



GE INDUSTRIAL MOTORS
a **WOLONG** company

Product Technical Information

September 9, 2022

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

Model Number:	5KS513DAJ6027A
Catalog Number:	V974
Instruction Manual:	GEI-M1045
Connection Diagram:	GEM2034E-FIG142
Outline Drawing:	148CB53VMKKGPA0001

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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Marks:

MODEL NUMBER:	5KS513DAJ6027A	Estimated Weight:	6310 Lbs
Outline Drawing:	148CB53VMKKGPA0001	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG142	Enclosure:	WPI
Instruction Book:	GEI-M1045	Encl Construction:	OPEN
Design Code:	50ED1170AA	Ambient Max(°C):	40
Type:	KS	Alt Ambient Max(°C):	--
Frame:	B5013TP24	Insulation Class:	F
Phases:	3	NEMA Design:	-
Poles:	4	Nominal Efficiency:	95.8 %
Output Power:	800HP 592KW	Guaranteed Efficiency:	95.0 %
RPM:	1780	3/4 Load Efficiency:	--
Voltage:	460	KVA Code:	G
Hertz:	60	Max KVAR:	110.4
Amps - FL:	854.0	Power Factor:	91.5
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: 12.67 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
 INVERTER DUTY PER NEMA MG1 PART 31
 ALTERNATE RATING FOR PWM CONTROL
 1.0 SF. VAR TORQUE RANGE 5-60 HZ
 STAMP NP249A5564P009 AS FOLLOWS:
 REQUIRED COOLING WATER:2.0 GPM
 MAXIMUM COOLING WATER:3.5 GPM
 MAXIMUM PRESSURE:100 PSI



Additional Information:

MAXIMUM WATER INLET TEMP :95 DEG F
4 POLE,VERT HOLLOW SHAFT HIGH THRUST(1D)
NON-REVERSE COUPLING,BX=2.188
(3) NC, CL F, TRIP THERMOSTAT LEADS AND
115V HEATER LEADS TO MAIN CONDUIT BOX
RCF=1348 CPM CG=35.7 IN STAT DEF=0.0194 IN
C/B GRD PLATE
BEARING LIFE 8760 HOURS AT 41968 LB THRUST
5700 Cu. In. CBOX
SHAFT GROUND RING AT LOWER END BRG CAP
INSULATED BEARING SYSTEM AT UPPER END
PART WINDING START



Performance Characteristics

1st Winding 1st Connection

Design: 50ED1170AA

Marks:

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.17	95.49	96.11	96.46	96.68	95.79	0.00
% PF	90.6	91.02	92.08	90.97	87.93	74.31	3.99
AMPS	1085.47	990.75	845.15	639.97	440.41	262.97	153.93

TORQ(FL)#FT 2357.34
AMPS(LR) 5369.31

TORQ(LR)%FL 110.36
PF AT START 0.22

TORQ(BD)%FL 218.5

This motor is capable of two cold or one hot start with a maximum connected load inertia of 5732 Lb-Ft Sq (241.32 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 17 seconds. Safe stall time at 100% voltage is 45 seconds cold, 27 seconds hot. Rotor inertia is 244.65 Lb-Ft Sq (10.3 Kg-meter Sq).

Open Circuit A-C: 1.469

Short Circuit D-C: 0.026

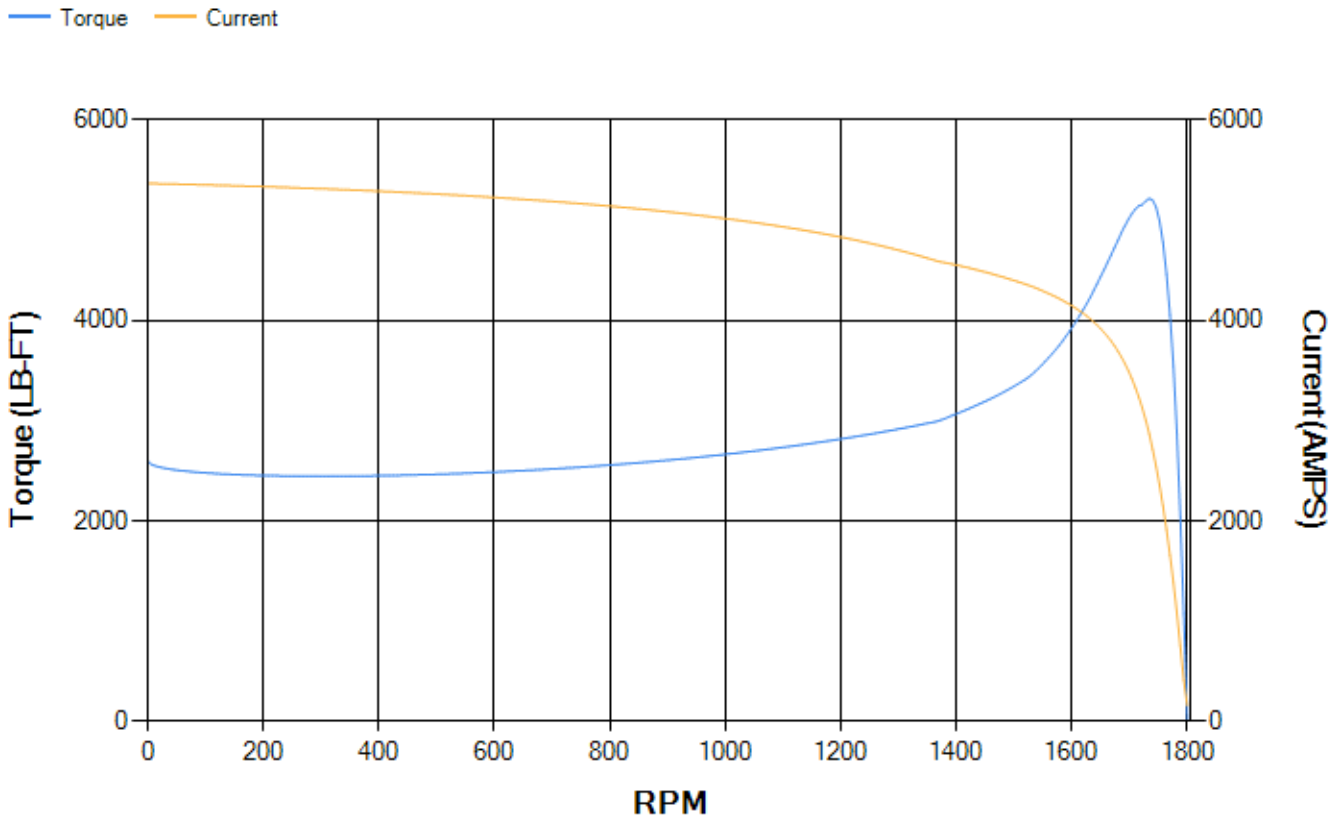
Short Circuit A-C: 0.039

X/R Ratio: 9.623

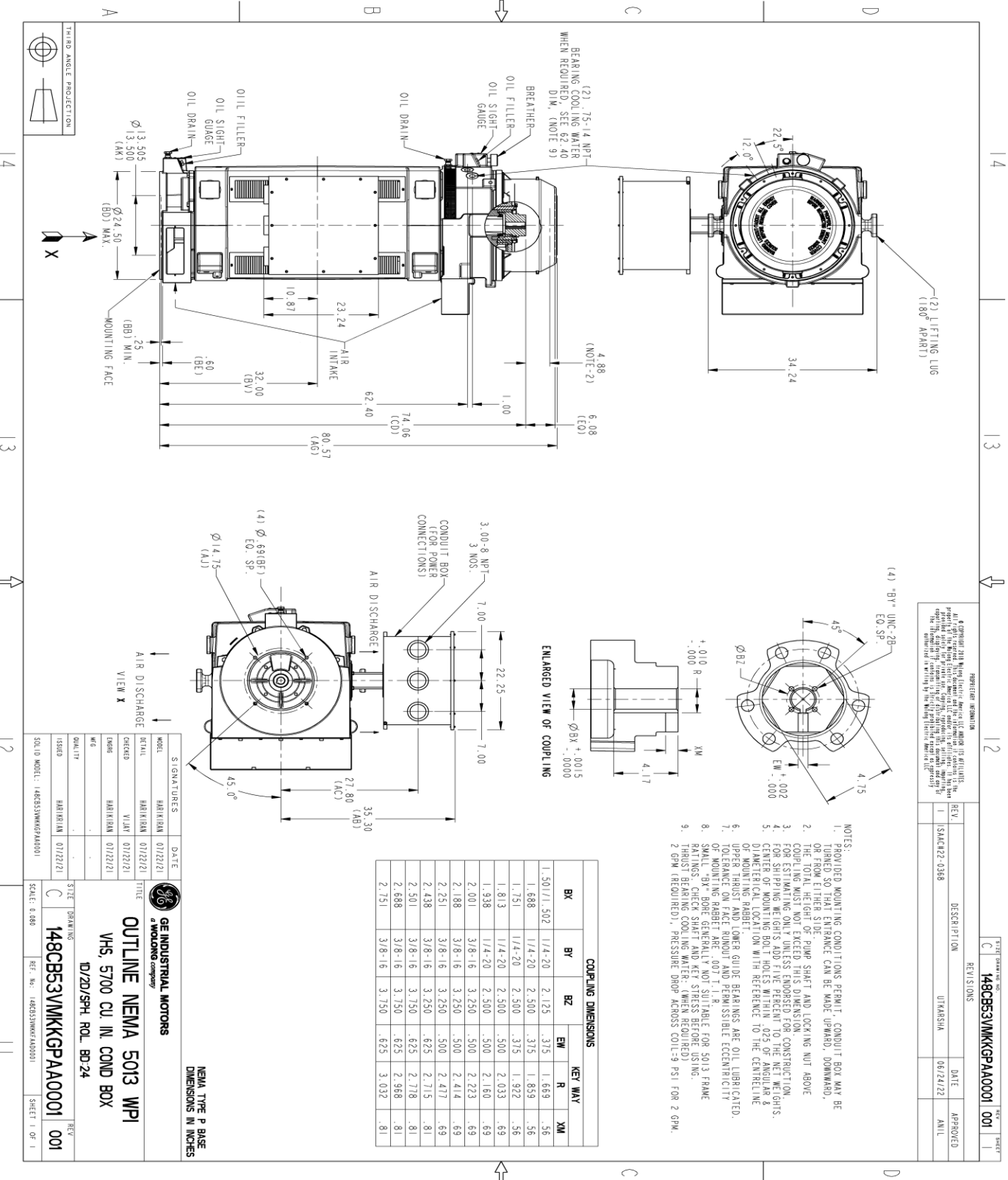
Stator Slots: 72

Rotor Slots: 58

Speed Torque Current Curve (First Connection, First Speed)



Marks:



REVISION INFORMATION

REV.	DESCRIPTION	DATE	APPROVED
1	ISAK#P2-0388	06/24/22	ANIL

148CB53VMKGPAA001 001

- NOTES:
1. PROVIDED MOUNTING CONDITIONS PERMIT, CONDUIT BOX MAY BE MOUNTED ON EITHER END OF MOTOR. COUPLING END SHOULD BE MOUNTED ON THE TOP END. TOTAL HEIGHT OF PUMP SHAFT AND LOCKING NUT ABOVE COUPLING MUST NOT EXCEED THIS DIMENSION.
 2. FOR ESTIMATING WEIGHTS ADD FIVE PERCENT TO THE NET WEIGHTS.
 3. CENTER OF MOUNTING BOLT HOLES WITHIN .025 OF ANGULAR & DIAMETRIC LOCATION WITH REFERENCE TO THE CENTERLINE OF UPPER THRUST AND LOWER GUIDE BEARINGS ARE OIL LIBRICATED.
 4. TOLERANCE ON FACE ROUNDT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBIT ARE .007 T. I. R.
 5. SMALL "BX" BORE GENERALLY NOT SUITABLE FOR 5013 FRAME RATINGS. CHECK SHAFT AND KEY STRESS BEFORE USING.
 6. THIRST BEARING COOLING WATER: (WHEN REQUIRED) 2 GPM (REQUIRED), PRESSURE DROP ACROSS COIL: 9 PSI FOR 2 GPM.

COUPLING DIMENSIONS

BX	BY	BZ	EW	R	XM
1.50/1.502	1/4-20	2.125	.375	1.689	.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	2.273	.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	2.718	.81
2.688	3/8-16	3.750	.625	2.968	.81
2.751	3/8-16	3.750	.625	3.032	.81

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OUTLINE NEMA 5013 WPI
VHS, 5700 CU IN COND BOX
D/2D/SPH. ROL. BD-24

148CB53VMKGPAA001

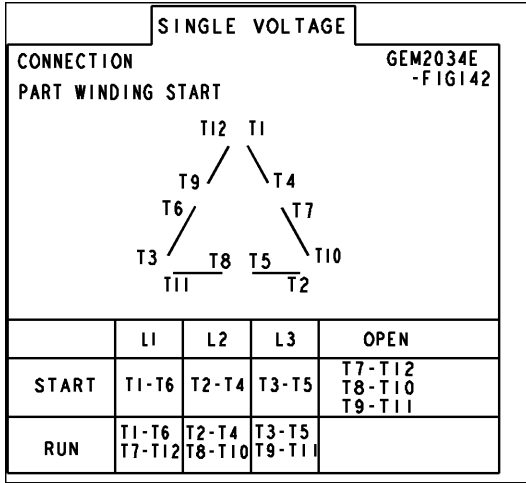
SCALE: 0.680

REV. 001

SHEET 1 OF 1

Marks:

Connection Diagram
GEM2034E-FIG142



Heater Connection
3027JE-1C

