



GE INDUSTRIAL MOTORS
a **WOLONG** company

Product Technical Information

February 17, 2023

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

Model Number:	5KS449DAJ6096
Catalog Number:	V4494
Instruction Manual:	GEI-M1045
Connection Diagram:	GEM2034E-FIG273
Outline Drawing:	148CB49VMJKFGAA0003

Accessory Connection Diagrams

Bearing Thermocouple:	None	Heater:	3027JE-1C
RTD:	None	Thermistor:	None
Thermostat:	None	Winding Thermocouple:	None
Bearing RTD:	None		

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Marks:

MODEL NUMBER:	5KS449DAJ6096	Estimated Weight:	3190 Lbs
Outline Drawing:	148CB49VMJKFGAA0003	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG273	Enclosure:	WPI
Instruction Book:	GEI-M1045	Encl Construction:	OPEN
Design Code:	49BD1520A	Ambient Max(°C):	40
Type:	KS	Alt Ambient Max(°C):	--
Frame:	L449TP20	Insulation Class:	H
Phases:	3	NEMA Design:	B
Poles:	4	Nominal Efficiency:	95.8 %
Output Power:	400HP 296KW	Guaranteed Efficiency:	95.0 %
RPM:	1790	3/4 Load Efficiency:	--
Voltage:	460/575	KVA Code:	G
Hertz:	60	Max KVAR:	77.2
Amps - FL:	446/364	Power Factor:	88.0
Service Factor:	1.15	Bearing - DE:	6217C3
Alt Service Factor:	--	Bearing - ODE:	235A2536AB01

Enclosure is Weather Protected One

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 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
SUITABLE FOR 300 HP, 380V, 50 HZ WITH
472.0 AMPS AND 1485 RPM AT 1.00 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
115V HTR LDS TO MAIN CONDUIT BOX
BEARING LIFE 8760 HRS AT 22276 LB THRUST
BEARING LIFE 9198 HRS AT 22000 LB THRUST
CG:25.10 IN FROM P-BASE FACE, STAT DEF:= 0.006 IN
RCF: 2471 CPM
NON-REVERSE BALL CARRIER,
BOLTED COUPLING, BX = 2.188 IN, EW= 0.500 IN
FIRE PUMP MOTOR
ESTIMATED SOUND PRESSURE 90.8 DBA AT 1 METER



Performance Characteristics

1st Winding 1st Connection

Design: 49BD1520A

Marks:

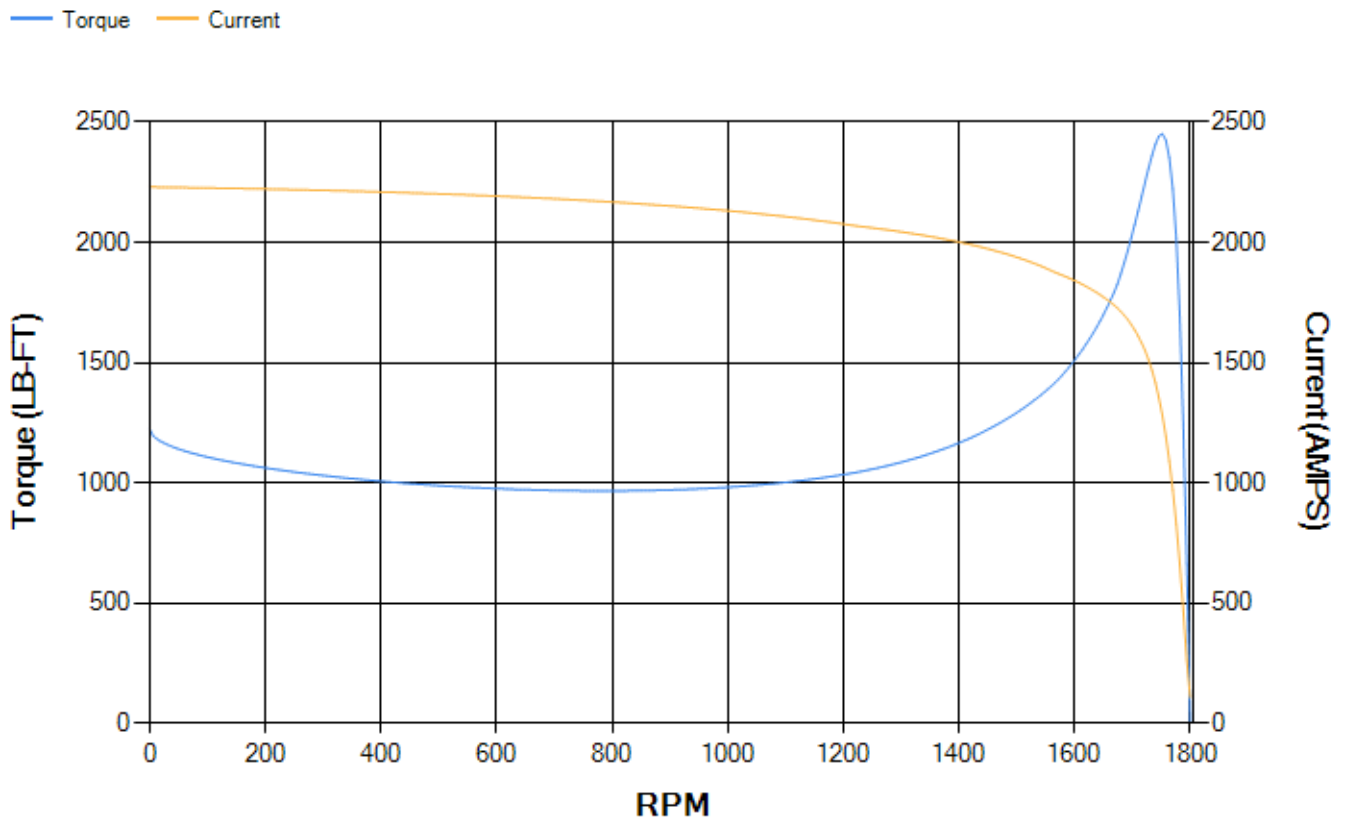
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	94.92	95.21	95.77	95.93	95.8	93.99	0.00
% PF	87.2	87.65	87.93	86.95	82.28	65.14	4.68
AMPS	565.4	515.89	444.6	336.62	237.47	152.86	107.67

TORQ(FL)#FT	1174.6	TORQ(LR)%FL	104.25	TORQ(BD)%FL	208.57
AMPS(LR)	2230.19	PF AT START	0.22		

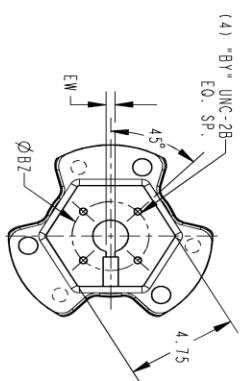
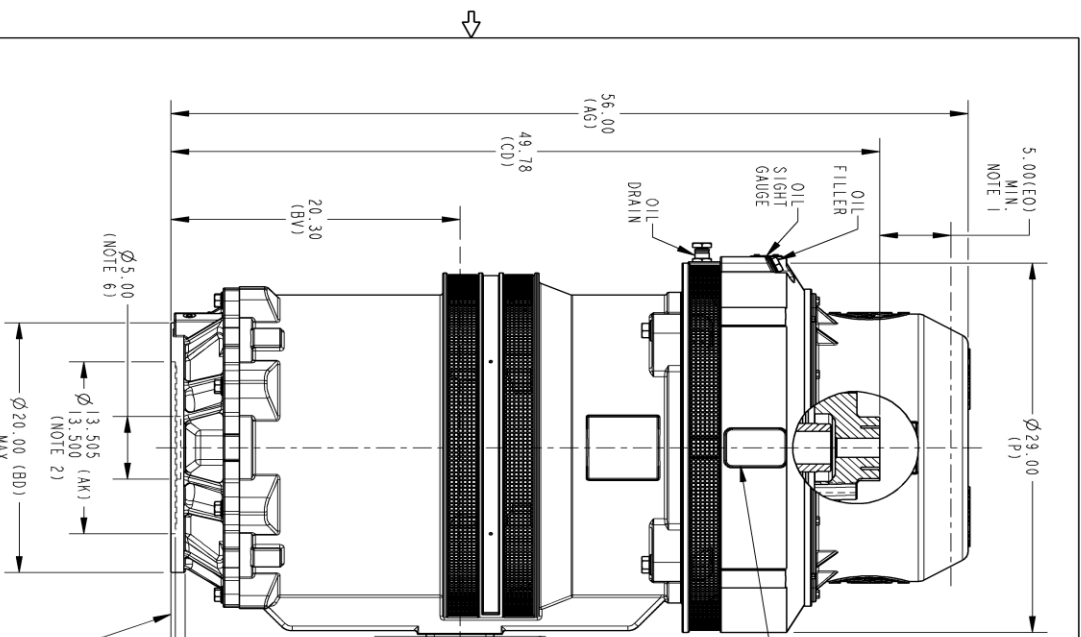
This motor is capable of two cold or one hot start with a maximum connected load inertia of 7853 Lb-Ft Sq (330.61 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 61 seconds. Safe stall time at 100% voltage is 126 seconds cold, 74 seconds hot. Rotor inertia is 121.99 Lb-Ft Sq (5.14 Kg-meter Sq).

Open Circuit A-C:	1.665	Short Circuit D-C:	0.038
Short Circuit A-C:	0.073	X/R Ratio:	14.213
Stator Slots:	72	Rotor Slots:	58

Speed Torque Current Curve (First Connection, First Speed)



Marks:



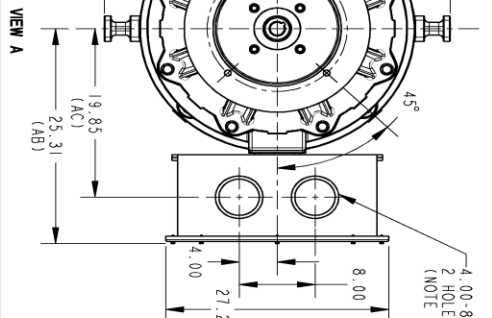
REV. 0

148CB949VMJKFGAA0003

REVISIONS

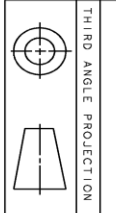
REV.	DESCRIPTION	DATE	APPROVED

- NOTES:
1. THE TOTAL HEIGHT OF PUMP SHAFT AND LOCKING NUT ABOVE COUPLING MUST NOT EXCEED THIS DIMENSION.
 2. TOLERANCE ON FACE RUNOUT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBIT ARE .007 T.I.R
 3. CENTRE OF MOUNTING BOLTS WITHIN 0.025 OF ANGULAR & DIAMETRICAL LOCATION WITHIN REFERENCE TO THE CENTRELINE OF MOUNTING RABBIT.
 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.



DIMENSIONS IN INCHES
NEMA TYPE "P" BASE

BX	BY	BZ	KEY WAY		
			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



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SIGNATURES	DATE
WORLD	DHETERRAB 23/06/20
DETAIL	DHETERRAB 23/06/20
DESIGN	DHETERRAB 23/06/20
ENGINEER	DHETERRAB 23/06/20

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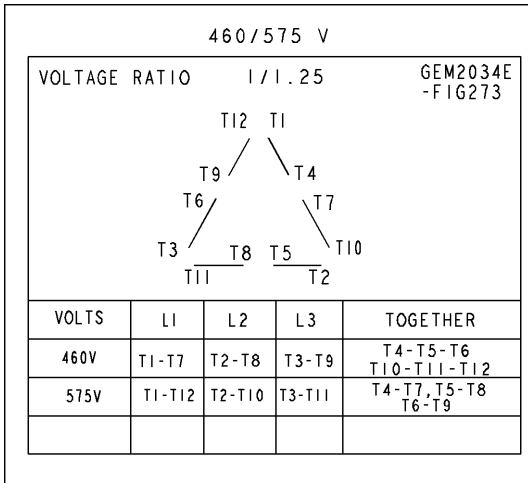
TITLE
OUTLINE, NEMA WPI 447/449
VERTICAL HOLLOW SHAFT-HIGH THRUST GREASE LOWER
200 BD, 2500 CL IN C/BOX

SCALE: 0.120 REF. No. 148CB949VMJKFGAA0003

REV 0

Marks:

Connection Diagram
GEM2034E-FIG273



Heater Connection
3027JE-1C



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

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

