



Technical Specifications of V5-H series vector control frequency inverter (variable speed drive, variable frequency drives, VSD, VFD, AC drives) with **0 – 3000 Hz output frequency**

Control features	Control mode	Vector control 1	Vector control 2
	Starting torque	0.50Hz 180%	0.25Hz 180%
	Speed adjustment range	1:100	1:200
	Speed stabilization precision	± 0.5%	± 0.2%
	Torque control	N	Y
	Torque precision	-	±5%
	Torque response time	-	<20ms
Product functions	Key functions	Under-voltage adjustment, switching of AC operation grounding, protective grounding and DC operation grounding, rotation speed tracing, torque limitation, multi-speed operation (up to 23 speeds), auto-tuning, S curve acceleration/deceleration, slip compensation, PID adjustment , drooping control, current limiting control, manual/auto torque increase, current limiting.	
	Frequency setting mode	Operation panel setting, terminal UP/DN setting, host computer communication setting, analog setting AI1/AI2/AI3, terminal pulse DI setting	
	Frequency range	0.00 ~ 3000.00Hz	
	Startup frequency	0.00~60.00Hz	
	Acceleration/deceleration time	0.1~36000s	
	Powered braking capability	Inverter of 400V voltage grade: Braking unit action voltage: 650 ~ 750V Inverter of 400V voltage grade: Braking unit action voltage: 325 ~ 375V Operating time: 100.0s The braking unit can be selected for V5-H-4T18.5G/22L~ V5-H-4T75G/90L	
	DC braking capability	DC braking initial frequency: 0.00 ~ 300.00Hz; DC braking current: Constant torque: 0.0 ~ 120.0%, Variable torque: 0.0 ~ 90.0% DC braking time: 0.0 ~ 30.0s; there is no initial waiting time for the DC braking to realize quick braking	
Magnetic flux braking function	Ongoing action and no action upon deceleration as option, no action upon deceleration at default		
Unique functions	Multifunctional M key	The unique multifunctional key is used to set the frequently used operations: JOG, emergency shutdown, running command reference mode switch , menu switching	
	Multiple menu modes	Basic menu mode, fast menu mode. Menu mode of non-leave-factory value function codes, Menu mode of last changed 10 function codes	
	Parameter copy	The standard operation panel can realize the parameter upload, download and display the copy progress. The user can select to forbid the overwriting of the uploaded parameters.	
	Displayed/hidden function code	The customer can select to display or hide the function codes by themselves.	
	Dual RS485 communication ports	Dual RS485 communication ports support Modbus protocol (RTU). The standard operation panel can realize remote control box function with a maximum distance of 500m.	
	Communication protocol	Built-in ModBus RTU . ProfiBus and CANopen is optional for your choice.	
	Operation panel	Button type or shuttle type operation panel optional, protection class: IP20 as standard, IP54 as option	
	Common DC bus	The full series can realize common DC bus supply for bulk installation .	
	Independent duct	The full series adopts independent duct design and supports the installation of heatsink outside the cabinet	
	Universal expansion interface	Universal expansion board equipped with CPU for supporting customers secondary development: physical interface SPI bus, software protocol ModBus	
	Expansion card	User's secondary development card, injection molding machine interface card, PG feedback card, air compressor control card, communication adapter card, power monitoring card, phase sequence detection card, external power rectifying card	
Power-up auto-detection	Realizing the power-up auto-detection of internal and peripheral circuits, including motor grounding, abnormal +10V power supply output, abnormal analog input, and disconnection		



Protection function	Power supply under-voltage, over-current protection, overvoltage protection, interference protection, abnormal comparison reference input, auto-tuning failure, module protection, heatsink over-temperature protection, inverter overload protection, motor overload protection, peripheral protection, abnormal current detection, output to ground short circuit, abnormal power failure during operation, abnormal input power, output phase failure, abnormal EEPROM, abnormal relay contact, temperature sampling disconnection, encoder disconnection, abnormal +10V power supply output, abnormal analog input, motor over-temperature (PTC), abnormal communication, abnormal version compatibility, abnormal copying, abnormal expansion card connection, terminal mutual exclusion detection failure, hardware overload protection	
Efficiency	At rated power, 7.5kW and below power class $\geq 93\%$, 45kW and below power class $\geq 95\%$, 55kW and above power class $\geq 98\%$	
Environment	Operating site	The product shall be mounted vertically in the electric control cabinet with good ventilation. Horizontal or other installation modes are not allowed. The cooling media is the air. The product shall be installed in the environment free from direct sunlight, dust, corrosive gas, combustible gas, oil mist, steam and drip.
	Ambient temperature	-10 ~ +40°C, derated at 40 ~ 50°C, the rated output current shall be decreased by 1% for every temperature rise of 1°C
	Humidity	5 ~ 95%, no condensing
	Altitude	0 ~ 2000m, derated above 1000m, the rated output current shall be decreased by 1% for every rise of 100m
	Vibration	3.5mm, 2~9Hz; 10 m/s ² , 9~200Hz; 15 m/s ² , 200~500Hz
	Storage temperature	-40~+70°C

EcoDriveCN drives

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V&T Technologies Co., Ltd. (EcoDriveCN drives) is a leading manufacturer & supplier of motor control, energy efficiency & motion control, produces & supplies AC drives (variable speed drive, VSD, VFD, variable frequency drives, frequency inverters), servo drive, motor soft starter, AC/DC reactors (chokes), EMI filter, sine wave filter (sinus filter), du/dt filter, brake resistors, brake units (braking chopper), other power electronics. <http://www.EcodriveCN.com/drives-motor-soft-starters.htm>

The drives are widely applied in plastic injection molding machine, machine tools, air compressors, water supply, civil engineering, conveyor belt, sewage disposal, extruder, fan and pump, HVAC, food and beverage industry, mining & coal industry... some pictures of our drives on site: <http://www.EcodriveCN.com/photo-gallery.htm>

From 200VAC to 1140VAC (200V, 208V, 220V, 230V, 380V, 400V, 415V, 420V, 440V, 460V, 480V, 500V, 525V, 575V, 600V, 690V, 790V, 1000V, 1140V), from 0.4KW to 3MW (0.5hp - 4000hp), we are competing with ABB & other world class brands in the market of power electronics. More and more clients are applying our drives to replace ABB drives for their application. Some images of our drives: <http://www.EcodriveCN.com/products-show.htm>

Manufacturer & supplier of vector control frequency inverter (AC drive, VSD, VFD), servo, motor soft starter...



Advantages:

1. Failure rate < 0.15%, similar as Siemens, Emerson Control Techniques, ABB, Eaton, Schneider, Allen Bradley, Lenze, Yaskawa, Fuji; <http://www.EcoDriveCN.com/client-reference.htm>
2. Authorized CE certification by ECMG. Under the audit of NVLAP. NVLAP Lab code: 200068-0. ISO/IEC 07025:1999, ISO 9002:1994;
3. 18-month warranty period;
4. Delivery lead time: 1-4 days;
5. Supply to REGAL, Ingersoll Rand, Foxconn, Tata Group... <http://www.EcoDriveCN.com/client-reference.htm>

Contact information of our company & distributors: <http://www.EcoDriveCN.com/contact.htm>