

- Induction Heating
- Industrial Automation
- Photovoltaic Energy Storage

Canroon

CV800E Compact Frequency Inverter

Compact Design Beyond Imagination





CV800E Compact Frequency Inverter

CV800E series compact multi-function inverter is a single-phase 220V AC and three-phase 380V AC mini inverter launched by Canroon based on the market demand of easy speed regulation, small power and small volume.

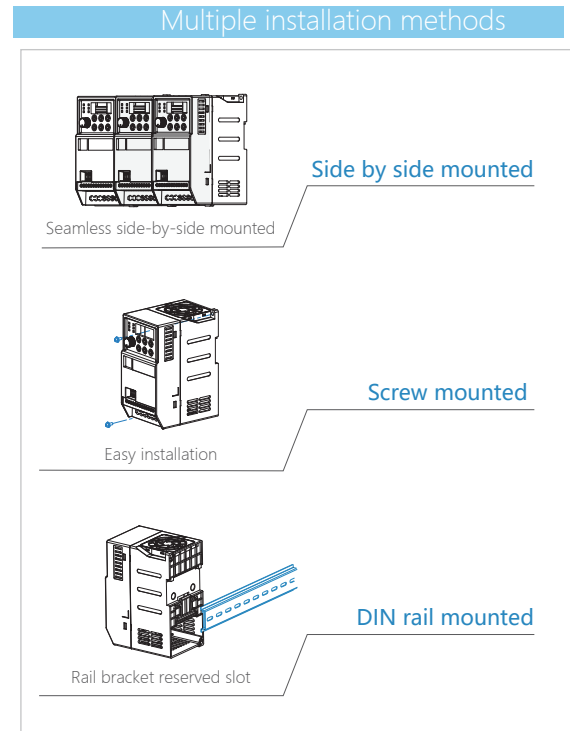
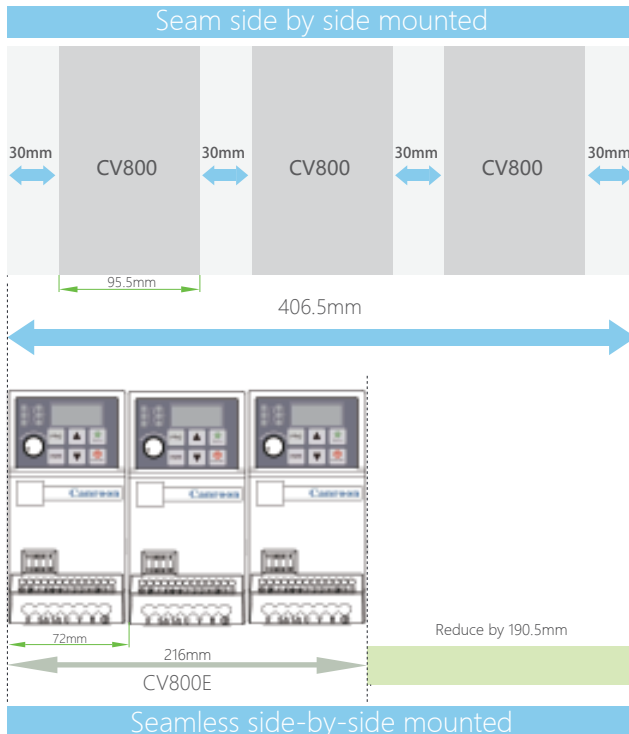
CV800E is a compact inverter product with small size and great ability. It has significant advantages such as compact mini size, high power density, high EMC specification design, and high protection performance. It can be widely used in small automatic machinery represented by glass edging, food filling, ceramic equipment, medical centrifuges, woodworking engraving, automatic production lines, electronic equipment, logistics equipment, machine tool spindles, textiles, etc.



Function And Performance Features

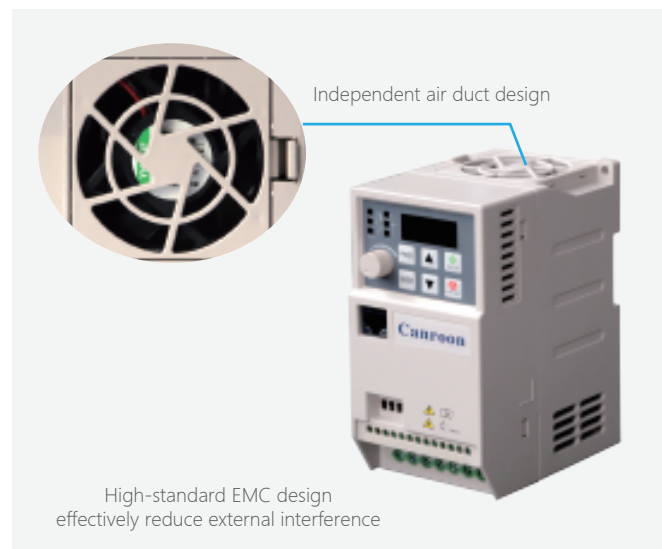
Small And Compact Design

- ★ Optimal power density design, effectively realize the product volume minimization;
- ★ With the full power section equal volume book structure design, support seamless side-by-side installation in the minimum space;
- ★ Installation mode: support screw mounted and rail mounted



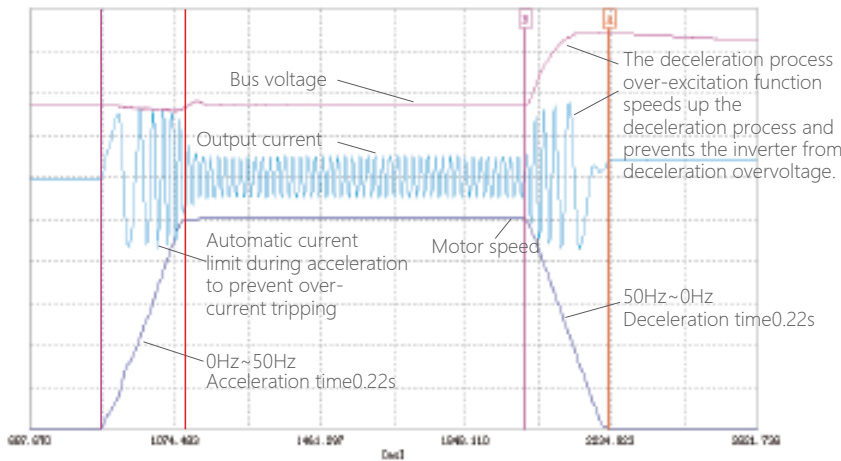
Stable And Reliable Operation

- ★ High-standard EMC design, effectively reduce external interference, meet precise control requirements;
- ★ Fully enclosed shell + independent air duct design, which can isolate dust to the greatest extent, ensure long-term stable operation of electronic components;
- ★ The conformal coating is thickened, IGBT pins are added with casing, glue dispensing treatment for the anti-seismic weaker part, improve the environmental coverage.



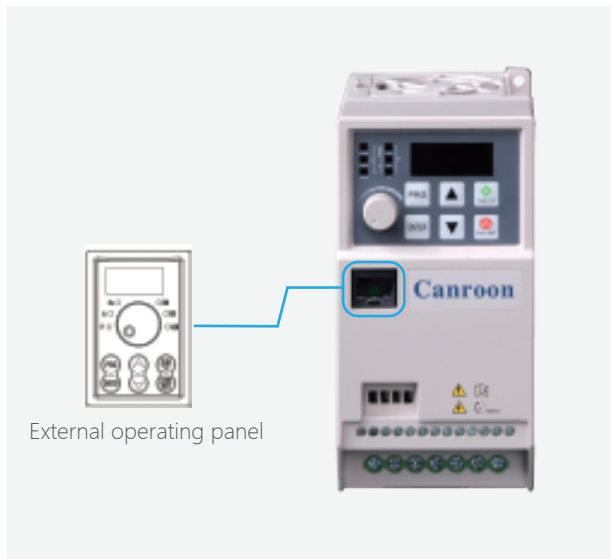
Excellent Performance And Functions

- ★ Large rated current design, large overload current and short acceleration time;
- ★ Deceleration process automatically add overexcitation function, deceleration time is short;
- ★ Strong overmodulation capability, higher output voltage under the same input voltage;
- ★ Powerful overload suppression ability ensures that the inverter will not stop due to overload fault at the maximum output;
- ★ Support Modbus communication, easy to realize industrial automation networking;



Easy And Simple Debugging

- ★ Built-in industry professional macro application, support industry parameters one-click setting
- ★ Support external operating panel



Obtained EU CE And ISO Quality Certification



EU CE certification



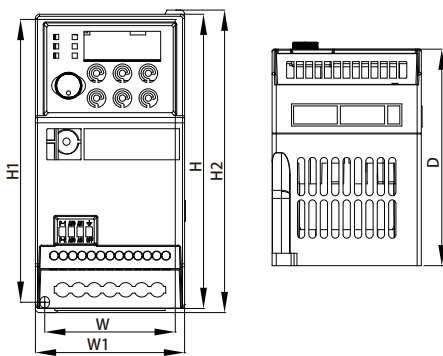
ISO 9001:2015 Certification

Model Selection

CV800E - 002 G/P - 1 4 T F		
①	②	③ ④ ⑤ ⑥ ⑦
①	Product series	CV800E(Inverter model)
②	Model power	00A: 0.4KW 002 : 2.2KW
③	Load type	G: Constant torque P: Variable torque
④	Output	1: 3-phase 2: 1-phase
⑤	Voltage level	1: 110V 2: 220V 4: 380V
⑥	Input	S: 1-phase T: 3-phase
⑦	Cooling mode	F: Air cooling W: Water cooling

Specification Model	Rated Power (KW)	Rated output current (A)
1-phase 220V 50/60Hz		
CV800E-00AG-12SF	0.4	2.4
CV800E-00BG-12SF	0.75	4.5
CV800E-001G-12SF	1.5	7
CV800E-002G-12SF	2.2	10
3-phase 380V 50/60Hz		
CV800E-00AG-14TF	0.4	1.2
CV800E-00BG-14TF	0.75	2.5
CV800E-001G-14TF	1.5	3.7
CV800E-002G-14TF	2.2	5

Structure And Dimensions



CV800E-00AG-12SF ~ 002G-14TF

Specification Model	Overall Dimensions (mm)		Installation Hole Position (mm)				Installation Aperture (mm)
	W (mm)	W1 (mm)	H (mm)	H1 (mm)	H2 (mm)	D (mm)	
CV800E-00AG-12SF	63	72	142	136.5	146	104.5	4
CV800E-00BG-12SF							
CV800E-001G-12SF							
CV800E-002G-12SF							
CV800E-00AG-14TF							
CV800E-00BG-14TF							
CV800E-001G-14TF							
CV800E-002G-14TF							

Optional accessories

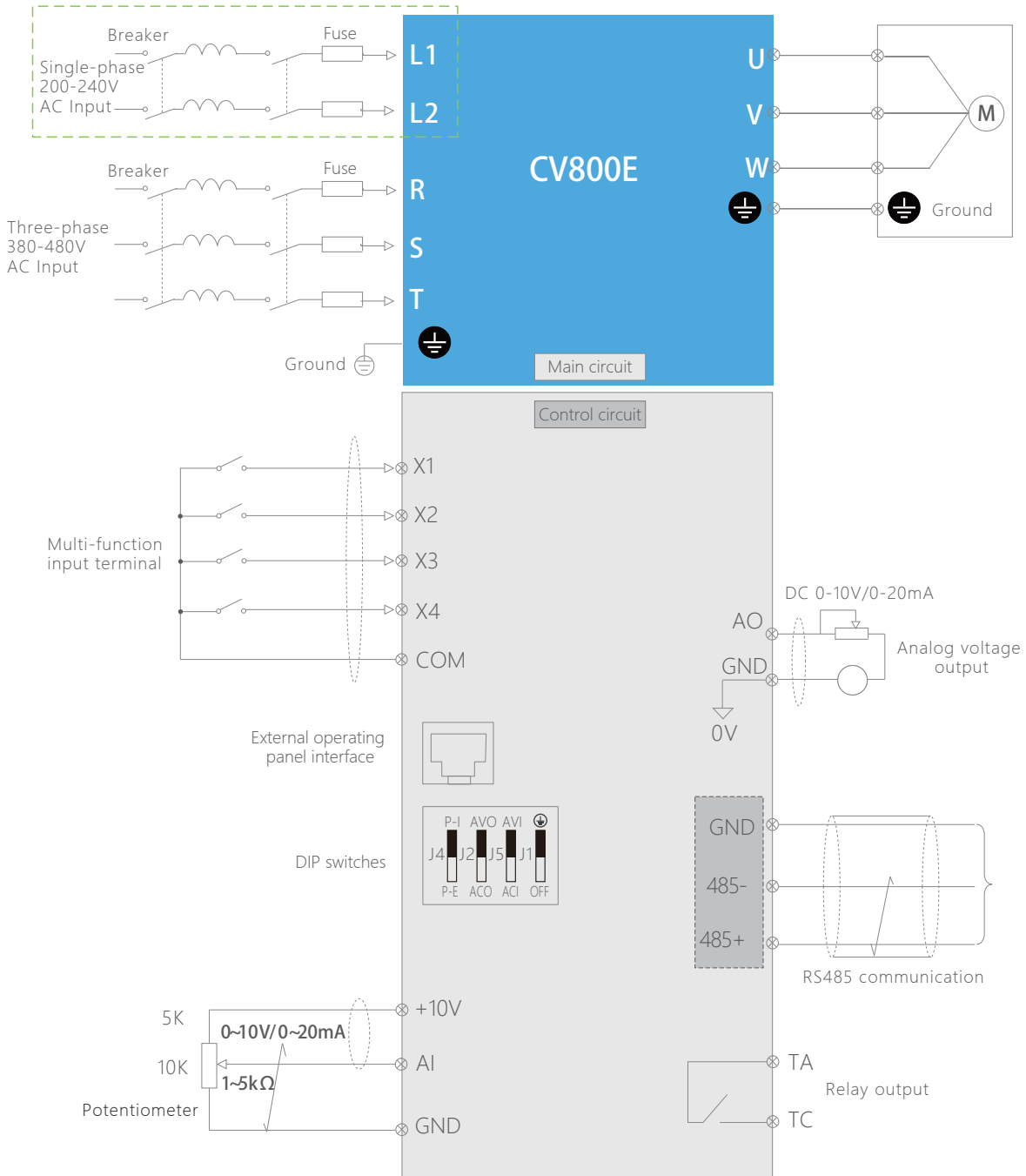
Type	Description	Support models
External operating panel	External operating panel	All models
External operating panel cable	External operating panel cable, 3 meters length	
	External operating cable, 1.5 meters length	
DIN rail mounted accessories	DIN rail mounted accessories	

Technical Parameter

Functional Description		Specification Index	
Input	Rated Voltage, Frequency	3-phase (14T) 380V, 50~60Hz; 1-phase (12S) 220V, 50~60Hz	
	Allowed Voltage Range	3-phase (14T) 320V~460V; 1-phase (12S) 190V~250V	
Output	Voltage	14T, 0~380V; 12S, 0~220V	
	Frequency	0~999.9Hz	
	Overload Capacity	110% for long-term, 150% for 1 min, 180% for 5s	
Control Mode		V/F control, simple vector control, advanced vector control, torque control	
Control Character	Frequency Setting Resolution	Analog Input	0.1% of maximum output frequency
		Digital Setting	0.01Hz
	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)	Three ways: the first is the linear torque characteristic curve, the second is the square torque characteristic curve, and the third is the user-set V/F curve
		Torque Compensation	Manual setting: 0.0~30% of rated output Automatic compensation: according to output current and motor parameter
		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: 5.0 Hz 100% rated torque (VF control) 1.0 Hz 150% rated torque (VC)
		Motor Parameter Self-measurement	Being able to detect parameter automatically under static state and dynamic state of motor, thus guarantee an optimum 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
Multi-velocity and Traverse Operation		7segments programmable multi-velocity control, multiple operation mode.	
PID Control RS485 Communication		Built-in PID controller (able to preset frequency). Standard configuration RS485 communication function.	
Frequency Setting	Analog Input	Direct voltage 0~10V, direct current 0~20mA (optional upper limit and lower limit)	
	Digital Input	Operation panel setting, RS485 port setting, UP/DW terminal control, or combined with analog input	
Output Signal	Digital Input	1 channel relay output (TA, TC), up to 17 choices	
	Analog Input	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	
	Flux Restraint	0~100 0: invalid	
Low Noise Running		Carrier frequency 2.0kHz~20.0kHz continuous adjustable, minimize motor noise	
Speed Tracking and Restart Function		Smooth restart during operation, instantaneous stop and restart	
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 6 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.
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°C ~ +40°C (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	

Terminal Wiring Diagram

The input side in the dotted box is different for single-phase and three phase models. Perform wiring according to the actual models.





Official WeChat



Official website

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