



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

# Product Technical Information

July 15, 2020

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

<b>Model Number:</b>	<b>5KS324DAJ6021D1</b>
<b>Catalog Number:</b>	<b>V4513</b>
<b>Instruction Manual:</b>	GEI-M1045
<b>Connection Diagram:</b>	GEM2034E-FIG9
<b>Outline Drawing:</b>	148CB32VMHKBCLA0001

## 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>5KS324DAJ6021D1</b>	<b>Estimated Weight:</b>	690 Lbs
<b>Outline Drawing:</b>	148CB32VMHKBCLA0001	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG9	<b>Enclosure:</b>	WPI
<b>Instruction Book:</b>	GEI-M1045	<b>Encl Construction:</b>	OPEN
<b>Design Code:</b>	32BD1310AA	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	L324TP16	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	4	<b>Nominal Efficiency:</b>	94.1 %
<b>Output Power:</b>	40HP 29.6KW	<b>Guaranteed Efficiency:</b>	93.0 %
<b>RPM:</b>	1780	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	230/460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	15.3
<b>Amps - FL:</b>	100.0/50.0	<b>Power Factor:</b>	80.0
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6212C3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	235A2523AD01

Enclosure is Weather Protected One

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Stamped Nameplate Notes:

NEMA ENCLOSURE WP-I, CSA ENCL DP  
 HTR LDS HE1-HE2 115V 100W  
 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: 2.1 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 30 HP, 190/380V, 50 HZ WITH  
 92.0/46.0 AMPS AND 1480 RPM AT 1.0 SF



**Additional Information:**

4P, VERT HOLLOW SHAFT HIGH THRUST (1D)  
SPECIAL BALANCE  
C/BOX 346 CU IN - 3.00" NPT  
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  
SHAFT GROUNDING RING MOUNTED ON DE BRG CAP  
BEARING LIFE 8760 HRS AT 6324 LB THRUST  
CG:13.86 IN FROM P-BASE FACE, STAT DEF:0.0025 IN  
RCF:3600 CPM AT C/BOX SIDE, 3870 CPM AT  
90 DEG FROM C/ BOX SIDE  
NON-REVERSE BALL CARRIER,  
BOLTED COUPLING, BX = 1.251 & KEY=0.25"



**Performance Characteristics**

1st Winding 1st Connection

**Design: 32BD1310AA**

**Marks:**

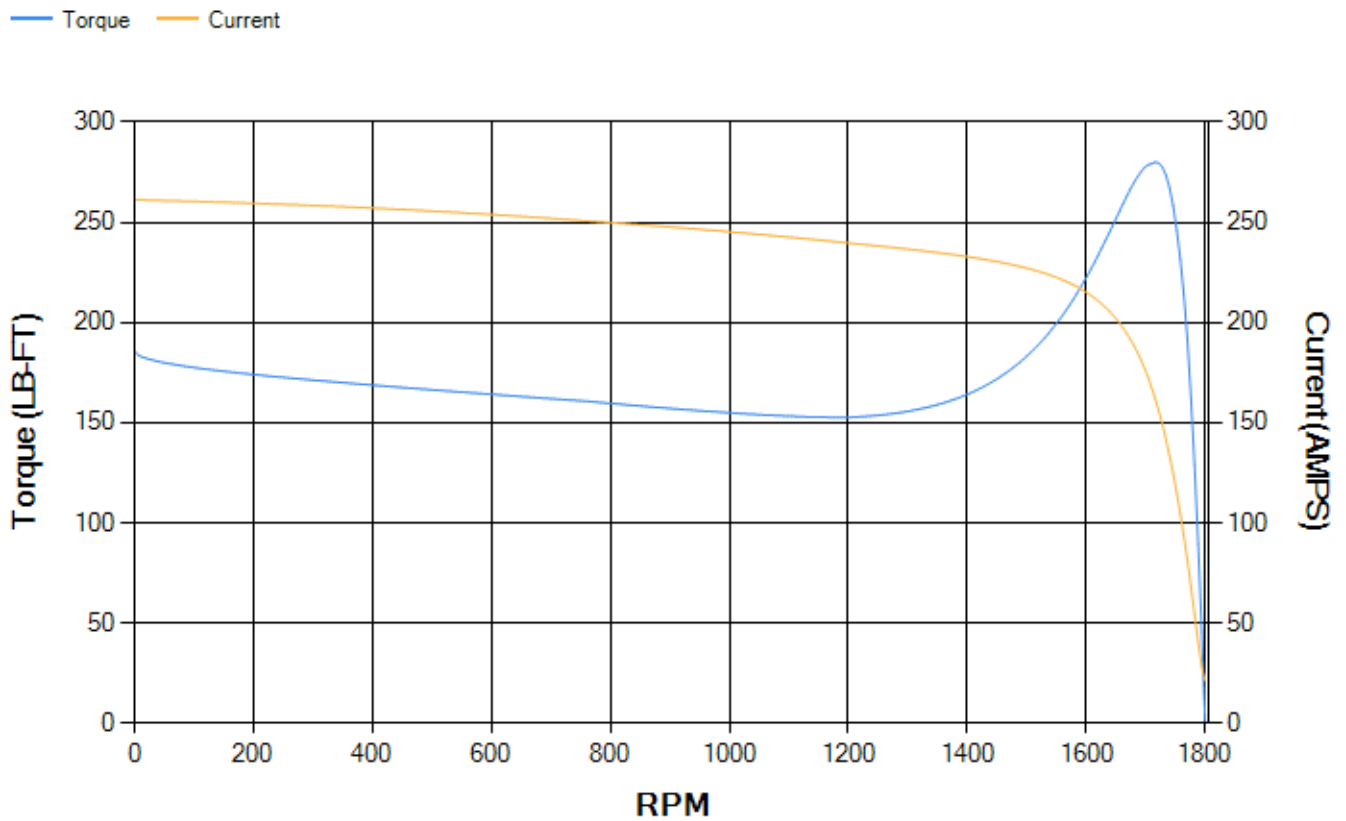
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	93.15	93.4	93.87	93.76	92.99	89.16	0.00
% PF	81.8	81.26	79.84	75.05	64.65	42.77	4.51
AMPS	61.41	56.73	49.84	39.9	31.14	24.54	21.35

<b>TORQ(FL)#FT</b>	118.01	<b>TORQ(LR)%FL</b>	157.38	<b>TORQ(BD)%FL</b>	236.32
<b>AMPS(LR)</b>	261.24	<b>PF AT START</b>	0.33		

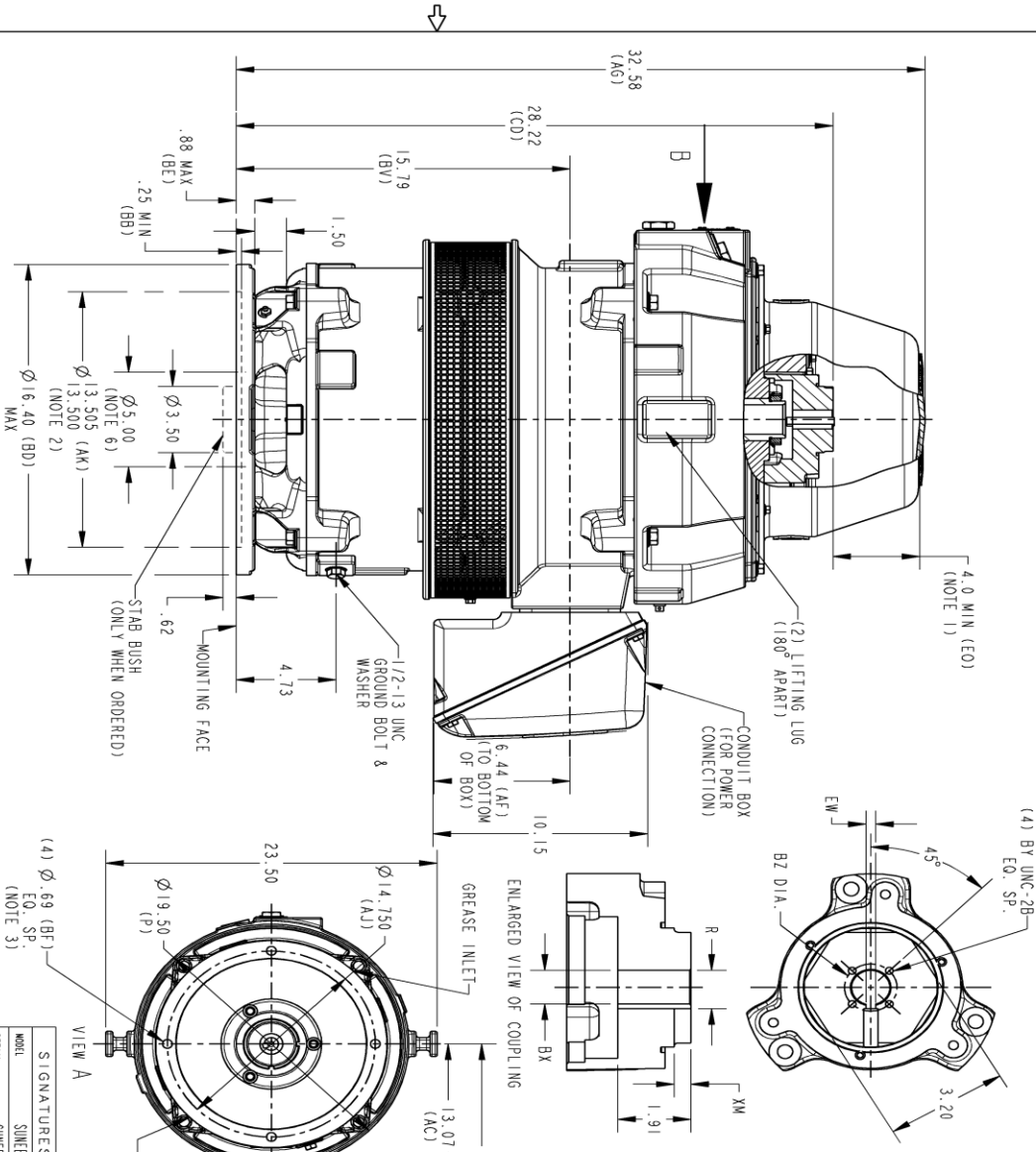
This motor is capable of two cold or one hot start with a maximum connected load inertia of 1174 Lb-Ft Sq (49.43 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 51 seconds. Safe stall time at 100% voltage is 87 seconds cold, 61 seconds hot. Rotor inertia is 6.63 Lb-Ft Sq (0.28 Kg-meter Sq).

<b>Open Circuit A-C:</b>	0.514	<b>Short Circuit D-C:</b>	0.024
<b>Short Circuit A-C:</b>	0.035	<b>X/R Ratio:</b>	8.887
<b>Stator Slots:</b>	48	<b>Rotor Slots:</b>	38

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



Marks:



REV. B SIZE DRAWING NO. 148CB32VMHKBCLA0001 003

REV. SHEET

REV.	DESCRIPTION	DATE	APPROVED
1	ISAC# 17-0691	09/01/17	RAGHU
2	ISSAC# 18-0869	12/17/18	PRAASHANTH
3	ISAC #18-1092	12/28/18	SACHIN

- NOTES:
1. THE TOTAL HEIGHT OF PUMP SHAFT AND LOCKING NUT ABOVE COUPLING MUST NOT EXCEED THIS DIMENSION.
  2. TOLERANCE ON FACE ROUNDT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBIT ARE .001 T.T.R.
  3. CENTRE OF MOUNTING BOLTS HOLES WITHIN 0.025 OF ANGULAR & DIAMETRICAL LOCATION WITHIN REFERENCE TO THE CENTRELINE OF MOUNTING RABBIT.
  4. PROVIDED MONTING CONDITIONS PERMIT, CONDUIT BOX MAY BE TIERED 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.

VIEW A

SIGNATURES	DATE
MOEL SUNEETHA 03/14/2016	
DETAIL SUNEETHA 03/14/2016	
DESIGNER RAGHU 03/14/2016	
CHK RAGHU 03/14/2016	
QUALITY RADHA 03/14/2016	
ISSUED RADHA 03/14/2016	
SOLID MODEL: 148CB32VMHKBCLA0001	

SCALE: 0.180 REF. No.:

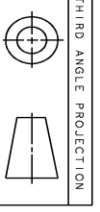


OUTLINE, WPI  
NEMA 324/326 HOLLOW SHAFT/HIGH THRUST  
650 BD, 346 CL IN C/BOX GROUND PAD

VIEW B

DIMENSIONS IN INCHES  
NEMA TYPE P BASE

COUPLING DIMENSIONS				KEY WAY			
BX	BY	BZ	EW	R	XM		
1.502-1.501	2.125	0.315	1.679/1.669	.562			
1.439-1.438	2.125	0.315	1.615/1.605	.562			
1.292-1.291	1/4-20	1.75	1.425/1.415	.562			
1.292-1.291		1.75	0.250	1.377/1.367	.438		
1.189-1.188		1.75	0.250	1.314/1.304	.438		
1.002-1.001	#10-32	1.315	0.250	1.124/1.114	.438		

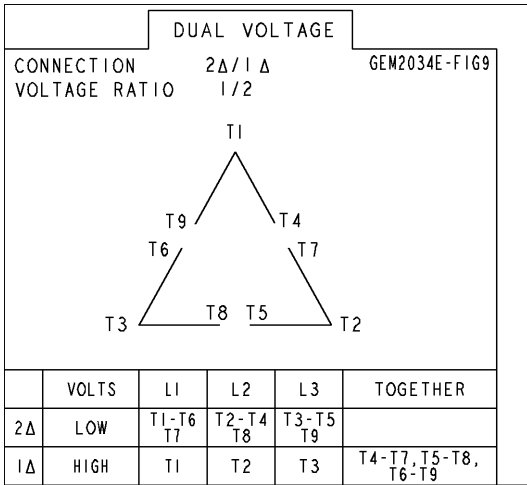


148CB32VMHKBCLA0001 003

REV. SHEET 1

Marks:

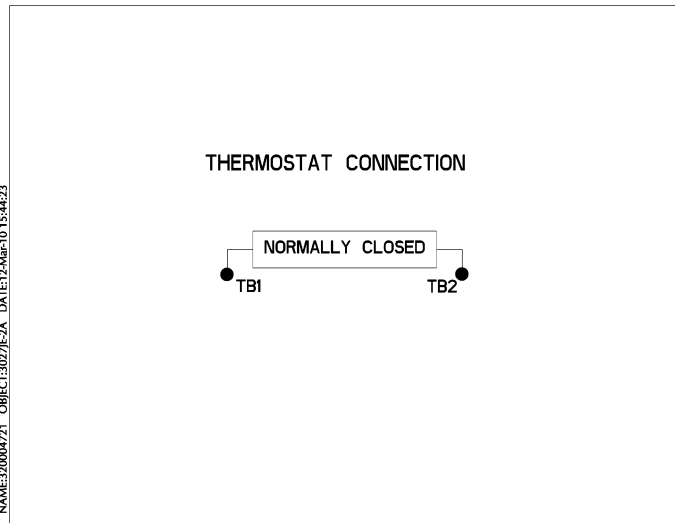
**Connection Diagram**  
**GEM2034E-FIG9**



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



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



NAME: 302004721 - OBJECT: 3027JE-2A - DATE: 12-Mar-10 15:44:23



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E7205AA1	115E7208LJ1
Bearing	235A2509BE01	235A2523AD01
Slinger/Inproseal	235A2300FM1	

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	
Fan Cover	161C1052AA1

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	149C4429AA2

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

