

Technical Specifications of V5-H 660V-790V (587V ~ 793V) vector control frequency inverter (variable speed drive, variable frequency drive, VSD, VFD, AC drives, VVVF)

| Control<br>features    | Control mode  | Vector control 1  | Vector control 2                  |
|------------------------|---|---|-----------------------------------|
|                        | Startup 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<br>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 Al1/Al2/Al3, terminal pulse DI setting   |                                   |
|                        | Frequency range   | 0.00 ~ 300.00Hz Note: Upon the control mode of vector control 1, 0.0 ~ 3000.0Hz, which can be customized according to the customer demand   |                                   |
|                        | Startup frequency   | 0.00~60.00Hz  |                                   |
|                        | Acceleration/deceleration time  | 0.1~36000s  |                                   |
|                        | Powered braking capability  | Inverter of 660V-790V voltage grade: Braking unit action voltage: 800 $\sim$ 1200V Operating time: 100.0s   |                                   |
|                        | 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<br>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<br>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.   |                                   |
|                        | 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 several inverters. |
|                        | 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<br>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 |   |                                   |



## **EcoDriveCN drives**

## http://www.EcoDriveCN.com

| Efficiency  | 45kW and below power class >=95%, 55kW and above power class >=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 $\sim$ +40°C, derated at 40 $\sim$ 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/s²,9~200Hz; 15 m/s²,200~500Hz   |  |
|             | Storage temperature  | -40~+70°C   |  |

## **EcoDriveCN drives**

Add: XinFeng Building, YangGuang Industrial Area, XiLi Town, NanShan District, ShenZhen,

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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 variable speed drive (frequency inverters, AC drives, variable frequency drives, VSD, VFD, VVVF), servo drive, motor soft starter, reactors (chokes), EMI filter, sine wave filter (sinus filter), du/dt filter, brake resistors, brake units, other power electronics. <a href="http://www.EcoDriveCN.com/about.htm">http://www.EcoDriveCN.com/about.htm</a>

The drives are widely applied in plastic injection molding machine, machine tools, air compressor, water supply, civil engineering, conveyor belt, sewage disposal, extruder, fan and pump, HVAC, food and beverage industry, mining industry... http://www.EcoDriveCN.com/application.htm

From 200VAC to 1140VAC, from 0.4KW to 3MW (0.5hp - 4000hp), we are competing with ABB & Siemens in the market of power electronics.

## Advantages:

Failure rate < 0.15%, similar as Siemens, Emerson Control Techniques, ABB, Eaton, Schneider, Allen Bradley, Lenze, Yaskawa, Fuji;

Authorized CE by ECMG. Under the audit of NVLAP. NVLAP Lab code: 200068-0. ISO/IEC 07025:1999, ISO 9002:1994;

18-month warranty period;

Prompt delivery lead time;

Supply to REGAL, Ingersoll Rand, Foxconn, Tata Group...

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

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