SCANTECH
automacao industrial

SV/FV100 Series

Kinco® Automation

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Corporate Profile

Kinco Automation (Shanghai) Ltd. and its subsidiary, Kinco Electric (Shenzhen) Ltd., are private high-tech enterprises specialized in the research, development, and production of automation products. Kinco controls such companies as JAT Kinco Electric Shenzhen Ltd., and Kinavo Servo Motor (Changzhou) Ltd., and owns two well-known brands, eView and Kinco. Kinco has established full line of automation products such as industrial human-machine interfaces, AC servo systems, stepper systems, PLC and industrial fieldbus products with proprietary intellectual property rights. Kinco has become a leading supplier of machine automation solutions in China.

Undertaking the mission of "Providing automation solutions to global customers", Kinco focuses on the development of automation technology since its founding. Now Kinco has acquired technology and knowledge for control, drive, human-machine interface and system integration. By adopting international standards and following the trends in automation industry, we developed PLC products compatible with IEC-61131-3 standard, intellectual AC servo drives, leading HMI products in China and fieldbus products. Kinco is capable of making customized products/solutions/services fit the customer's needs best based on our technology platform.

Kinco has established R&D centers in Shenzhen, Shanghai, Beijing, Changzhou and Germany. We implement total quality management measures complying with ISO9001 standard throughout the marketing, R&D, production, and sales processes. We support our customers at home with a branch and distributor system covering mainland China. We appoint reliable partners to be distributors in overseas markets. Kinco is a customer-oriented company, always listening to customers' needs, cooperating with market leaders in emerging industries, providing first-rate automation solutions. Kinco products are widely used in industries such as textile machines, packaging machines, transportation systems and others. Kinco HMI is the No.1 domestic brands in China market. Kinco brand and products have been awarded by renowned media and organizations within the automation community.

Sticking to the business philosophy of "Caring people, pursuing excellence" and the value of "customer intimacy", Kinco advocates the corporate spirit of performance-oriented innovation, cooperation and efficiency. With the vision of "Automation creates wonderful life" in our minds, Kinco is always trying its best to be the partner of your every success and creates values for you.

Our Brand: eView®

Selection Guide

SV 1 00 – 4 T – XXXX G – U – 000

SV	Sensorless vector
FV	Closed loop vector
1	The first generation product
00	Standard model
2	Power supply 200V AC
4	Power supply 400V AC
S	Single phase
T	3-phase
	Reserved
U	None
L	RS485
A	CAN
P	Profibus
G	Constant torque
L	Constant power
0004	Power 0.4KW
0007	Power 0.75KW

Technical Specification

Item	Description
Input	
Rated Voltage/frequency	3-phase 380V~440V AC. 50Hz/60Hz
Applicable voltage range	Voltage: 320V~460V. Voltage unbalancedness: <3%. Frequency tolerance:±5%.
Output	
Rated voltage	380V
Frequency	0Hz~300Hz
Overload capacity	G Type:150% 1 minute, 180% 10 seconds
Control characteristics	
Control method	Vector control without PG.Vector control with PG, V/F control
Modulation system	Space vector PWM modulation
Starting Torque	0.5Hz: 150% of rated torque(Vector control without PG), 0.5Hz: 200% of rated torque(Vector control with PG)
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 pattern is V/F curve setting by users. 3 patterns are drop torque characters curve (2.0 power,1.7 power,1.2 power)
Acceleration/Deceleration curve	Linear acceleration/deceleration. Four kinds of acceleration/deceleration time are optional
DC braking	Braking starting frequency: 0.00~60.00Hz Braking time: 0.0~10.0s Braking current: 0.0~100.0%
Auto current limit	Auto limit the current during operation to prevent frequent overcurrent trip.
Customized function	
Jogging	Jogging frequency range: 0.00Hz~50.00Hz. Jogging acceleration/deceleration time: 0.1~60.0s.
Multiple speed operation	Implement multiple speed operation by digital inputs.
Operation function	
Operation command	Keypad setting, Terminal setting, Communication setting
Frequency command	Keypad setting, Analog input, Pulse input, Communication setting
Auxiliary frequency setting	Implement flexible auxiliary frequency trim and frequency synthesis.
Pulse output	0~100KHz pulse output.
Analog output	2 channels analog output(0/4~20mA or 0/2~10V).
Operation panel	
LED Display	Display setting frequency, output frequency, output voltage, output current and so on, about 20 parameters.
Parameters copy	Copy parameters by operation panel.
Keys lock and function selection	Lock part of keys or all the keys. Define the function of part of keys.
Protection function	
Open phase protection(optional), overcurrent protection, overvoltage protection, undervoltage protection, overheat protection, overload protection and so on.	
Environment	
Operating site	Indoor, installed in the environment free from direct sunlight, dust, corrosive gas, combustible gas, oil mist, steam and drip.
Altitude	Derated above 1000m, the rated output current shall be decreased by 10% for every rise of 1000m
Ambient temperature	-10℃~40℃, derated at 40℃~ 50℃.
Humidity	5%~95%RH, non-condensing.
Vibration	Less than 5.9m/s^2(0.6g)
Storage temperature	-40℃~70℃
Structure	
Protection class	IP20
Cooling method	Air cooling, with fan control.
Installation method	Wall-mounted
Effeciency	45kW or below:≥93%; 55kW or above:≥95%

General Product Series

SV100-4T-□□□G、FV100-4T-□□□G 3-phase 400V AC constant torque VFD

Model □V100-4T-□□□G		0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90
The power of suitable motor(kW)		0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90
Output	Voltage(V)	3-phase 0~rated input voltage															
	Rated current(A)	2.5	3.8	5.5	9	13	17	24	30	39	45	60	75	91	112	150	176
	Overload capcity	150% 1 Minute, 180% 10 Seconds															
Input	Rated voltage/ frequency	3-phase 380V~480V AC; 50Hz/60Hz															
	Allowable voltage range	323V~528V AC; Voltage unbanlancedness:≤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	160
Brake unit		Built-in									Built-in(optional)						External brake unit
Protection class		IP20															
Cooling method		Air cooling	Cooling by fan														

SV100-4T-□□□L、FV100-4T-□□□L 3-phase 400V AC constant power VFD

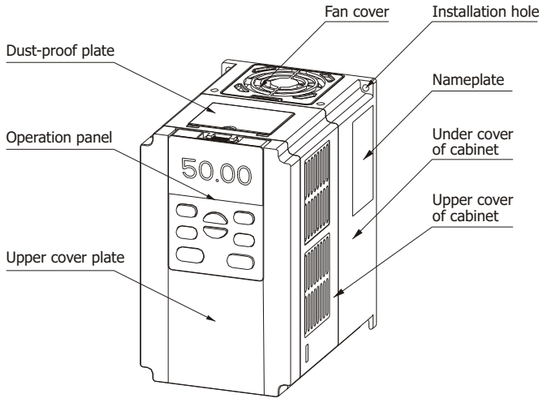
Model □V100-4T-□□□L		1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90
The power of suitable motor(kW)		1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90
Output	Voltage(V)	3-phase 0~rated input voltage														
	Rated current(A)	3.3	5.0	7.5	11	17	22	30	37	44	56	72	91	110	142	176
	Overload capcity	110% 1 Minute, 150% 0.5 Second														
Input	Rated voltage/ frequency	3-phase 380V~480V AC; 50Hz/60Hz														
	Allowable voltage range	323V~528V AC; Voltage unbanlancedness:≤3%; Allowable frequency fluctuation:±5%														
	Rated current(A)	5.6	8.1	13.5	19.5	26	39	50.3	60	69.3	86	104	124	150	190	235
Brake unit		Built-in									Built-in(optional)					
Protection class		IP20														
Cooling method		Air cooling	Cooling by fan													

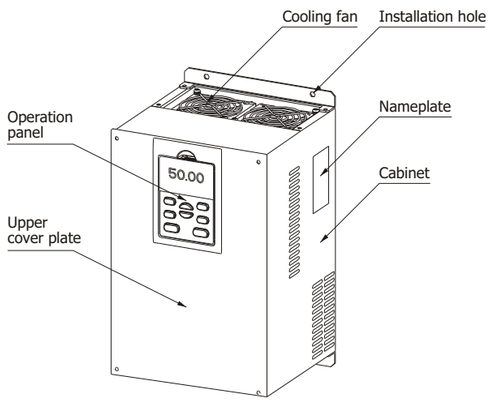
SV100-2S-□□□G、FV100-2S-□□□G 2-phase 200V AC constant torque VFD

Model □V100-2S-□□□G		0.4	0.75	1.5	2.2
The power of suitable motor(kW)		0.4	0.75	1.5	2.2
Output	Voltage(V)	3-phase 0~rated input voltage			
	Rated current(A)	2.6	4.5	7.5	10
	Overload capcity	150% 1 Minute; 180% 10 Seconds; 200% 0.5 Second; 10 minutes interval (inverse time limit speciality)			
Input	Rated voltage/ frequency	Single phase 200V~240V AC; 50Hz/60Hz			
	Allowable voltage range	180V~260V AC; Voltage unbanlancedness:≤3%; Allowable frequency fluctuation:±5%			
	Rated current(A)	5.5	9.2	14.5	23
Brake unit		Built-in			
Protection class		IP20			
Cooling method		Air cooling		Cooling by fan	

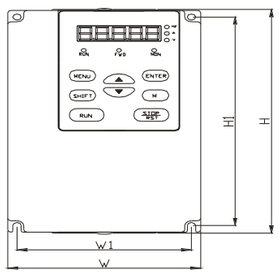
Note: □V100 means FV100, SV100 series

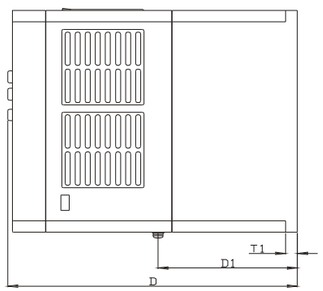
External Demension



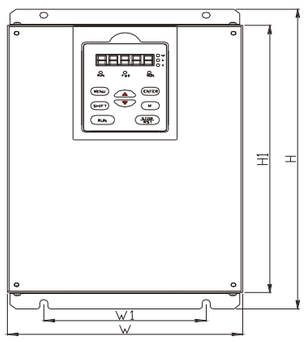


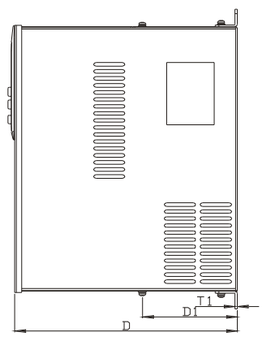
VFD that power under □V100-4T-0037G





□V100-4T-0450G~SV100-4T-0900G

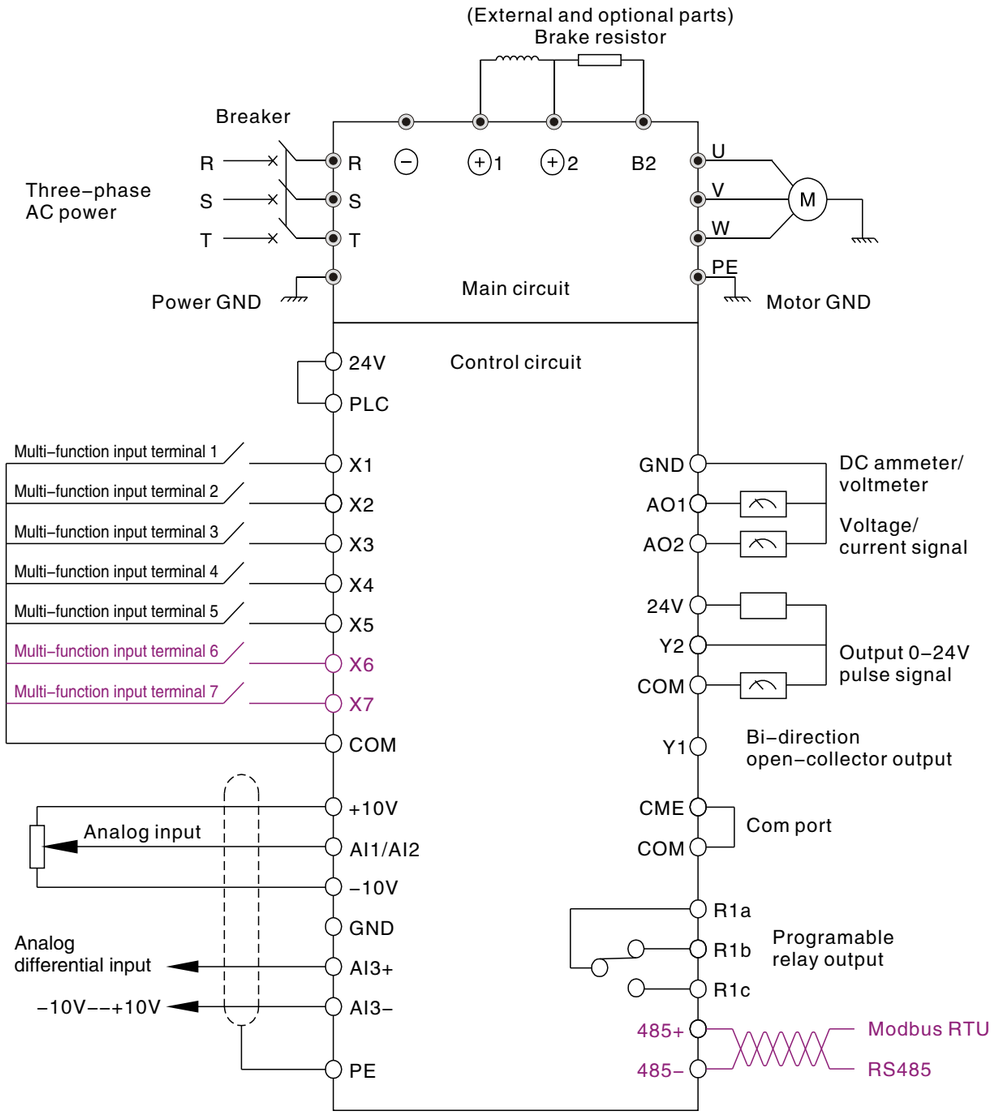




Models of Inverter (**G**: Constant torque load **L**: Draught fan and water pump load)	External dimension								Weight
	W	H	D	W1	H1	D1	T1	Installation hole "**d**"	(kg)
□V100-2S-0004G	115	186	169	104	174	12	7	5	1.5
□V100-2S-0007G									
□V100-2S-0015G									
□V100-2S-0022G									
□V100-4T-0007G	115	186	169	104	174	12	7	5	1.5
□V100-4T-0015G									
□V100-4T-0022G									
□V100-4T-0037G									
□V100-4T-0055G	167	291	201	102	277	80	2	5.5	4.5
□V100-4T-0075G									
□V100-4T-0110G	202	342	200	140	328	82	2	7	6.5
□V100-4T-0150G									
□V100-4T-0185G	289	440	223	200	424	89	2.5	7	17
□V100-4T-0220G									
□V100-4T-0300G	315	534	224	220	516	88.5	2.5	7	25
□V100-4T-0370G									
□V100-4T-0450G	371	649	262	240	672	108	2.5	10	30
□V100-4T-0550G									
□V100-4T-0750G	438	717	277	270	692	120	3	10	35
□V100-4T-0900G									

Note: □V100 means the FV100 and SV100 series

Wiring Diagram of Product Terminal



Note: The purple parts mean the functions which SV100 series do not have

Terminal Type of Main Loop 's Input and Output

Terminal type

Suitable model: □V100–2S–0004G ~ □V100–2S–0022G

L	N	⊖	⊕/B1	B2	U	V	W	PE

Suitable model: □V100–4T–0007G ~ □V100–4T–0037G

R	S	T	⊖	⊕/B1	B2	U	V	W	PE

Suitable model: □V100–4T–0055G ~ □V100–4T–0220G

R	S	T	⊖	⊕1	⊕2/B1	B2	U	V	W	PE

Suitable model: □V100–4T–0300G ~ □V100–4T–0900G

R	S	T	PE

⊖	⊕1	⊕2	U	V	W	PE

Note: □V100 means the FV100 and SV100 series

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
⊖	DC negative bus output terminal
⊕1、⊕2	Reserved terminal for external DC reactor
B1、B2	Access terminal of brake resistor
U、V、W	3-phase AC output terminal
PE	Earth terminal

Control loop terminals arrange as followings:

AO1	AO2	AI3+	+10V	24V	PLC	X4	X5	X6	X7
⏚	AI1	AI2	AI3–	GND	X1	X2	X3	COM	485+	485–

R1a	R1b	R1c
CME	Y1	Y2	⏚

Arrangement diagram of control terminals(SV100 do not have the black parts)

CNA Function Table of Connector Terminal

Category	Terminal silk screen	Name	Description of terminal function	Specification
Shield	⏚	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	Power	Provide +10V reference power	Provide 5mA current at most
	GND	Power GND	GND for analog signal and +10 power supply	Internal isolation from COM and CME
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:GND)	Input voltage range: -10V~+10V (Input resistor: 45kΩ) Resolution: 1/4000 Input current range: 0mA~20mA, Resolution: 1/2047Jumper to select)
	AI2	Analog single-ended input AI2	Receive the analog voltage or current single-ended input, they are selected by jumper AI2 (Reference ground:GND)	
	AI3+	Analog voltage differential input AI3+ or analog voltage single-ended input.	When connected to the analog voltage differential input,AI3+ is the same-phase input and AI3- is the inverted input; when connected to the analog voltage single-ended input, AI3+ is signal input, AI3- is GND (Reference ground: GND)	Input voltage range: -10V~+10V (Input resistor: 15kΩ) Resolution: 1/4000
	AI3–	Analog voltage differential input AI3- or analog voltage single-ended input.		
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)	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)	Voltage output range: 0V~10V Current output range: 0/4~20mA
Communication	RS485+	RS485 communication connector	RS485 difference signal positive	Standard RS485 communication connector (Use twisted-pair or shield cable please)
	RS485–		RS485 difference signal negative	
Multi-function input terminal	X1 ~ X6	Multi-function input terminal 1	Can be defined as multi-function digital input terminal	Optocoupler isolation input Input resistor: R=3.3kΩ Maximum input frequency of X1~X6: 200Hz Maximum input frequency of X7: 100kHz Input voltage range: 2~30v
	X7	Multi-function input terminal or pulse input		
Multi-function output terminal	Y1	Bi-direction open-collector output	Can be defined as multi-function digital output terminal (Com port: CME)	Optocoupler isolation output Maximum working voltage: 30v Maximum output current: 50mA
	Y2	Open circuit collector output terminal	Can be defined as multi-function pulse signal output terminal (Com port: COM)	Maximum output frequency: 100kHz
Power supply	24V	+24v power supply	Providing +24V power	Maximum output current: 200mA
Common port	PLC	Multi-function input common port	Common port of Multi-function input (Short cut with 24V in default)	Common port of X1~X7, PLC is isolated from 24V internally
	COM	Common port of 24V power supply	Three common ports in all, cooperate with other terminals	COM is isolated from CME and GND internally
	CME	Y1 output common port	Common port of multi-function output terminal Y1	
Relay output terminal 1	R1a	Relay output	Can be defined as multi-function relay output terminal	R1a–R1b: Normally closed, R1a–R1c: normally open Contact capacity : AC250V/2A (COSΦ = 1) AC250V/1A (COSΦ = 0.4) DC30V/1A Input voltage of relay output terminal 's overvoltage class is overvoltage class II
	R1b			
	R1c			

Establish Strategy Alliances of Technology and Market

Haier 海尔 SIEMENS 迈瑞 MINDRAY

BYD HollySys 上海地铁 Shanghai Metro Yamato

美的 Midea 清华同方 北人 BEIREN

清華紫光 中国航天 SANY 品质改变世界 三一集团

上海电气 SHANGHAI ELECTRIC 沃得精机 WORLD PRECISE MACHINERY METTLER TOLEDO

Some of Kinco's partners

Strategic Cooperation

Every distributor or user of Kinco products is considered as our invaluable partner.

We sincerely hope to cooperate with every partner who agrees with our vision and values to achieve win-win results.

Global Network

Kinco serves customers in over 30 countries, We are looking for partner in oversea market !