

# Product Information Packet

November 8, 2016

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

<b>Model Number:</b>	<b>5KS256SAA105D1</b>
<b>Catalog Number:</b>	<b>M9153</b>
<b>Instruction Manual:</b>	GEI-56128
<b>Connection Diagram:</b>	GEM2034E-FIG9
<b>Outline Drawing:</b>	4002B5825PAP5201

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>5KS256SAA105D1</b>	<b>Estimated Weight:</b>	350 Lbs
<b>Outline Drawing:</b>	4002B5825PAP5201	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG9	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEI-56128	<b>Encl Construction:</b>	X\$D
<b>Design Code:</b>	25BD0065A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	65
<b>Frame:</b>	256T	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	2	<b>Nominal Efficiency:</b>	91 %
<b>Output Power:</b>	20HP 14.8KW	<b>Guaranteed Efficiency:</b>	90.2
<b>RPM:</b>	3540	<b>3/4 Load Efficiency:</b>	92.6
<b>Voltage:</b>	230/460	<b>KVA Code:</b>	G
<b>Hertz:</b>	60	<b>Max KVAR:</b>	2.3
<b>Amps - FL:</b>	45.2/22.6	<b>Power Factor:</b>	91.0
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	6309ZC3
<b>Alt Service Factor:</b>	1.00	<b>Bearing - ODE:</b>	6309ZC3

**Enclosure is Totally Enclosed Fan-Cooled**

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**Stamped Nameplate Notes:**

STAMP NP249A5564P051 AS BELOW:  
 MODEL:5KS256SAA105D1 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 300C AT 1.15SF ON SINE-WAVE PWR  
 OR 200 C VT OR 200 C CT OR 200 C CHP PWM CONTROL  
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB  
 VT 0-60 HZ, CT 15-60 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  
 OIL RESISTANT SLEEVING ON LEADS

**Performance Characteristics**

1st Winding 1st Connection

**Design: 25BD0065A**

**Marks:**

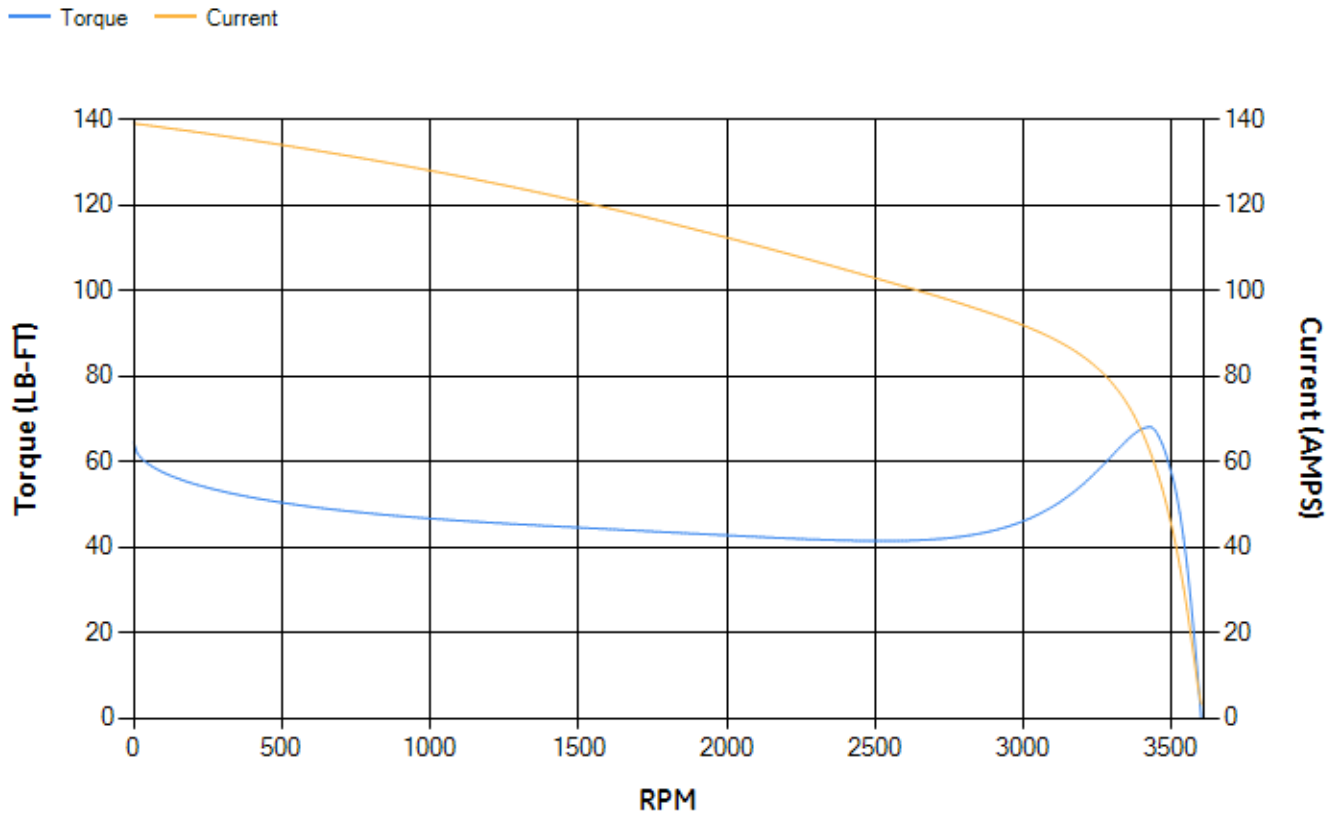
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	89.27	90.16	91.45	92.55	93.01	91.04	0.00
% PF	88.89	89.91	91.01	91.73	90.36	81.34	11.6
AMPS	29.49	26.56	22.49	16.54	11.14	6.32	3.17

<b>TORQ(FL)#FT</b>	29.65	<b>TORQ(LR)%FL</b>	217.28	<b>TORQ(BD)%FL</b>	228.31
<b>AMPS(LR)</b>	139.04	<b>PF AT START</b>	0.33		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 143 Lb-Ft Sq (6.02 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 44 seconds. Safe stall time at 100% voltage is 94 seconds cold, 55 seconds hot. Rotor inertia is 1.9 Lb-Ft Sq (0.08 Kg-meter Sq).

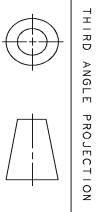
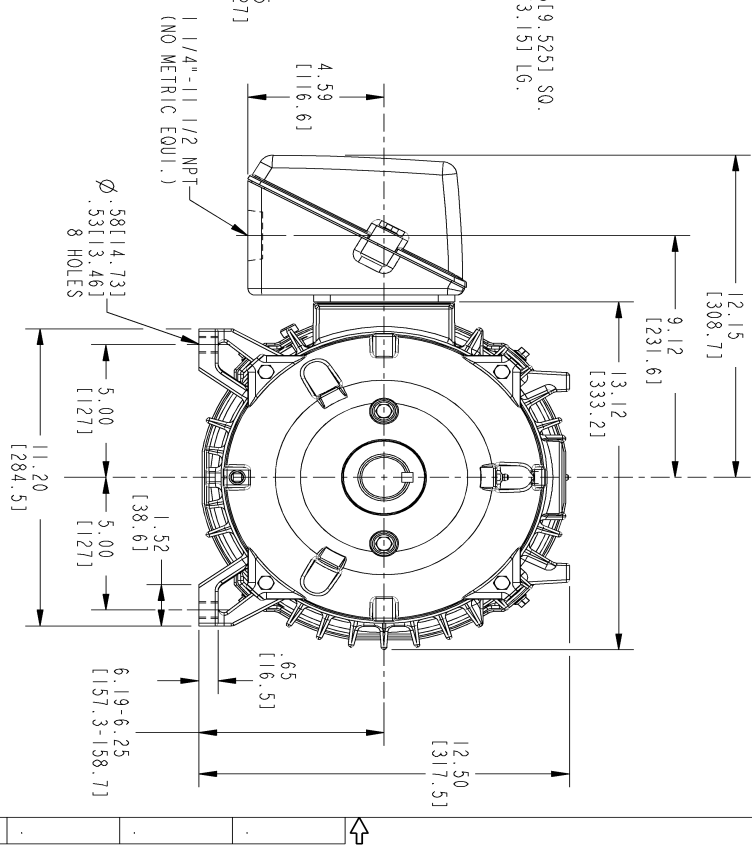
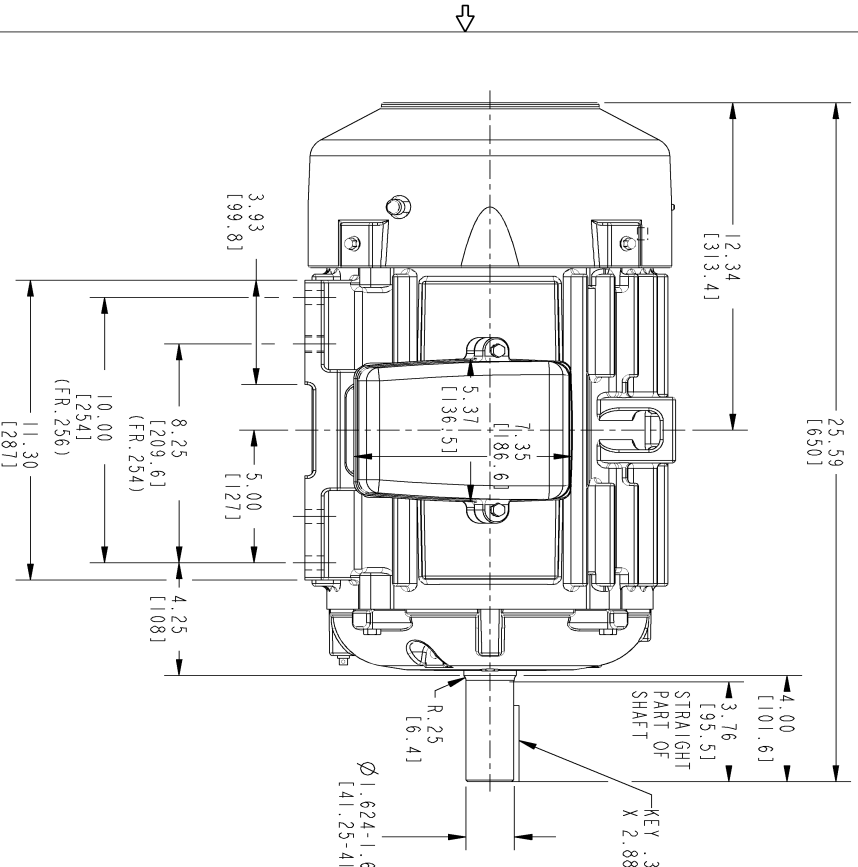
<b>Open Circuit A-C:</b>	1.254	<b>Short Circuit D-C:</b>	0.013
<b>Short Circuit A-C:</b>	0.028	<b>X/R Ratio:</b>	4.893
<b>Stator Slots:</b>	36	<b>Rotor Slots:</b>	26

**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. F2 ASSEMBLY CONDUIT BOX ON OPPOSITE SIDE FROM SHOWN LOCATION.  
 NOTE 3: SHAFT RUNOUT WILL NOT EXCEED .002 T.I.R.



SIZE: B DRAWING NO: 4002B5825PAP5201 SH: 4 REV: 4

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1	NOTE X50 ULTRA DELETED	05/20/03	SANJAY
2	ISAAC 09-0868	09/29/09	SAVANTHI
3	ISAAC 09-1036	12/02/09	RAGHU
4	ISSAC 12-0025	01/09/11	RAGHU

SIGNATURES	DATE
DRAWN: GARY WARRNER	JAN 16/02
CHECKED: GARY WARRNER	JAN 16/02
ENGR: GARY WARRNER	EPN 03/02

**GE Industrial Systems**  
**GENERAL ELECTRIC COMPANY**  
 Fort Wayne, Indiana

**INDUCTION MOTOR OUTLINE**  
 STANDARD CONSTRUCTION  
 FMR: FR250T TFFC

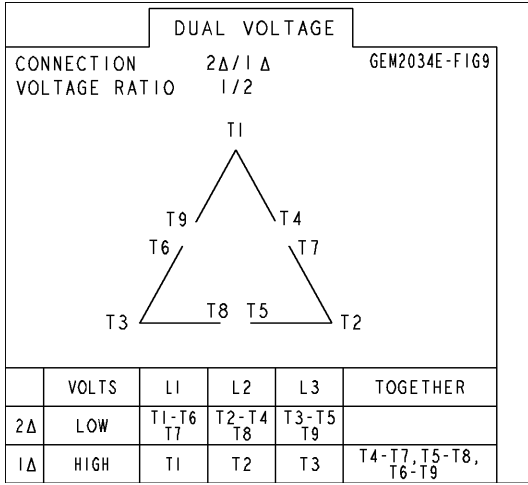
SCALE: 0.250 REF. NO: 4002B5825PAP201 SHEET 0F 1

SIZE DRAWING: B  
 4002B5825PAP5201  
 REV: 4

DISTRIBUTION: PMP-18K15

Marks:

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



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	4004D5283PB1	4004D5283SE1
Bearing	235A2607AA01	235A2607AA01
Slinger/Inproseal	149C4399G02	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	