



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

# Product Technical Information

June 24, 2020

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

<b>Model Number:</b>	<b>5KS286XAA304D3</b>
<b>Catalog Number:</b>	<b>M9573</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG7
<b>Outline Drawing:</b>	4002B5828PAP5311

## Accessory Connection Diagrams

<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	None
<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:

**MODEL NUMBER:** 5KS286XAA304D3  
**Outline Drawing:** 4002B5828PAP5311  
**Connection Diagram:** GEM2034E-FIG7  
**Instruction Book:** GEI-56128  
**Design Code:** 28BD3094B  
**Type:** KS  
**Frame:** 286T  
**Phases:** 3  
**Poles:** 6  
**Output Power:** 20HP 14.8KW  
**RPM:** 1180  
**Voltage:** 575  
**Hertz:** 60  
**Amps - FL:** 21.1  
**Service Factor:** 1.15  
**Alt Service Factor:** --

**Estimated Weight:** 510 Lbs  
**Time Rating:** CONT  
**Enclosure:** TEFC  
**Encl Construction:** 841  
**Ambient Max(°C):** 40  
**Alt Ambient Max(°C):** --  
**Insulation Class:** H  
**NEMA Design:** B  
**Nominal Efficiency:** 91.7 %  
**Guaranteed Efficiency:** 91.0 %  
**3/4 Load Efficiency:** 92.3 %  
**KVA Code:** G  
**Max KVAR:** 9.0  
**Power Factor:** 77.5  
**Bearing - DE:** 6310ZC3  
**Bearing - ODE:** 6310ZC3

**Enclosure is Totally Enclosed Fan-Cooled**

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Stamped Nameplate Notes:

IEEE-STD-841-2009  
 DE BRG 50BC03JP30 ODE BRG 50BC03JP30  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS286XAA304D3 S/N: XXX  
 CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200C GC  
 CL 1 ZONE2 AEX NA IIC 200C;CL 1 DIV2 GRP ABCD 200C  
 IN -25C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR  
 SURF TEMP 200C AT 1.15SF ON SINE-WAVE PWR  
 OR 200 C VT OR 215 C CT OR 200 C CHP PWM CONTROL  
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB  
 VT 0-60 HZ, CT 7.5-60 HZ, CHP 60-90 HZ.



**Additional Information:**

6P - T EXTN  
STANDARD FLOOR MOUNT  
C/BOX 137 CU IN-1.50 NPT  
F1 CONDUIT BOX MOUNTING  
PAINTED FRAME ID & SHAFT,  
FAN COVER INSIDE & ODE E/S OUTSIDE  
ROUTINE AND 5 POINT VIBRATION TESTS INCL IN C/BOX  
INPRO SEAL BOTH ENDS  
GROUND SCREW ON FRAME  
SHAFT RUNOUT LIMIT .0015" TIR  
COPPER WASHER UNDER HEADS OF BEARING CAP BOLTS  
APPLY TITE-SEAL (A50CD427A) ON BEARING CAP SCREWS, RABBETS,  
AND PLUG THREADS  
OIL RESISTANT SLEEVING ON LEADS



**Performance Characteristics**

1st Winding 1st Connection

**Design: 28BD3094B**

**Marks:**

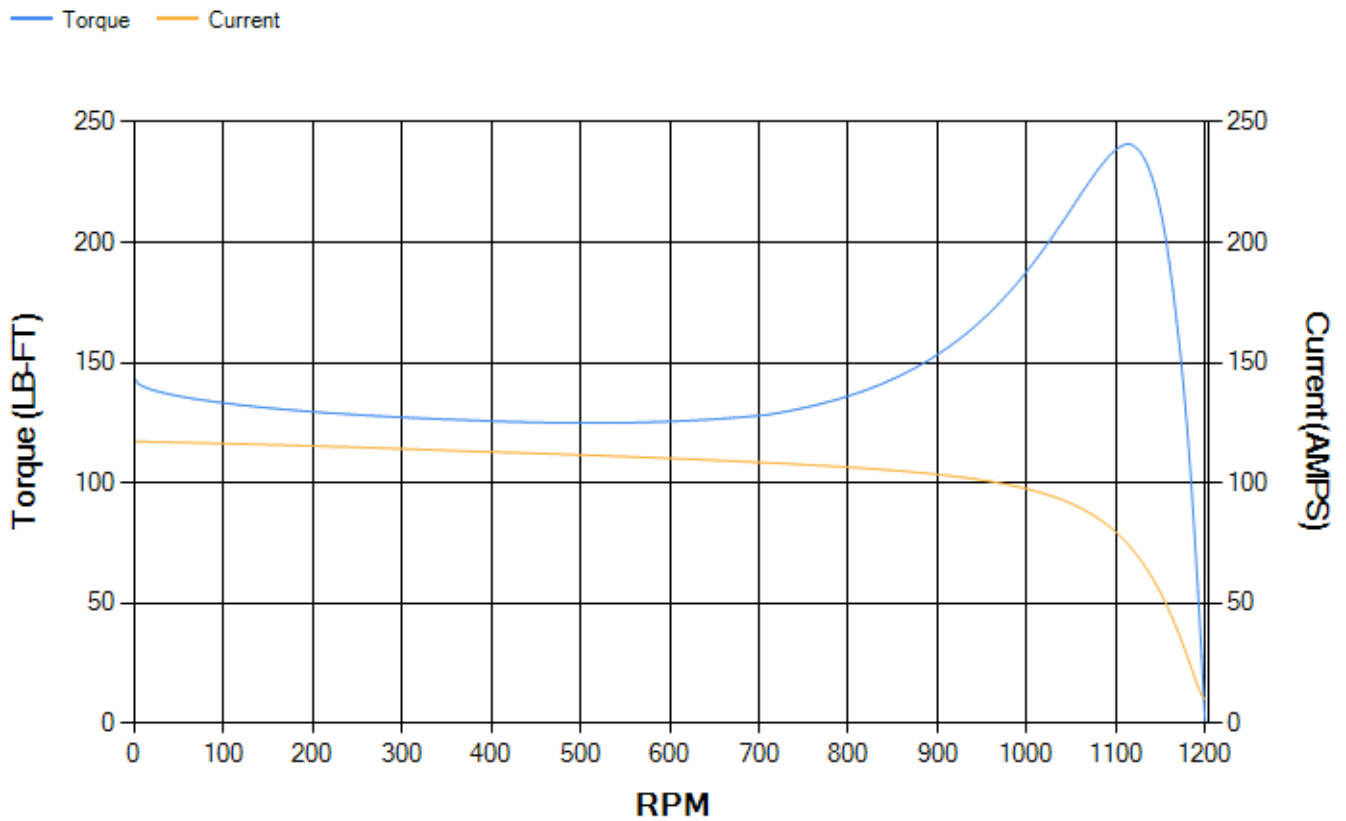
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	90.76	91.23	92	92.32	91.86	88.14	0.00
% PF	79.93	79.15	77.29	71.53	60	38.26	4.18
AMPS	25.8	23.85	21.08	17.01	13.59	11.1	10.01

<b>TORQ(FL)#FT</b>	88.87	<b>TORQ(LR)%FL</b>	161.29	<b>TORQ(BD)%FL</b>	270.34
<b>AMPS(LR)</b>	117.17	<b>PF AT START</b>	0.37		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 982 Lb-Ft Sq (41.34 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 33 seconds. Safe stall time at 100% voltage is 83 seconds cold, 48 seconds hot. Rotor inertia is 6.1 Lb-Ft Sq (0.26 Kg-meter Sq).

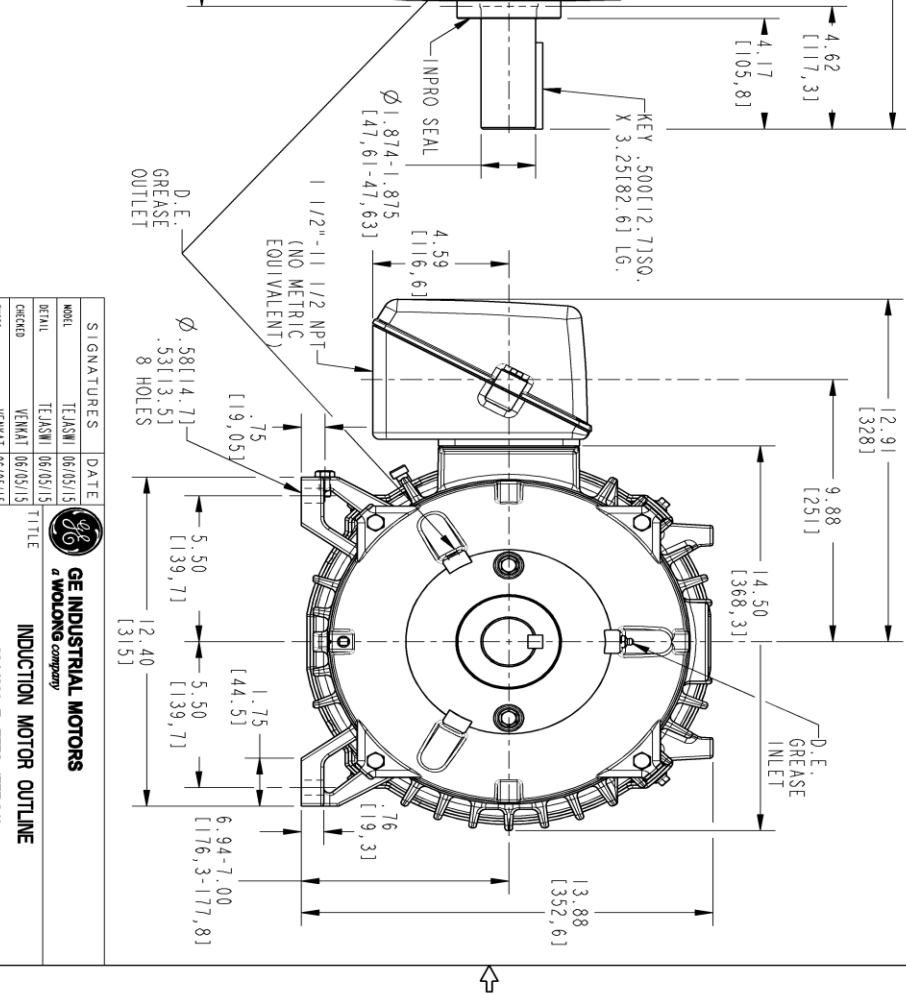
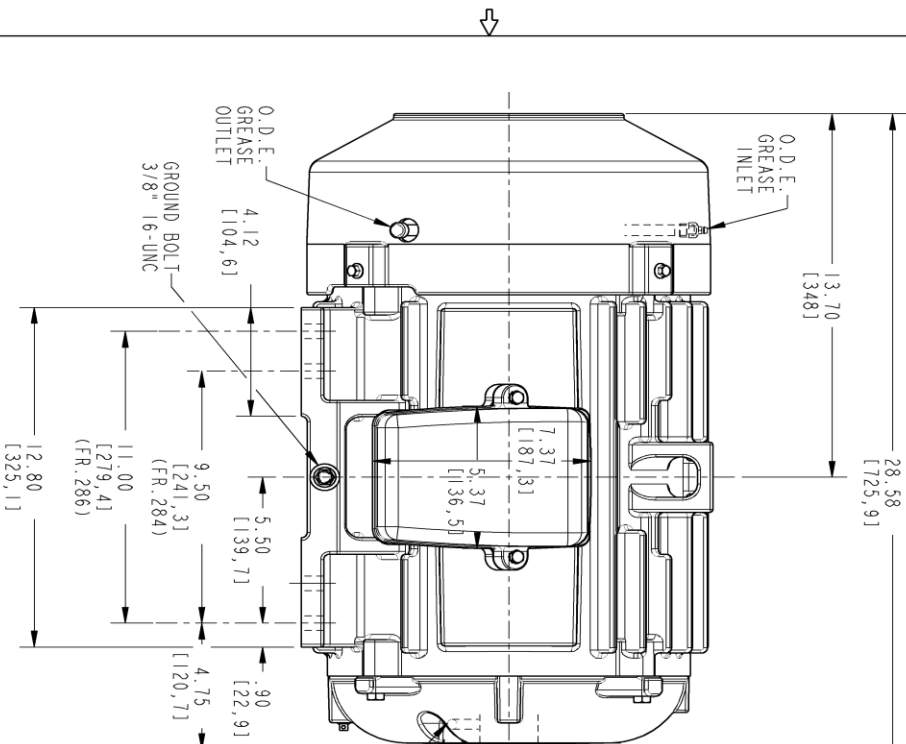
<b>Open Circuit A-C:</b>	0.341	<b>Short Circuit D-C:</b>	0.013
<b>Short Circuit A-C:</b>	0.026	<b>X/R Ratio:</b>	4.82
<b>Stator Slots:</b>	54	<b>Rotor Slots:</b>	42

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



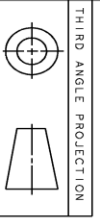
Marks:

NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.  
 NOTE 2: F1 ASSEMBLY AS SHOWN. F2 ASSEMBLY CONDUIT BOX ON OPPOSITE SIDE FROM SHOWN LOCATION.  
 NOTE 3: SHAFT RUNOUT WILL NOT EXCEED .0015 T.I.R.  
 NOTE 4: ALL DIMENSIONS ARE IN INCHES. BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS).



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REV.	DESCRIPTION	DATE	APPROVED
1	ISAC# 18-0869	11/08/18	PRASHANTH



SIGNATURES	DATE
MODEL: TEJASNI	06/05/19
DETAIL: TEJASNI	06/05/19
CHECKED: VENKAT	06/05/19
ENGR: VENKAT	06/05/19
QC: VENKAT	06/05/19
ISSUED: TEJASNI	06/05/19

**GE INDUSTRIAL MOTORS**  
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**INDUCTION MOTOR OUTLINE**  
 284/286 T, TFC, IEE-94I

**CBOX 137 CUL - 150 NPT, IMPRO SEAL, GROUND PAD**

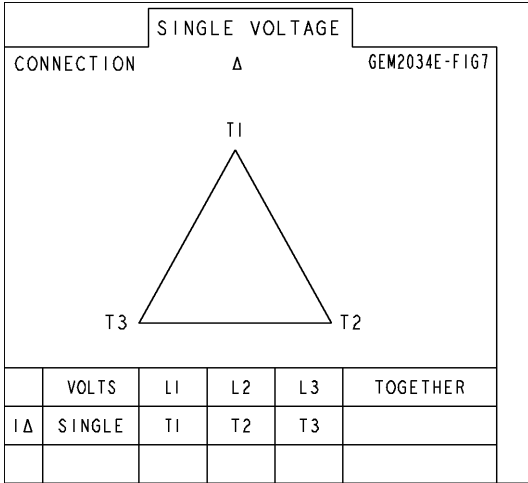
**4002B5828PAP5311**

SCALE: 0.250 REF. No.: 4002B5828PAP5301

REV.	DESCRIPTION
001	SIZE DRAWING

**Marks:**

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



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	4004D5284PB1	4004D5284SE1
Bearing	235A2508EC01	235A2508EC01
Slinger/Inproseal	4002B5914AF5	4002B5914AG5

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C6900G01
Fan Cover	4003C5789PA1

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	4002B5728PA-G01

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

