



GE INDUSTRIAL MOTORS
a **WOLONG** company

Product Technical Information

July 26, 2021

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

Model Number:	5KS509DAJ6030A
Catalog Number:	V955
Instruction Manual:	GEI-M1045
Connection Diagram:	GEM2034E-FIG19
Outline Drawing:	148CB59VMKKFGAA0001

Accessory Connection Diagrams

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

Table of Contents

Specification	01
Performance Characteristics	02
Outline Drawing	03
Connection Drawing(s)	04

Marks:

MODEL NUMBER:	5KS509DAJ6030A	Estimated Weight:	4173 Lbs
Outline Drawing:	148CB59VMKKFGAA0001	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG19	Enclosure:	WPI
Instruction Book:	GEI-M1045	Encl Construction:	OPEN
Design Code:	50ED1309AA	Ambient Max(°C):	40
Type:	KS	Alt Ambient Max(°C):	--
Frame:	B509TP24	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:	91.6
Amps - FL:	547.0	Power Factor:	89.0
Service Factor:	1.15	Bearing - DE:	6219ZC3
Alt Service Factor:	--	Bearing - ODE:	29430

Enclosure is Weather Protected One

Stamped Nameplate Notes:

NEMA ENCLOSURE WP-I, CSA ENCL DP
 THERMOSTAT LEADS TB1-TB2:TRIP
 HTR LDS HE1-HE2 115V 350W
 UPPER BRG LUBE OIL: 12.68 QTS
 6 DEG C TO 40 DEG C :ISO 150(MINERAL OR
 SYNTHETIC)
 -15 DEG C TO 5 DEG C : ISO 68 SYNTHETIC
 LOWER BRG LUBE OIL: 2.5 QTS
 0 DEG C TO 40 DEG C :ISO 32(MINERAL OR
 SYNTHETIC)
 -15 DEG C TO 0 DEG C : ISO 32 SYNTHETIC
 ROT CCW FACING TOP LEAD/PH SEQ 1-2-3/1-2-3
 5600 LBS MIN CONTINUOUS DOWNTHRUST REQ"D
 STAMP NP249A5564P009 AS FOLLOWS:
 REQUIRED COOLING WATER:2.0 GPM
 MAXIMUM COOLING WATER:3.5 GPM
 MAXIMUM PRESSURE:100 PSI
 MAXIMUM WATER INLET TEMP :95 DEG F
 INVERTER DUTY PER NEMA MG1 PART 31
 ALTERNATE RATING FOR PWM CONTROL



Additional Information:

1.0 SF. VAR TORQUE RANGE 5-60 HZ
SUITABLE FOR 400 HP, 380V, 50 HZ WITH
532 AMPS AND 1485 RPM AT 1.0 S.F
4 POLE, VERT HOLLOW SHAFT HIGH THRUST
NON-REVERSE COUPLING, BX=2.188
PART WINDING START
VIBRATION LIMIT-GRADE B
(3) NC THERMOSTAT LEADS TO MAIN C/BOX
115V HEATER LEADS TO MAIN C/BOX
RCF=1836 CPM CG=27.3 IN STAT DEF=0.0104 IN
C/B GRD PLATE
BEARING LIFE 8760 HOURS AT 42984 LB THRUST
2500 Cu. In. CBOX
AEGIS SHAFT GROUNDING RING ON LOWER END
INSULATED LOWER HALF COUPLING FOR TOP BRG
SELF RELEASE PINS 235A4557AF1 AS KIT IN
IN BAG 235A4786AA5 SHIP LOOSE ALONG WITH
THIS MOTOR;



Performance Characteristics

1st Winding 1st Connection

Design: 50ED1309AA

Marks:

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.4	95.61	96.05	96.05	95.74	93.62	0.00
% PF	88.74	89	89.92	87.83	83.01	65.76	5.25
AMPS	690.96	632.46	541.19	416.06	294.4	190.04	127.79

TORQ(FL)#FT 1469.64
AMPS(LR) 3452.22

TORQ(LR)%FL 143.69
PF AT START 0.21

TORQ(BD)%FL 219.11

This motor is capable of two cold or one hot start with a maximum connected load inertia of 6219 Lb-Ft Sq (261.82 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 155.16 Lb-Ft Sq (6.53 Kg-meter Sq).

Open Circuit A-C: 1.475

Short Circuit D-C: 0.039

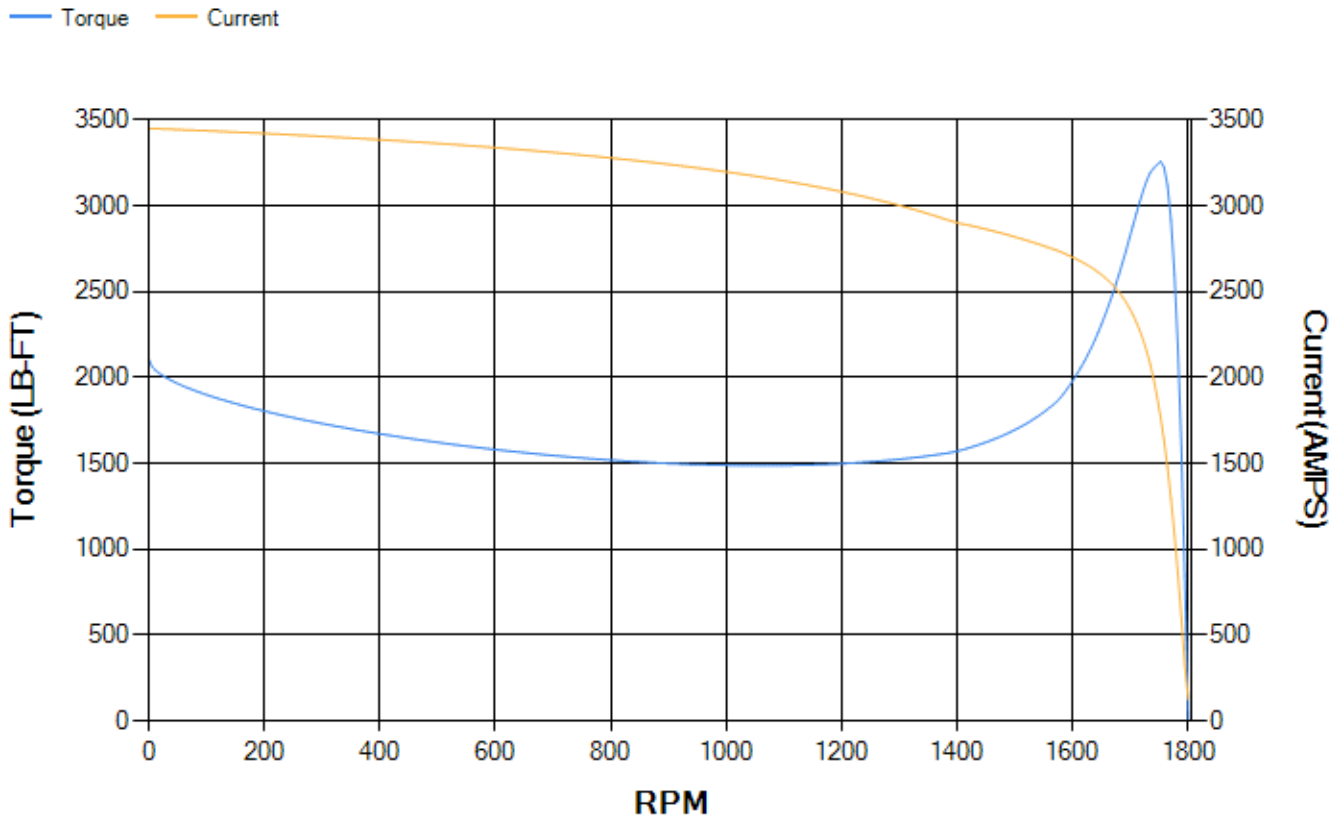
Short Circuit A-C: 0.051

X/R Ratio: 14.762

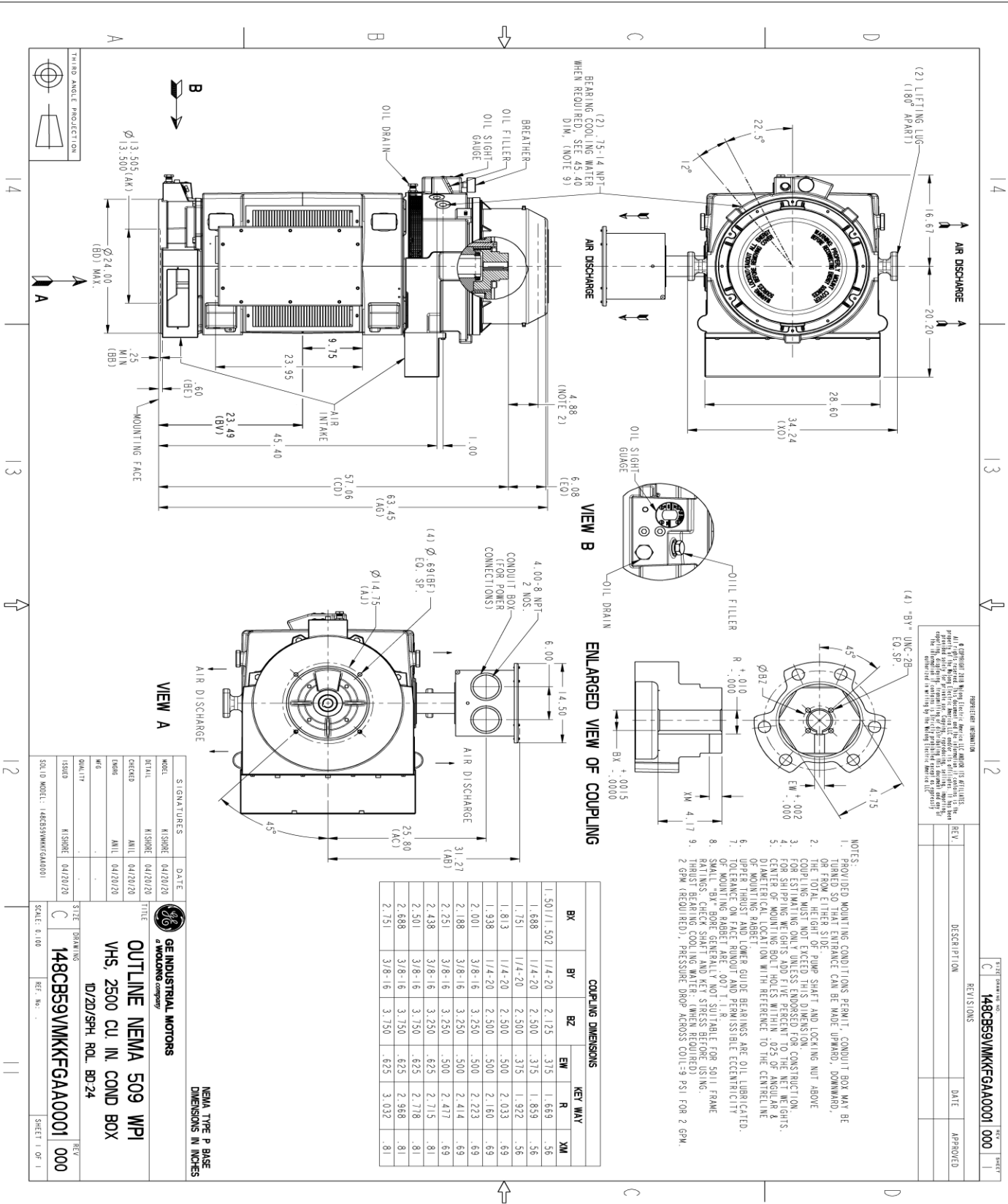
Stator Slots: 72

Rotor Slots: 56

Speed Torque Current Curve (First Connection, First Speed)



Marks:



REVISIONS

REV.	DESCRIPTION	DATE	APPROVED

148CB59VMKFGAA001 000

DATE: 04/20/20

SCALE: 0.100

GE INDUSTRIAL MOTORS
OUTLINE NEMA 509 WPI
VHS, 2500 CU IN COND BOX
D/2D/SPH. ROL. BD-24

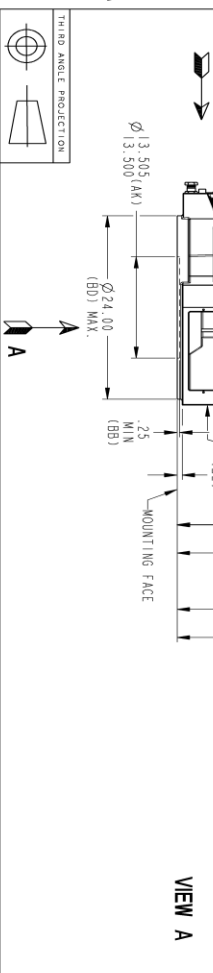
GE
WOLONG COMPANY

NEMA TYPE P BASE
DIMENSIONS IN INCHES

MODEL	DATE	SIGNATURES
K1509E 04/20/20	04/20/20	K1509E
REVIEW	04/20/20	AMIL
DESIGN	04/20/20	AMIL
DATE	04/20/20	AMIL
W/S		
QUALITY		
ISSUED	04/20/20	K1509E
SCALE	0.100	

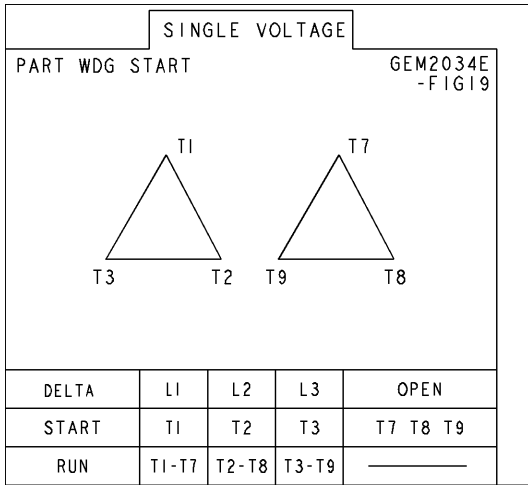
SIZE DRAWING: **148CB59VMKFGAA001 000**

REV: 1



Marks:

Connection Diagram
GEM2034E-FIG19



Heater Connection
3027JE-1C



SUPPLY VOLTAGE LEADS	L1	L2
HEATER LEADS	HE1	HE2

