

Product Information Packet

November 9, 2016

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

Model Number:	5KS284XAE5721D
Catalog Number:	V774
Instruction Manual:	GEK-95351
Connection Diagram:	GEM2034E-FIG1
Outline Drawing:	4002B5828PPP5341

Accessory Connection Diagrams			
Bearing Thermocouple:	None	Heater:	None
RTD:	None	Thermistor:	None
Thermostat:	None	Winding Thermocouple:	None
Bearing RTD:	None		

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Marks:

MODEL NUMBER:	5KS284XAE5721D	Estimated Weight:	460 Lbs
Outline Drawing:	4002B5828PPP5341	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG1	Enclosure:	TEFC
Instruction Book:	GEK-95351	Encl Construction:	841
Design Code:	28BD0164A	Ambient Max(°C):	40
Type:	KS	Alt Ambient Max(°C):	--
Frame:	L284LP10	Insulation Class:	H
Phases:	3	NEMA Design:	B
Poles:	2	Nominal Efficiency:	91.7 %
Output Power:	25HP 18.5KW	Guaranteed Efficiency:	90.2
RPM:	3550	3/4 Load Efficiency:	92.6
Voltage:	460	KVA Code:	G
Hertz:	60	Max KVAR:	4.8
Amps - FL:	28.0	Power Factor:	91.0
Service Factor:	1.15	Bearing - DE:	5212
Alt Service Factor:	--	Bearing - ODE:	6310-2ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

VERTICAL-841
 PREMIUM EFFICIENT MOTOR
 DE BRG 60BD32 ODE BRG 50BC03JP3
 INLINE MOTOR
 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:5KS284XAE5721D 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:

2P - LP EXTN
 C/BOX 137 CU IN-1.50 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 .0015" TIR

RCF 5000 CPM, STATIC DEFLECTION .0014 INCHES &
CENTER OF GRAVITY 12.00 INCHES
SOLID SHAFT INLINE
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 8760 HOURS AT 780 LB THRUST

Performance Characteristics

1st Winding 1st Connection

Design: 28BD0164A

Marks:

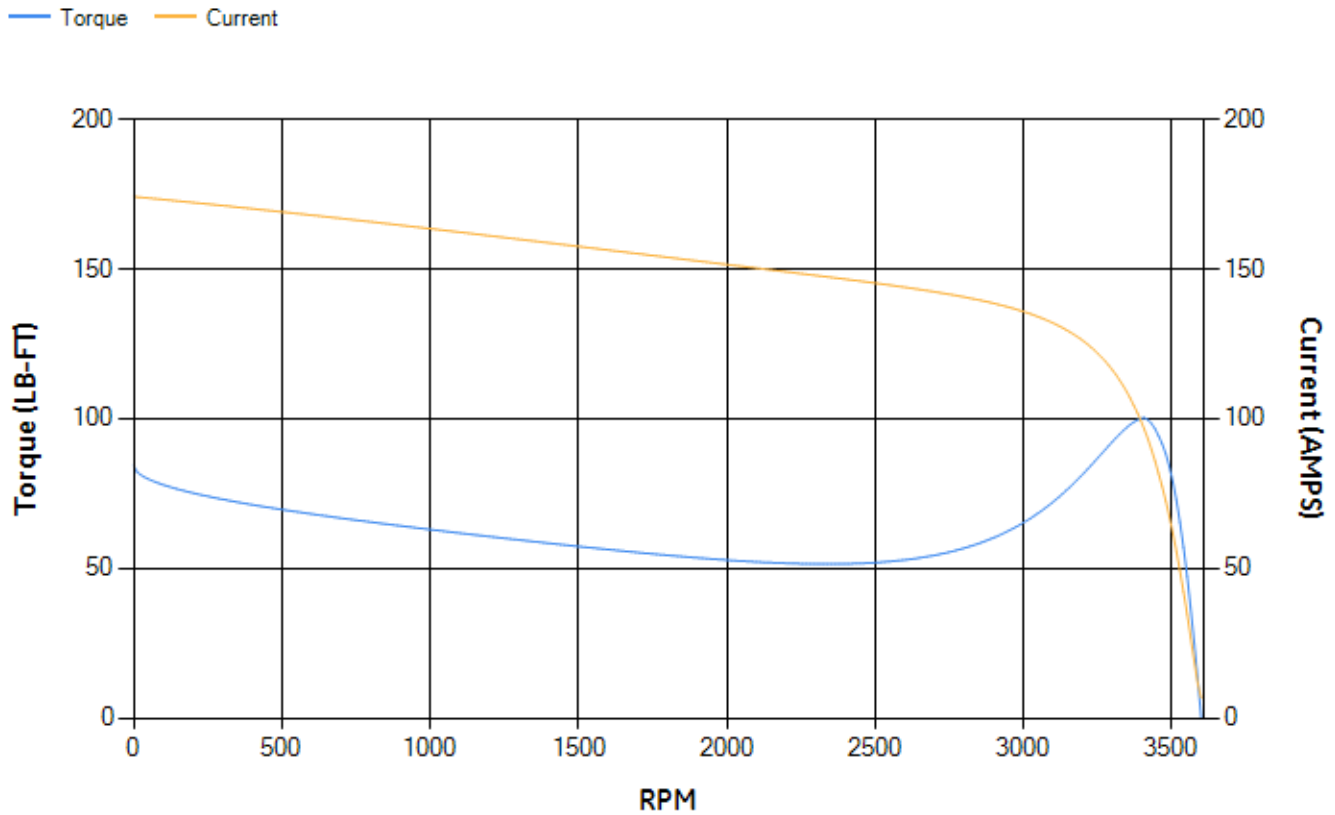
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	90.74	91.26	92.12	92.64	92.5	89.49	0.00
% PF	90.88	91.02	90.93	89.56	84.83	68.28	8.7
AMPS	35.47	32.39	27.93	21.15	14.91	9.57	6.63

TORQ(FL)#FT	36.99	TORQ(LR)%FL	227.95	TORQ(BD)%FL	270.04
AMPS(LR)	174.18	PF AT START	0.38		

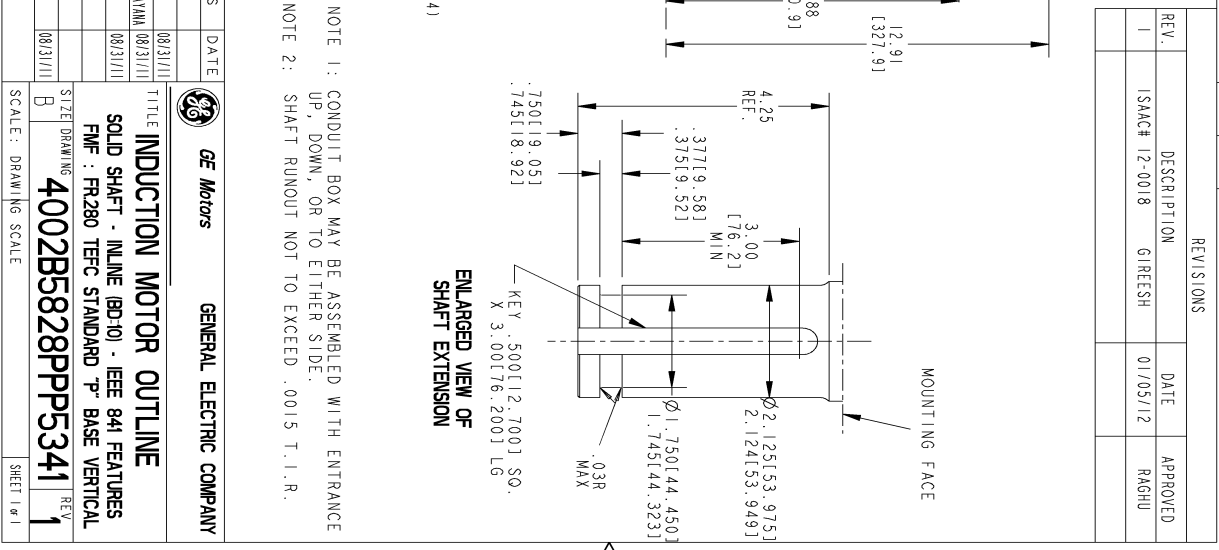
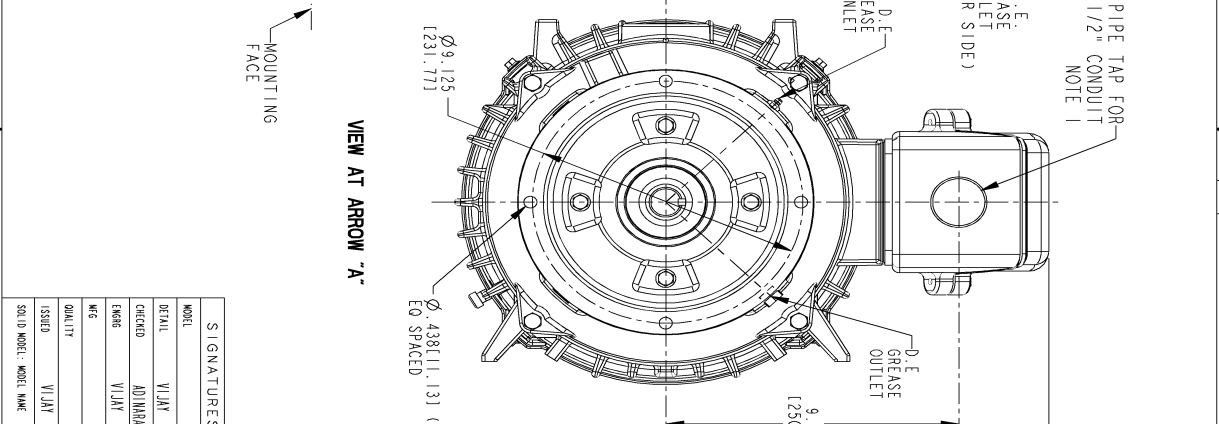
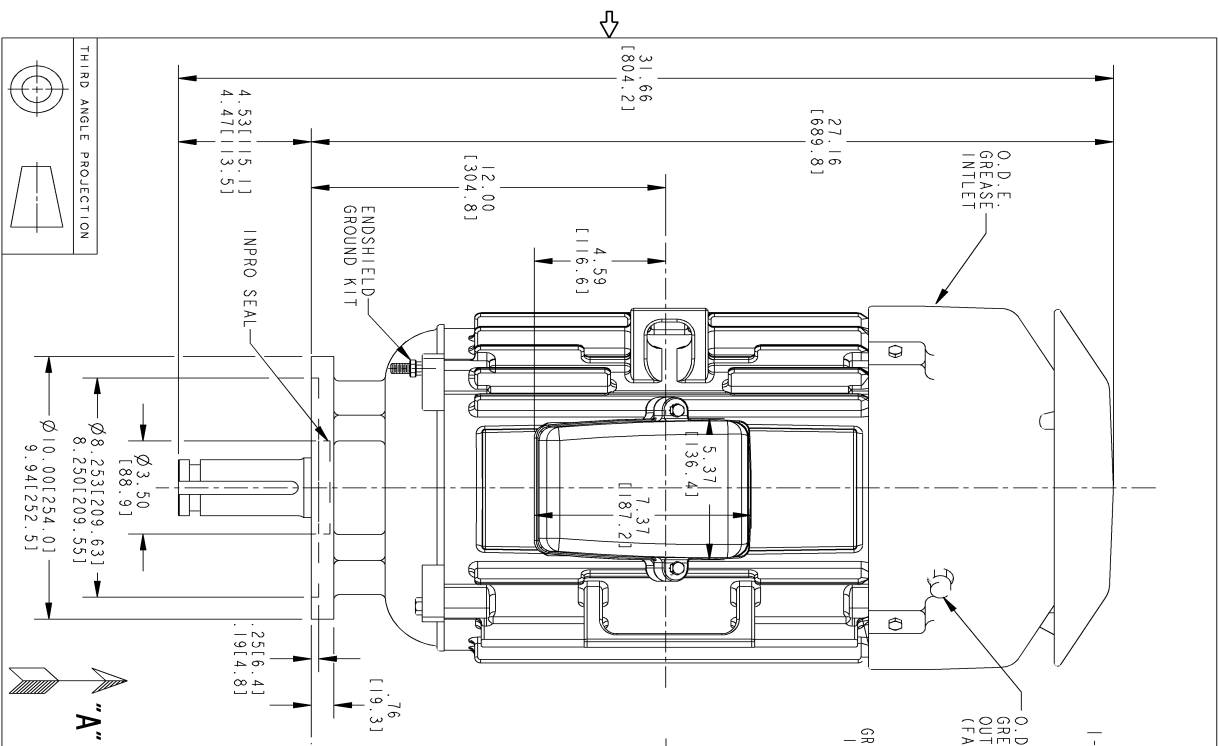
This motor is capable of two cold or one hot start with a maximum connected load inertia of 81 Lb-Ft Sq (3.41 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 19 seconds. Safe stall time at 100% voltage is 39 seconds cold, 22 seconds hot. Rotor inertia is 2.13 Lb-Ft Sq (0.09 Kg-meter Sq).

Open Circuit A-C:	0.802	Short Circuit D-C:	0.013
Short Circuit A-C:	0.027	X/R Ratio:	4.951
Stator Slots:	48	Rotor Slots:	38

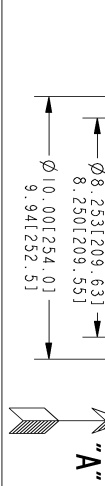
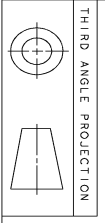
Speed Torque Current Curve (First Connection, First Speed)



Marks:



NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN, OR TO EITHER SIDE.
 NOTE 2: SHAFT RUNOUT NOT TO EXCEED .0015 T.I.R.



VIEW AT ARROW "A"

SIGNATURES		DATE	
MODEL	V/LAY	08/31/11	
DETAIL	AD/IN/AN/AM	08/31/11	
CHECKED	V/LAY	08/31/11	
ENGR	V/LAY	08/31/11	
QC	V/LAY		
ISSUED	V/LAY	08/31/11	
SOLID MODEL: MODEL NAME			

GENERAL ELECTRIC COMPANY	
TITLE INDUCTION MOTOR OUTLINE	
SOLID SHAFT - IN-LINE (BD-10) - IEEE 841 FEATURES FNF : FR280 TEFC STANDARD T- BASE VERTICAL	
SIZE DRAWING	4002B5828PP5341
SCALE: DRAWING SCALE	SHEET 1 OF 1

REV.	DESCRIPTION	DATE	APPROVED
1	ISAAC # 12-0018 G1REESH	01/05/12	RAGHU

SIZE	B
DRAWING NO.	4002B5828PP5341
REV	1
SHEET	1

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1	ISAAC # 12-0018 G1REESH	01/05/12	RAGHU

Marks:

Connection Diagram
GEM2034E-FIG1

