GE
Power Conversion

Product Information Packet

January 20, 2017

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

Model Number:	**5KS509DAE6020D**
Catalog Number:	**V852**
Instruction Manual:	GEK-95352
Connection Diagram:	GEM2034E-FIG19
Outline Drawing:	148CA59VMKKFGAA0002

Accessory Connection Diagrams

Bearing Thermocouple:	None	**Heater:**	3027JE-1C
RTD:	None	**Thermistor:**	None
Thermostat:	None	**Winding Thermocouple:**	None
Bearing RTD:	None		

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imagination at work

Marks:

MODEL NUMBER:	**5KS509DAE6020D**	**Estimated Weight:**	3620 Lbs
Outline Drawing:	148CA59VMKKFGAA0002	**Time Rating:**	CONT
Connection Diagram:	GEM2034E-FIG19	**Enclosure:**	WPI
Instruction Book:	GEK-95352	**Encl Construction:**	OPEN
Design Code:	50ED1309AB	**Ambient Max(°C):**	40
Type:	KS	**Alt Ambient Max(°C):**	--
Frame:	L509TP24	**Insulation Class:**	F
Phases:	3	**NEMA Design:**	B
Poles:	4	**Nominal Efficiency:**	96.2 %
Output Power:	500HP 370KW	**Guaranteed Efficiency:**	95.4
RPM:	1785	**3/4 Load Efficiency:**	--
Voltage:	460	**KVA Code:**	G
Hertz:	60	**Max KVAR:**	91.4
Amps - FL:	549.0	**Power Factor:**	89.0
Service Factor:	1.15	**Bearing - DE:**	6219ZC3
Alt Service Factor:	--	**Bearing - ODE:**	235A2535AA01

Enclosure is Weather Protected One

Stamped Nameplate Notes:

CC009A
NEMA ENCLOSURE WP-I, CSA ENCL DP
VIBRATION LIMIT = 0.100 IN/SEC
THERMOSTAT LEADS TB1-TB2:TRIP
HTR LDS HE1-HE2 115V 350W
UPPER OIL 6.0 QTS ISO 32
LOWER OIL: 2.5 QTS ISO 32
PREMIUM EFFICIENT MOTOR
INVERTER DUTY PER NEMA MG1 PART 31
ALTERNATE RATING FOR PWM CONTROL
1.0 SF. VAR TORQUE RANGE 0-60 HZ
SUITABLE FOR 400 HP, 380V, 50 HZ WITH
532 AMPS AND 1485 RPM AT 1.0 S.F

Additional Information:

4 POLE,VERT HOLLOW SHAFT HIGH THRUST (2D)
ACTUAL EFFICIENCY = 95.8
SELF-RELEASE COUPLING,BX=2.188
PART WINDING START
SPECIAL BALANCE
(3) NC THERMOSTAT LEADS TO MAIN C/BOX
115V HEATER LEADS TO MAIN C/BOX
RCF=2070 CPM CG=27.0 IN STAT DEF=0.0082 IN
C/B GRD PLATE
BEARING LIFE 8760 HOURS AT 14807 LB THRUST
2500 Cu. In. CBOX
INSULATED BEARING SYSTEM AT UPPER END

AEGIS SHAFT GROUNDING RING AT LOWER END
DP-WPI STOCK BALASUBRAMANIANH 01/19/17

Performance Characteristics 1st Winding 1st Connection **Design: 50ED1309AB**

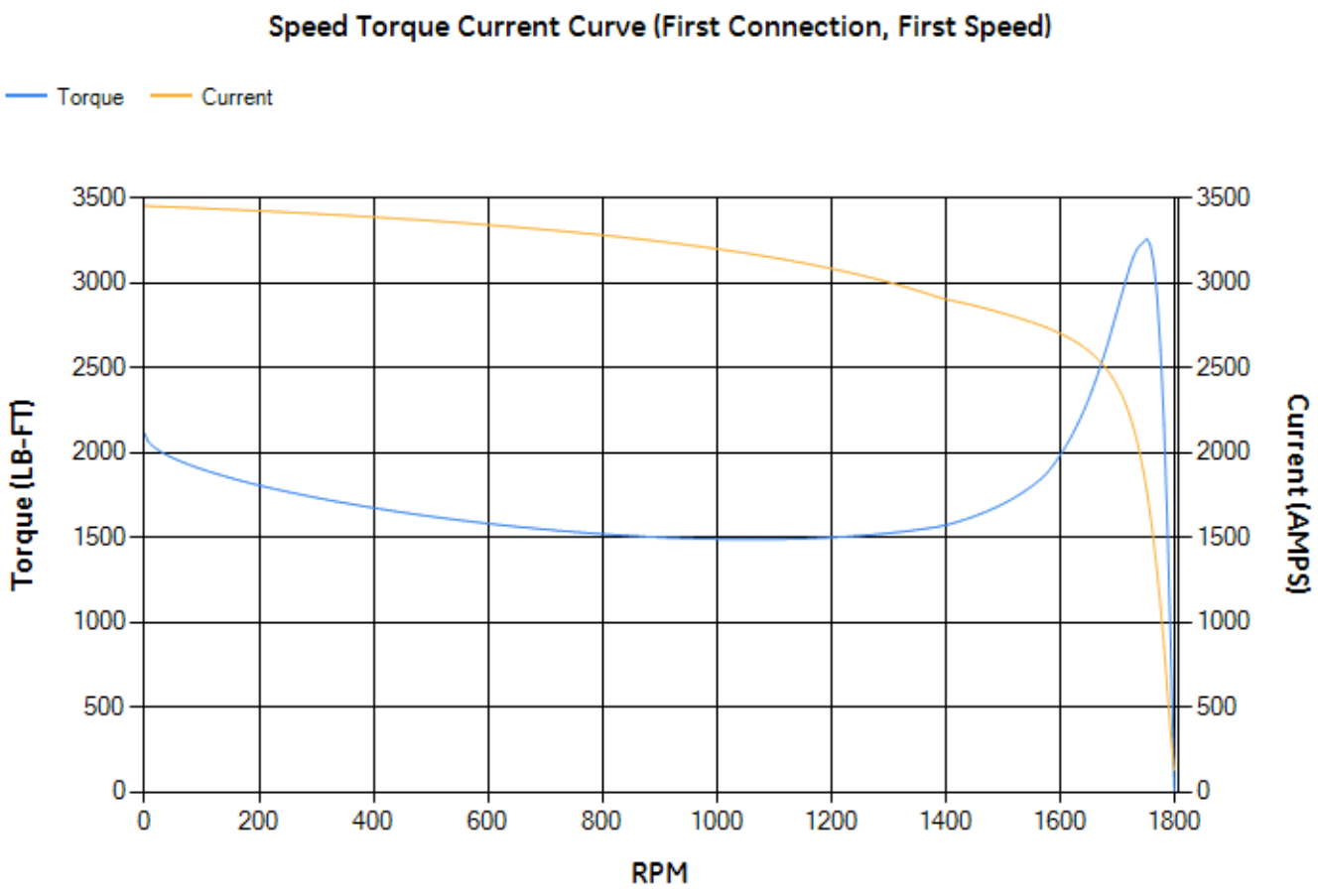
Marks:

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.27	95.47	95.89	95.84	95.43	93.05	0.00
% PF	88.76	89.02	89.95	87.88	83.13	66.06	5.85
AMPS	691.74	633.21	541.88	416.7	294.94	190.34	127.41

TORQ(FL)#FT	1469.67	**TORQ(LR)%FL**	143.7	**TORQ(BD)%FL**	219
AMPS(LR)	3452.15	**PF AT START**	0.21		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 6198 Lb-Ft Sq (260.94 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 30 seconds. Safe stall time at 100% voltage is 56 seconds cold, 36 seconds hot. Rotor inertia is 156.72 Lb-Ft Sq (6.6 Kg-meter Sq).

Open Circuit A-C:	1.478	**Short Circuit D-C:**	0.039
Short Circuit A-C:	0.051	**X/R Ratio:**	14.755
Stator Slots:	72	**Rotor Slots:**	56



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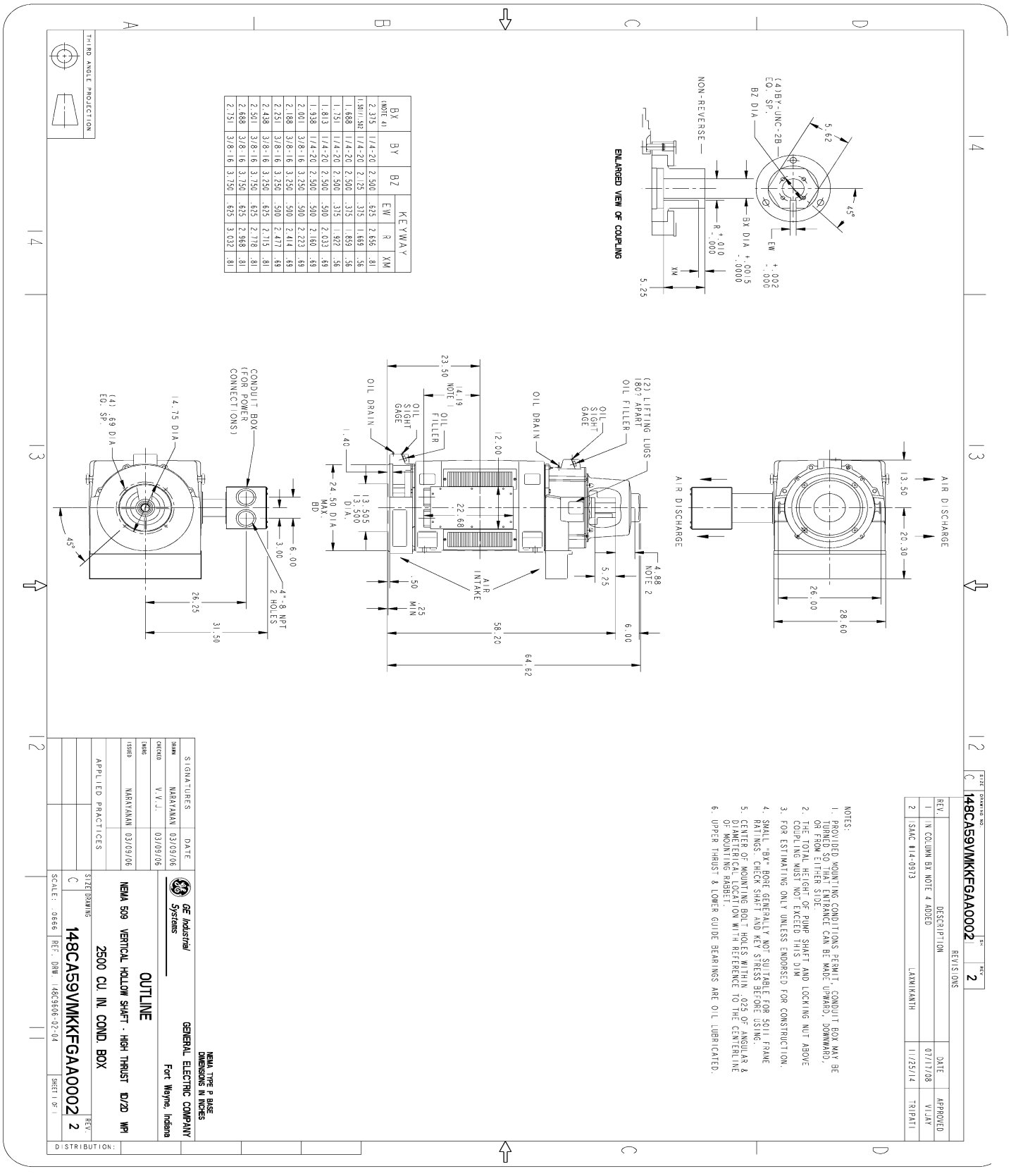


BX (NOTE 4)	BY	BZ	KEYWAY EW	KEYWAY R	KEYWAY XM
2.375	1/4-20	2.500	.625	2.656	.81
1.3811/1.382	1/4-20	2.125	.375	1.668	.56
1.688	1/4-20	2.500	.375	1.859	.56
1.751	1/4-20	2.500	.375	1.922	.56
1.813	1/4-20	2.500	.500	2.033	.69
1.938	1/4-20	2.500	.500	2.160	.69
2.001	3/8-16	3.250	.500	2.223	.69
2.188	3/8-16	3.250	.500	2.414	.69
2.251	3/8-16	3.250	.500	2.477	.69
2.438	3/8-16	3.250	.625	2.715	.81
2.501	3/8-16	3.750	.625	2.778	.81
2.688	3/8-16	3.750	.625	2.968	.81
2.751	3/8-16	3.750	.625	3.032	.81

SIGNATURES		DATE
DRAWN	NARAYANAN	03/09/06
CHECKED	V.V.J.	03/09/06
ENGRG		
ISSUED	NARAYANAN	03/09/06

APPLIED PRACTICES

NEMA TYPE P BASE DIMENSIONS IN INCHES

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

OUTLINE

NEMA 509 VERTICAL HOLLOW SHAFT - HIGH THRUST ID/2D WPI

2500 CU. IN. COND. BOX

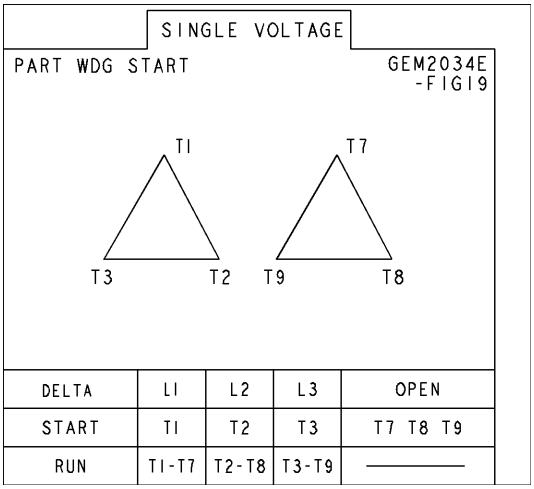
148CA59VMKKFGAA0002 REV. 2

SIZE C | SCALE: 0666 | REF. DRW 148C9606-02-04 | SHEET 1 OF 1

DISTRIBUTION:

Marks:

Connection Diagram
GEM2034E-FIG19



DELTA	L1	L2	L3	OPEN
START	T1	T2	T3	T7 T8 T9
RUN	T1-T7	T2-T8	T3-T9	———

Heater Connection
3027JE-1C

SUPPLY VOLTAGE LEADS	L1	L2
HEATER LEADS	HE1	HE2

End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	119D2111AA-G01	119D2115AA-G01
Bearing	235A2525AD01	235A2535AA01
Slinger/Inproseal		

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	
Fan Cover	

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	179B9025G01

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	