

# Product Information Packet

November 9, 2016

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

<b>Model Number:</b>	<b>5KS213XAE5422B</b>
<b>Catalog Number:</b>	<b>V855</b>
<b>Instruction Manual:</b>	GEK-95351
<b>Connection Diagram:</b>	GEM2034E-FIG1
<b>Outline Drawing:</b>	4002B5821PNP5310

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>5KS213XAE5422B</b>	<b>Estimated Weight:</b>	200 Lbs
<b>Outline Drawing:</b>	4002B5821PNP5310	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG1	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEK-95351	<b>Encl Construction:</b>	841
<b>Design Code:</b>	21BD0074AA	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	L213VP10	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	2	<b>Nominal Efficiency:</b>	89.5 %
<b>Output Power:</b>	7.5HP 5.6KW	<b>Guaranteed Efficiency:</b>	87.5
<b>RPM:</b>	3530	<b>3/4 Load Efficiency:</b>	90.1
<b>Voltage:</b>	460	<b>KVA Code:</b>	H
<b>Hertz:</b>	60	<b>Max KVAR:</b>	2.1
<b>Amps - FL:</b>	9.0	<b>Power Factor:</b>	87.5
<b>Service Factor:</b>	1.15	<b>Bearing - DE:</b>	7308
<b>Alt Service Factor:</b>	--	<b>Bearing - ODE:</b>	6208-2ZC3

**Enclosure is Totally Enclosed Fan-Cooled**

**Stamped Nameplate Notes:**

VERTICAL-841  
 PREMIUM EFFICIENT MOTOR  
 DE BRG 40BT03XP3 ODE BRG 40BC02JP3  
 SEVERE DUTY  
 EXCEPTION TO IEEE-STD-841-2009:THRUST BRG ON DE  
 INVERTER DUTY PER NEMA MG1 PART 31  
 ALTERNATE RATING FOR PWM CONTROL:  
 1.0 SF VAR TORQUE RANGE 0-60 HZ  
 GE SELF DECLARED CLASS I DIV 2 MOTOR  
 MAX EXPOSED INTERNAL AND EXTERNAL SURFACE  
 TEMPERATURES UNDER USUAL SERVICE CONDITIONS  
 AT 1.00 S.F. DO NOT EXCEED 200 DEG C

**Additional Information:**

2P - VP EXTN  
 C/BOX 55 CU IN-1.00 NPT  
 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  
 E/SHLD GROUND STUD MTD ON DE C/BOX SIDE  
 SHAFT RUNOUT LIMIT .001" TIR  
 RCF 5000 CPM, STATIC DEFLECTION .0014 INCHES &  
 CENTER OF GRAVITY 8.59 INCHES  
 SOLID SHAFT HIGH THRUST  
 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  
BEARING LIFE 26280 HOURS AT 1137 LB THRUST  
BEARING LIFE 8760 HOURS AT 1651 LB THRUST

**Performance Characteristics**

1st Winding 1st Connection

**Design: 21BD0074AA**

**Marks:**

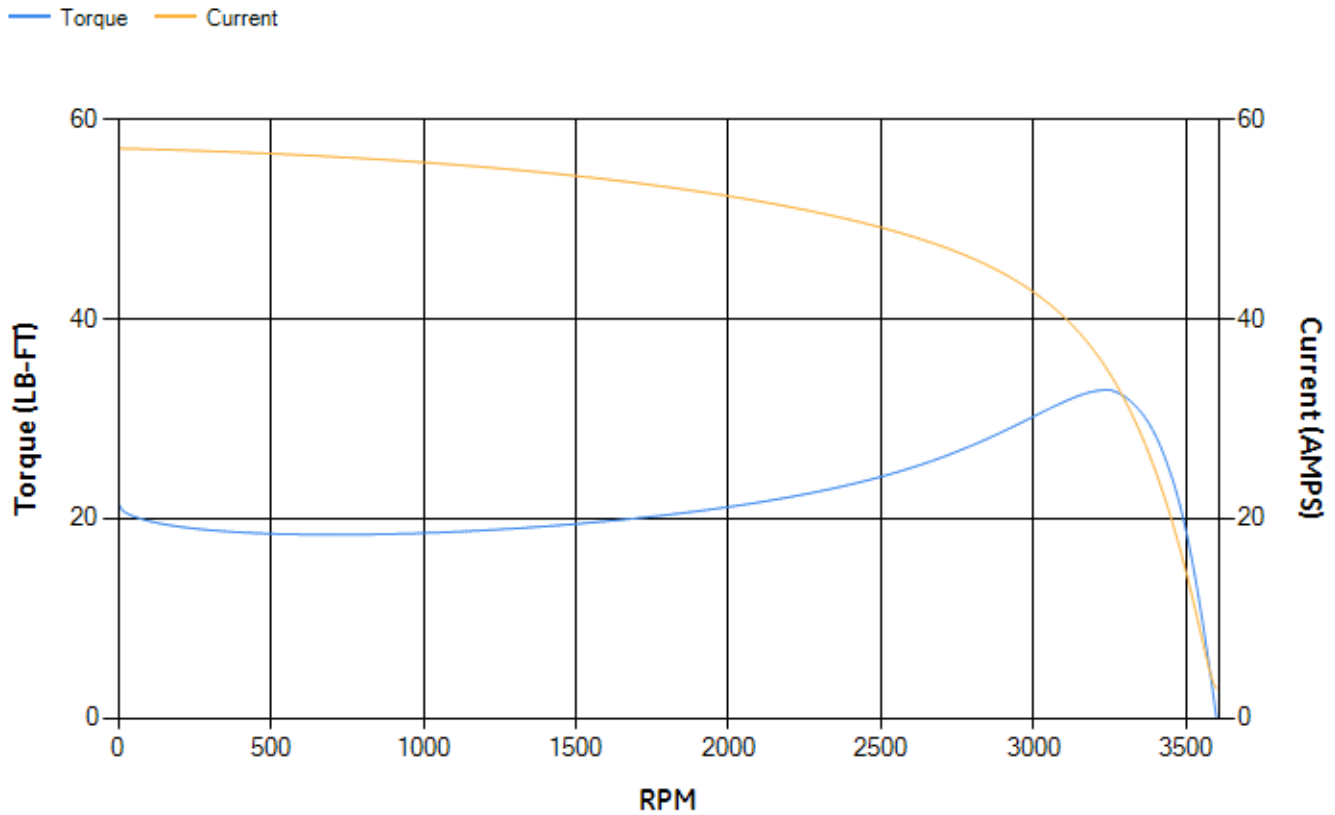
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	88.42	88.94	89.78	90.1	89.36	84.45	0.00
% PF	88.62	88.37	87.57	84.47	76.7	56.43	9.41
AMPS	11.2	10.27	8.92	6.92	5.12	3.68	2.93

TORQ(FL)#FT	11.16	TORQ(LR)%FL	192.83	TORQ(BD)%FL	292.52
AMPS(LR)	57.09	PF AT START	0.36		

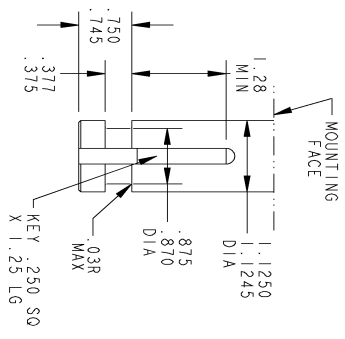
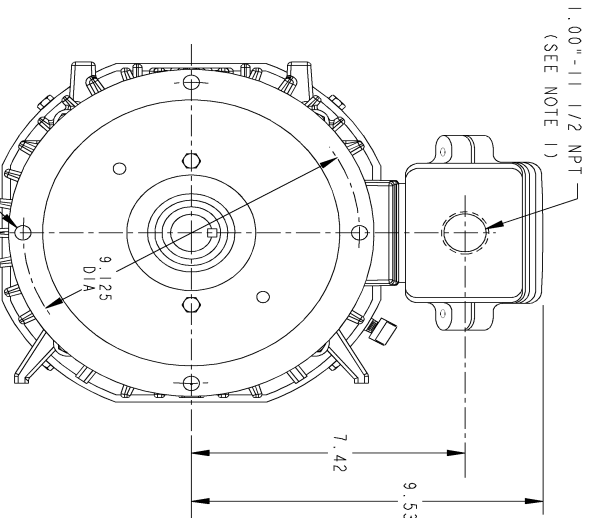
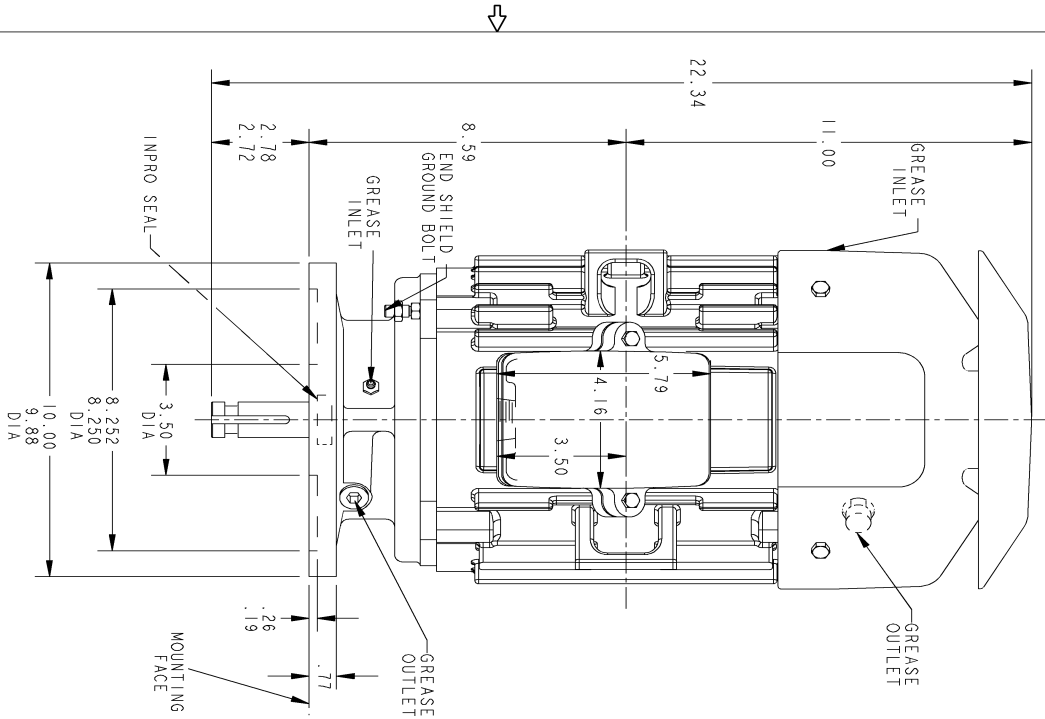
This motor is capable of two cold or one hot start with a maximum connected load inertia of 78 Lb-Ft Sq (3.28 Kg-meter Sq) at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 49 seconds. Safe stall time at 100% voltage is 85 seconds cold, 59 seconds hot. Rotor inertia is 0.31 Lb-Ft Sq (0.01 Kg-meter Sq).

Open Circuit A-C:	0.406	Short Circuit D-C:	0.01
Short Circuit A-C:	0.018	X/R Ratio:	3.858
Stator Slots:	36	Rotor Slots:	26

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



Marks:



VIEW AT ARROW "A"

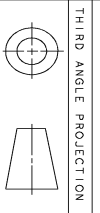
NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.

NOTE 2: SHAFT RUN OUT NOT TO EXCEED .001 T.I.R

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REV.	DESCRIPTION	DATE	APPROVED
1	1.0-0160 SRAVANTHI	3/10/2010	AD1
2	GREASE OUTLET SHOWN ON FAR SIDE	09/09/2011	AD1
3	ISAC# 13-0177	02/27/2013	MANCHI



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES	TOLERANCE ON:	DRAWN	SIGNATURES	DATE
2 PL DECIMALS ± 0.02		N. PRASAD		08/16/08
3 PL DECIMALS ± 0.005		ROOPA		08/16/08
ANGLES ± 0.5		EMMB		

MATERIAL: N. PRASAD 08/16/08

APPLIED PRACTICES

SCALE: .3

REF: 4002B5821PNP5210

SHEET 1 OF 1

**GE Industrial Systems**

**GENERAL ELECTRIC COMPANY**

Fort Wayne, Indiana

**INDUCTION MOTOR OUTLINE**

FR20 TEFC STD "P" BASE VERTICAL CLR

SOLID SHAFT - HIGH THRUST IEE - 841 FEATURES (BD30)

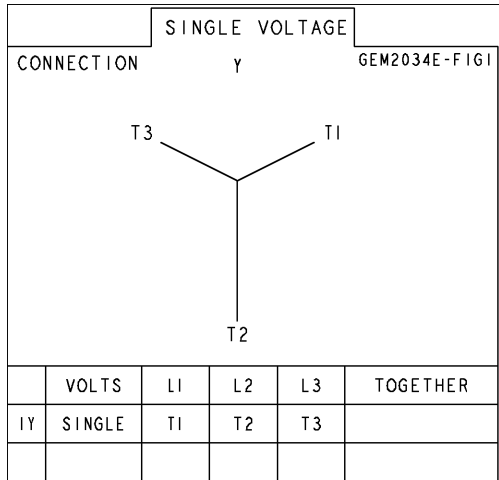
SIZE DRAWING: **4002B5821PNP5310**

REV: 3

DISTRIBUTION:

Marks:

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



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	128D6027PJ1	4004D5282SL1
Bearing	235A2503EJ01	235A2503AA01
Slinger/Inproseal	4002B5918CD2	4002B5914AG3

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C6704G01
Fan Cover	4003C5521BN-G01

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	4002B5721PA-G01

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	