



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

# Product Technical Information

July 17, 2020

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

<b>Model Number:</b>	<b>5KE449DAJ6021B</b>
<b>Catalog Number:</b>	<b>VF116</b>
<b>Instruction Manual:</b>	GEI-M1045
<b>Connection Diagram:</b>	GEM2034E-FIG261
<b>Outline Drawing:</b>	148CB49VMHKFGAA0001

## 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		

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Marks:

<b>MODEL NUMBER:</b>	<b>5KE449DAJ6021B</b>	<b>Estimated Weight:</b>	3120 Lbs
<b>Outline Drawing:</b>	148CB49VMHKFGAA0001	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG261	<b>Enclosure:</b>	WPI
<b>Instruction Book:</b>	GEI-M1045	<b>Encl Construction:</b>	OPEN
<b>Design Code:</b>	49BD1369A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KE	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	L449TP16	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	4	<b>Nominal Efficiency:</b>	95.4 %
<b>Output Power:</b>	400HP 296KW	<b>Guaranteed Efficiency:</b>	94.5 %
<b>RPM:</b>	1785	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	83.4
<b>Amps - FL:</b>	446.0	<b>Power Factor:</b>	88.0
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6217C3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	235A2536AB01

Enclosure is Weather Protected One

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Stamped Nameplate Notes:

NEMA ENCLOSURE WP-I, CSA ENCL DP  
 ROT CCW FACING ODE LEAD/PH SEQ 1-2-3/1-2-3  
 INVERTER DUTY PER NEMA MG1 PART 31  
 ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT  
 VAR TORQUE RANGE 5 -60 HZ  
 UPPER BRG LUBE OIL: 10.2 QTS  
 0 DEG C TO 40 DEG C : ISO 32(MINERAL OR SYNTHETIC)  
 -15 DEG C TO 0 DEG C : ISO 32 SYNTHETIC



**Additional Information:**

4P, VERT HOLLOW SHAFT HIGH THRUST (1D)  
C/BOX 2500 CU IN - 2(4.00" NPT)  
C/B GRD PLATE  
SLINGER DE  
OIL RESISTANT SLEEVING ON LEADS  
PART WINDING START  
BEARING LIFE 8760 HRS AT 14188 LB THRUST  
WYE START DELTA RUN  
CG:25.10 IN FROM P-BASE FACE,STAT DEF:= 0.007 IN  
RCF: 2189 CPM  
NON-REVERSE BALL CARRIER,  
BOLTED COUPLING, BX = 1.938, KEY = 0.50"  
FIRE PUMP MOTOR



**Performance Characteristics**

1st Winding 1st Connection

**Design: 49BD1369A**

**Marks:**

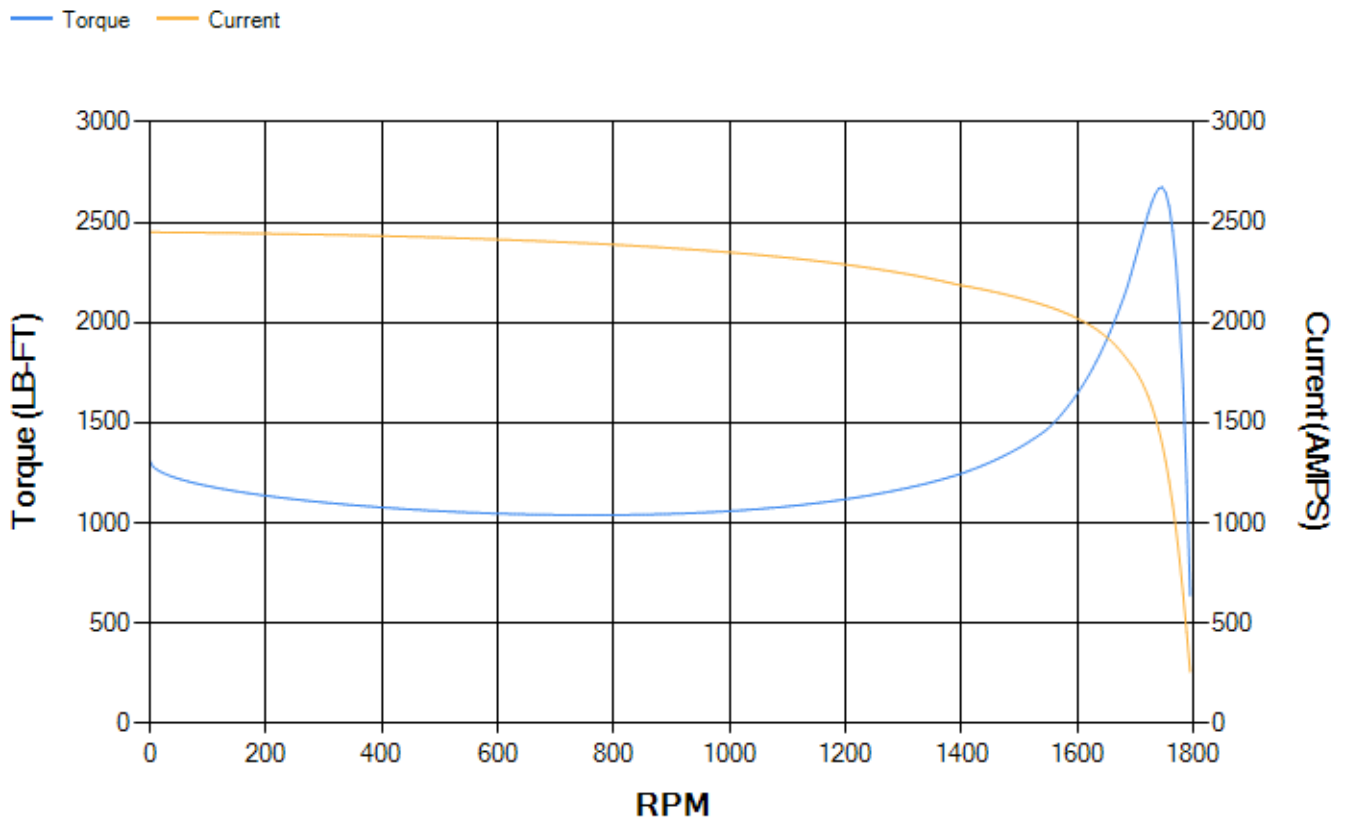
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	94.7	95.02	95.65	95.95	96.01	94.61	0.00
% PF	88.04	88.26	88.2	86.64	81.09	62.44	3.68
AMPS	561.3	513.35	443.77	337.78	240.43	158.44	116.47

<b>TORQ(FL)#FT</b>	1175.1	<b>TORQ(LR)%FL</b>	111.61	<b>TORQ(BD)%FL</b>	227.48
<b>AMPS(LR)</b>	2450.87	<b>PF AT START</b>	0.25		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 4477 Lb-Ft Sq (188.48 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 32 seconds. Safe stall time at 100% voltage is 90 seconds cold, 48 seconds hot. Rotor inertia is 115.22 Lb-Ft Sq (4.85 Kg-meter Sq).

<b>Open Circuit A-C:</b>	1.433	<b>Short Circuit D-C:</b>	0.027
<b>Short Circuit A-C:</b>	0.061	<b>X/R Ratio:</b>	10.008
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

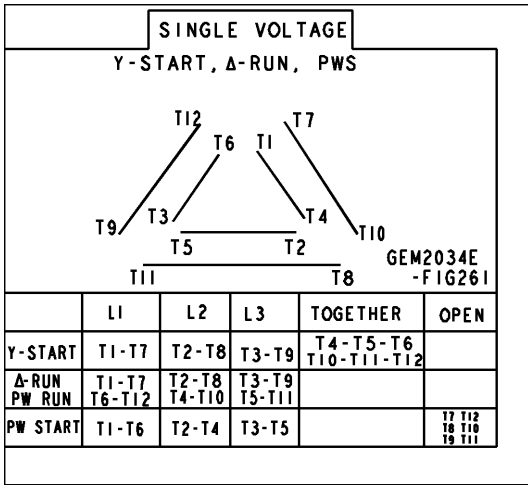
**Speed Torque Current Curve (First Connection, First Speed)**





Marks:

**Connection Diagram**  
**GEM2034E-FIG261**



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E7660AA1	115E7670LM1
Bearing	235A2522AJ01	235A2536AB01
Slinger/Inproseal	149C4399G06	

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	
Fan Cover	161C1050AA1

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	179B9052G01

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

