



**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>5KS324DAJ5020C</b>
<b>Catalog Number:</b>	<b>V4209</b>
<b>Instruction Manual:</b>	GEI-M1045
<b>Connection Diagram:</b>	GEM2034E-FIG9
<b>Outline Drawing:</b>	148CB32VMGKBCAA0001

## 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		

## Table of Contents

Specification	01
Performance Characteristics	02
Outline Drawing	03
Connection Drawing(s)	04
Spare parts	05

Marks:

<b>MODEL NUMBER:</b>	<b>5KS324DAJ5020C</b>	<b>Estimated Weight:</b>	680 Lbs
<b>Outline Drawing:</b>	148CB32VMGKBCAA0001	<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>	32BD0145AA	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	L324TP12	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	2	<b>Nominal Efficiency:</b>	93.0 %
<b>Output Power:</b>	50HP 37KW	<b>Guaranteed Efficiency:</b>	91.700 %
<b>RPM:</b>	3565	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	230/460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	16.0
<b>Amps - FL:</b>	120.0/60.0	<b>Power Factor:</b>	85.0
<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

---

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  
INVERTER DUTY PER NEMA MG1 PART 31  
ALTERNATE RATING FOR PWM CONTROL:1.0SF 40C AMBIENT  
VAR TORQUE RANGE 2.5-60 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 40 HP, 190/380V, 50 HZ WITH  
114.6/57.3 AMPS AND 2970 RPM AT 1.0 SF



**Additional Information:**

2P, VERT HOLLOW SHAFT HIGH THRUST (1D)  
SPECIAL BALANCE  
C/BOX 346 CU IN - 3.00" NPT  
OIL RESISTANT SLEEVING ON LEADS  
115V HTR LDS TO MAIN CONDUIT BOX  
BEARING LIFE 8760 HRS AT 5273 LB THRUST  
CG:13.86 IN FROM P-BASE FACE, STAT DEF:0.0023 IN  
RCF:3840 CPM AT C/BOX SIDE, 4020 CPM AT  
90 DEG FROM C/ BOX SIDE  
NON-REVERSE BALL CARRIER,  
BOLTED COUPLING, BX = 1.001 , KEY=0.25"



**Performance Characteristics**

1st Winding 1st Connection

**Design: 32BD0145AA**

**Marks:**

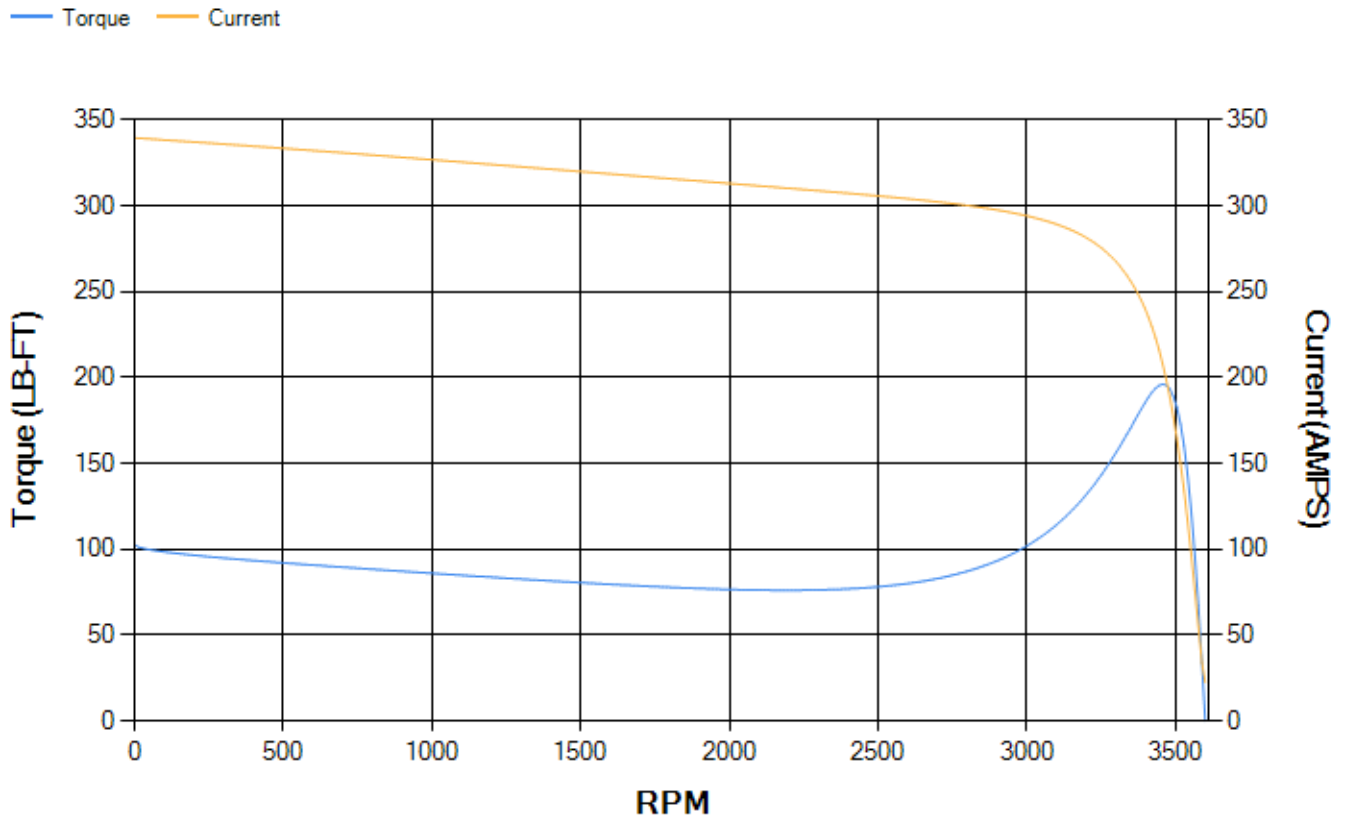
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	91.86	92.02	92.34	91.86	90.36	84.65	0.00
% PF	86.44	86.01	84.9	81.03	72.09	51.06	8.41
AMPS	73.67	67.99	59.6	47.15	35.92	27.07	22.5

<b>TORQ(FL)#FT</b>	73.59	<b>TORQ(LR)%FL</b>	139.57	<b>TORQ(BD)%FL</b>	266.46
<b>AMPS(LR)</b>	339.68	<b>PF AT START</b>	0.3		

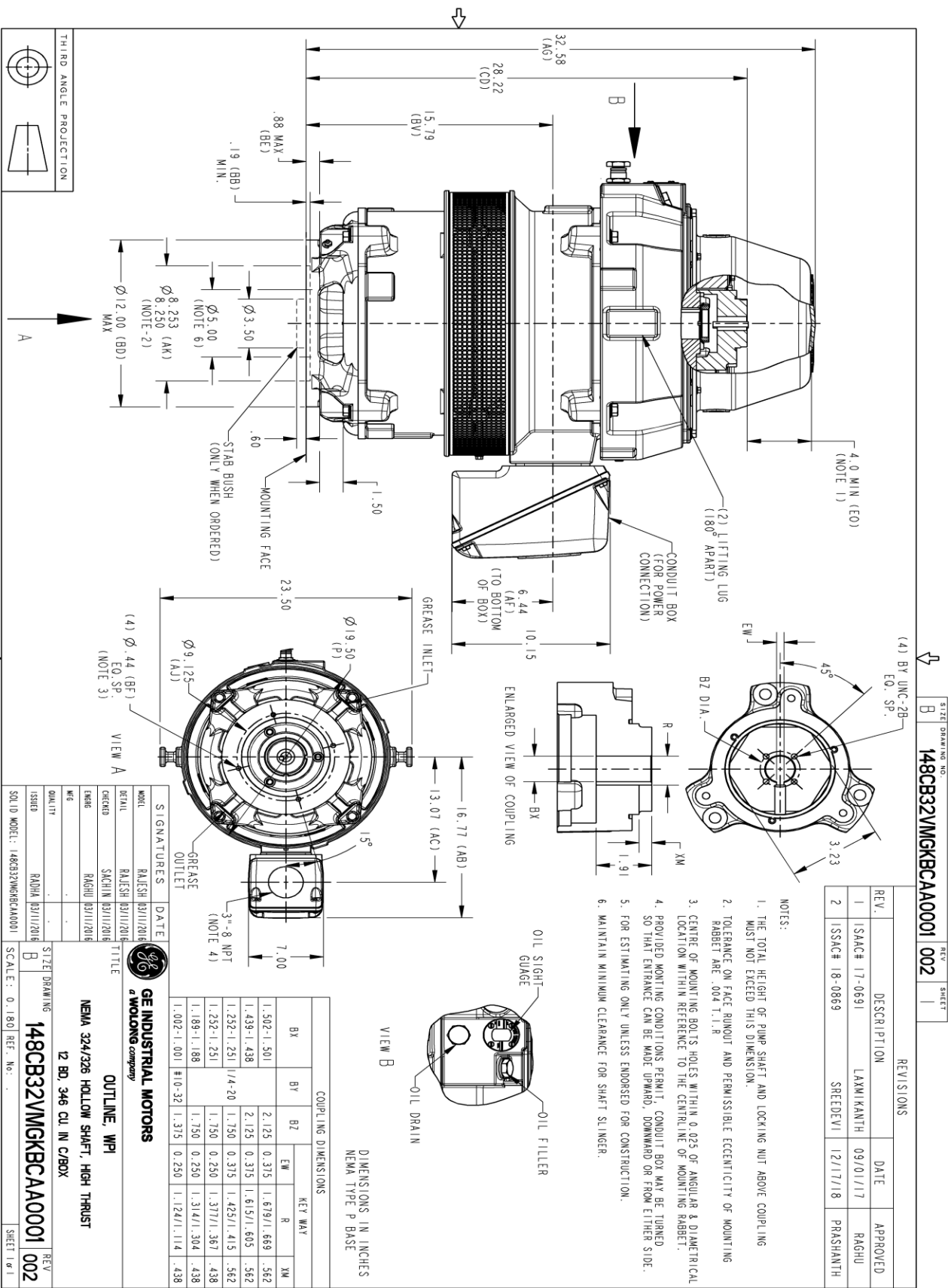
This motor is capable of two cold or one hot start with a maximum connected load inertia of 157 Lb-Ft Sq (6.61 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 27 seconds. Safe stall time at 100% voltage is 45 seconds cold, 33 seconds hot. Rotor inertia is 3.47 Lb-Ft Sq (0.15 Kg-meter Sq).

<b>Open Circuit A-C:</b>	0.739	<b>Short Circuit D-C:</b>	0.019
<b>Short Circuit A-C:</b>	0.047	<b>X/R Ratio:</b>	7.116
<b>Stator Slots:</b>	48	<b>Rotor Slots:</b>	38

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



Marks:



Marks:

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



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



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	115E7204AC1	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	

