



CV100 Mini Type Vector Inverter

Product Characteristics

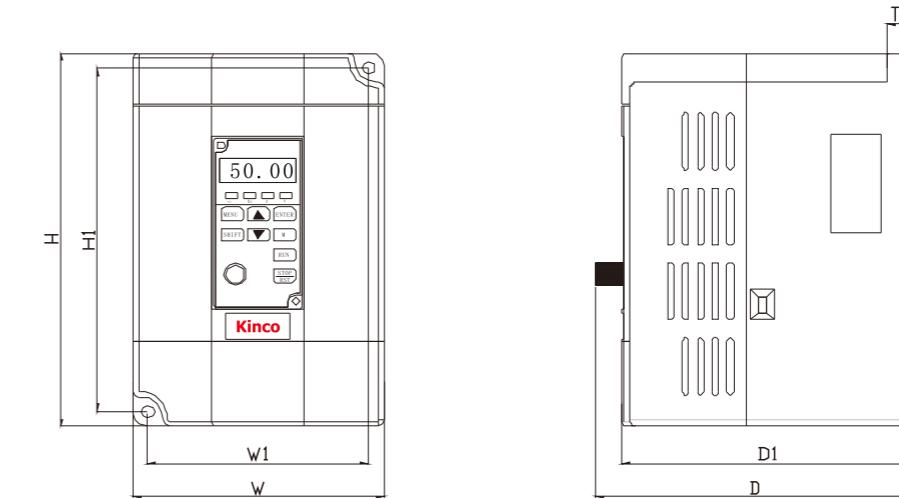
- Control Mode: V/F control
 - Carrier frequency up to 15KHz
 - Auto torque boost and auto slip compensation function
 - Built-in PID control
 - Standard equipped Modbus(RS485 baud rate up to 38400bps)
 - Sleep/wake up function

Technical Specification

Items		Description
Input	Rated Voltage/ frequency	4T: 3-phase, 380V~440V; 50Hz/60Hz; 2S: Single phase, 200V~240V; 50Hz/60Hz ; 1S: Single-phase, 100~120V; 50/60Hz
	Allowable voltage range	4T: 320V~460V; 2S:180V~260V; 1S: 90~132V; Voltage unbalancedness:<3%; Frequency: ±5%
Output	Voltage	0~ Rated input voltage
	Frequency	0Hz~300Hz (0Hz~1000Hz custom)
Main control characteristics	Overload capacity	G Type: 150% rated current for 1 minute, 180% rated current for 10 seconds.
	Control method	V/F control
	Starting torque	Auto torque rising
	Frequency accuracy	Digital setting: Max. frequency × ±0.01%; Analog setting: Max. frequency × ±0.2%
	Frequency resolution	Digital setting: 0.01Hz; Analog setting: Max. frequency×0.05%
	Torque boost	Manual torque boost: 0%~30.0%
	V/F pattern	4 patterns: 1 V/F curve mode set by user and 3 kinds of torque-derating modes (2.0 power, 1.7 power, 1.2 power)
	Acceleration/ Deceleration curve	Linear acceleration/deceleration. Four kinds of acceleration/deceleration time
Customized function	Auto current limit	Limit current during operation automatically to prevent frequent overcurrent trip.
	Operation command	Keypad setting, terminal setting, communication setting
	Frequency command	Digital setting, analog voltage setting, analog current setting.
	Auxiliary frequency setting	Implement flexible auxiliary frequency trim and frequency synthesis
Analog output		2 channel analog output (0/4~20mA or 0/2~10V).
Protection function		Overcurrent protection, overvoltage protection, undervoltage protection, overheat protection, overload protection, missing phase protection (seletable) and so on.
Environment	Altitude	Derated above 1000m, the rated output current shall be decreased by 10% for every rise of 1000m.
	Ambient temperature	-10°C~ + 40°C (derated at 40°C~50°C)
	Humidity	5%~95%RH, non-condensing
	Vibration	Less than 5.9m/s ² (0.6g)
	Storage temperature	-40°C~ + 70°C

Model Specification

External Dimension : CV100-1S-0002G ~ CV100-1S-0011G / CV100-2S-0004G ~ CV100-4T-0075G

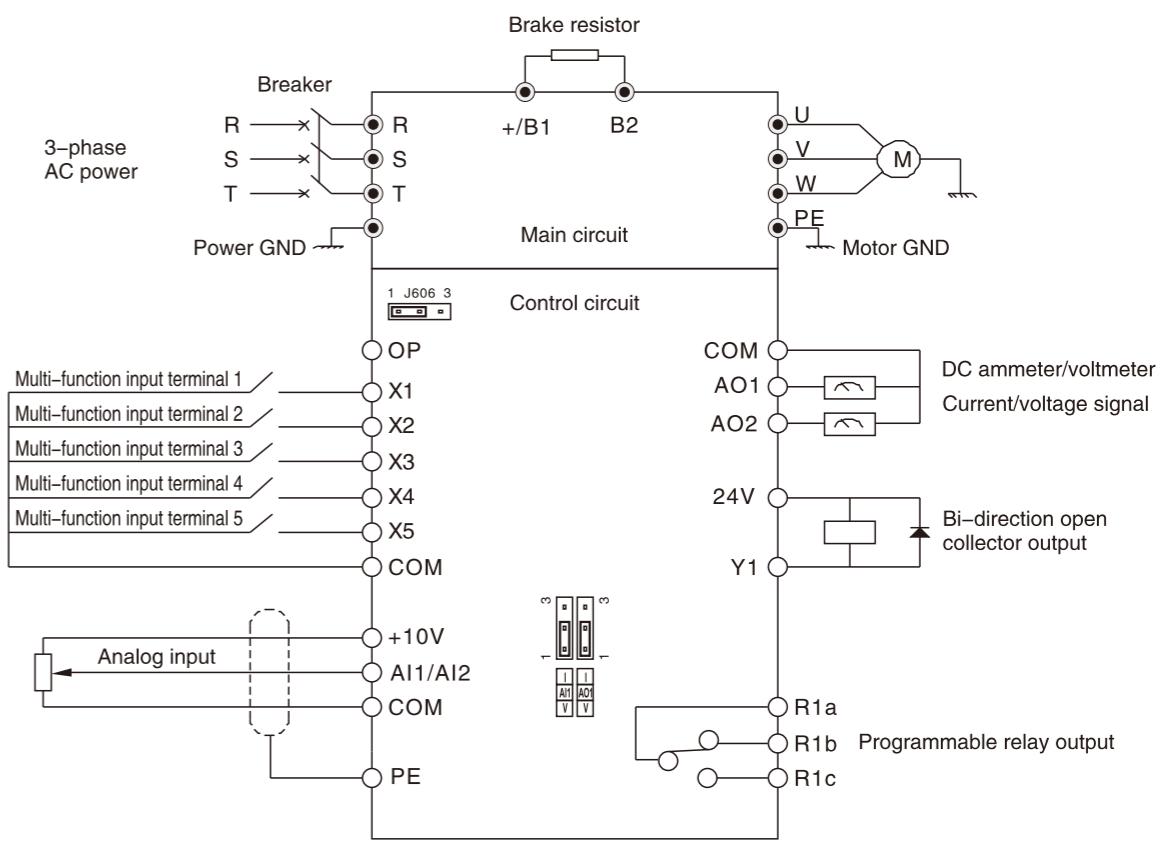


CNA Function Table of Connector Terminal

Category	Terminal silk screen	Name	Description of terminal function	Specification
Shield	PE	Earth shield	GND for the shield layer of terminal. Shield layer of the analog signal cable , 485 communication cable , motor power cable can be connected here	Connect the PE terminal of internal main circuit
Power supply	+10	+10V Power	Provide +10V reference power	Provide 5mA current at most
Communication	RS+	RS45 communication connector	RS45 difference signal positive	Standard RS45 communication connector (Use twisted-pair or shield cable please)
	RS-		RS45 difference signal negative	
Analog input	AI1	Analog single-ended input AI1	Receive the analog voltage or current single-ended input, they are selected by jumper AI1 (Reference ground:COM)	Input voltage range: -10V~+10V (Input resistor: 45kΩ) Resolution: 1/4000
	AI2	Analog single-ended input AI2	Receive the analog voltage or current single-ended input, they are selected by jumper AI2 (Reference ground:COM)	Input current range: 0mA~20mA, Resolution: 1/2000(Jumper to select)
Analog output	AO1	Analog output 1	Providing analog voltage or current output, they are selected by the jumper AO1. The default setting is output voltage, see to description of function code A6.28. (Reference ground: COM)	Voltage output range: 0V~10V Current output range: 0/4~20mA
	AO2	Analog output 2	Providing analog voltage or current output, they are selected by the jumper AO2. The default setting is output voltage, refer to the function code A6.29 (Reference ground: GND)	
Multi-function input terminal	X1~ X5	Multi-function input terminal	Can be defined as multi-function digital input terminal. Please see to description of function code A6.00~A6.04 (A6 group).	Optocoupler isolation input Input resistor: R=3.3kΩ Input voltage range of X1~X5: 2~30V
Multi-function output terminal	Y1	Bi-direction open collector output	Can be defined as multi-function digital output terminal. . Please see to description of function code A6.14 (A6 group) (Com port: COM)	Optocoupler isolation output Maximum working voltage: 30V Maximum output current: 50mA
Power supply	OP	+24v power supply	Providing +24V power	Maximum output current: 200mA
Common port	COM	Common port of 24V power supply	Cooperate with other terminals	

Wiring Diagram of Product Terminal

Applicable models : CV100-2S-0004G ~ CV100-4T-0075G



Terminal Type of Main Loop's Input and Output

Terminal Type	Single -phase input(Top)	L	N	PE	PE	RS+	RS-	
	3-phase input(Top)	R	S	T	PE	PE	RS+	RS-
	Bottom	U	V	W	+/B1	B2		

Descriptions of the main loop terminals

Terminal name	Function description
L, N	Single phase 220V AC input terminal
R, S, T	3-phase 380V AC input terminal
+/B1, B2	Access terminal of brake resistor
U, V, W	3-phase AC output terminal
PE	Earth terminal

Control loop terminals arrangement

RA | RB | RC | AI1 | AI2 | +10V | X1 | X2 | X3 | X4 | X5 | Y1 | AO1 | AO2 | OP | COM | PE