



**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>5KS445DAJ6021C</b>
<b>Catalog Number:</b>	<b>V4558</b>
<b>Instruction Manual:</b>	GEI-M1045
<b>Connection Diagram:</b>	GEM2034E-FIG7
<b>Outline Drawing:</b>	148CB44VMJKCLA0001

## 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		

## Table of Contents

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

Marks:

<b>MODEL NUMBER:</b>	<b>5KS445DAJ6021C</b>	<b>Estimated Weight:</b>	2460 Lbs
<b>Outline Drawing:</b>	148CB44VMJKCLA0001	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG7	<b>Enclosure:</b>	WPI
<b>Instruction Book:</b>	GEI-M1045	<b>Encl Construction:</b>	OPEN
<b>Design Code:</b>	44BD1168BB	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	L445TP20	<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>	250HP 185KW	<b>Guaranteed Efficiency:</b>	95.0 %
<b>RPM:</b>	1780	<b>3/4 Load Efficiency:</b>	95.4 %
<b>Voltage:</b>	575	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	80.9
<b>Amps - FL:</b>	234.0	<b>Power Factor:</b>	84.0
<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

---

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



**Additional Information:**

4P, VERT HOLLOW SHAFT HIGH THRUST (2D)  
C/BOX 700 CU IN - 3.00" NPT  
OIL RESISTANT SLEEVING ON LEADS  
N.C. TRIP TSTAT LDS TO MAIN CONDUIT BOX  
115V HTR LDS TO MAIN CONDUIT BOX  
GROUND PAD  
INSULATED LOWER HALF COUPLING AT UPPER END  
SHAFT GROUNDING RING MOUNTED ON LOWER END BRG CAP  
BEARING LIFE 8760 HRS AT 22551 LB THRUST  
CG:22.60 IN FROM P-BASE FACE, STAT DEF:= 0.004 IN  
RCF: 2971 CPM  
NON-REVERSE BALL CARRIER,  
BOLTED COUPLING, BX = 1.688, KEY=0.375



**Performance Characteristics**

1st Winding 1st Connection

**Design: 44BD1168BB**

**Marks:**

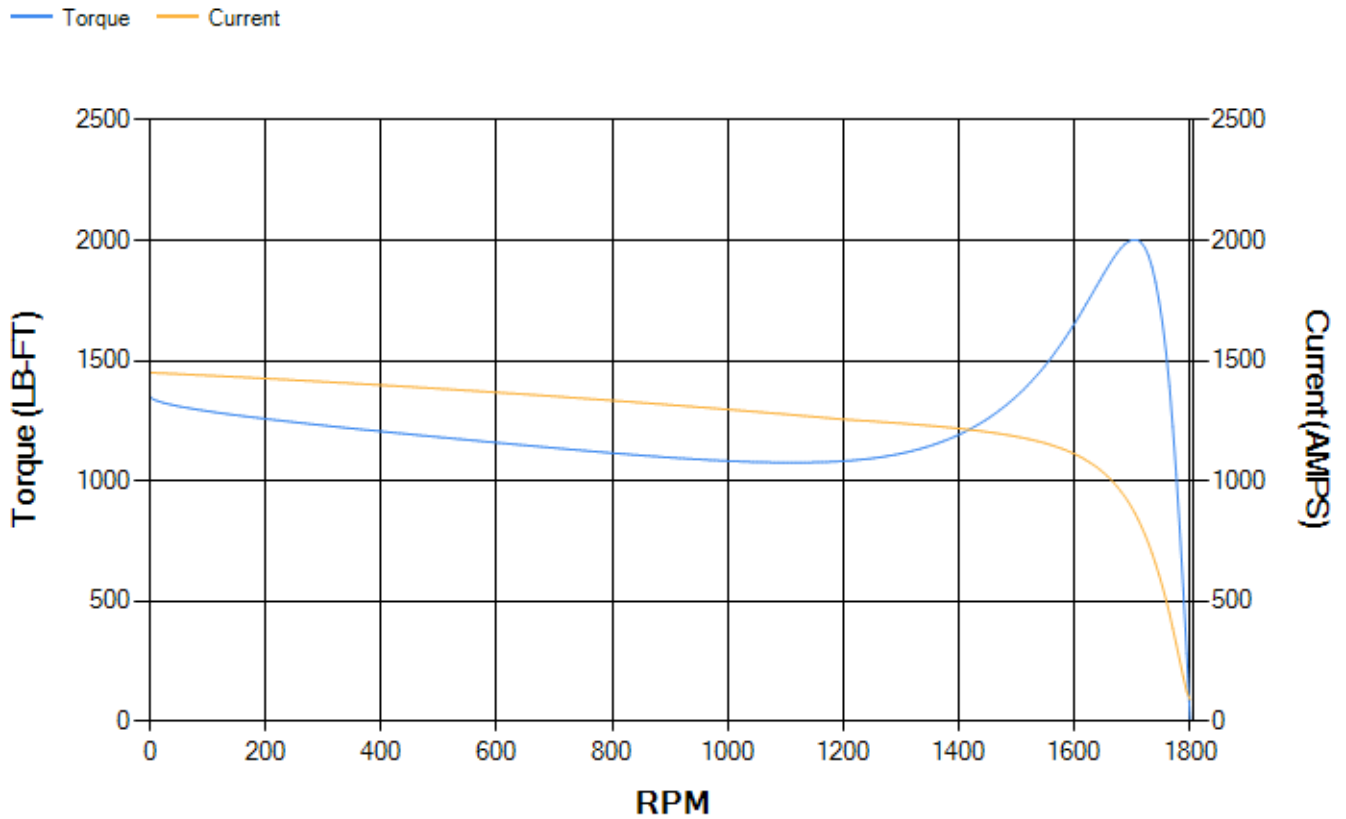
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	94.81	95.01	95.43	95.36	94.88	92.19	0.00
% PF	85.78	85.3	84.08	79.91	70.3	47.84	3.78
AMPS	287.7	265.62	233.3	184.22	140.32	106.1	90.38

<b>TORQ(FL)#FT</b>	736.77	<b>TORQ(LR)%FL</b>	183.63	<b>TORQ(BD)%FL</b>	271.28
<b>AMPS(LR)</b>	1449.8	<b>PF AT START</b>	0.32		

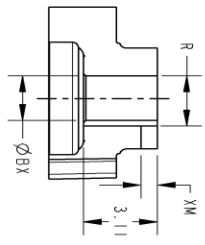
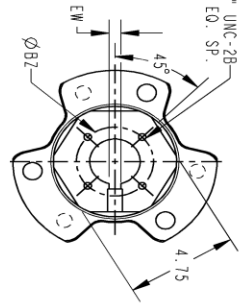
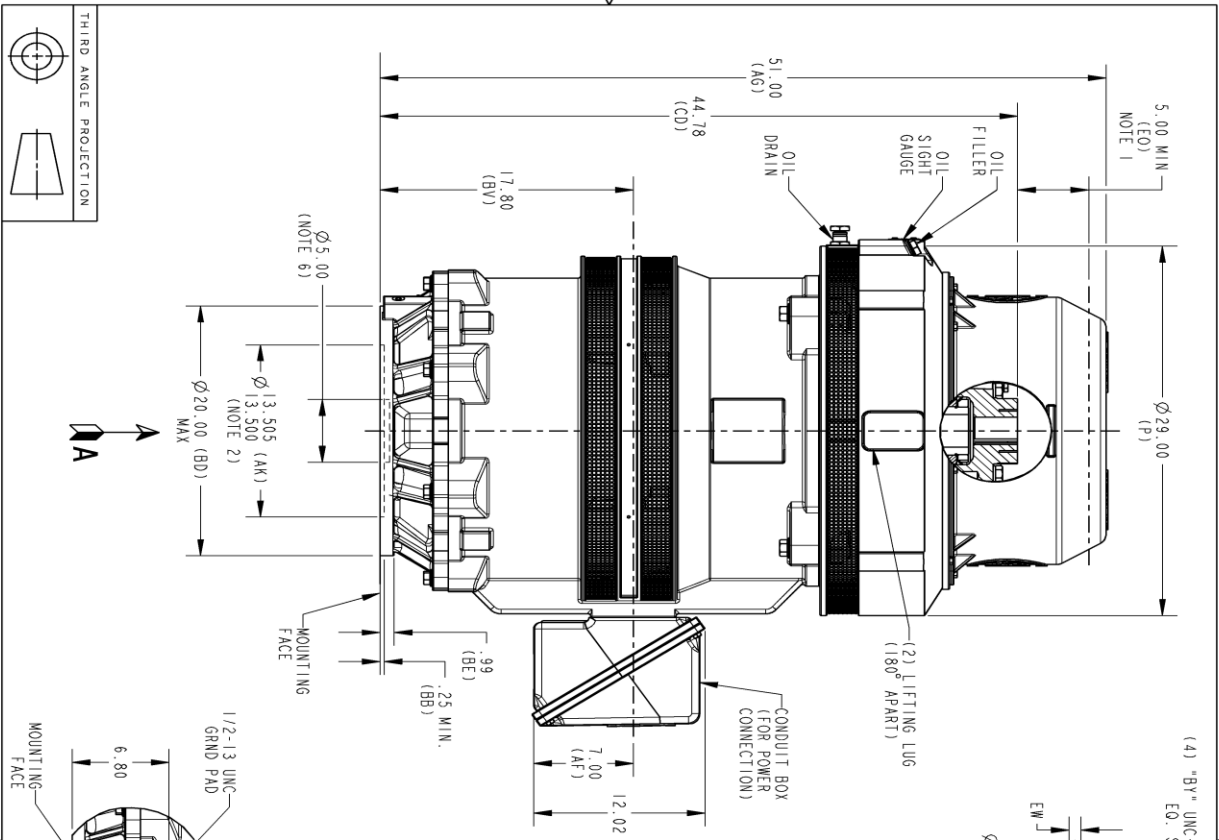
This motor is capable of two cold or one hot start with a maximum connected load inertia of 2464 Lb-Ft Sq (103.73 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 15 seconds. Safe stall time at 100% voltage is 35 seconds cold, 18 seconds hot. Rotor inertia is 61 Lb-Ft Sq (2.57 Kg-meter Sq).

<b>Open Circuit A-C:</b>	0.632	<b>Short Circuit D-C:</b>	0.029
<b>Short Circuit A-C:</b>	0.036	<b>X/R Ratio:</b>	10.979
<b>Stator Slots:</b>	72	<b>Rotor Slots:</b>	58

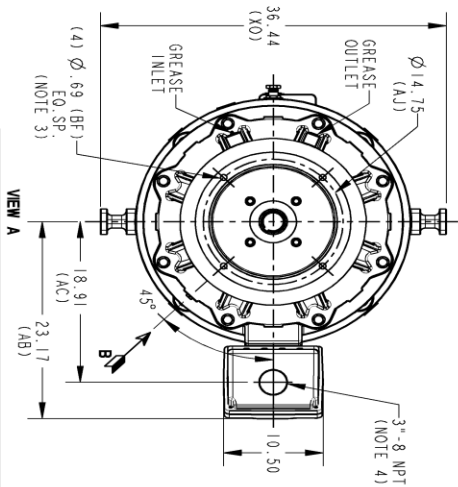
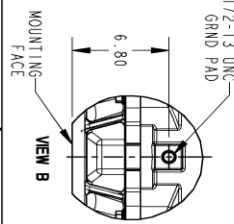
**Speed Torque Current Curve (First Connection, First Speed)**



Marks:



ENLARGED VIEW OF COUPLING



DIMENSIONS IN INCHES  
NEMA TYPE P BASE

COUPLING DIMENSIONS		KEY WAY			
BX	BY	BZ	EW	R	XM
1.501	1/4-20	2.125	.315	1.659	.562
1.688	1/4-20	2.500	.315	1.859	.562
1.751	1/4-20	2.500	.315	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	2.540	.688
2.438	3/8-16	3.250	.625	2.715	.812
2.501	3/8-16	3.250	.625	2.777	.812

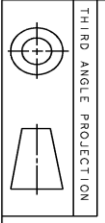
SIGNATURES	DATE	REV	DESCRIPTION
RAVI	07/01/2016	1	ISAC #16-0728
SASI	07/01/2016	2	ISAC #18-0869
DEEPA	04/03/19	3	ISAC #19-0326

**GE INDUSTRIAL MOTORS**  
a WOLONG company

OUTLINE, NEMA WP1 444-445  
VERTICAL HOLLOW SHAFT-HIGH THRUST GRS LOWER  
200 BD, 700 CU IN C/BOX GRND PAD

SCALE: 0.120 REF. No. 148CB44VMJKCCLA0001 003

REV.	DESCRIPTION	DATE	APPROVED
1	ISAC #16-0728	07/21/16	SASI
2	ISAC #18-0869	02/07/19	PRASHANTH
3	ISAC #19-0326	04/03/19	DEEPA



THIRD ANGLE PROJECTION

SIZE DRAWING NO. B 148CB44VMJKCCLA0001 003

REVISIONS

SHEET DRAWING 148CB44VMJKCCLA0001 003

SHEET 1 OF 1

NOTES:

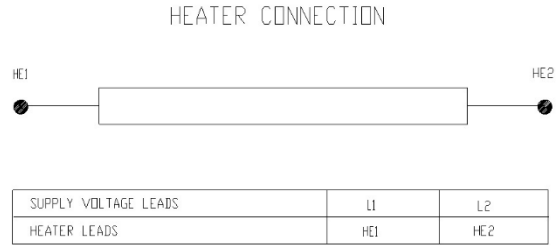
1. THE TOTAL HEIGHT OF PUMP SHAFT AND LOCKING NUT ABOVE COUPLING MUST NOT EXCEED THIS DIMENSION.
2. TOLERANCE ON FACE RUNOUT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBET ARE .007 T.I.R
3. CENTRE OF MOUNTING BOLTS WITHIN 0.025 OF ANGULAR & DIAMETRICAL LOCATION WITHIN REFERENCE TO THE CENTRELINE OF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

Marks:

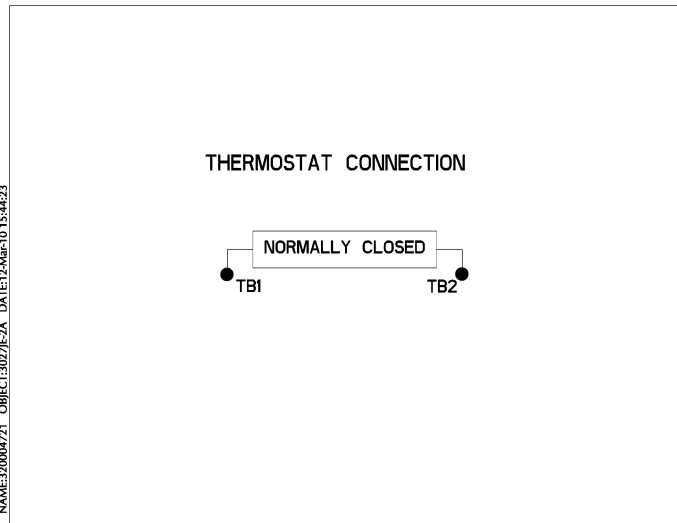
**Connection Diagram**  
**GEM2034E-FIG7**



**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	118D4408AD2

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

