



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

# Product Technical Information

October 20, 2020

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

<b>Model Number:</b>	<b>5KS449DAJ6021D</b>
<b>Catalog Number:</b>	<b>V4532</b>
<b>Instruction Manual:</b>	GEI-M1045
<b>Connection Diagram:</b>	GEM2034E-FIG19
<b>Outline Drawing:</b>	148CB49VMJKFGLA0004

Accessory Connection Diagrams			
<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	3027JE-1C
<b>RTD:</b>	None	<b>Thermistor:</b>	None
<b>Thermostat:</b>	3027JE-2A	<b>Winding Thermocouple:</b>	None
<b>Bearing RTD:</b>	None		

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Marks:

<b>MODEL NUMBER:</b>	<b>5KS449DAJ6021D</b>	<b>Estimated Weight:</b>	3260 Lbs
<b>Outline Drawing:</b>	148CB49VMJKFGLA0004	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG19	<b>Enclosure:</b>	WPI
<b>Instruction Book:</b>	GEI-M1045	<b>Encl Construction:</b>	OPEN
<b>Design Code:</b>	49BD1253AB	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	L449TP20	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	4	<b>Nominal Efficiency:</b>	95.8 %
<b>Output Power:</b>	400HP 296KW	<b>Guaranteed Efficiency:</b>	95.0 %
<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>	79.9
<b>Amps - FL:</b>	441.0	<b>Power Factor:</b>	89.0
<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  
HTR LDS HE1-HE2 115V 145W  
ROT CCW FACING ODE LEAD/PH SEQ 1-2-3/1-2-3  
THERMOSTAT LEADS TB1-TB2 TRIP  
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  
SUITABLE FOR 350 HP, 380V, 50 HZ WITH  
465.0 AMPS AND 1485 RPM AT 1.0 SF



**Additional Information:**

4P, VERT HOLLOW SHAFT HIGH THRUST (2D)  
C/BOX 2500 CU IN - 2(4.00" NPT)  
C/B GRD PLATE  
OIL RESISTANT SLEEVING ON LEADS  
(3)N.C. CLASS F TRIP TSTAT LDS TO MAIN CONDUIT BOX  
115V HTR LDS TO MAIN CONDUIT BOX  
GROUND PAD  
INSULATED UPPER BEARING CARRIER  
SHAFT GROUNDING RING MOUNTED ON DE BRG CAP  
BEARING LIFE 8760 HRS AT 22270 LB THRUST  
PART WINDING START  
CG:25.10 IN FROM P-BASE FACE, STAT DEF:= 0.006 IN  
RCF: 2423 CPM  
NON-REVERSE BALL CARRIER,  
BOLTED COUPLING, BX = 1.938 IN, EW= 0.500 IN



**Performance Characteristics**

1st Winding 1st Connection

**Design: 49BD1253AB**

**Marks:**

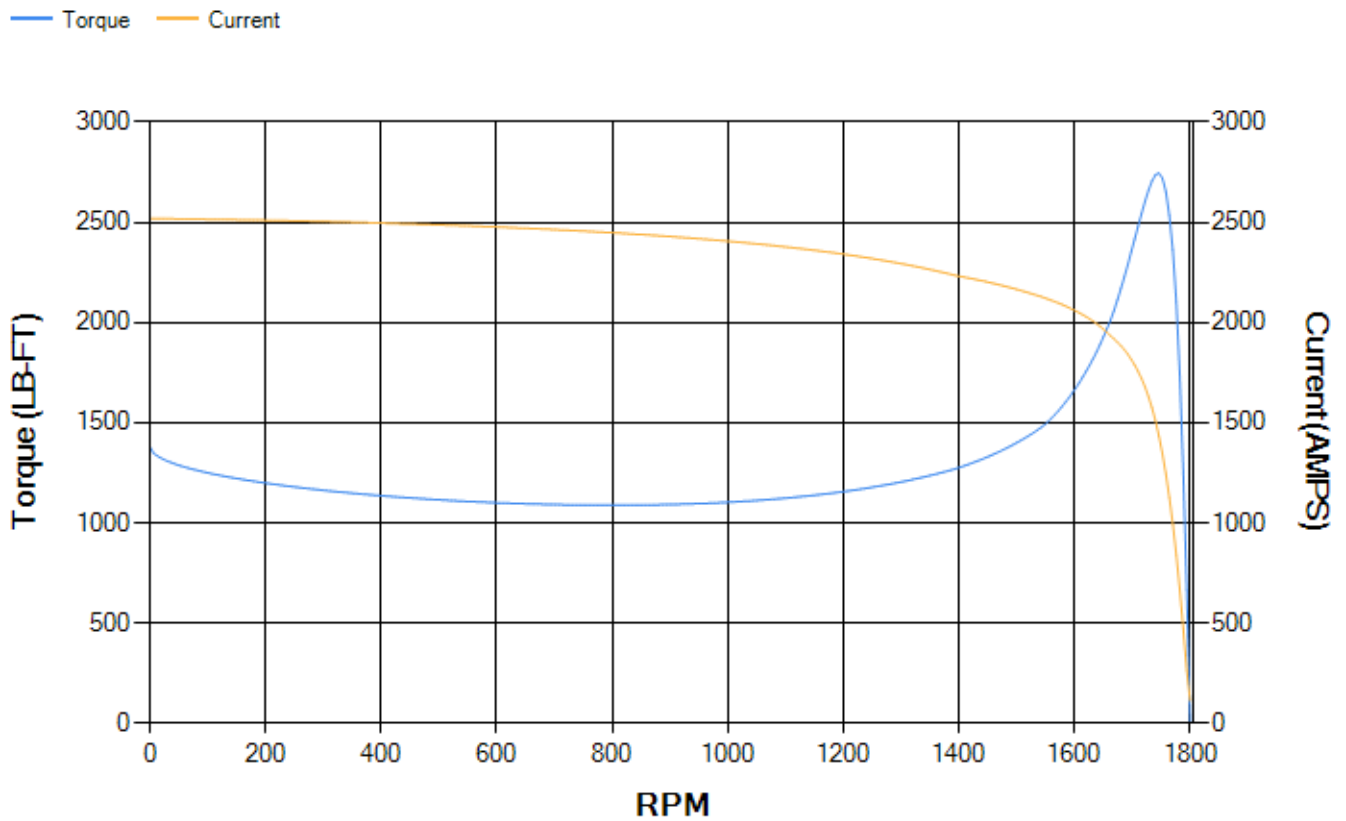
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	94.74	95.04	95.61	95.83	95.76	94.06	0.00
% PF	88.74	88.94	88.89	87.43	82.21	64.23	4.38
AMPS	556.63	509.35	440.5	335.14	237.77	154.91	111.37

<b>TORQ(FL)#FT</b>	1174.58	<b>TORQ(LR)%FL</b>	117.72	<b>TORQ(BD)%FL</b>	233.55
<b>AMPS(LR)</b>	2519	<b>PF AT START</b>	0.25		

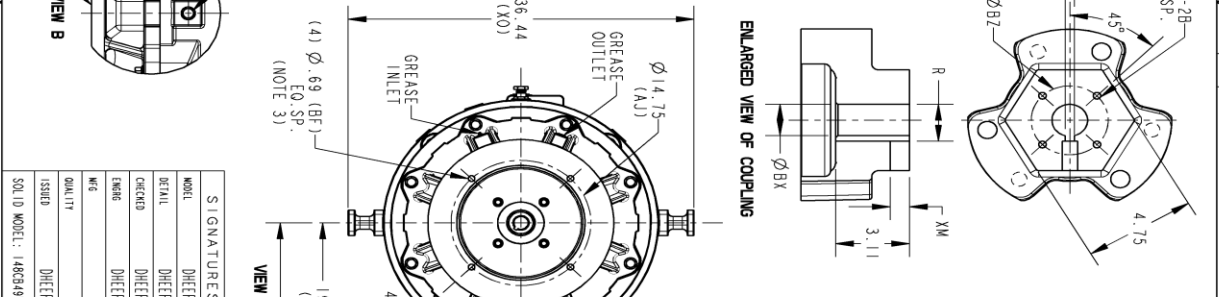
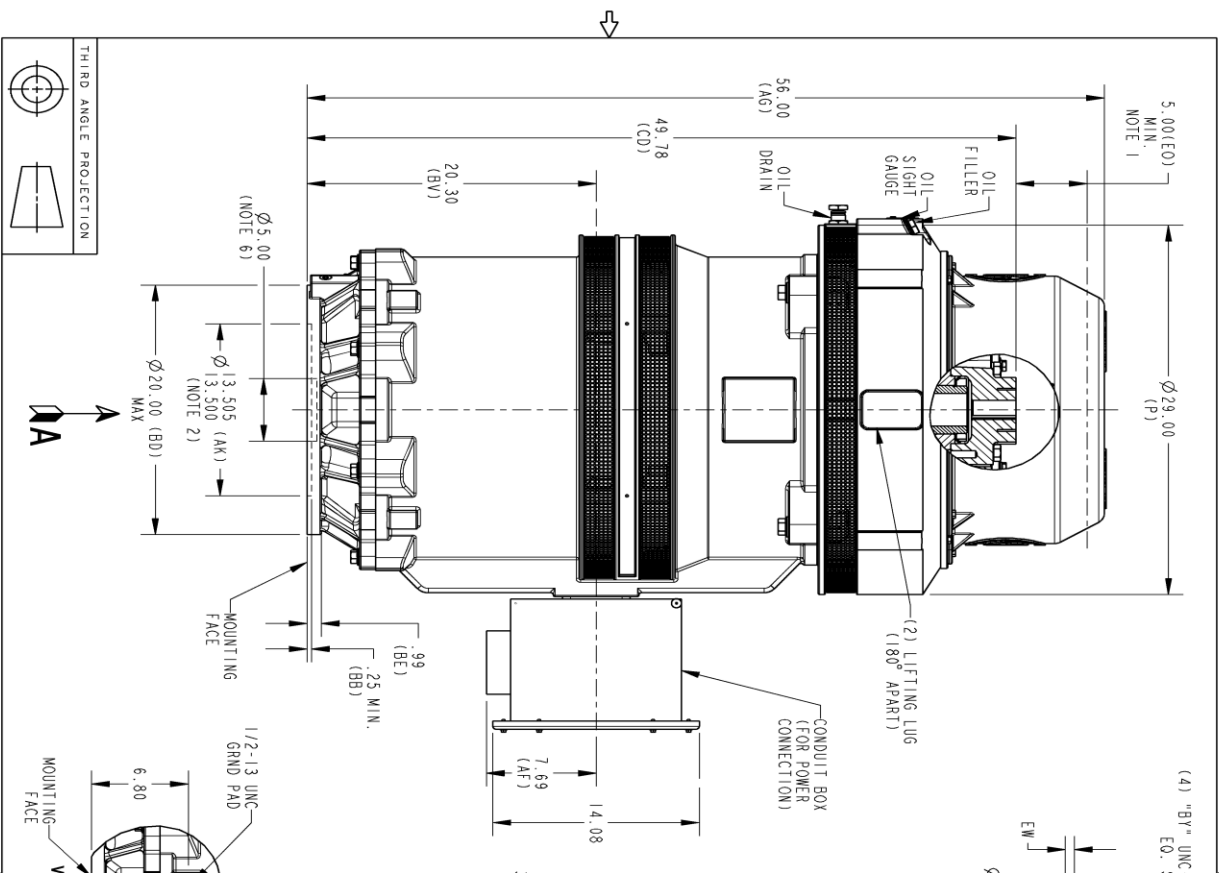
This motor is capable of two cold or one hot start with a maximum connected load inertia of 4732 Lb-Ft Sq (199.22 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 32 seconds. Safe stall time at 100% voltage is 85 seconds cold, 48 seconds hot. Rotor inertia is 128.77 Lb-Ft Sq (5.42 Kg-meter Sq).

<b>Open Circuit A-C:</b>	1.585	<b>Short Circuit D-C:</b>	0.026
<b>Short Circuit A-C:</b>	0.063	<b>X/R Ratio:</b>	9.867
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

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



Marks:



REV.	DESCRIPTION	DATE	APPROVED

COUPLING DIMENSIONS		KEY WAY	
BY	BZ	EW	R XM
1.501	1/4-20 2.125	.375	1.669 .562
1.688	1/4-20 2.500	.375	1.859 .562
1.751	1/4-20 2.500	.375	1.922 .562
1.813	1/4-20 2.500	.500	2.033 .688
1.938	1/4-20 2.500	.500	2.160 .688
2.001	3/8-16 3.250	.500	2.223 .688
2.063	3/8-16 3.250	.500	2.287 .688
2.126	3/8-16 3.250	.500	2.350 .688
2.188	3/8-16 3.250	.500	2.414 .688
2.251	3/8-16 3.250	.500	2.477 .688
2.316	3/8-16 3.250	.500	2.550 .688
2.438	3/8-16 3.250	.625	2.715 .812
2.501	3/8-16 3.250	.625	2.777 .812

**NOTES:**

1. THE TOTAL HEIGHT OF PUMP SHAFT AND LOCKING NUT ABOVE COUPLING MUST NOT EXCEED THIS DIMENSION.
2. TOLERANCE ON FACE ROUNDOFF AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBET ARE .007 T, 1.1 R
3. CENTRE OF MOUNTING BOLTS WITHIN 0.025 OF ANGULAR & DIAMETRICAL LOCATION WITHIN REFERENCE TO THE CENTRAL LINE OF MOUNTING RABBET.
4. PROVIDED MOUNTING CONDITIONS PERMIT, CONDUIT BOX MAY BE TURNED SO THAT ENTRANCE CAN BE MADE UPWARD, DOWNWARD OR FROM EITHER SIDE.
5. FOR ESTIMATING ONLY UNLESS ENDORSED FOR CONSTRUCTION.
6. MAINTAIN MINIMUM CLEARANCE FOR SHAFT SLINGER.

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**DIMENSIONS IN INCHES**  
 NEMA TYPE P BASE  
 (2) 1/4" - 8 NPT

**GE INDUSTRIAL MOTORS**  
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**OUTLINE, NEMA WP1 447-449**  
 VERTICAL HOLLOW SHAFT-HIGH THRUST GRS LOWER  
 200 BD, 2500 CU IN C/BOX GRND PAD

**SIGNATURES**

MODEL	DATE
DHEERABJ 23/09/20	
DHEERABJ 23/09/20	
DHEERABJ 23/09/20	
DHEERABJ 23/09/20	

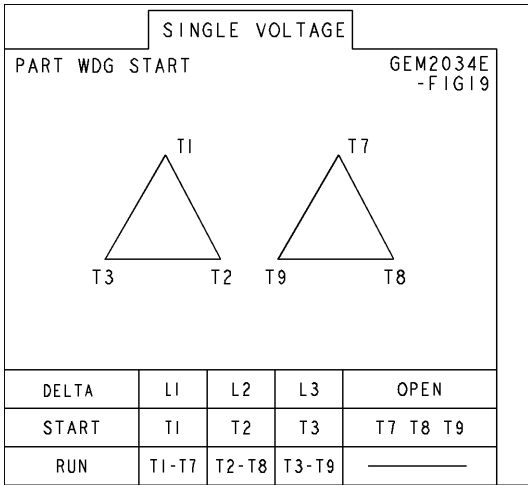
**QUALITY** DHEERABJ 23/09/20  
**ISSUED** DHEERABJ 23/09/20  
**SOLID MODEL:** 148CB9VMJKFGLA0004

**SCALE:** 0.120 REF. NO. 148CB9VMJKFGLA0004

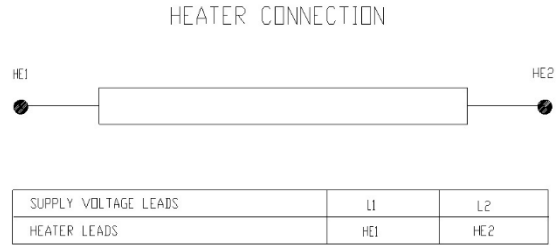
SIZE DRAWING NO. **B 148CB9VMJKFGLA0004** REV. SHEET **0**

Marks:

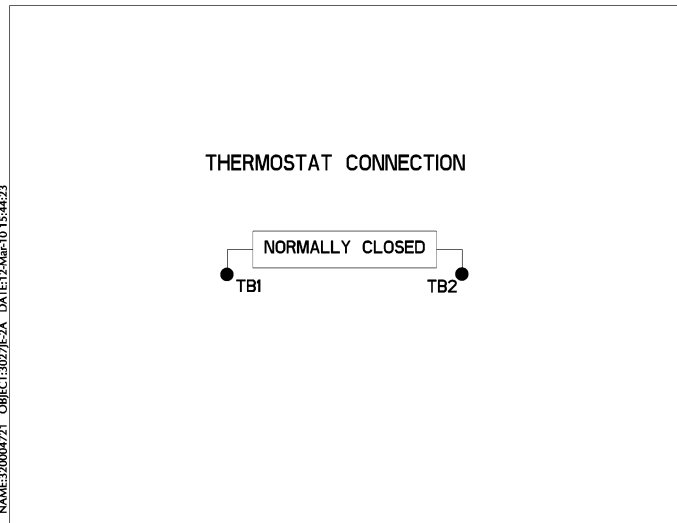
**Connection Diagram**  
**GEM2034E-FIG19**



**Heater Connection**  
**3027JE-1C**



**Thermostat Connection**  
**3027JE-2A**



NAME:320004721 - OBJECT:3027JE-2A DATE:12-Mar-10 15:44:23



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E7661AA1	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	179B9098BP-G01

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

