

# Product Information Packet

November 9, 2016

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

<b>Model Number:</b>	<b>5KS215XAE6422A</b>
<b>Catalog Number:</b>	<b>V865</b>
<b>Instruction Manual:</b>	GEK-95351
<b>Connection Diagram:</b>	GEM2034E-FIG7
<b>Outline Drawing:</b>	4002B5821PNP5310

<b>Accessory Connection Diagrams</b>			
<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>5KS215XAE6422A</b>	<b>Estimated Weight:</b>	220 Lbs
<b>Outline Drawing:</b>	4002B5821PNP5310	<b>Time Rating:</b>	CONT
<b>Connection Diagram:</b>	GEM2034E-FIG7	<b>Enclosure:</b>	TEFC
<b>Instruction Book:</b>	GEK-95351	<b>Encl Construction:</b>	841
<b>Design Code:</b>	21BD1134A	<b>Ambient Max(°C):</b>	40
<b>Type:</b>	KS	<b>Alt Ambient Max(°C):</b>	--
<b>Frame:</b>	L215VP10	<b>Insulation Class:</b>	H
<b>Phases:</b>	3	<b>NEMA Design:</b>	B
<b>Poles:</b>	4	<b>Nominal Efficiency:</b>	91.7 %
<b>Output Power:</b>	10HP 7.4KW	<b>Guaranteed Efficiency:</b>	90.2
<b>RPM:</b>	1765	<b>3/4 Load Efficiency:</b>	92.3
<b>Voltage:</b>	460	<b>KVA Code:</b>	H
<b>Hertz:</b>	60	<b>Max KVAR:</b>	3.0
<b>Amps - FL:</b>	12.2	<b>Power Factor:</b>	83.5
<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  
 MAX EXPOSED INTERNAL AND EXTERNAL SURFACE  
 TEMPERATURES UNDER USUAL SERVICE CONDITIONS  
 AT 1.00 S.F. DO NOT EXCEED 200 DEG C  
 STAMP NP249A5499AP AS BELOW:  
 MODEL:5KS215XAE6422A S/N: XXX  
 EX NA IIC T3 GC CSA.09.2216219  
 CLASS I, ZONE 2, AEX NA IIC T3  
 CLASS I, DIV 2, GROUPS A, B, C, D T3  
 -25C <= TAMB <= 40C

**Additional Information:**

4P - 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 1421 LB THRUST  
UTD REPLACEMENT FOR 5KS215XAE6422



**Performance Characteristics**

1st Winding 1st Connection

**Design: 21BD1134A**

**Marks:**

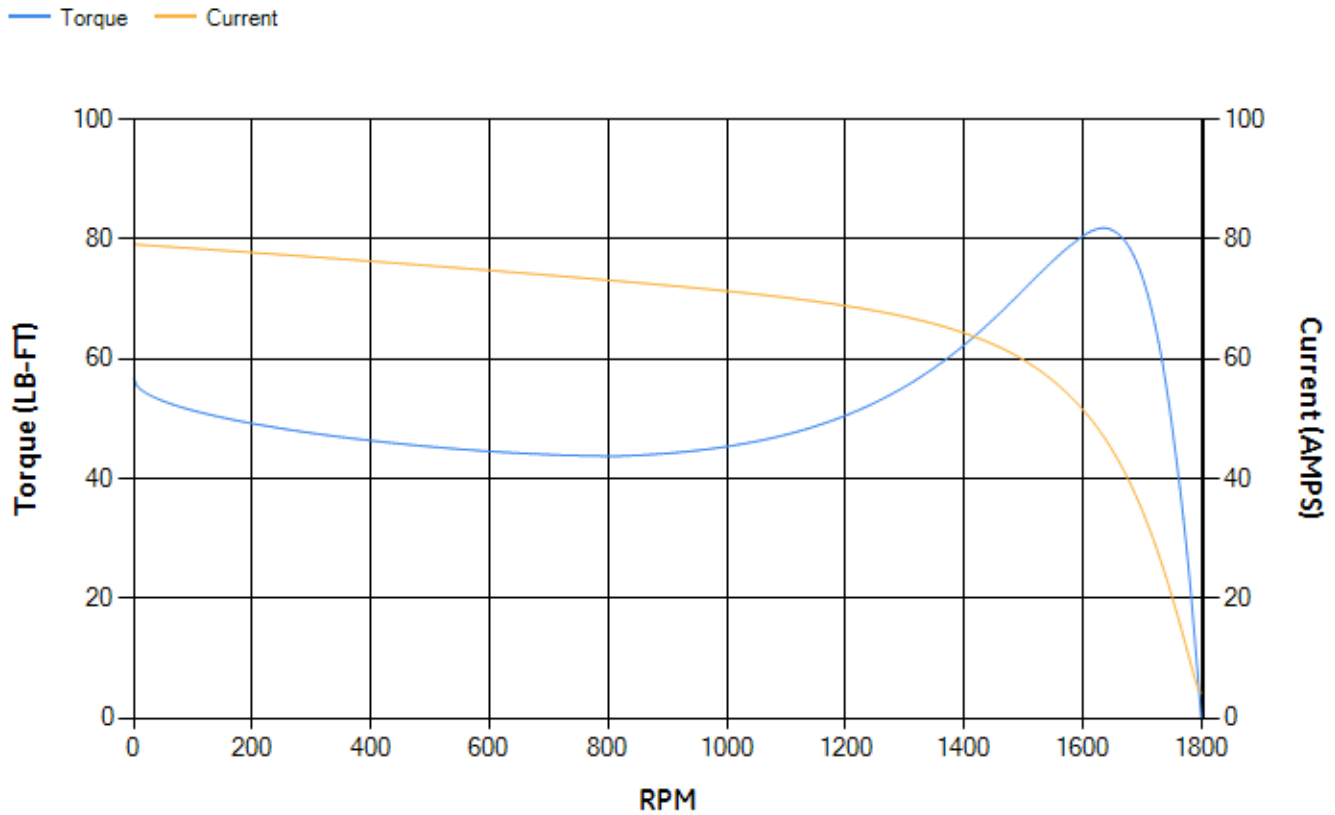
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	90.28	90.86	91.78	92.33	92.15	88.91	0.00
% PF	84.32	84.28	83.68	80.6	72.42	51.52	5.88
AMPS	15.37	14.06	12.19	9.43	7.01	5.11	4.17

<b>TORQ(FL)#FT</b>	29.72	<b>TORQ(LR)%FL</b>	190.93	<b>TORQ(BD)%FL</b>	273.62
<b>AMPS(LR)</b>	79.12	<b>PF AT START</b>	0.4		

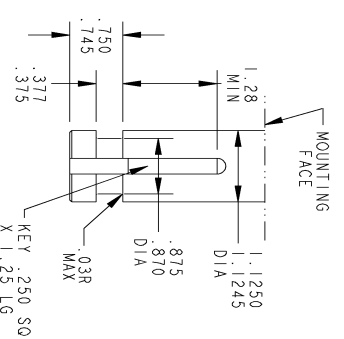
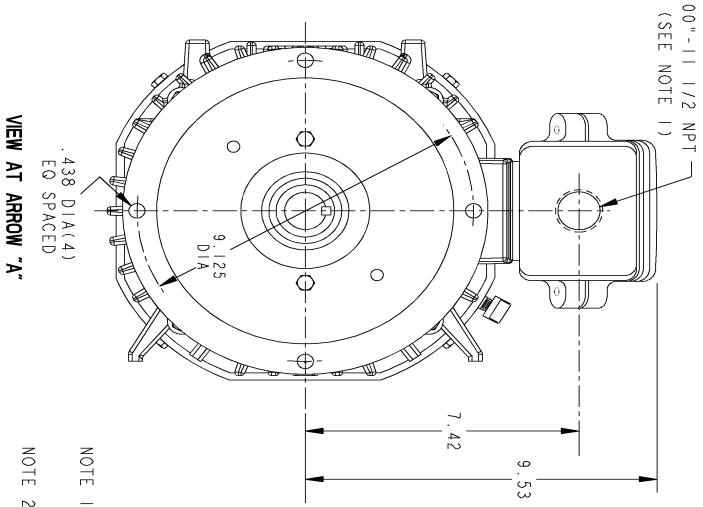
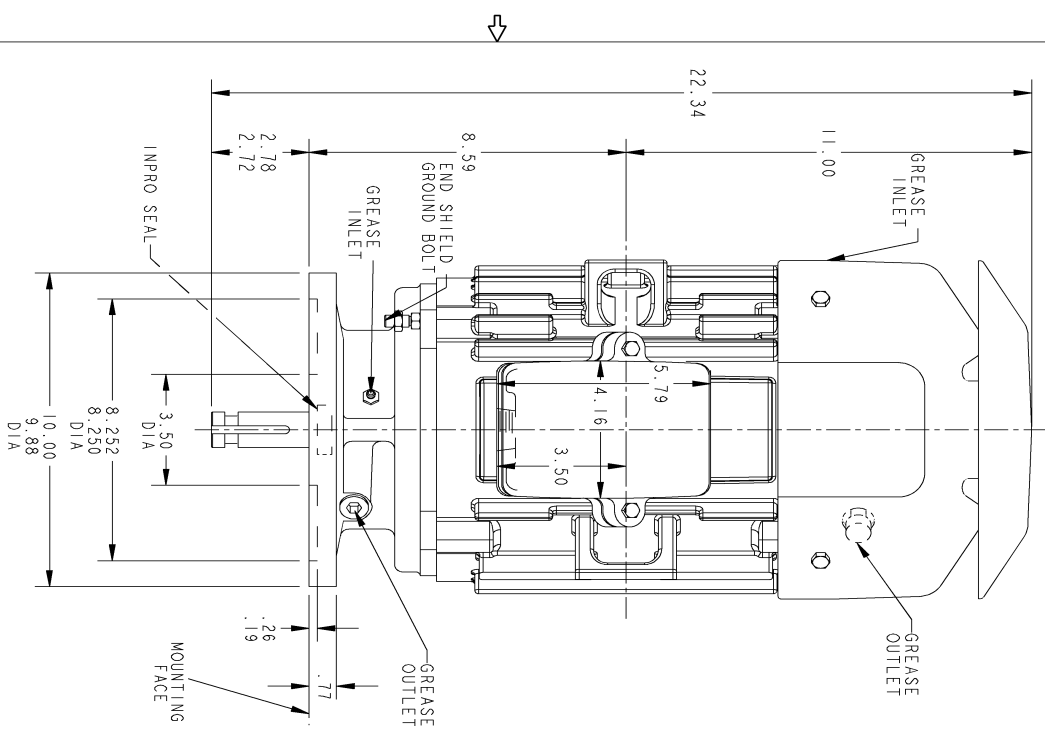
This motor is capable of two cold or one hot start with a maximum connected load inertia of 338 Lb-Ft Sq (14.23 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 46 seconds. Safe stall time at 100% voltage is 102 seconds cold, 68 seconds hot. Rotor inertia is 1.13 Lb-Ft Sq (0.05 Kg-meter Sq).

<b>Open Circuit A-C:</b>	0.422	<b>Short Circuit D-C:</b>	0.013
<b>Short Circuit A-C:</b>	0.02	<b>X/R Ratio:</b>	4.867
<b>Stator Slots:</b>	36	<b>Rotor Slots:</b>	28

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



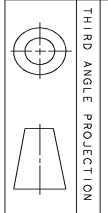
Marks:



NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.  
 NOTE 2: 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	03/10/2010
2	GREASE OUTLET SHOWN ON FAR SIDE SRAVANTHI	09/09/2011	ADI
3	ISAC# 13-0177 LAKSHI KANTHI	02/27/2013	MANCHI



UNLESS OTHERWISE SPECIFIED:	SIGNATURES	DATE
DIMENSIONS ARE IN INCHES	DRM	08/16/06
TOLERANCE ON:	N PRASAD	
2 PL DECIMALS ± 0.02		
3 PL DECIMALS ± 0.005	ROOPA	08/16/06
ANGLES ± 0.5	EMMB	
	N PRASAD	08/16/06

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

**INDUCTION MOTOR OUTLINE**  
 FR20 TFC STD "P" BASE VERTICAL CLR  
 SOLID SHAFT - HIGH THRUST IEE - 841 FEATURES (BD-0)

SIZE DRAWING: **4002B5821PNP5310**  
 SCALE: .3  
 REF: 4002B5821PNP5210  
 SHEET 1 OF 1

DISTRIBUTION:

Marks:

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



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	128D6027PJ1	4004D5282SL1
Bearing		
Slinger/Inproseal		

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C6700G01
Fan Cover	

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

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	