

Product Information Packet

November 9, 2016

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

Model Number:	5KS254XAE5424A
Catalog Number:	V857
Instruction Manual:	GEK-95351
Connection Diagram:	GEM2034E-FIG1
Outline Drawing:	4002B5825PNP5323

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:	5KS254XAE5424A	Estimated Weight:	315 Lbs
Outline Drawing:	4002B5825PNP5323	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG1	Enclosure:	TEFC
Instruction Book:	GEK-95351	Encl Construction:	841
Design Code:	25BD0090A	Ambient Max(°C):	40
Type:	KS	Alt Ambient Max(°C):	--
Frame:	L254VP10	Insulation Class:	H
Phases:	3	NEMA Design:	B
Poles:	2	Nominal Efficiency:	91 %
Output Power:	15HP 11.1KW	Guaranteed Efficiency:	90.2
RPM:	3550	3/4 Load Efficiency:	91.8
Voltage:	460	KVA Code:	G
Hertz:	60	Max KVAR:	2.9
Amps - FL:	17.3	Power Factor:	89.0
Service Factor:	1.15	Bearing - DE:	7309
Alt Service Factor:	--	Bearing - ODE:	6309-2ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

VERTICAL-841
 PREMIUM EFFICIENT MOTOR
 DE BRG 45BT03XP3 ODE BRG 45BC03JP3
 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:5KS254XAE5424A 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 - VP EXTN
 C/BOX 137 CU IN-1.25 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 10.75 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 1402 LB THRUST
UTD REPLACEMENT FOR 5KS254XAE5424

Performance Characteristics

1st Winding 1st Connection

Design: 25BD0090A

Marks:

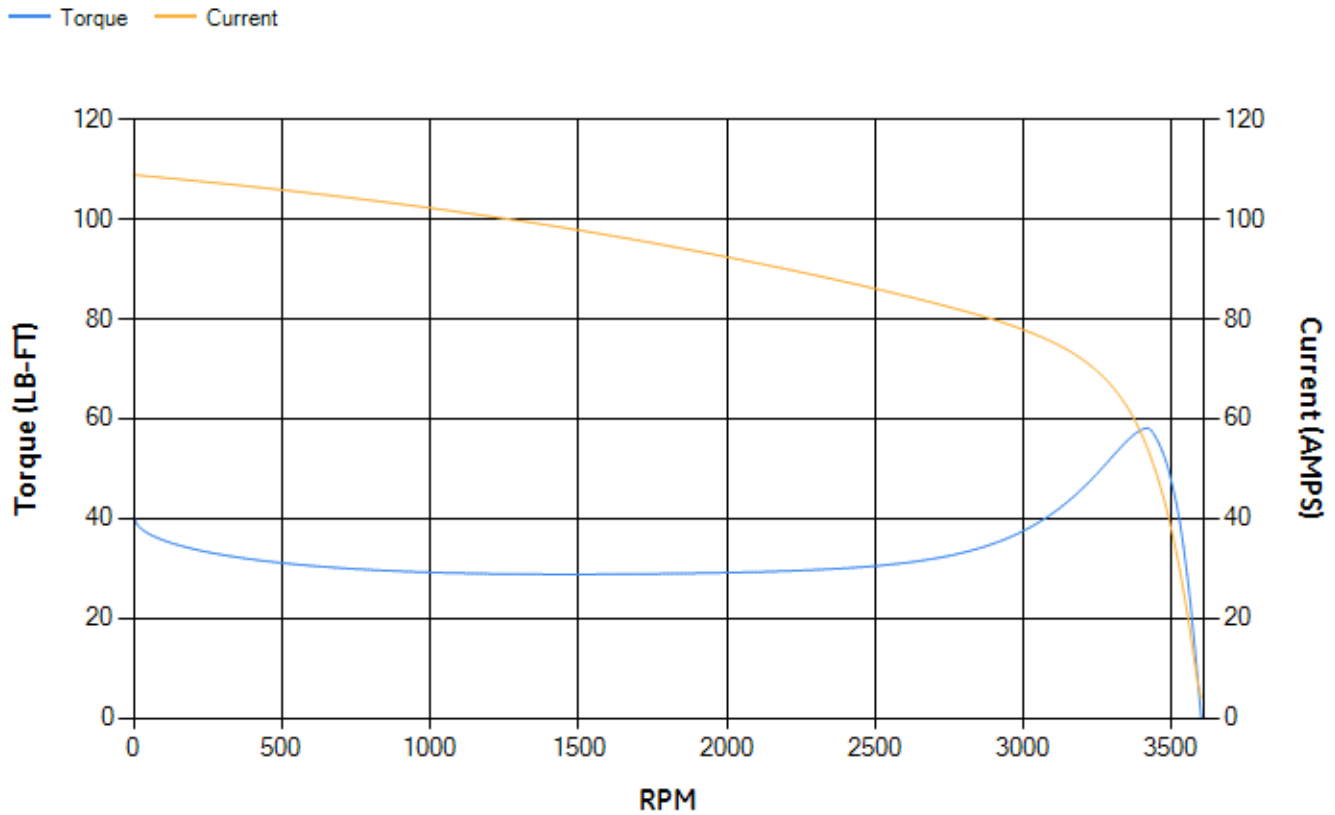
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	89.46	90.13	91.15	91.83	91.73	88.48	0.00
% PF	88.61	89.02	89.24	88.25	83.82	67.77	9.58
AMPS	22.14	20.12	17.26	12.99	9.13	5.85	4.01

TORQ(FL)#FT	22.19	TORQ(LR)%FL	182.51	TORQ(BD)%FL	260.79
AMPS(LR)	108.87	PF AT START	0.3		

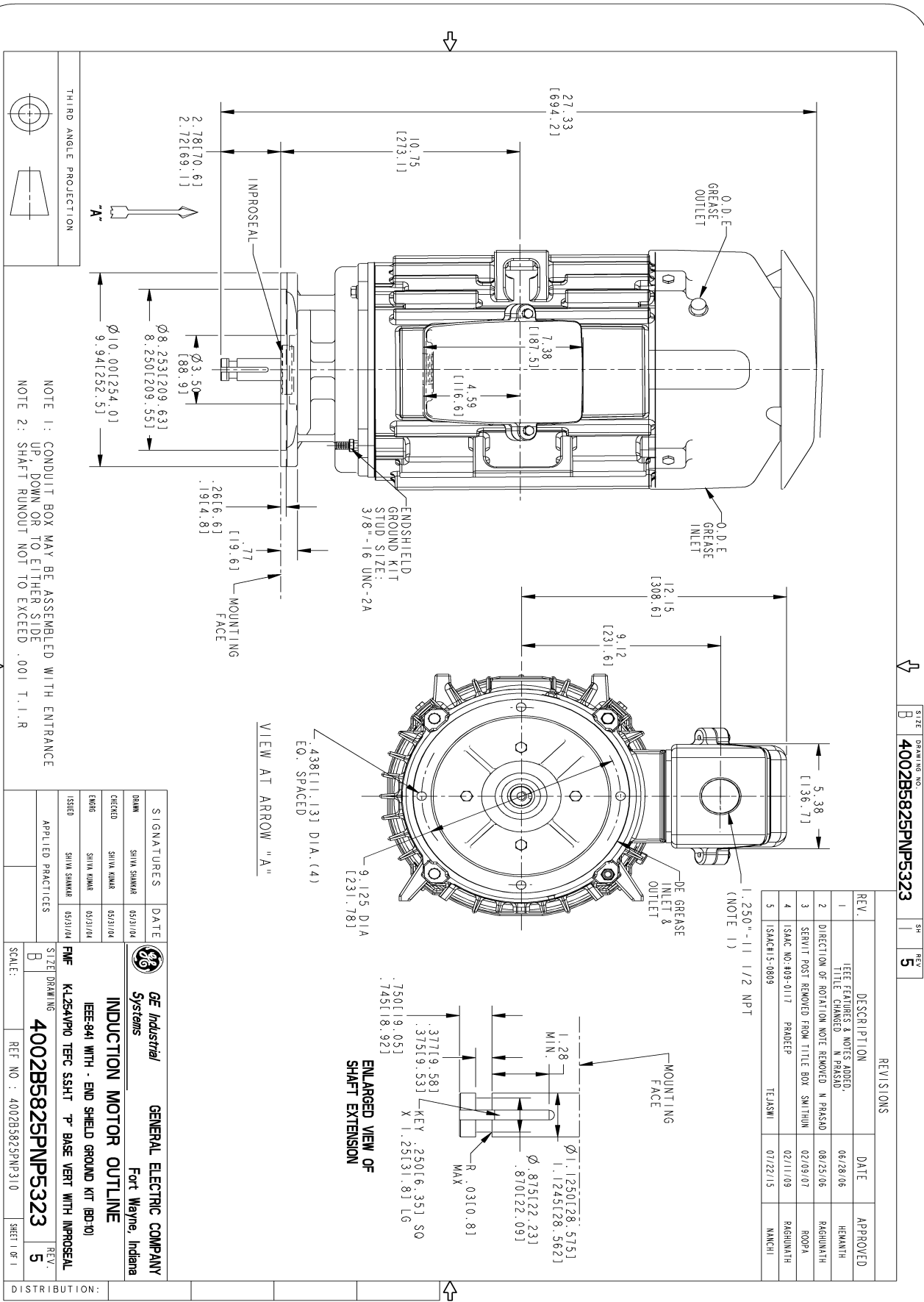
This motor is capable of two cold or one hot start with a maximum connected load inertia of 109 Lb-Ft Sq (4.59 Kg-meter Sq) at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 50 seconds. Safe stall time at 100% voltage is 94 seconds cold, 60 seconds hot. Rotor inertia is 1.05 Lb-Ft Sq (0.04 Kg-meter Sq).

Open Circuit A-C:	0.844	Short Circuit D-C:	0.013
Short Circuit A-C:	0.031	X/R Ratio:	4.8
Stator Slots:	36	Rotor Slots:	26

Speed Torque Current Curve (First Connection, First Speed)



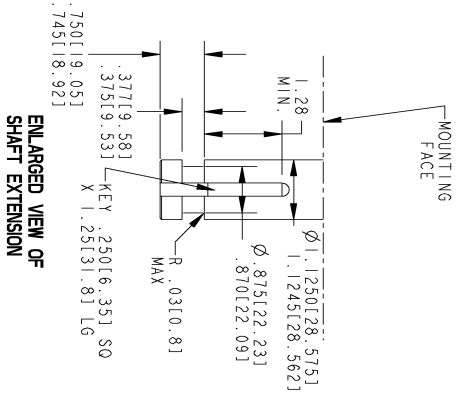
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SIZE: B DRAWING NO: 4002B5825PNP5323 SH: 5 REV: 5

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
1	IEEE FEATURES & NOTES ADDED. TITLE CHANGED	06/28/06	HEMANTH
2	DIRECTION OF ROTATION NOTE REMOVED	08/23/06	RAJAGANATH
3	SERVIT POST REMOVED FROM TITLE BOX	02/09/07	ROOPA
4	ISAC NO. 409-0117	02/11/09	RAJAGANATH
5	ISACH 15-0809	07/22/15	MANCHI



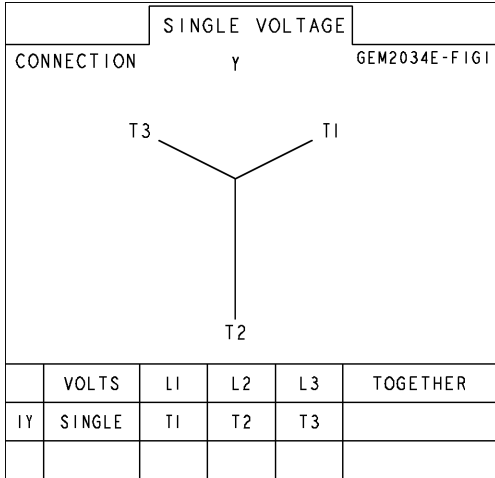
VIEW AT ARROW "A"

THIRD ANGLE PROJECTION



Marks:

Connection Diagram
GEM2034E-FIG1



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	128D6129PJ1	4004D5283SK1
Bearing		
Slinger/Inproseal		

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

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

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

