Canroon





CV800 Series Multi-Function Vector Control Inverter

Product Overview



CV800 Series Multi-Function Vector Control Inverter is specially designed for small and medium power equipment. The product adopts vectorized V/f control technology, built-in PID control, multi-speed control, programmable operation control, standard Modbus communication and other technologies. The compact structure can further reduce the installation space.

Product Features

- Compact and powerful
- High starting torque, adapt to various loads
- Supports programmable operation control, making complex applications easier
- Stronger overload capacity, shorter acceleration time
- Built-in PID function for full-closed-loop control
- Comprehensive protection function, more reliable operation

CV800 series application field

CV800 Series Multi-Function Vector Control Inverter is powerful functions and excellent in performance, suitable for medium and small power applications, such as constant pressure water supply, woodworking machinery,textile equipment, food filling, logistics equipment, automated production lines, ceramic equipment, electronic equipment, packaging machinery, etc.



Constant pressure water supply



Textile equipment



Automated production line



Food filling

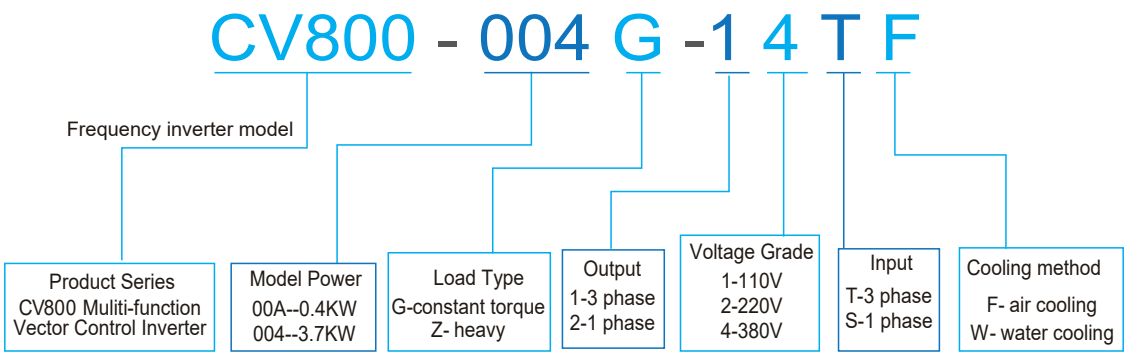


Packaging machinery



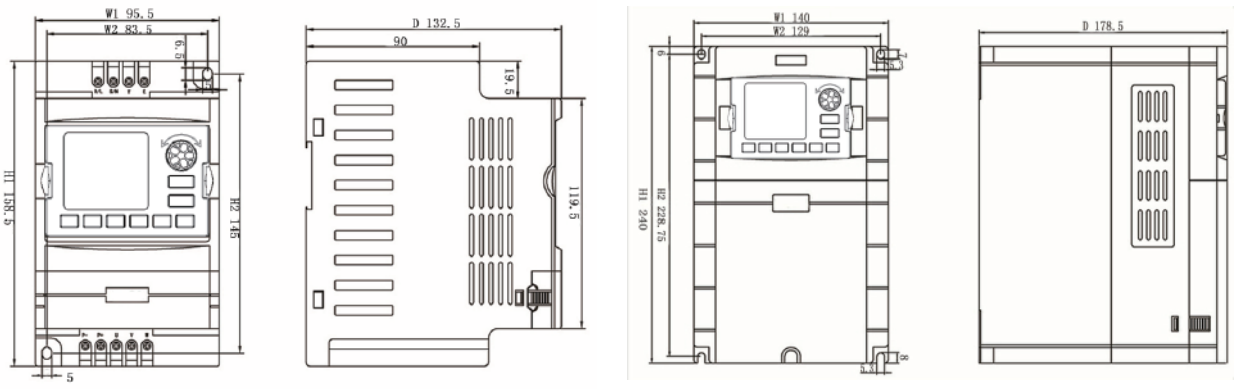
Ceramic equipment

Inverter model description



Overall dimensions

Voltage class	Specification model	Rated Power (KW)	Dimensions (mm)			Installation size (mm)			Package dimensions (mm)			Net weight (kg)	Figure
			W1	H1	D	W2	H2	φ	L	M	H		
220V 1-phase	CV800-00AG-12SF	0.4KW	95.5	158.5	132.5	83.5	145	5	195	132	172	1.25	A
	CV800-00BG-12SF	0.75KW											
	CV800-001G-12SF	1.5KW											
	CV800-002G-12SF	2.2KW											
380V 3-phase	CV800-00AG-14TF	0.4KW											
	CV800-00BG-14TF	0.75KW											
	CV800-001G-14TF	1.5KW											
	CV800-002G-14TF	2.2KW											
	CV800-004G-14TF	3.7KW											
	CV800-005G-14TF	5.5KW	140	240	178.5	129	228.75	5.3	300	210	250	2.2	B
	CV800-007G-14TF	7.5KW											
	CV800-011G-14TF	11 KW											



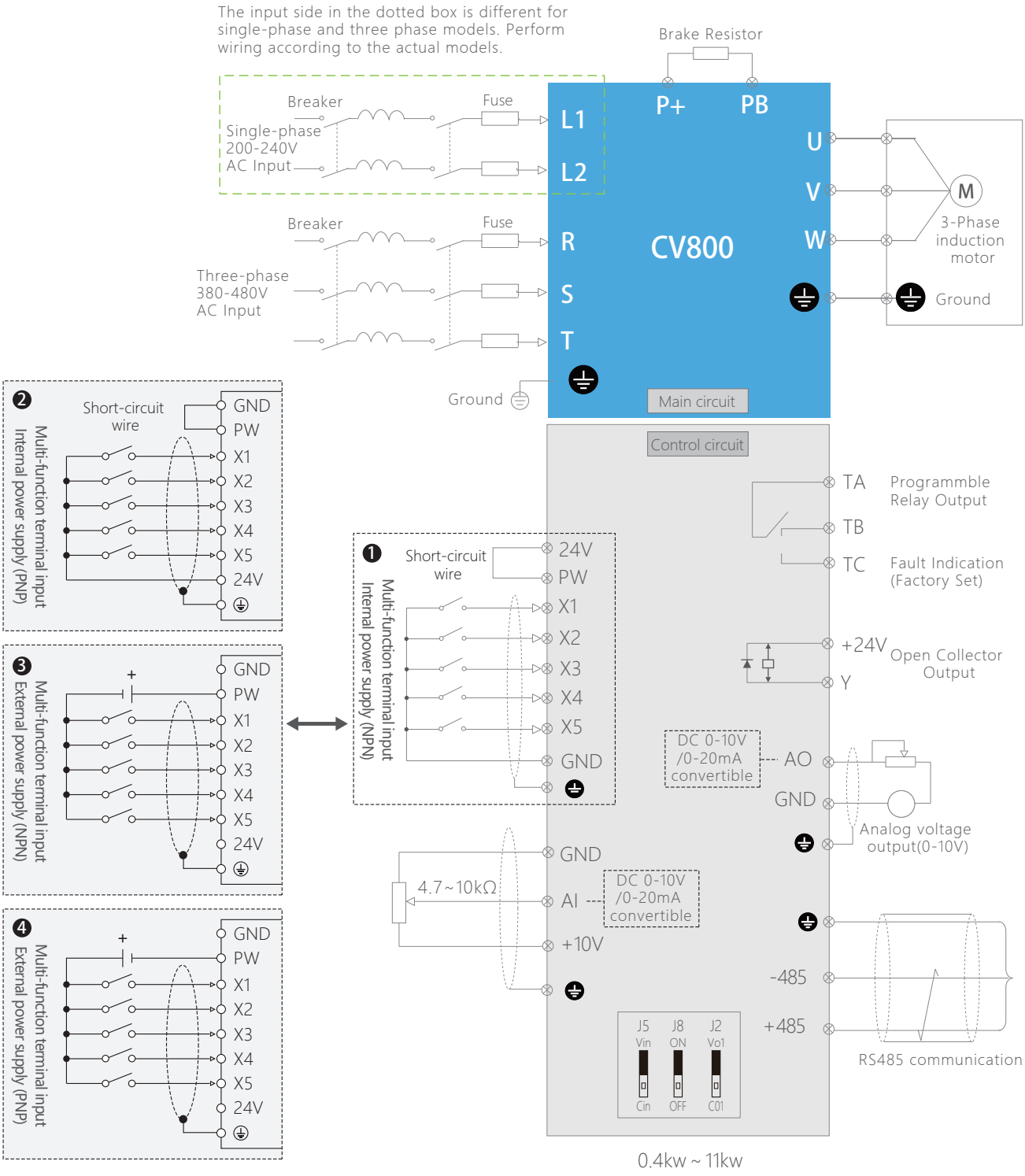
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Technical Index and Specification

Input	Rated Voltage, Frequency		3-phase（4T）：380V；47~63Hz　1-phase（2S）：220V；47~63Hz
	Allowed Voltage Range		3-phase（4T）：320V～480V　1-phase（2S）：160V～260V
Output	Voltage		4T：0～480V　2S：0～260V
	Frequency		0～999.9HZ
	Overload Capacity		10% for long-term, 150% for 1 min, 180% for 5s
Control Mode			V/F control、Advanced VF control、Simple vector control、Advanced vector control、Torque control
Control Character	Frequency Setting Resolution	Analog Input	0.1% of maximum output frequency
		Digital Setting	0.1Hz
	Frequency Precision	Analog Input	Within 0.2% of maximum output frequency
		Digital Setting	Within 0.01% of set output frequency
	V/F Control	V/F Curve (voltage frequency character)	Reference frequency setting 5~600 Hz, multipoint V/Fcurve setting, or fixed curve of constant torque, low decreasing torque 1, low decreasing torque 2, square torque
		Torque boost	Manual setting: 0.0~30% of rated output; Automatic lifting: automatically determine the lifting torque according to the output current and combined with the motor parameters
		Automatic Current-limiting and Voltage-limiting	During acceleration, deceleration or steady running, detect automatically the current and voltage of motor stator, and control it within bounds based on unique algorithm, minimize fault-trip chance
	Senseless Vector Control	Voltage Frequency Character	Adjust pressure/frequency ratio according to motor parameter and unique algorithm
		Torque Character	Starting torque;100% rated torque at 5.0 Hz (V/F Control)　150% rated torque at 1.5 Hz (simple vector control)
		Current and Voltage Restrain	Current closed-loop control, free from current impact, perfect restrain function of overcurrent and overvoltage
	Undervoltage Restrain during Running		Specially for users with a low or unsteady voltage power grid: even lower than the allowable voltage range, the system can maintain the longest possible operating time based on its unique algorithm and residual energy allocation strategy
Typical function	Multi-velocity and Traverse Operation		7-segment programmable multi-velocity control, multiple operating modes are optional.
	PID Control		Built-in PID controller (able to preset frequency).
	RS485 Communication		Standard configuration RS485 communication function, multiple communication protocol for choice, synchronizing control function.
	Frequency Setting	Analog Input	Direct voltage 0~10V, direct current 0~20mA (optional up limit and lower limit)
		Digital Input	Operation panel setting, RS485 port setting, UP/DW terminal control, or combined with analog input
	Output Signal	Digital Output	1 channel OC output and one channel relay output (TA, TB,TC), up to 14 choices
		Analog Output	1 channel analog signal output, output ranging within 0~20mA or 0~10V with flexibly setting, achievable output of physical quantities like set frequency, output frequency
	Automatic Steady -voltage Operation		Dynamic steady state, static steady state, and unsteady voltage for choices to obtain the steadiest operation
	Acceleration and Deceleration Time Setting		0.1S～999.9min continuous setting
	Brake	Dynamic Braking	Dynamic braking initial voltage, backlash voltage and dynamic braking continuous adjustable
		DC Braking	Halt DC braking initial frequency:0.00~(F0.05)upper limit frequency　Braking time:0.0~30.0s;Braking current:0.0%~50.0%of rated current
	Low Noise Running		Carrier frequency 1.0kHz~16.0kHz continuous adjustable, minimize motor noise
	Counter		A built-in counter, facilitate system integration
	Operation Function		Upper limit and lower limit frequency setting, frequency hopping operation, reversal running restraint, slip frequency compensation, RS485 communication, frequency control of progressive increase and decrease, failure recovery automatically, etc.
Display	Operation Panel Display	Running State	Output frequency, output current, output voltage, motor speed, set frequency, module temperature, PID setting, feedback, analog input and output.
		Alarm	The latest 1 faults record; running parameters record when the latest fault tripping happens including output frequency, set frequency, output current, output voltage, DC voltage and module temperature etc 6 running parameters record.
Protective Function			Overcurrent, overvoltage, undervoltage, module fault, electric thermal relay, overheat, short circuit, default phase of input and output, motor parameter adjustment abnormality, internal memory fault, etc.
Environment	Ambient Temperature		-10℃~+40℃ (please run the VFD in derated capacity when ambient temperature is 40°C~50°C))
	Ambient Humidity		5% ~ 95%RH，without condensing drops
	Surroundings		Indoors (without direct sunlight, corrosive or flammable gas, oil fog and dust)
	Altitude		Running in derated capacity above 1000m, derate 10% for every 1000m rise.
Structure	Protection Level		IP20
	Cooling Method		Air cooling with fan control
Installation Method			Wall-hanging type

Basic Running Wiring

The wiring parts of VFD include major loop and control loop. Open the cover of I/O terminals, users can see the major loop terminal and control loop terminal, and must conduct the wiring according to the following diagram.
The multi-function terminal input has 4 wiring methods: 2 NPN and 2 PNP.



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