



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

# Product Technical Information

April 30, 2021

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

<b>Model Number:</b>	<b>5KS254SAA100D1</b>
<b>Catalog Number:</b>	<b>M9953</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG1
<b>Outline Drawing:</b>	4002B5825PBP5926

## 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>5KS254SAA100D1</b>	<b>Estimated Weight:</b>	315 Lbs
<b>Outline Drawing:</b>	4002B5825PBP5926	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG1	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEI-56128	<b>Encl Construction:</b>	841
<b>Design Code:</b>	25BD0170A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	254TC	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	2	<b>Nominal Efficiency:</b>	91.0 %
<b>Output Power:</b>	15HP 11.1KW	<b>Guaranteed Efficiency:</b>	90.2 %
<b>RPM:</b>	3550	<b>3/4 Load Efficiency:</b>	--
<b>Voltage:</b>	460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	2.7
<b>Amps - FL:</b>	17.2	<b>Power Factor:</b>	89.5
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6310ZC3
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	6309ZC3

Enclosure is Totally Enclosed Fan-Cooled

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Stamped Nameplate Notes:

IEEE-STD-841-2009

DE BRG 50BC03JP30 ODE BRG 45BC03JP30

STAMP NP249A5564P051 AS BELOW:

MODEL:5KS254SAA100D1 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 -40C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR

SURF TEMP 280C AT 1.15SF ON SINE-WAVE PWR

OR 200C VT OR 215C CT OR 200C CHP PWM CONTROL

ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB

VT 0 - 60 HZ, CT 3-60 HZ, CHP 60-90 HZ.



**Additional Information:**

2P - T EXTN  
STANDARD FLOOR MOUNT  
C/BOX 137 CU IN-1.25 NPT  
F1 CONDUIT BOX MOUNTING  
"C" FACE AT DE ENDSHIELD  
PAINTED FRAME ID & SHAFT,  
FAN COVER INSIDE & ODE E/S OUTSIDE  
ROUTINE AND 5 POINT VIBRATION TESTS INCL IN C/BOX  
GROUND SCREW ON FRAME  
ROTATE D.E. E/SHIELD 90 DEG. PER OUTLINE  
SHAFT RUNOUT LIMIT .001" TIR  
OIL RESISTANT SLEEVING ON LEADS



**Performance Characteristics**

1st Winding 1st Connection

**Design: 25BD0170A**

**Marks:**

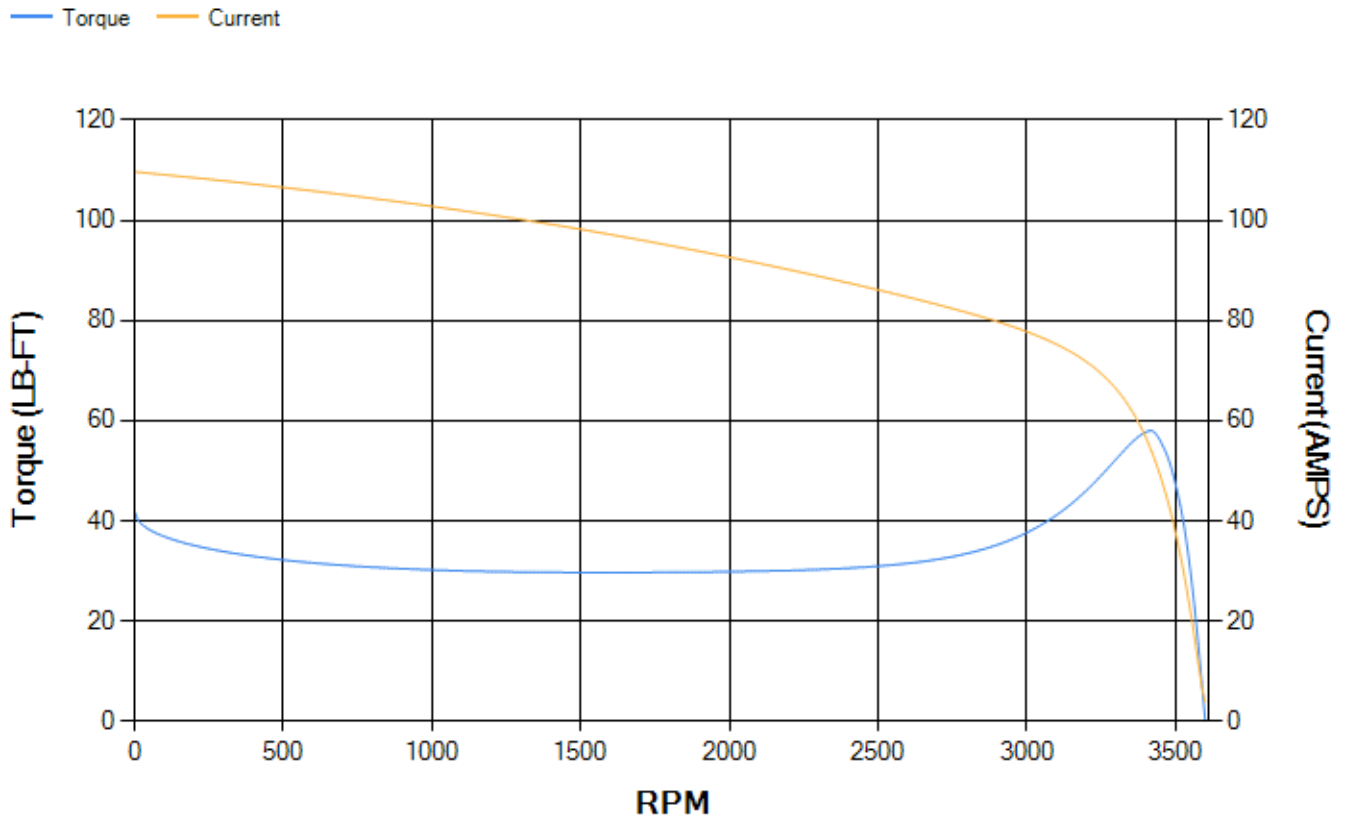
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	89.57	90.23	91.25	91.93	91.84	88.64	0.00
% PF	88.97	89.42	89.71	88.92	84.9	69.7	10.02
AMPS	22.02	20.01	17.15	12.88	9	5.68	3.77

<b>TORQ(FL)#FT</b>	22.19	<b>TORQ(LR)%FL</b>	188.5	<b>TORQ(BD)%FL</b>	260.41
<b>AMPS(LR)</b>	109.7	<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 113 Lb-Ft Sq (4.76 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 50 seconds. Safe stall time at 100% voltage is 95 seconds cold, 62 seconds hot. Rotor inertia is 1.1 Lb-Ft Sq (0.05 Kg-meter Sq).

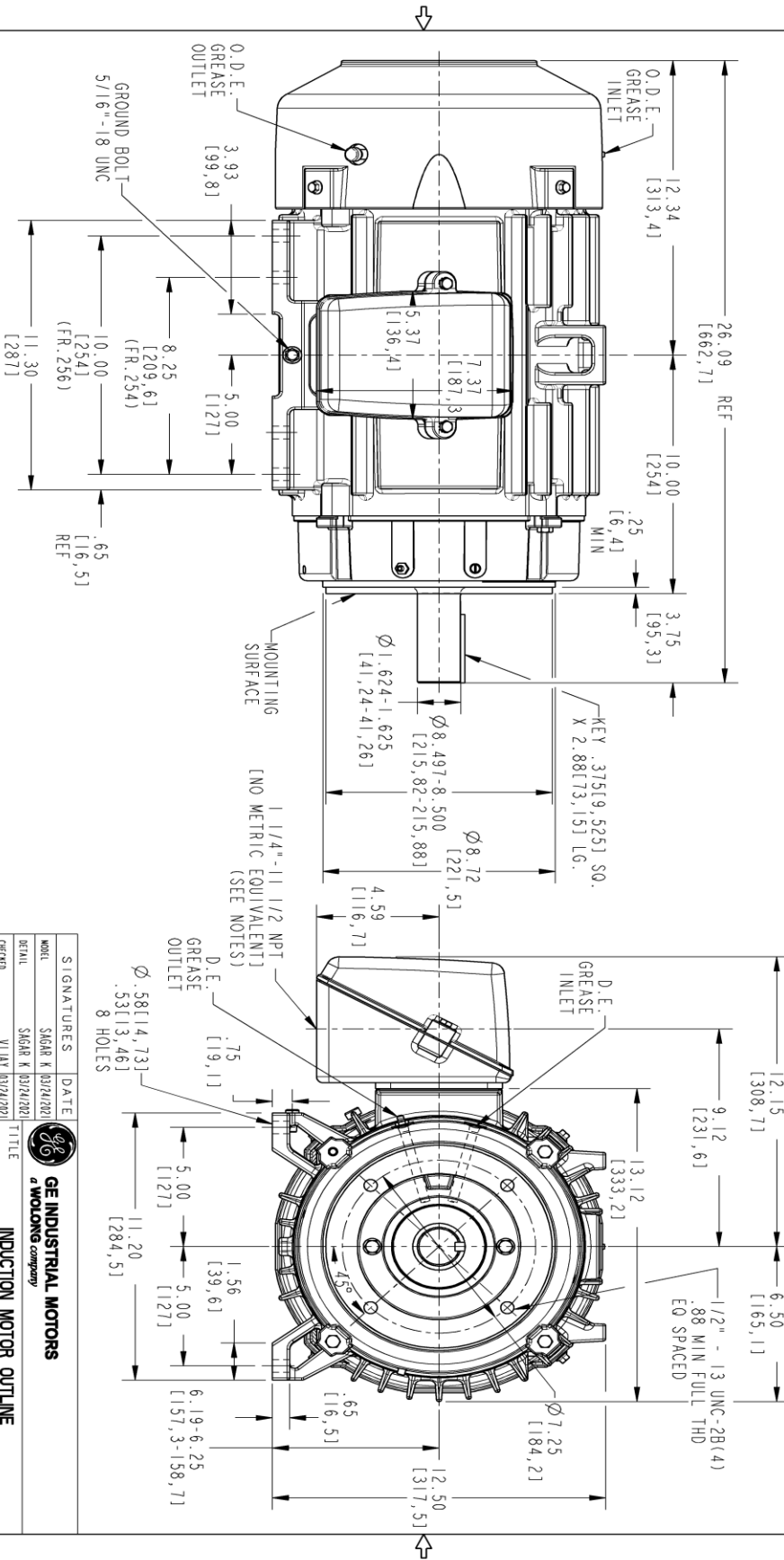
<b>Open Circuit A-C:</b>	0.907	<b>Short Circuit D-C:</b>	0.013
<b>Short Circuit A-C:</b>	0.031	<b>X/R Ratio:</b>	4.774
<b>Stator Slots:</b>	36	<b>Rotor Slots:</b>	26

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



Marks:

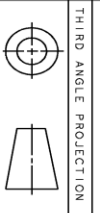
- NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.
- NOTE 2: F1 ASSEMBLY AS SHOWN.
- NOTE 3: MOUNTING SURFACES WILL BE SQUARE AND CONCENTRIC WITH SHAFT WITHIN .004 T.I.R.
- NOTE 4: SHAFT RUNOUT WILL NOT EXCEED .001 T.I.R.
- NOTE 5: DE ENDSHIELD ROTATED 90° COUNTER CLOCKWISE
- NOTE 6: ALL DIMENSIONS ARE IN INCHES, BRACKETED DIMENSIONS ARE IN METRIC (MILLIMETERS)



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REV.	DESCRIPTION	DATE	APPROVED

SIZE	DRAWING NO.	REV	SHEET
B	4002B5825PBP5926	000	1

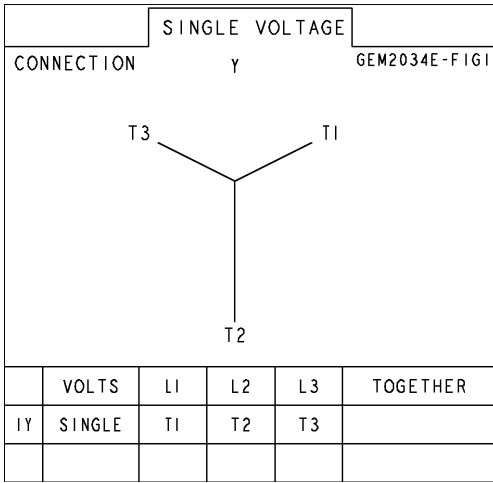


SIGNATURES	DATE	TITLE
SAGAR K [03/24/2021]		INDUCTION MOTOR OUTLINE
SAGAR K [03/24/2021]		FR 254/2561TC TFC, "C" FACE AT DRIVE END (85° RABBIT)
SAGAR K [03/24/2021]		137 CU IN C/BOX, GROUND PAD
SAGAR K [03/24/2021]		4002B5825PBP5926

SCALE: 0.250 REF. No.: 4002B5825PBP5926

**Marks:**

**Connection Diagram**  
**GEM2034E-FIG1**



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	128D6106RF1	4004D5283SE1
Bearing	235A2508EC01	235A2507EB01
Slinger/Inproseal	149C4399G03	149C4399G02

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C6704G02
Fan Cover	4003C5788PA1

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	4002B5728PA-G04

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

