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

Model Number:	5KS509XAA123A
Catalog Number:	Q814
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG20
Outline Drawing:	239C6A00FR

Accessory Connection Diagrams			
Bearing Thermocouple:	None	Heater:	None
RTD:	None	Thermistor:	None
Thermostat:	None	Winding Thermocouple:	None
Bearing RTD:	None		

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Marks:

MODEL NUMBER:	5KS509XAA123A	Estimated Weight:	4650 Lbs
Outline Drawing:	239C6A00FR	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG20	Enclosure:	TEFC
Instruction Book:	GEI-56128	Encl Construction:	841
Design Code:	50BD0114A	Ambient Max(°C):	40
Type:	KS	Alt Ambient Max(°C):	--
Frame:	509LS	Insulation Class:	F
Phases:	3	NEMA Design:	B
Poles:	2	Nominal Efficiency:	95.8 %
Output Power:	300HP 222KW	Guaranteed Efficiency:	--
RPM:	3560	3/4 Load Efficiency:	--
Voltage:	460	KVA Code:	G
Hertz:	60	Max KVAR:	39.5
Amps - FL:	313.0	Power Factor:	93.5
Service Factor:	1.15	Bearing - DE:	6315ZC3
Alt Service Factor:	--	Bearing - ODE:	6315ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

EXCEPTION TO IEEE-STD-841-2009: SOUND POWER 92 DBA
TSTAT HTR LDS H 115V 200W
DE BRG 75BC03XP3, ODE BRG 75BC03XP3
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
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:5KS509XAA123A 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:

2P - LS EXTN - SPLIT LEAD
PAINTED FRAME ID & SHAFT, FAN COVER INSIDE &
ODE E/S OUTSIDE
CCW ROTATION FACING OPPOSITE DRIVE END
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 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: 50BD0114A

Marks:

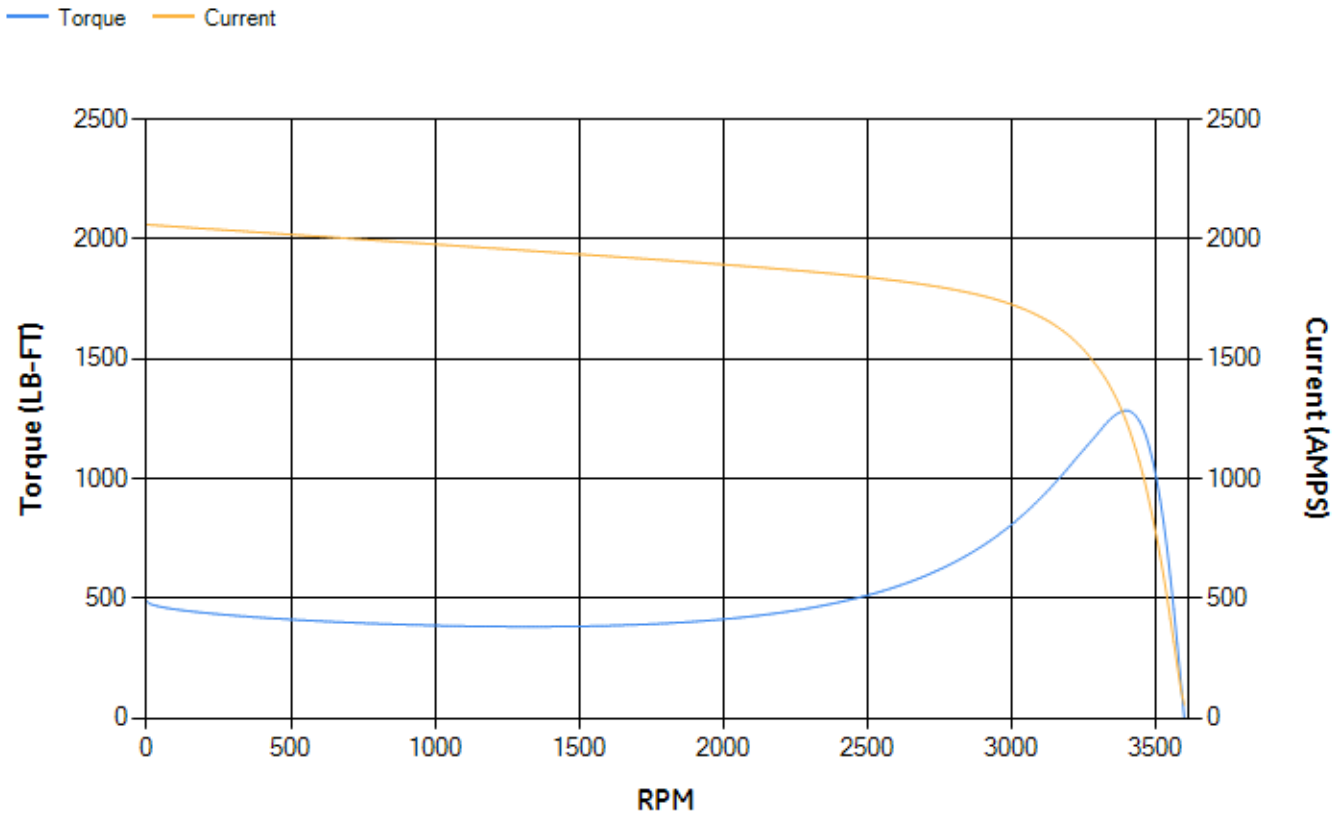
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.12	95.33	95.79	95.81	95.52	93.37	0.00
% PF	93.34	93.53	93.62	93.04	90.29	78.34	7.54
AMPS	395.31	362.16	312.6	236.23	162.77	95.97	54.87

TORQ(FL)#FT	442.16	TORQ(LR)%FL	110.28	TORQ(BD)%FL	290.01
AMPS(LR)	2060.23	PF AT START	0.18		

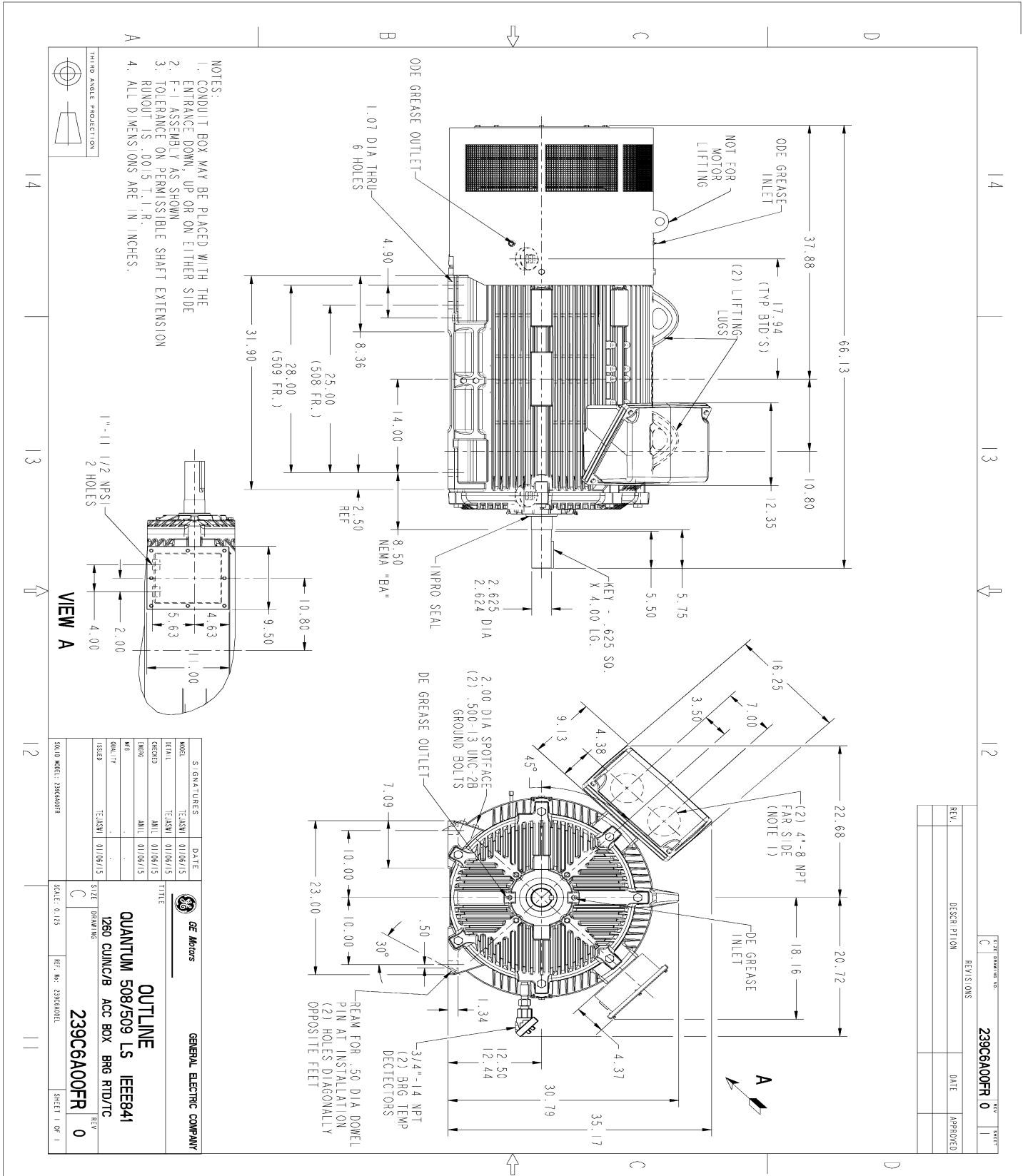
This motor is capable of two cold or one hot start with a maximum connected load inertia of 736 Lb-Ft Sq (30.99 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 24 seconds. Safe stall time at 100% voltage is 49 seconds cold, 29 seconds hot. Rotor inertia is 84.41 Lb-Ft Sq (3.55 Kg-meter Sq).

Open Circuit A-C:	1.454	Short Circuit D-C:	0.043
Short Circuit A-C:	0.041	X/R Ratio:	16.372
Stator Slots:	48	Rotor Slots:	40

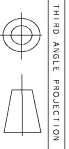
Speed Torque Current Curve (First Connection, First Speed)



Marks:



- NOTES:
1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCE DOWN, UP OR ON EITHER SIDE
 2. F-I ASSEMBLY AS SHOWN
 3. TOLERANCE ON PERMISSIBLE SHAFT EXTENSION RUNOUT IS .0015 T.I.R.
 4. ALL DIMENSIONS ARE IN INCHES.



REV.	DESCRIPTION	DATE	APPROVED

MODEL	TEJSMI	DATE	01/06/15
SCALE	TEJSMI	01/06/15	
CHKD	ANIL	01/06/15	
ENGR	ANIL	01/06/15	
DATE	01/06/15		
ISSUED	TEJSMI	01/06/15	
SCALE	0.125		
REF. NO.	239C6A00FR		
SHEET	1	OF	1

GENERAL ELECTRIC COMPANY

OUTLINE

QUANTUM 508/509 LS IEEB841

1260 CUMC/B ACC BOX BRG RTD/TC

239C6A00FR

REV 0

Marks:

Connection Diagram
GEM2034E-FIG20

