

Galt

G500 Series

Galt Variable Frequency Drive



Performance made *approachable.*

Galt G500 VFDs are easy to use and reliable to keep your system running. A wide range of options means you can install them anywhere.

G500 VFDs make performance approachable —everywhere from mines to hospitals, & pump stations to manufacturing facilities.

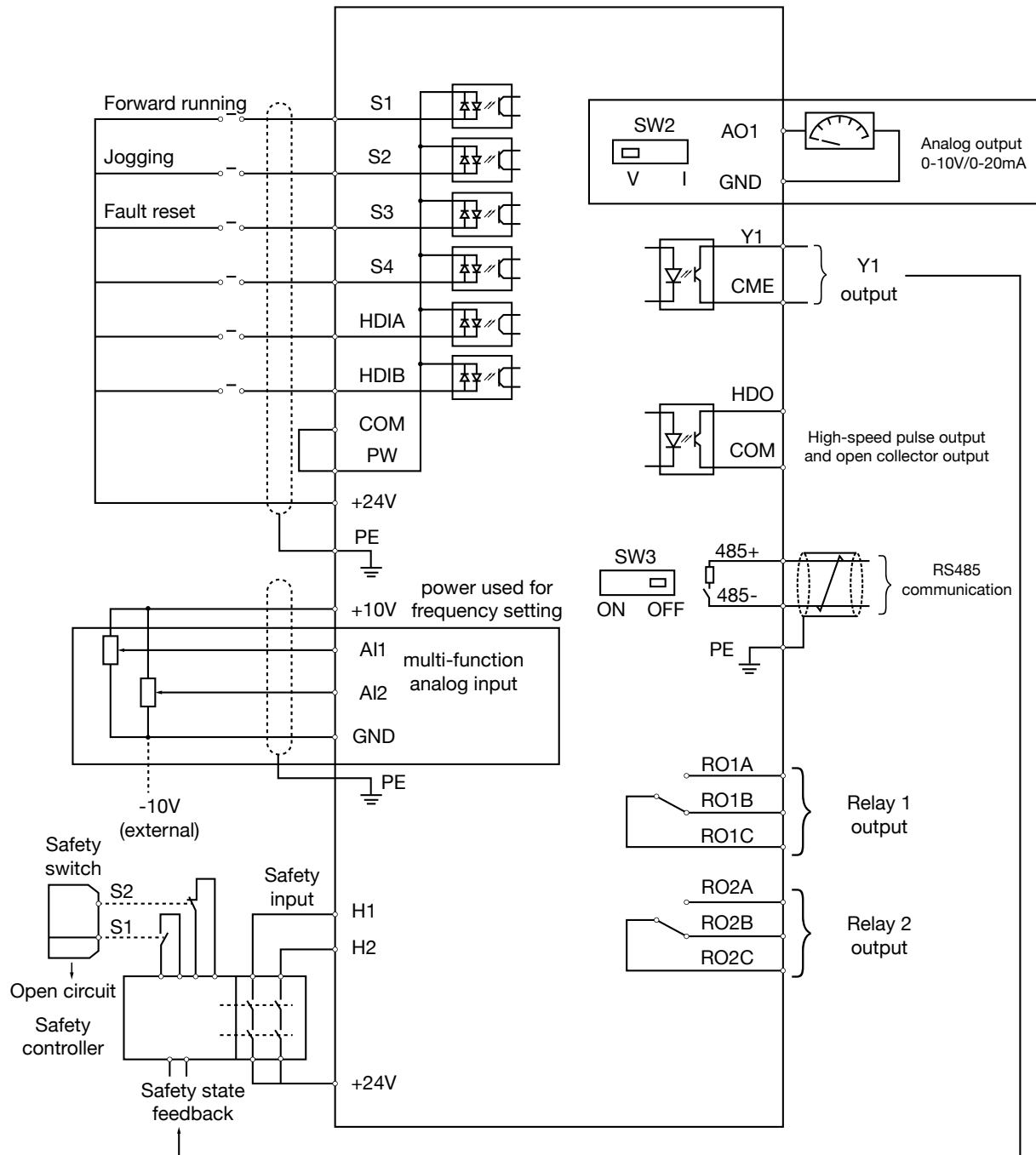
Saving energy, controlling processes, and automating your system are only the beginning. With the G500, you'll feel in control of your electrical system.

What we offer

- Online support videos and a US-based team of experts to take your calls
- Multiple braking options, with optional regenerative braking units
- Communication options for all common protocols
- AC Induction or Permanent Magnet Synchronous motor control
- High overloads for heavy duty performance
- Large horsepower range, up to 700HP
- Available in 240V, 480V, and 600V



Control Circuit



Model Number	Normal Duty*		Heavy Duty**		Frame Size
	HP	Amps	HP	Amps	
240V Class; Heavy Duty standard					
G520-00045UL-03	-	-	1	4.5	1
G520-00070UL-03	-	-	2	7	2
G520-00100UL-03	-	-	3	10	2
G520-00160UL-03	-	-	5	16	3
G520-00200UL-03	-	-	7.5	20	3
G520-00300UL-03	-	-	10	30	4
G520-00420UL-03	-	-	15	42	5
G520-00550UL-03	-	-	20	55	5
G520-00700UL-03	-	-	25	70	6(A)
G520-00800UL-03	-	-	30	80	6(A)
G520-01100UL-03	-	-	40	110	6(A)
G520-01300UL-03	-	-	50	130	6(B)
G520-01600UL-03	-	-	60	160	6(B)
G520-02000UL-03	-	-	75	200	6(B)
480V Class; Normal Duty standard					
G540-00037UL-03	-	-	2	3.7	1
G540-00050UL-03	-	-	3	5	1
G540-00140UL-03	7.5	14	5	9.5	2
G540-00185UL-03	10	18.5	7.5	14	2
G540-00250UL-03	15	25	10	18.5	3
G540-00320UL-03	20	32	15	25	3
G540-00380UL-03	25	38	20	32	4
G540-00450UL-03	30	45	25	38	4
G540-00600UL-03	40	60	30	45	5
G540-00750UL-03	50	75	40	60	5
G540-00920UL-03	60	92	50	75	6(A)
G540-01150UL-03	75	115	60	92	6(A)
G540-01500UL-03	100	150	75	115	6(B)
G540-01800UL-03	150	180	100	150	6(B)
G540-02150UL-03	175	215	125	180	6(B)
G540-02600UL-03	200	260	150	215	7
G540-03050UL-03	250	305	175	260	7
G540-03800UL-03	300	380	250	340	7
G540-04250UL-03	350	425	300	380	7
G540-04800UL-03	400	480	350	425	FL-1
G540-05300UL-03	450	530	400	480	FL-1
G540-06000UL-03	500	600	450	530	FL-1
G540-06500UL-03	550	650	500	600	FL-1
G540-07200UL-03	600	720	550	650	FL-2
G540-08600UL-03	700	860	600	720	FL-2

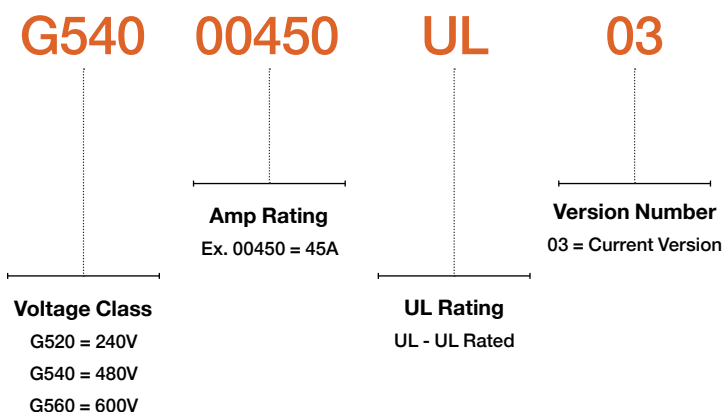
* Normal Duty = 120% OL for 60s

** Heavy Duty = 150% OL for 60s

Model Number	Normal Duty*		Heavy Duty**		Frame Size
	HP	Amps	HP	Amps	
600V Class; Heavy Duty standard					
G560-00021UL-03	-	-	1	2.1	2
G560-00032UL-03	-	-	2	3.2	2
G560-00045UL-03	-	-	3	4.5	2
G560-00065UL-03	-	-	5	6.5	3
G560-00090UL-03	-	-	7.5	9	3
G560-00120UL-03	-	-	10	12	3
G560-00160UL-03	-	-	15	16	4
G560-00210UL-03	-	-	20	21	4
G560-00270UL-03	-	-	25	27	4
G560-00350UL-03	-	-	30	35	6(A)
G560-00450UL-03	-	-	40	45	6(A)
G560-00520UL-03	-	-	50	52	6(A)
G560-00620UL-03	-	-	60	62	6(B)
G560-00860UL-03	-	-	75	86	6(B)
G560-00980UL-03	-	-	100	98	6(B)
G560-01200UL-03	-	-	125	120	6(B)
G560-01500UL-03	-	-	150	150	6(B)

Frame Size	Height (in.)	Width (in.)	Depth (in.)	Weight (lbs.)
1	7.3	5	7.3	4.4
2	10.1	5.8	7.6	7.7
3	12.6	6.7	8.6	13.2
4	13.0	9.1	8.6	17.2
5	15.8	10.0	9.5	21.0
6(A)	21.9	10.6	12.8	66.1
6(B)	26.8	12.8	14.4	102.5
7	34.3	19.7	14.2	187.3
FL-1*	55.5	29.5	15.0	544.5
FL-2*	67.0	24.4	22.1	881.8

► Frame sizes beginning with FL- indicate a floor-mounted unit.



Specifications

Power	Input Voltage	240V (3ph)	480V (3ph)	600V (3ph)
	Output Voltage	240V (3ph)	480V (3ph)	600V (3ph)
	Voltage Fluctuation	220-240V (-15% to +10%)	380-480V (-15% to +10%)	520-600V (-15% to +10%)
	Horsepower	1 – 75	2 – 700	1 – 150
	Input Frequency	50 or 60Hz		
	Output Frequency	0 to 400Hz		
	Overload Rating (ND)	120% (60s) 150% (10s) 180% (1s)		
	Overload Rating (HD)	150% (60s) 180% (10s) 200% (1s)		
Features	Braking Transistor	Standard for models ≤20HP (240V), ≤40HP (480V), and ≤25HP (575V); optional for others		
	Braking Resistor	Optional		
	EMC Filter	C3 filter included with 480V class; C2 option available		
	Reactor	AC or DC optional on frame sizes 1-7; AC reactor included on frame sizes FL-1 and FL-2		
	PID Functions	Standard		
	32-Bit DSP Processor	Standard		
	Control Mode	Volts/Hertz, Sensorless Vector, and Closed-loop Vector		
	Motor Compatibility	AC Induction / Permanent Magnet		
Communications	Communication Protocol	Modbus RS485 RTU		
	Available with Option Card	EtherNet/IP, BACnet/IP, PROFINET IO, SLMP, IEC 61850, CC-Link IE Field Basic, MELSEC MC, AB CSP, BACnet MS/TP, Metasys N2, Siemens FLN, DMX-512		
On-board I/O Additional expansions available	Analog Inputs	1 (AI1) 0~10V / 0~20mA 1 (AI2) -10~10V		
	Analog Output	1 (AO1) 0~10V / 0~20mA		
	Digital Inputs	4 Common Inputs, Max Freq: 1kHz 2 High Speed Inputs, Max Freq: 50kHz		
	Digital Outputs	1 Y1 Terminal Output 1 High Speed Pulse Output		
	Relay Outputs (Programmable)	2 Form C Relay Outputs		
Operations	Display	Backlit mono LCD; other keypad and separately-mounted HMI options available		
	Mounting Method	Wall or flange mount on frame sizes 1-7; floor mount on frame sizes FL-1 and FL-2		
	Operating Temperature	-10-40°C; derate 1% for every 1°C after 40°C, up to 50°C		
	Altitude	1000m / 3300ft; derate 1% for every additional 100m up to 5000m; see manual for recommendations over 2000m		
	Enclosure Rating	IP20, or NEMA 1 with optional conduit kit; floor-mounted units are NEMA 1		
Compliance	UL Listed	Standard		
	Warranty	3 Years		

Useful Parameter Sets

Parameter Group	Parameter	Description	Notes
Main Menu		Parameter Copy/Restore	Use to reset drive to factory default
P00 - Basic Parameters	P00.01	Running Command Channel	Change to "1" for remote controls
	P00.03	Maximum Output Frequency	Define maximum speed; 60Hz default; change before P00.04
	P00.04	Run Frequency Upper Limit	Define maximum speed; 60Hz default; change after P00.03
	P00.05	Run Frequency Lower Limit	Define minimum speed; 0Hz default
	P00.06	Frequency Output Command	Change to "1" for AI1 analog signal; change to "7" for PID control
	P00.10	Keypad Set Speed	Defines speed of drive if not using external speed command
	P00.11	Acceleration Time	Set acceleration time; 0-3600 seconds
	P00.12	Deceleration Time	Set deceleration time; 0-3600 seconds
P01 - Start / Stop Parameters	P01.00	Start Run Mode	Change to "2" for catch-a-spinning-load function
	P01.08	Stop Mode	Decelerate to stop default; change to "1" for coast to stop
	P01.18	Terminal Controls After Power Loss	Change to "valid" to allow terminal control after temporary power loss; default is off
P02 - Motor Parameters	P02.01	Motor Rated Power	Based on motor nameplate; setting is kW, not HP
	P02.02	Motor Rated Frequency	Based on motor nameplate
	P02.03	Motor Rated Speed	Based on motor nameplate
	P02.04	Motor Rated Voltage	Based on motor nameplate
	P02.05	Motor Rated Current	Based on motor nameplate
P05 - Input Terminal Parameters	P05.24	AI1 2V Minimum	If 4-20mA signal is being used for the analog input, change to 2.00V
	P05.50	AI1 current signal type	If 4-20mA signal is being used for analog input, change to "Current Type"
P06 - Output Terminal Parameters			Used for output terminal customization
P09 - PID Parameters	P09.01	Define Setpoint	After setting P00.06, define setpoint in %
	P09.03	PID Characteristics	Positive is default; change to "1" for negative
P17 - State Check Functions			Used to perform state checks and troubleshooting

Accessories

Plug-in Option Cards

FUNCTION	SERIES	DESCRIPTION
I/O Expansion	G500-EC-IO-	4 digital inputs, 1 digital output, 1 analog input, 1 analog output, 2 relay outputs
Ethernet Interface	G500ETH	EtherNet/IP (DLR), Modbus/TCP, BACnet/IP, PROFINET IO (MRP), IEC 61850, CC-Link IE Field Basic, SLMP, MELSEC MC, AB CSP
RS-485 Interface	G500XLT	RS-485 Interface Card BACnet MS/TP, Modbus RTU, Metasys N2, Siemens FLN, DMX-512
PLC Function	G500-PC50-	Micro PLC Programming and I/O: 6 digital inputs, 2 digital outputs, 2 relay outputs
Special Communications	G500-EC-TX-	PROFIBUS-DP, PROFINET, CANopen, Ethernet, EtherCAT, Bluetooth, WiFi
Closed Loop Control	G500-EC-PG-	Encoder card options: 5V differential (H2), resolver type PG (D1), 5/12V multifunctional incremental

External Devices

FUNCTION	SERIES	DESCRIPTION
Human Interface	G500KPD-, G500HMI-	LCD & LED keypads, remote keypad adapter, cable, separate mount color touchscreen HMI interface software
Conduit Adapter	G5N1ADP-	Available for frame sizes 1-7; upgrades enclosure to NEMA 1
Braking	DBU-, RBU-, GRES-	Dynamic and regenerative braking modules; braking resistors
Reactors	ACL-, ACK-, ACL2-, DCL2/4-	AC input reactor, AC output reactor, DC reactor
Filters	GAHF-, IHF-, PSF-, FLT-	Active harmonic filter, passive harmonic filter, output sinewave filter, EMI C2 filter
Custom Packaged Drives	FF1-, F3R-, SV1-, MVFD-	Custom enclosed packaged drive in NEMA 1, 3R, 12, 4, or 4X; includes integrated circuit breaker, bypass, filters, or controls

Scan these QR codes for online support



Full Manual



Basic Wiring



Basic
Programming



Basic
Troubleshooting

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