

Technical Specifications of E5-H series PID closed loop control & vector control frequency inverters (variable speed drives, variable frequency drives)

Control features	Control mode	<b>PID feedback closed loop control</b> , vector control 1
	Startup torque	<b>0.50Hz 180%</b>
	Speed adjustment range	1:100
	Speed stabilization precision	$\pm 0.5\%$

Product functions	Key functions	<p>Undervoltage adjustment, switching of AC operation grounding, protective grounding and DC operation grounding, rotation speed tracing, torque limitation, <b>multi-speed operation (up to 16 speeds)</b>, auto-tuning, S curve acceleration/deceleration, slip compensation, PID adjustment, current limiting control, manual/auto torque increase, current limiting.</p>
	Frequency setting mode	<p>Operation panel setting, terminal UP/DN setting, host computer communication setting, analog setting AI1 and AI2.</p>

	Frequency range	0.00 ~ 300.00Hz
	Startup frequency	0.00~60.00Hz
	Acceleration/deceleration time	0.1~36000s
	Powered braking capability	Braking unit action voltage: 650 ~ 750V
	DC braking capability	DC braking initial frequency: 0.00 ~ 300.0Hz; 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

	<b>Parameter copy</b>	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.
	RS485 communication ports	485 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, IP65 as option
	<b>Common DC bus</b>	The full series can realize common DC bus supply for several inverters.
	<b>Independent duct</b>	The full series adopts independent duct design and supports the installation of heatsink outside the cabinet
	Power-up auto-detection	Realizing the powerup auto-detection of internal and peripheral circuits, including motor grounding, abnormal +10V power supply output, abnormal analog input, and disconnection

Protection function	Power supply undervoltage, overcurrent protection, overvoltage protection, interference protection, abnormal comparison reference input, auto-tuning failure, module protection, heatsink overtemperature 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, abnormal +10V power supply output, abnormal analog input, motor overtemperature (PTC), abnormal communication, abnormal version compatibility, abnormal copying, 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 <sup>2</sup> ,9~200Hz; 15 m/s <sup>2</sup> ,200~500Hz
	Storage temperature	-40~+70°C

Power (kW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	
Motor power (kW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	
Output	Voltage (V)	Three-phase 0 to rated input voltage														
	Rated current (A)	2.5	3.8	5.5	9	13	17	24	30	39	45	60	75	91	112	150
	Overload capability	150% 1 minute, 180% 10 seconds, 200% 0.5 second, interval: 10 minutes (inverse time lag feature)														
Input	Rated voltage/frequency	Three-phase 380V/480V; 50Hz/60Hz														
	Allowable voltage range	323V ~ 528V; Voltage unbalancedness ≤3%; allowable frequency fluctuation: ±5%														
	Rated current (A)	3.5	6.2	9.2	14.9	21.5	27.9	39	50.3	60	69.3	86	104	124	150	201
Braking unit	Built-in as standard							Built-in as option								
Protection class	IP20															
Cooling mode	Self-cooling			Forced air convection cooling												
Power (kW)	90	110	132	160	185	200	220	250	280	315	355	400	450	500		
Motor power (kW)	90	110	132	160	185	200	220	250	280	315	355	400	450	500		
Output	Voltage (V)	Three-phase 0 to rated input voltage														
	Rated current (A)	176	210	253	304	350	380	426	470	520	600	650	690	775	860	
	Overload capability	150% 1 minute, 180% 10 seconds, 200% 0.5 second, interval: 10 minutes (inverse time lag feature)														
Input	Rated voltage/frequency	Three-phase 380V/480V; 50Hz/60Hz														
	Allowable voltage range	323V ~ 528V; Voltage unbalancedness ≤3%; allowable frequency fluctuation: ±5%														
	Rated current (A)	160*	196*	232*	282*	326*	352*	385*	437*	491*	580*	624*	670*	755*	840*	
Braking unit	External braking unit needed															
Protection class	IP20															
Cooling mode	Forced air convection cooling															

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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 inverter), servo drive, motor soft starter, reactors (chokes), EMI filter, sine wave filter (sinus filter), du/dt filter, brake resistors, brake units, other power electronics. <http://www.EcoDriveCN.com/about.htm>

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 3550KW (0.5HP – 4735HP), 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;

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

Delivery lead time: 3-5 days;

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

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