



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

# Product Technical Information

June 22, 2023

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

<b>Model Number:</b>	<b>5KS445DAJ7054</b>
<b>Catalog Number:</b>	<b>V4450</b>
<b>Instruction Manual:</b>	GEI-M1045
<b>Connection Diagram:</b>	GEM2034E-FIG19
<b>Outline Drawing:</b>	148CB44VMHKCCA0001

Accessory Connection Diagrams			
<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	3027JE-1C
<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>5KS445DAJ7054</b>	<b>Estimated Weight:</b>	2670 Lbs
<b>Outline Drawing:</b>	148CB44VMHKCCAA0001	<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>	44BD3140A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	L445TP16	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	6	<b>Nominal Efficiency:</b>	95.4 %
<b>Output Power:</b>	150HP 111KW	<b>Guaranteed Efficiency:</b>	94.5 %
<b>RPM:</b>	1190	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	47.1
<b>Amps - FL:</b>	177.0	<b>Power Factor:</b>	83.0
<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  
INVERTER DUTY PER NEMA MG1 PART 31  
ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT  
VAR TORQUE RANGE 7.5-60 HZ  
UPPER BRG LUBE OIL: 10.2 QTS  
AMB 0 TO 40 DEG C : ISO 32(MINERAL OR SYNTHETIC)  
AMB -15 TO 0 DEG C : ISO 32 SYNTHETIC



**Additional Information:**

6P, VERT HOLLOW SHAFT HIGH THRUST (2D)  
C/BOX 700 CU IN - 3.00" NPT  
OIL RESISTANT SLEEVING ON LEADS  
115V HTR LDS TO MAIN CONDUIT BOX  
BEARING LIFE 8760 HRS AT 25000 LB THRUST  
PART WINDING START  
CG:22.60 IN FROM P-BASE FACE,STAT DEF:= 0.006 IN  
RCF: 2497 CPM  
NON-REVERSE BALL CARRIER,  
BOLTED COUPLING, BX = 1.688 IN, EW= 0.375 IN



**Performance Characteristics**

1st Winding 1st Connection

**Design: 44BD3140A**

**Marks:**

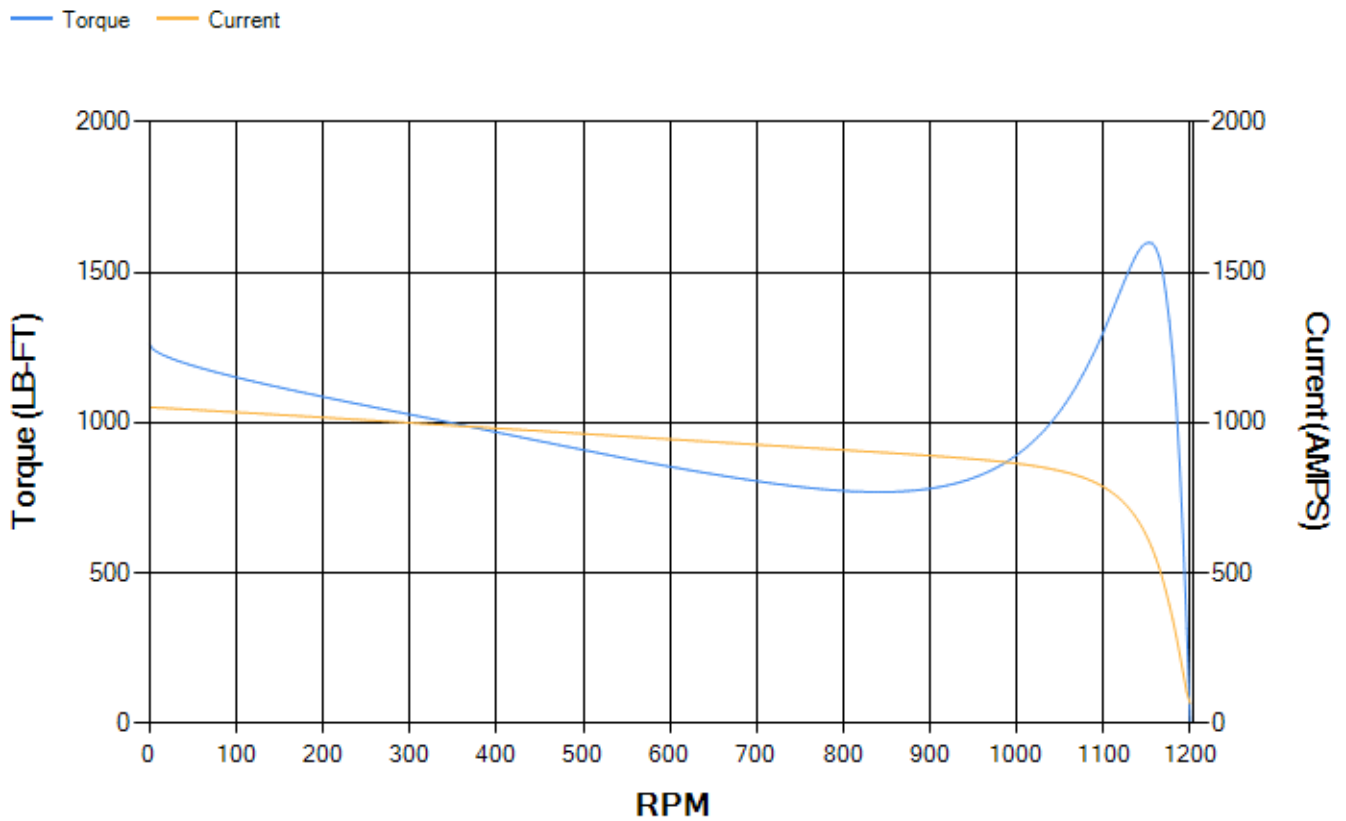
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	94.79	95.02	95.48	95.48	95.09	92.62	0.00
% PF	84.34	84.05	83.08	79.36	70.31	48.39	3.67
AMPS	219.5	202.17	176.97	138.96	104.99	78.3	65.63

<b>TORQ(FL)#FT</b>	661.07	<b>TORQ(LR)%FL</b>	190.77	<b>TORQ(BD)%FL</b>	241.55
<b>AMPS(LR)</b>	1051.35	<b>PF AT START</b>	0.35		

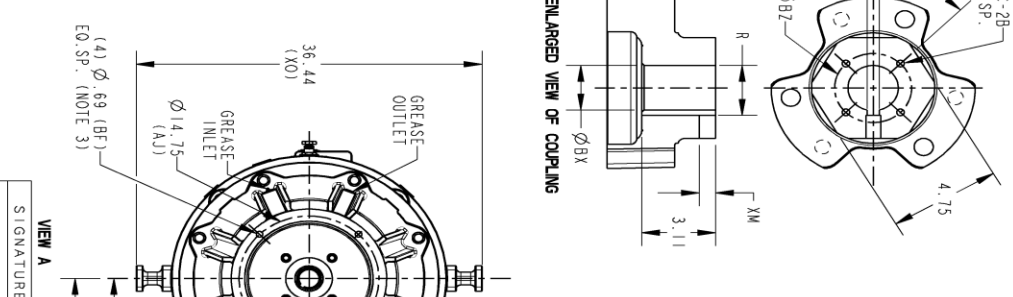
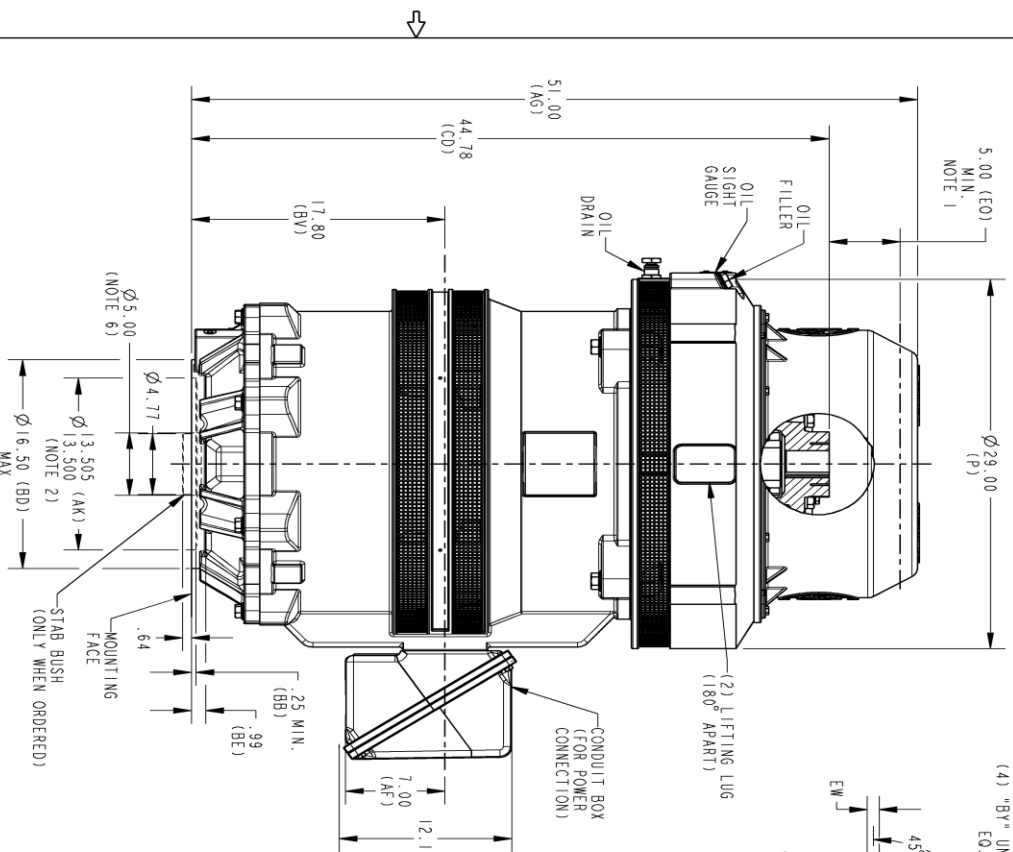
This motor is capable of two cold or one hot start with a maximum connected load inertia of 8336 Lb-Ft Sq (350.95 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 43 seconds. Safe stall time at 100% voltage is 74 seconds cold, 52 seconds hot. Rotor inertia is 116.93 Lb-Ft Sq (4.92 Kg-meter Sq).

<b>Open Circuit A-C:</b>	0.954	<b>Short Circuit D-C:</b>	0.028
<b>Short Circuit A-C:</b>	0.054	<b>X/R Ratio:</b>	10.667
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

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



Marks:

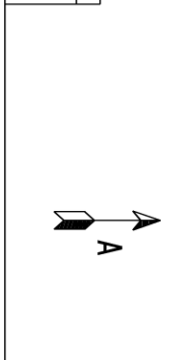
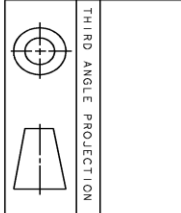


NOTES:

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

DIMENSIONS IN INCHES  
NEMA TYPE P BASE

COUPLING DIMENSIONS		KEY WAY	
BY	BZ	EW	R
1.501	1/4-20	2.125	.375
1.588	1/4-20	2.500	.375
1.751	1/4-20	2.500	.375
1.813	1/4-20	2.500	.500
1.938	1/4-20	2.500	.500
2.001	3/8-16	3.250	.500
2.063	3/8-16	3.250	.500
2.126	3/8-16	3.250	.500
2.188	3/8-16	3.250	.500
2.251	3/8-16	3.250	.500
2.316	3/8-16	3.250	.500
2.438	3/8-16	3.250	.625
2.501	3/8-16	3.250	.625



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SIGNATURES	DATE
RAVI	07/01/16
RAVI	07/01/16
SASI	07/01/16
SASI	07/01/16
ENG	
QC	
ISSUED	
SOLID MODEL: 148CB44VMHKCCAA0001	

TITLE  
**OUTLINE, NEMA WPI 444/445**  
**VERTICAL HOLLOW SHAFT, HIGH THRUST GRS LOWER**  
16.5 BD, 700 CU IN C/BXD

SCALE: 0.120 REF. No. . . . .

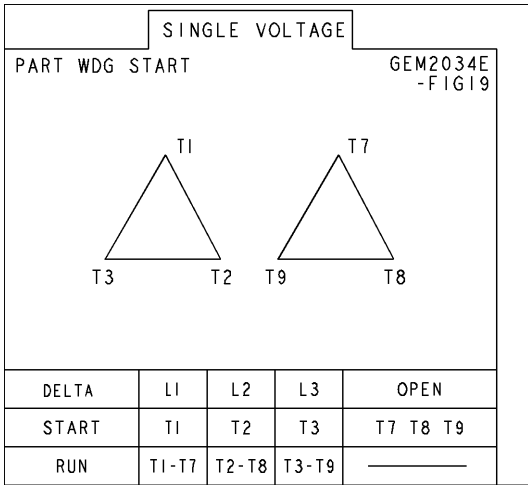
148CB44VMHKCCAA0001 REV. 001

REV.	DESCRIPTION	DATE	APPROVED
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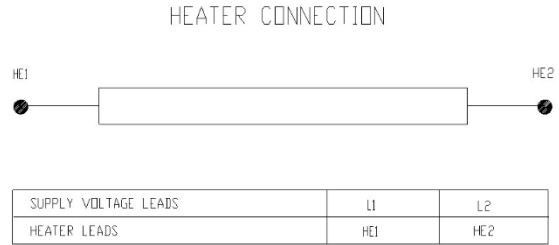
SIZE DRAWING NO. B 148CB44VMHKCCAA0001 REV. 001 SHEET 1

Marks:

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



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



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E7660AA1	115E7670LM1
Bearing	235A2622AA01	235A2536AB01
Slinger/Inproseal	149C4399G06	

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

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	118D4408AD2

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

