



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

# Product Technical Information

January 31, 2021

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

<b>Model Number:</b>	<b>5KS286XAA404D3</b>
<b>Catalog Number:</b>	<b>M9570</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:

<b>MODEL NUMBER:</b>	<b>5KS286XAA404D3</b>	<b>Estimated Weight:</b>	510 Lbs
<b>Outline Drawing:</b>	4002B5828PAP5311	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG7	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEI-56128	<b>Encl Construction:</b>	841
<b>Design Code:</b>	28BD4035B	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	286T	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	A
<b>Poles:</b>	8	<b>Nominal Efficiency:</b>	89.5 %
<b>Output Power:</b>	15HP 11.1KW	<b>Guaranteed Efficiency:</b>	88.5 %
<b>RPM:</b>	885	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	575	<b>KVA Code:</b>	J
<b>Hertz:</b>	60	<b>Max KVAR:</b>	7.4
<b>Amps - FL:</b>	16.8	<b>Power Factor:</b>	74.5
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6310ZC3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	6310ZC3

Enclosure is Totally Enclosed Fan-Cooled

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Stamped Nameplate Notes:

DE BRG 50BC03JP30 ODE BRG 50BC03JP30  
 STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS286XAA404D3 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 230C 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 6-60 HZ, CHP 60-90 HZ.  
 EXCEPTION TO IEEE-STD-841-2009: NEMA DESIGN "A"



**Additional Information:**

8P - 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: 28BD4035B**

**Marks:**

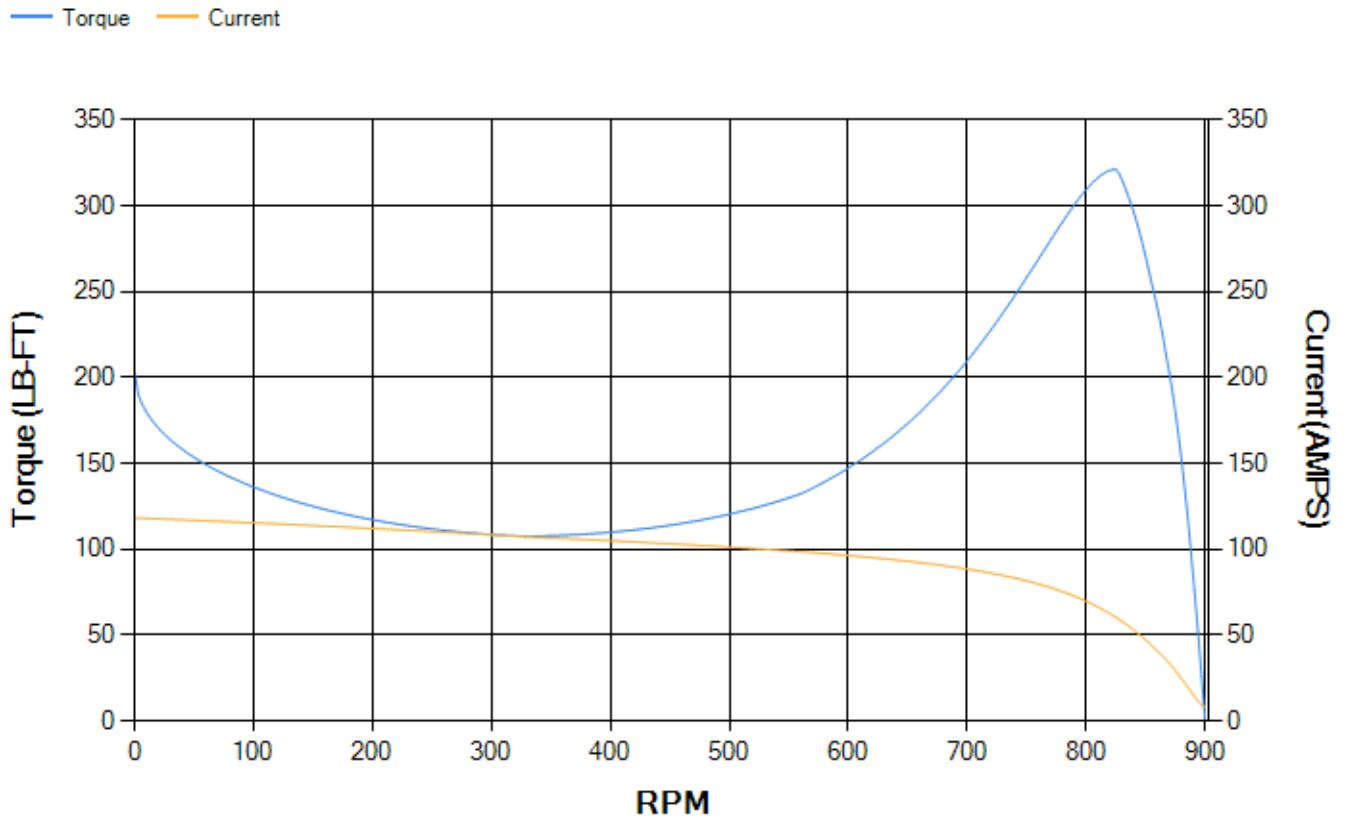
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	87.77	88.51	89.66	90.5	90.44	86.82	0.00
% PF	77.84	76.87	74.68	68.27	56.28	35.25	4.02
AMPS	20.55	18.98	16.76	13.63	11.03	9.18	8.29

<b>TORQ(FL)#FT</b>	89.07	<b>TORQ(LR)%FL</b>	228.22	<b>TORQ(BD)%FL</b>	356.46
<b>AMPS(LR)</b>	118.36	<b>PF AT START</b>	0.36		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 1035 Lb-Ft Sq (43.57 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 23 seconds. Safe stall time at 100% voltage is 61 seconds cold, 35 seconds hot. Rotor inertia is 7.36 Lb-Ft Sq (0.31 Kg-meter Sq).

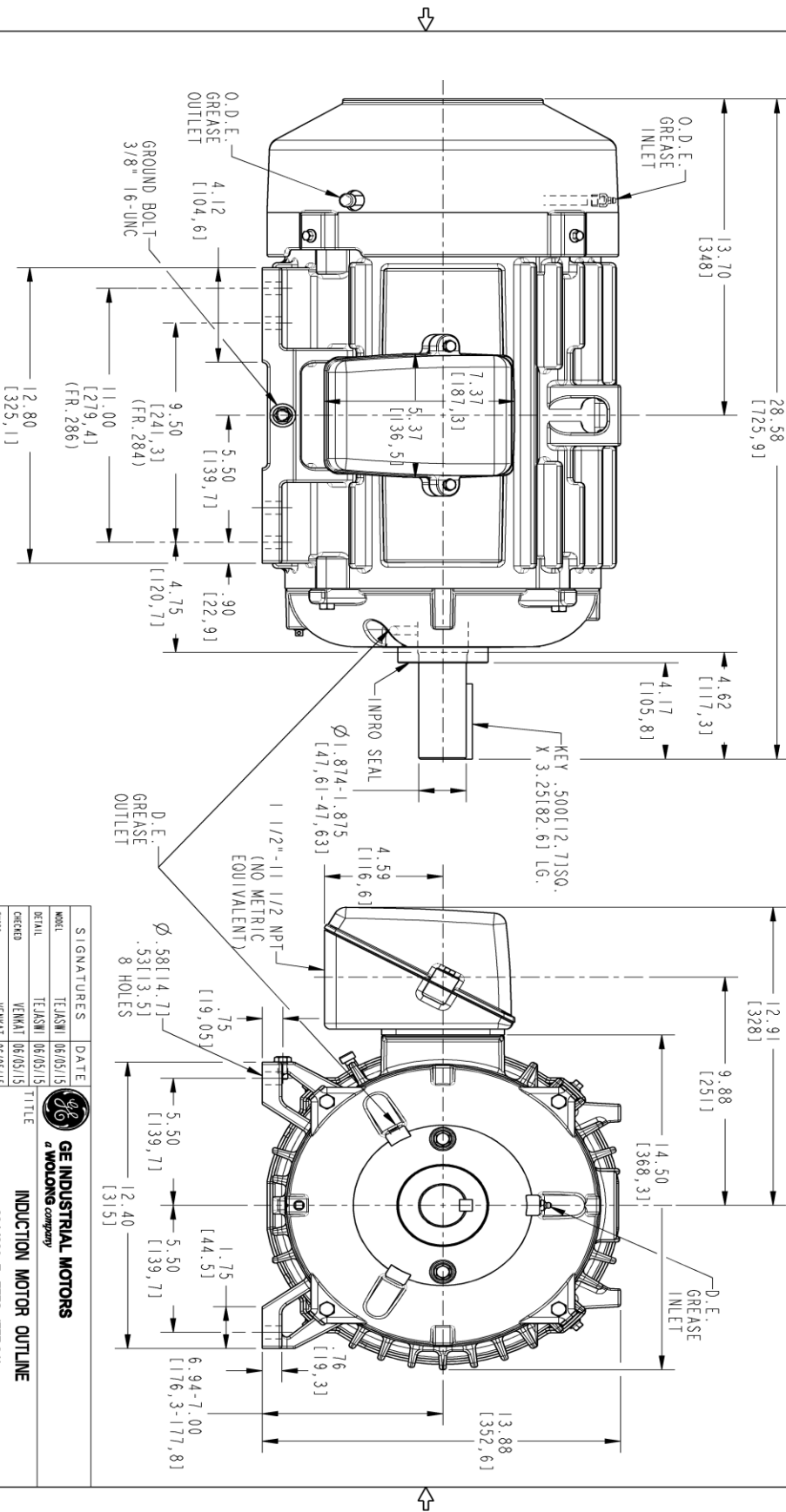
<b>Open Circuit A-C:</b>	0.291	<b>Short Circuit D-C:</b>	0.009
<b>Short Circuit A-C:</b>	0.019	<b>X/R Ratio:</b>	3.51
<b>Stator Slots:</b>	54	<b>Rotor Slots:</b>	70

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



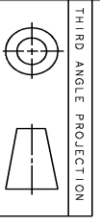
Marks:

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
TEJASNI	06/05/15
TEJASNI	06/05/15
VENKAT	06/05/15
VENKAT	06/05/15

**GE INDUSTRIAL MOTORS**  
 a molong company

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

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

SCALE: 0.250 REF. No.: 4002B5828PAP5301

**4002B5828PAP5311**

REV. 001

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	

