

# G1000

<p>General</p>  <p><b>FAMCO</b> هایپر صنعت</p>	<p>Input voltage: 220V 0.7kW-2.2kW 380v 0.7kW-2.2kW</p> <p>Control Mode : Space vector, V/F control</p> <p>Start Torque : 0.0~20.0%</p>
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Specification	Items	Specifications
Input	Nominal voltage & frequency	Single-phase, three-phase AC220V,AC380V 50/60Hz
	Allowable voltage range	Single-phase, three-phase AC170~240V;AC340~440V
	Nominal voltage & frequency	Single-phase, three-phase AC220V,AC380V 50/60Hz
Output	Voltage	220V:0~220V;380V:0~380V
	Frequency	0.1~400.0Hz
Control mode	Space vector, V/F control	
Display	Quadbit nixie tube display & indicator display: set frequency, output frequency, output current, rotating direction, rotating speed and fault, etc.	
Working conditions	Environmental temperature: -10°C~40°C (non-freezing) Relative humidity: 90% below (non-condensing) Altitude: 1000m below Vibration: 0.5G below	
Structure	Cooling mode: forced air cooling Protection grade: IP20	
Installation	Wall-mounted	

function	Control characteristics	Specifications
	Frequency setting resolution	Digital setting: 0.1Hz, simulated setting: 0.1% of the maximum output frequency
	Output frequency accuracy	0.1Hz
	V/F control	V/F curve can be freely set to comply with various loads.
	Torque control	Automatic boosting: the torque boosting can be fixed automatically according to the actual load; Manual boosting: 0.0~20.0% torque boosting is settable.
	Multifunctional input	6 multifunctional input terminals for 15-step speed control, programmed operation, 4-step accelerating or decelerating switch, UP/DOWN and emergency stop functions, etc.
	Multifunctional output	2 multifunctional output terminals for indicating and warning for operating, null speed, external irregularity and

		programmed operation, etc.
	Accelerating/ decelerating time setting	0~999.9s separately settable accelerating/ decelerating time
Other functions	Built-in PID control and 2 counter units, standard RS485 communication function and selectable automatic voltage regulation; Frequency setting mode: analog quantity 0~10V, 0~20mA, manipulator setting, RS485 setting and up/down setting, etc	
	Protective functions	Overload protection: 150% constant torque for 1 minute, settable over-voltage/ under-voltage protection; Other protections: overheat protection, short circuit protection, overcurrent protection and parameter lock, etc.

# G3000

<p>General</p>  <p><b>FAMCO</b> هایپر صنعت</p>	<p>Input voltage: 3Phase 380V</p> <p>Adaptable Motor: 3Phase 380V 0.75kW-400kW 1hp-450hp</p> <p>Control Mode : Vector Control (SVC, FVC) , V/f</p> <p>Start Torque : 0.5Hz 150%(SVC);0Hz 180%(FVC)</p>
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specification	Items		Specifications	
	Control	Max. frequency	Vector control: 0~300 Hz; V/F control: 0~3200 Hz	
Carrier frequency		0.5~16 kHz		
Input frequency resolution		Digital setting: 0.01 Hz; Analog setting: max. frequency x 0.025%		
Control mode		Sensorless vector control (SVC); Flux vector control (FVC); Voltage/Frequency (V/F) control		
Startup torque		0.5Hz/150% (SVC); 0Hz/180% (FVC)		
Speed range		1 : 100 (SVC)	1 : 1000 (FVC)	
Speed stability precision		±0.5% (SVC)	±0.02% (FVC)	
Torque control precision		±5% (FVC)		
Overload capacity		60s for 150% rated current, 3s for 180%		
Torque boost		Fixed boost; Customized boost 0.1%~30.0%		
V/F Curve		Straight-line V/F curve Multi-point V/F curve N-power V/F curve (1.2-power, 1.4-power, 1.6-power, 1.8-power, square)		
V/F Separation		Complete separation; Half separation		
Operation		Ramp mode	Straight-line ramp; S-curve ramp Four kinds of acceleration/deceleration time with the range of 0.0~6500.0s	
	Running commandSource	Operation panel; Control terminals; Serial communication port		
	Frequency source	Total 10 types, such as digital Setting; analog voltage setting; analog current setting; pulse setting and serial communication port setting		
	Auxiliary frequencySource	Total 10 types. It can implement fine tuning of auxiliary frequency and frequency synthesis.		
	Input terminal	Standard: 5 digital input (DI) 1 supports up to 100 kHz high-speed pulse input; 2 analog input(AI); 1 only supports 0~10V voltage input; 1 supports 0~10V voltage input or 4~20mA		

		current input. Expanding capacity: 5 DI 1 AI supports -10~10V voltage input and also supports PT100\PT1000
	Output terminal	Standard: 1 high-speed pulse output (open-collector) that supports 0~100 kHz square wave signal output; 1 digital output(DO); 1 relay output; 1 analog output(AO) that supports 0~20mA current output or 0~10 V voltage output Expanding capacity: 1 DO; 1 relay output; 1 AO supports 0~2mA current output or 0~10 V voltage output
Display & Operation Panel	LED display	It displays the parameters.
	Key locking and function selection	It can lock the keys partially or completely and define the function range of some keys so as to prevent mistake operation.
	Protection mode	Motor short-circuit detection at power-on, input/output phase loss protection, over current protection, overvoltage protection
Environment	Installation location	Indoor, free from direct sunlight, dust, corrosive gas,combustible gas, oil smoke, vapour, drip or salt.
	Altitude	Lower than 1000 m
	Ambient temperature	-10°C~+40°C
	Humidity	Less than 95%RH, without condensing
	Vibration	Less than 5.9 m/s <sup>2</sup> (0.6 g)
	Storage temperature	

function	Instantaneous power stop	When the power supply instantaneous stop, the load can feedback energy to compensates the voltage reduction, ensure the LV VFD can continuous operation for a short time.
	Virtual I/O	Five groups of virtual DI/DO can realize simple logic control.
	Timing control	Setting time range: 0.0min.~ 6500.0min.
	Multi-motor switchover	Four motors can be switched over via four groups of motor parameters.
	Multiple communication protocols	It supports 3 types communication via RS-485, Profibus-DP, CAN.
	Motor overheat protection	The optional I/O extension card enables AI3 to receive the motor temperature sensor input.
	Multiple encoder types	It supports various encoders such as differential encoder, open-collector encoder, resolver and UVW encoder.
	Overvoltage / Over current stall control	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to overvoltage/overcurrent.
	Rapid current limit	It helps to avoid frequent over current faults of the AC drive.
	Torque limit and control	It can limit the torque automatically and prevent frequent over current

		tripping during the running process. Torque control can be implemented in the FVC mode.
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