



**GE INDUSTRIAL MOTORS**  
a **WOLONG** company

# Product Technical Information

October 23, 2020

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

<b>Model Number:</b>	<b>5KS449XAA224D6</b>
<b>Catalog Number:</b>	<b>M8945</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG20
<b>Outline Drawing:</b>	239C6800YS

## Accessory Connection Diagrams

<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	None
<b>RTD:</b>	None	<b>Thermistor:</b>	None
<b>Thermostat:</b>	None	<b>Winding Thermocouple:</b>	None
<b>Bearing RTD:</b>	None		

## Table of Contents

Specification	01
Performance Characteristics	02
Outline Drawing	03
Connection Drawing(s)	04
Spare parts	05

Marks:

<b>MODEL NUMBER:</b>	<b>5KS449XAA224D6</b>	<b>Estimated Weight:</b>	3100 Lbs
<b>Outline Drawing:</b>	239C6800YS	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG20	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEI-56128	<b>Encl Construction:</b>	841
<b>Design Code:</b>	49BD1180A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	449T	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	4	<b>Nominal Efficiency:</b>	96.5 %
<b>Output Power:</b>	250HP 185KW	<b>Guaranteed Efficiency:</b>	96.2 %
<b>RPM:</b>	1790	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	48.7
<b>Amps - FL:</b>	272.0	<b>Power Factor:</b>	89.0
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6318ZC3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	6318ZC3

Enclosure is Totally Enclosed Fan-Cooled

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Stamped Nameplate Notes:

IEEE-STD-841-2009

FOR DIRECT COUPLED LOAD ONLY

DE BRG 90BC03JP3, ODE BRG 90BC03JP3

STAMP NP249A5564P051 AS BELOW:

MODEL:5KS449XAA224D6 S/N: XXX

CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200 C GC

CL 1 ZONE2 AEX NA IIC 200C;CL 1 DIV2 GRP ABCD 200C

IN -25C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR

SURF TEMP 260C AT 1.15SF ON SINE-WAVE PWR

OR 215 C VT OR 230 C CT OR 215 C CHP PWM CONTROL

ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB

VT 0-60 HZ, CT 45-60 HZ, CHP 60-75 HZ.



**Additional Information:**

4P - T EXTN - SPLIT LEAD  
PAINTED FRAME ID & SHAFT,  
FAN COVER INSIDE & ODE E/S OUTSIDE  
C/BOX 1260 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.  
GROUND PAD  
F1 MOUNTING



**Performance Characteristics**

1st Winding 1st Connection

**Design: 49BD1180A**

**Marks:**

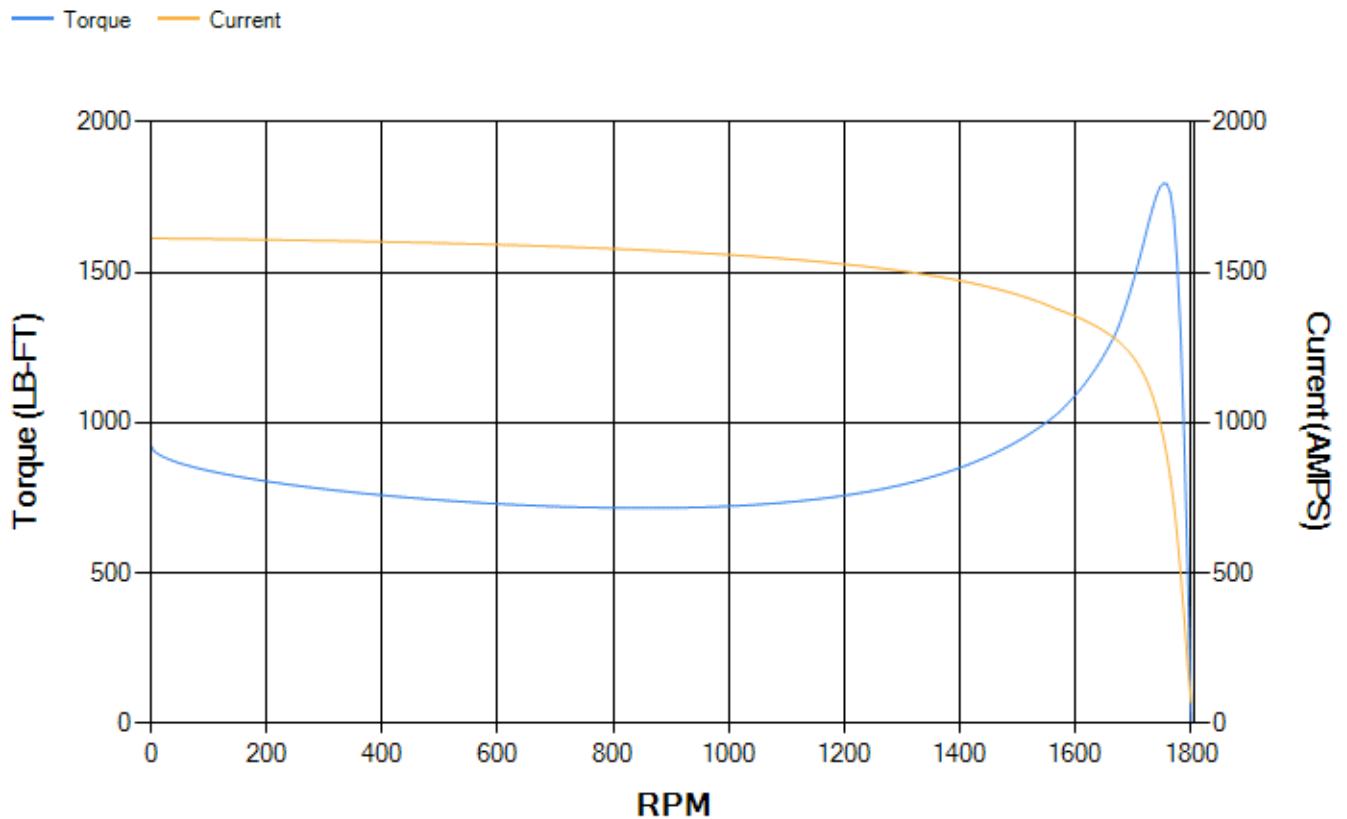
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.92	96.15	96.64	96.77	96.75	95.49	0.00
% PF	89.24	89.36	89.22	87.66	82.4	64.37	3.31
AMPS	341.68	313.18	271.39	206.87	146.75	95.17	67.97

<b>TORQ(FL)#FT</b>	733.36	<b>TORQ(LR)%FL</b>	126.24	<b>TORQ(BD)%FL</b>	244.7
<b>AMPS(LR)</b>	1613.44	<b>PF AT START</b>	0.23		

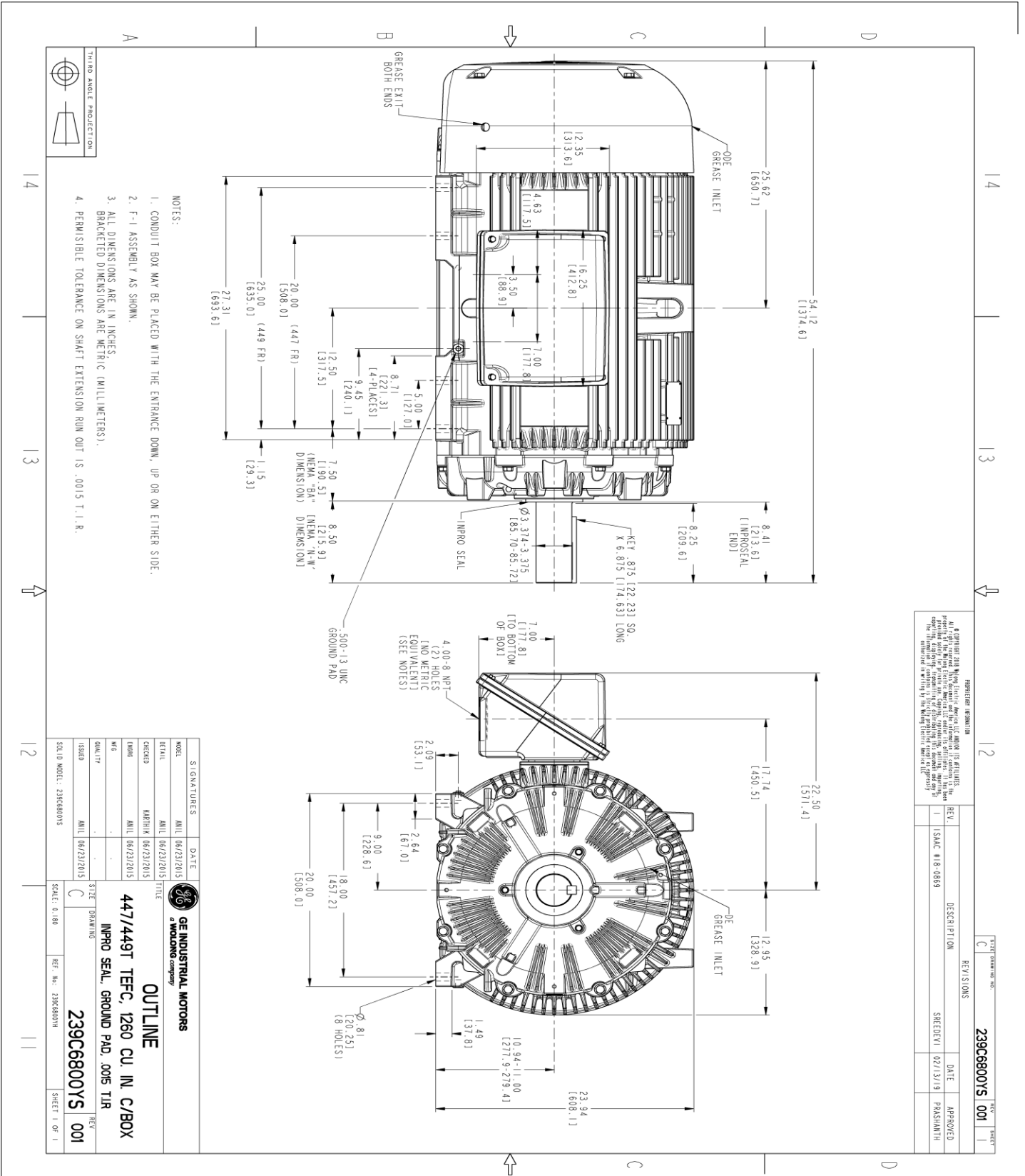
This motor is capable of two cold or one hot start with a maximum connected load inertia of 7642 Lb-Ft Sq (321.73 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 75 seconds. Safe stall time at 100% voltage is 186 seconds cold, 90 seconds hot. Rotor inertia is 137.24 Lb-Ft Sq (5.78 Kg-meter Sq).

<b>Open Circuit A-C:</b>	1.87	<b>Short Circuit D-C:</b>	0.037
<b>Short Circuit A-C:</b>	0.071	<b>X/R Ratio:</b>	14.104
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

**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. ALL DIMENSIONS ARE IN INCHES.
  4. PERMISSIBLE TOLERANCE ON SHAFT EXTENSION RUN OUT IS .0015 T.I.R.

REVISION INFORMATION  
 1. REV. 1 ISAC #18-0869  
 2. REV. 2 SREDEV1 02/13/19 PRAASHANTH

REV.	DESCRIPTION	DATE	APPROVED
1	ISAC #18-0869	02/13/19	PRAASHANTH
2	SREDEV1	02/13/19	PRAASHANTH

THIRD ANGLE PROJECTION

GE INDUSTRIAL MOTORS  
 a WOLONG company

**OUTLINE**

447/449T TECFC, 1260 CU. IN. C/BOX  
 IMPRO SEAL, GROUND PAD, .005 TIR

239C6800YS 001

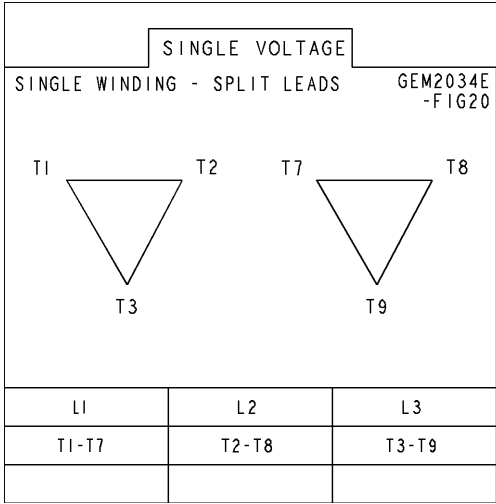
SCALE: 0.180 REF. NO: 239C68001H SHEET 1 OF 1

SIGNATURES	DATE
MODEL: ANIL 06/23/2015	
REV1: ANIL 06/23/2015	
CHECKED: ANIL 06/23/2015	
DRAWN: ANIL 06/23/2015	
QUALITY: ANIL 06/23/2015	
ISSUED: ANIL 06/23/2015	

Marks:

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**Connection Diagram**  
**GEM2034E-FIG20**



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E4355AA1	115E4355LM1
Bearing	235A2514AG01	235A2514AG01
Slinger/Inproseal	235A4575GS5	235A4575GS5

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C7100AA2
Fan Cover	128D6841AA1

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	179B9058G03

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

