



GE INDUSTRIAL MOTORS
a **WOLONG** company

Friday, May 20, 2022

Technical Data Center
3050 post Oak Blvd.,
Suite 630, Houston,
TX 77056
Phone: +1 877-450-6026

Customer: **GE INDUSTRIAL SOLUTIONS**
WARRANTY PO BOX 2205
FORT WAYNE - IN 46801

DataPack Document, Version: v22047674.01

Inside Sales Representative: Technical Data Center
Inside Sales Rep Phone:
Model Number: 5KGS509SAA225
Sales Order No: 2000007403
Order Line No: 27
Instruction Manual: GEI-56128
Connection Diagram: GEM2034E-FIG20

Alternate Phone: 260-439-2000
Customer Order No: DUMMY
Customer Item No:
Customer Part No: NOCAT500HL
Outline Drawing: 239C6A00SB

Accessory Connection Diagrams

Bearing Thermocouple: None
RTD: None
Thermostat: None
Bearing RTD: None

Heater: None
Thermistor: None
Winding Thermocouple: None

Revision History

<u>Version</u>	<u>Date</u>	<u>Comments</u>
v22047674.01	05-20-2022	Original Version

Distribution Information

<u>Quantity</u>	<u>Recipient</u>
1	rob.amstutz@geim.wolong.com ROB.AMSTUTZ@GEIM.WOLONG.COM E-Mail Distribution

<u>Quantity</u>	<u>Recipient</u>
1	geim.engapps@geim.wolong.com GEIM.ENGAPPS@GEIM.WOLONG.COM E-Mail Distribution

1	raghunath.nagaraja@geim.wolong.com RAGHUNATH.NAGARAJA@GEIM.WOLONG.COM E-Mail Distribution
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Customer Order / Item:	DUMMY	Sales Order No:	2000007403
Customer Part:	NOCAT500HL	Order Line No:	27

MODEL NUMBER:	5KGS509SAA225	Estimated Weight:	4621 Lbs
Outline Drawing:	239C6A00SB	Service Factor:	1.15
Connection Diagram:	GEM2034E-FIG20	Time Rating:	CONT
Instruction Book:	GEI-56128	Enclosure:	TEFC
Design Code:	50BD1652A	Encl Construction:	SD
Type:	KGS	Ambient Max(°C):	40
Frame:	509LB	Insulation Class:	F
Phases:	3	NEMA Design:	B
Poles:	4	Nominal Efficiency:	96.2%
Output Power:	400HP 298.3KW	KVA Code:	G
RPM:	1785	Max KVAR:	144.8
Voltage:	460	Power Factor:	81.5
Hertz:	60	Bearing - DE:	NU 324
Amps - FL:	477.0	Bearing - ODE:	6320ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

STAMP NP249A5564P075 AS BELOW:
MODEL:5KGS509SAA225
SN: XXX CSA CERTIFIED CSA.09.2216219
FOR CL I DIV2 GRP A,B,C,D T3 IN -25C<= TAMB<= 40C
1.0SF ON SINE-WAVE PWR OR ALTERNATE RATING
TEMP CODE --- AT --- SF ON SINE-WAVE PWR
OR T3 VT PWM CONTROL 1.0 SF 40 C AMB VT 0-60 HZ
ROLLER BEARING - FOR BELTED LOAD ONLY
THERMOSTAT LEADS TB1-TB2: TRIP
MAX RADIAL LOAD: 7000 LBF AT 6.0"
FROM SHAFT SHOULDER
400V, 50HZ, 553AMPS AT 1.00SF
Additional Information:
4P - LB EXTN - SPLIT LEAD
C/BOX 2500 CU IN - 2(4.00" NPT)
C/B GRD PLATE
INPROSEAL ON DRIVE END



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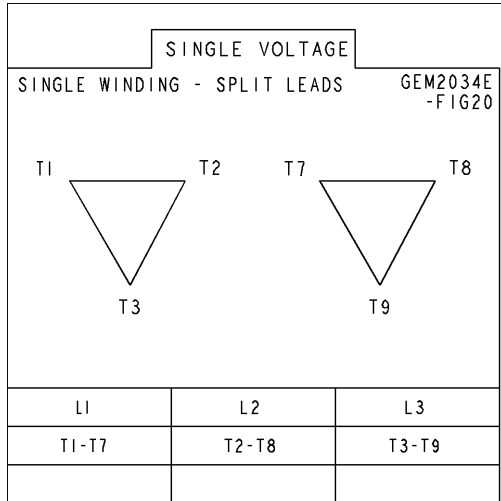
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WARRANTY PO BOX 2205
FORT WAYNE - IN 46801

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OIL RESISTANT SLEEVING ON LEADS
B5F4C4 HIGH STRENGTH STEEL AISI 4142 SHAFT MATERIAL
(3)N.C. CLASS F TRIP TSTAT - LDS TO MAIN CONDUIT BOX
NEMA TYPE GRD PAD
F1 MOUNTING
FEATURES OF MODEL 5KGS449SAA321D2
EXCEPT IN 509 FRAME

Diagrams for Model: 5KGS509SAA225

Connection Diagram
GEM2034E-FIG20



Performance Characteristics

1st Winding 1st Connection

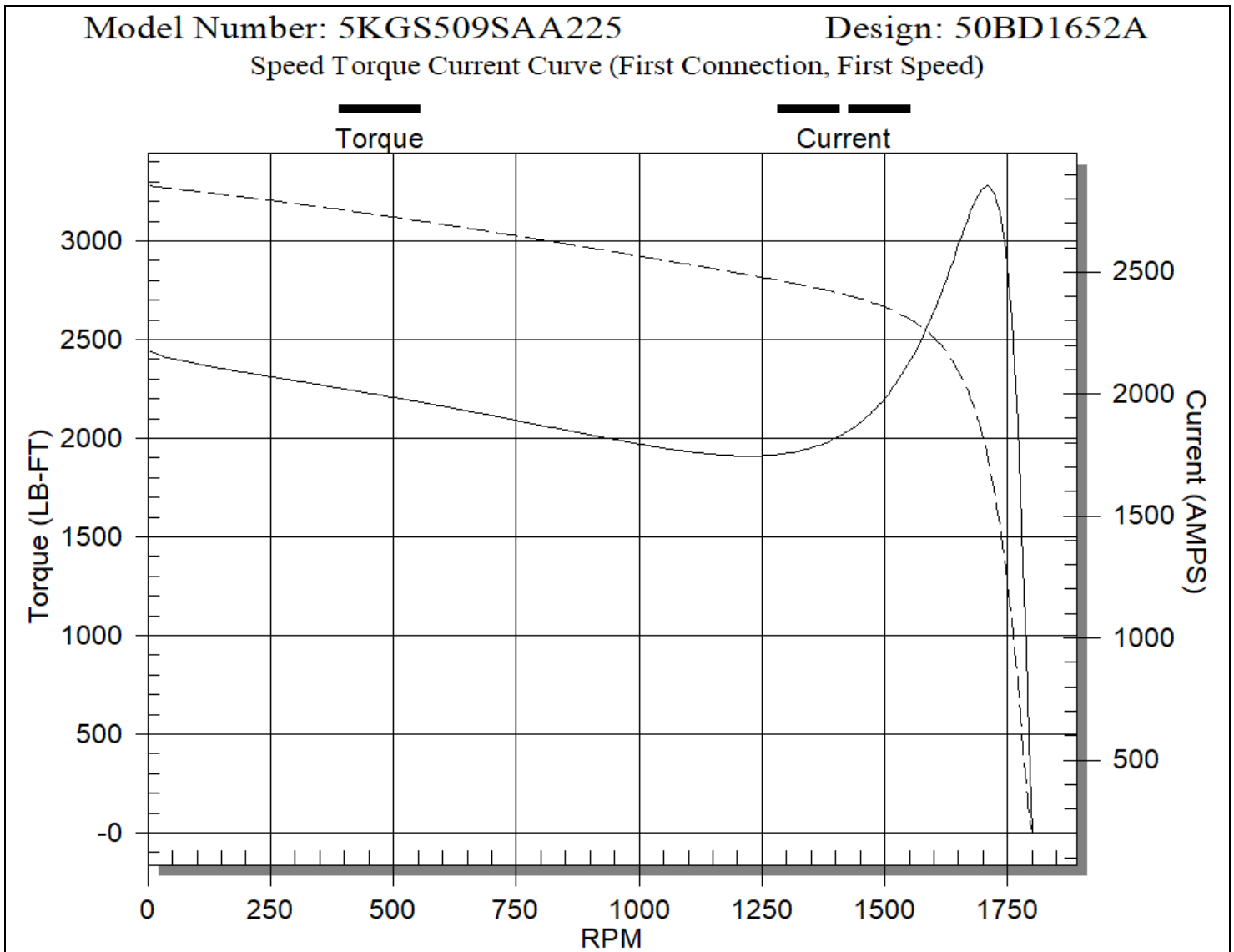
Design: 50BD1652A

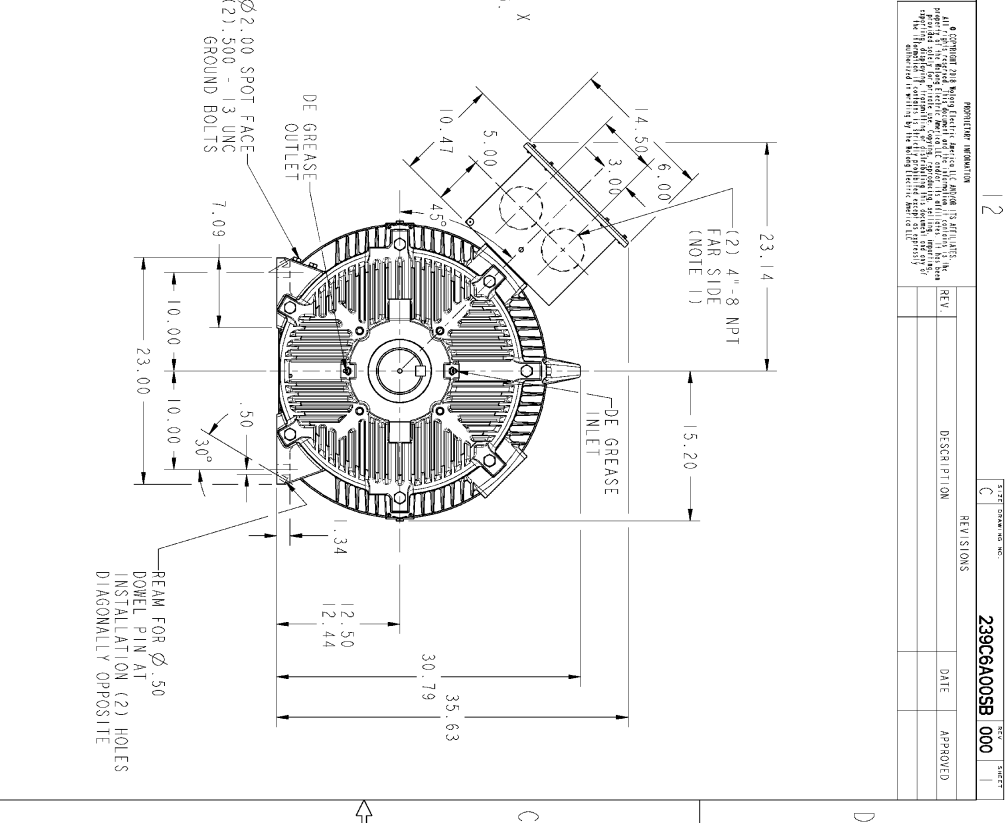
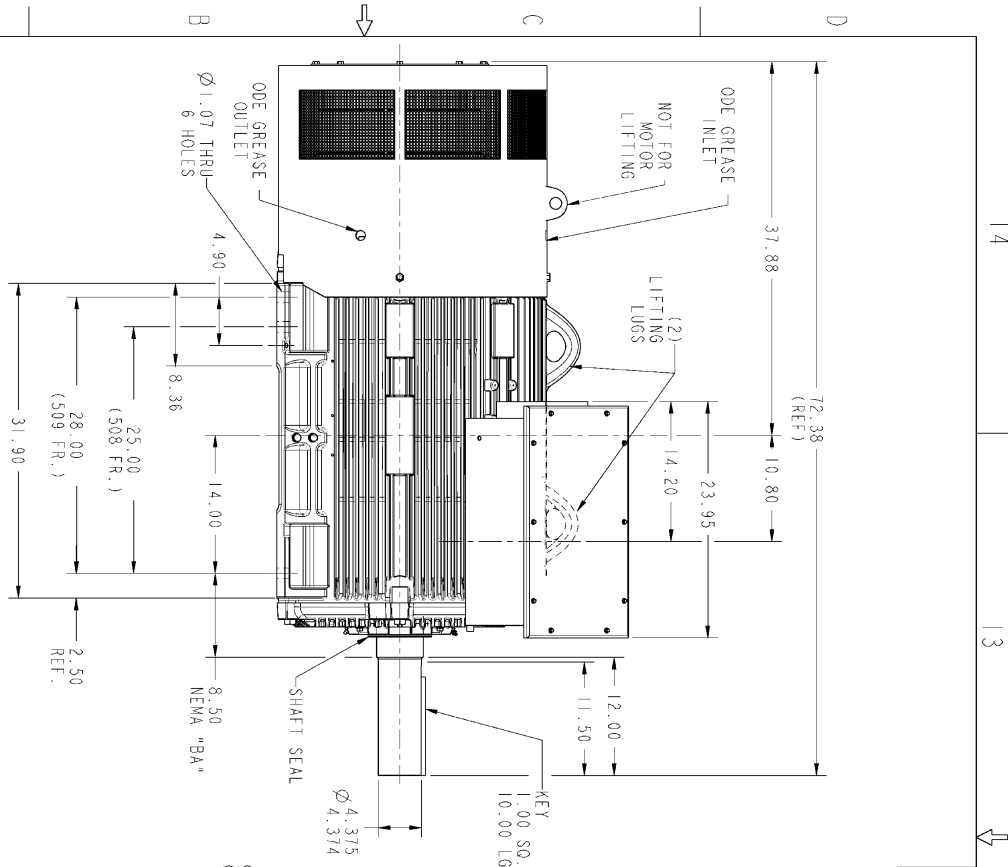
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.79	95.90	96.20	95.93	95.26	92.40	0.00
% PF	83.77	83.14	81.50	76.82	66.36	43.84	3.47
AMPS	583.19	539.98	477.00	381.01	296.10	231.05	201.94

TORQ(FL)#FT 1177.44 TORQ(LR)%FL 208.49 TORQ(BD)%FL 278.24
 AMPS(LR) 2852.35 PF AT START 0.36

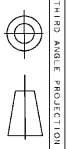
This motor is capable of two cold or one hot start with a maximum connected load inertia of 5549.0 Lb-Ft Sq (233.8 Kg-meter Sq) at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 18 seconds. Safe stall time at 100% voltage is 37 seconds cold, 22 seconds hot. Rotor inertia is 136.71 Lb-Ft Sq (5.761 Kg-meter Sq).

Open Circuit A-C: 0.637 Short Circuit D-C: 0.048
 Short Circuit A-C: 0.039 X/R Ratio: 18.257
 Stator Slots: 72 Rotor Slots: 58





- NOTES:
1. CONDUIT BOX MAY BE PLACED WITH THE ENTRANCES DOWN, UP OR ON EITHER SIDE
 2. F-1 ASSEMBLY AS SHOWN
 3. ALL DIMENSIONS ARE IN INCHES.
 4. TOLERANCE PERMISSIBLE ON SHAFT EXTENSION RUNOUT IS .0015" T.I.R. FOR BALL BEARING OR .002" T.I.R. FOR ROLLER BEARING.



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REV.	DESCRIPTION	DATE	APPROVED
C			

239C6A00SB 000

SIGNATURES	DATE
DESIGNER: UMARSHA	05/06/22
CHECKS: VIJAY	05/06/22
DATE: RABHU	05/06/22
QUALITY: UMARSHA	05/06/22
ISSUED: UMARSHA	05/06/22

GE INDUSTRIAL MOTORS
a WOODWARD company

OUTLINE
QUANTUM 508/509 LB. TFC
2500 CUINC/BOX

239C6A00SB 000

SCALE: 9:125 REF. NO: 239C6A00P SHEET 1 OF 1