



Catalogue

XUCKY CONVERTER **Selection Manual**

变频器选型手册









XIJCKY

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ENTERPRISE BRIEF

企业简介 >>>>>>>>

XIJCKY

Is committed to the fields of electrical transmission and industrial automation control, providing specialized products and services to global users, helping customers improve production capacity and performance, while reducing energy consumption and reducing the impact on the environment.

Is a high-tech enterprise integrating product research and development, production and sales. It has scientific management, innovative learning, technology as its core, quality as its life, and first-class high-tech personnel and excellent senior management team. Always adhere to the customer-centric, constantly introduce new and high-tech, and absorb the essence of similar products at home and abroad to provide users with more excellent and perfect products.

Currently, main products include high-performance vector inverters, mini high-performance vector inverters, generalpurpose inverters, and industry-specific inverters. The company passed the ISO9001: 2000 quality management system certification in 2006. The products are widely used in industries such as municipal administration, building materials, plastics, oil fields, machinery, chemical engineering, metallurgy, textiles, printing, machine tools, mining, etc. Adhering to the service philosophy of "doing my best to meet customer needs", relying on high-quality products, winning customers with quantity, price, sincerity, and speed, using all our wisdom and sweat to wholeheartedly solve problems for customers, striving to meet or achieve customer requirements and expectations, striving to create value for customers through continuous innovation and continuous efforts, while satisfying customers, and allowing the company to continuously develop, Continuously improve the service system, and look forward to working with more new and old customers to create a "beneficial" future!







High-performance vector converter

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Mini high-performance vector converter

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INTELLIGENT CREATION OF GOOD PRODUCTS



High-performance vector converter







Product introduction

Vector converter is an all-new control platform equipped with DSP control scheme to lead vector control. Advanced field-oriented vector control algorithm is utilized to complete decoupling and control of motor, realizing real current vector control and providing high-performance vector control with PG, vector control without PG, torque control etc. It can adapt to various specific demands of customers and can be widely used in application scenarios with high requirements on speed control accuracy, torque response speed and low-frequency output features.







Technical features

- Four kinds of control modes can be selected: vector control without PG (SVC), vector control with PG (VC), V/F control and torque control;
- Dynamic and rotary motor parameters will automatically tune to control motor more accurately; High-precision closed-loop speed control and torque control can be realized;
- Accurate speed control: 1:100 (SVC) and 1:1000 (VC)
- •Rated torque is started at 0.5HZ 180%, which is beyond your imagination;
- ●1.0KHZ-15.0KHZ carrier frequency can automatically adjust based on load characteristics;
- Various torque setting sources are provided to facilitate the design of users' various schemes;
- The simple PLC will automatically control upon completing as many as 16 pieces of frequency logic and 4 kinds of acceleration and deceleration time can be selected;
- Automatic voltage regulation function: the output of constant voltage can be maintained automatically when the grid voltage fluctuates;
- Multiple frequency control: frequency wobbling function, PID function and multistage velocity control can adapt to various complex control scenarios;
- RS485 serial communication interface is provided and standard Modbus communication protocol is adopted;
- It has power failure reset function to guarantee the continuity and production efficiency of production;
- ullet It is very convenient for users to extend the keyboard with the standard network cable.





Schematic Diagram of Overall Dimension of Converter



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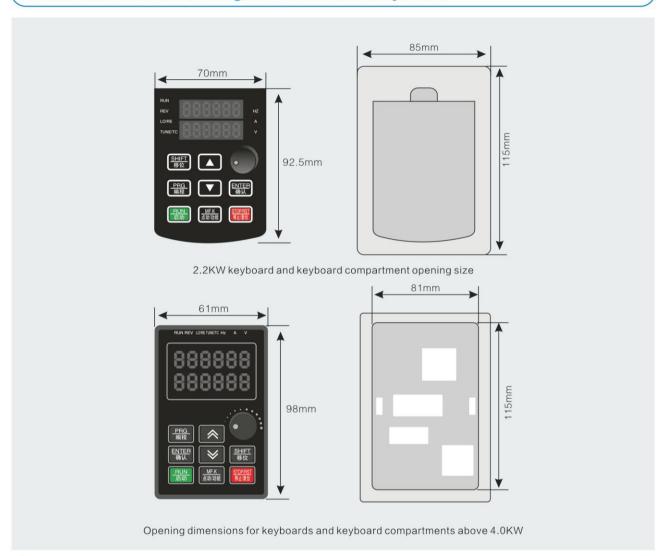




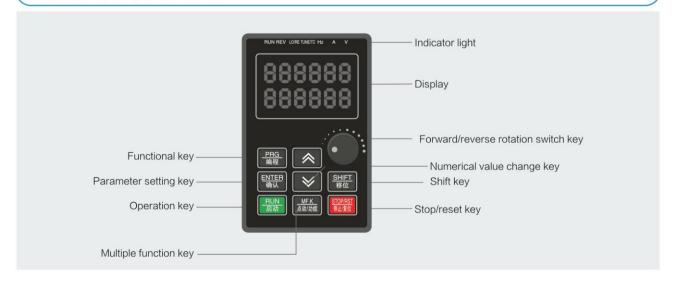
Overall and Installation Dimension Table

Converter model	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	
Converter model	Installation	dimension		Overall dimensior	า	
SN500-T0.7GB						
SN500-T1.5GB	95	151	165	106	142	
SN500-T2.2GB						
SN500-T4.0GB	115	173	185	125	175	
SN500-T5.5GB	113	173	100	125	175	
SN500-T7.5GB	100	255	272	132	190	
SN500-T11GB	100	200	212	132	190	
SN500-T15GB	120	300	320	163	200	
SN500-T18.5GB	120	300	320	103	200	
SN500-T22GB	120	340	360	190	210	
SN500-T30G	150	410	435	230	230	
SN500-T37G	130	410	433	230	230	
SN500-T45G	200	495	510	260	252	
SN500-T55G	200	563	590	270	300	
SN500-T75G	200	563	590	270	300	
SN500-T90G	200	635	660	320	310	
SN500-T110G	200	030	000	320	310	
SN500-T132G	250	750	800	400	350	
SN500-T160G	250	750	800	400	330	
SN500-T185G				500		
SN500-T200G						
SN500-T220G	360	920	950		360	
SN500-T250G						
SN500-T280G						
SN500-T315G	500	1036	1060	650	360	
SN500-T355G	500	1030	1000	000	300	
SN500-T400G						
SN500-T450G	640	1165	1200	860	380	
SN500-T500G						
SN500-T560G	800	1300	1360	1000	390	
SN500-T630G	800	1300	1300	1000	390	

Installation Dimension Diagram of External Keyboard



Keyboard Key Instruction



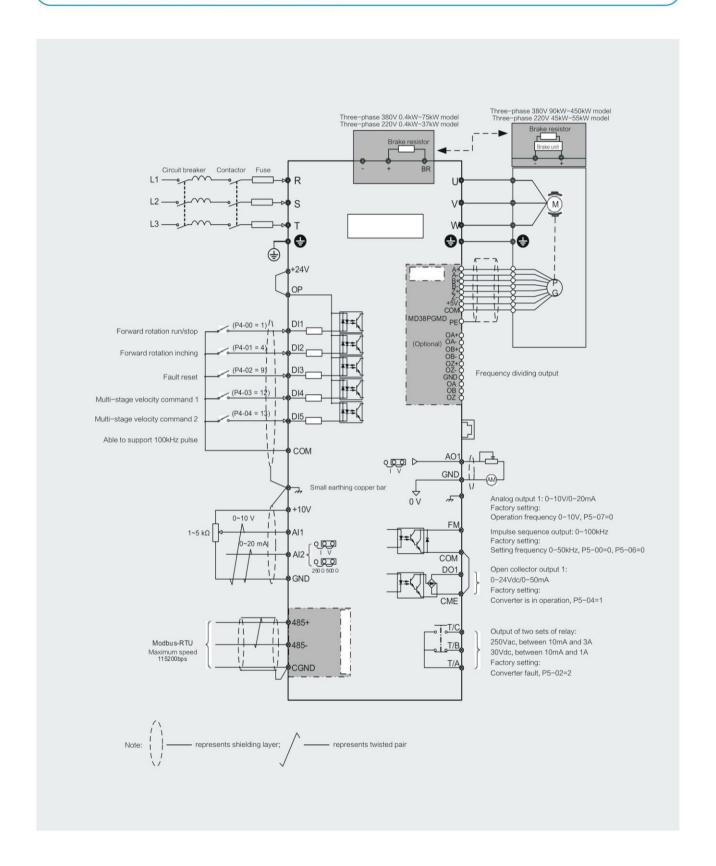
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Standard Wiring Diagram of Converter



Functions of Main Loop Terminal are described as follows

Terminal mark	Terminal name	Functional description
R、S、T	Three-phase power input terminal	Connection point of AC input three-phase power
(+), (-)	Positive and negative terminal of DC bus	Input point of common DC bus and connection point of external brake unit of 90KW and above
(+)、PB	Brake resistor connector	Connection point of brake resistor of 75KW and below
U. V. W	Converter output terminal	Connecting three-phase motor
(b)	Grounding terminal (PE)	Protective grounding

Category Terminal symbol Terminal name Functional description Power supply +10V-GND External +10V power supply It provides +10V power externally, with the maximum output pown 10mA Power supply +24V-COM External +24V power supply supply of working supply of digital input and output terminal and external supply of digital input and output terminal and external supply power supply Maximum output power: 200mA It is connected with +24V based on factory default setting When external signal is utilized to drive DI1-DI5, OP needs to be on with external power supply and disconnected with +24V power terminal 1 It is connected with +24V based on factory default setting When external power supply and disconnected with +24V power terminal 1 Analog input input terminal 2 Input voltage scope: DC 0V-10V Input resistance: 22 kΩ Analog input terminal 2 Input scope: 0Vdc-10Vdc/0mA-20mA, which depends on the J9 jub to loard. Input resistance is 22 kΩ when the voltage is input or 250Ω resistance can be selected through J10 jumper when currents.	entiometer as the ensor
+10V-GND External +10V power supply 10mA It is generally used as the working supply power of external pote of which resistance scope is as follows: 1 kΩ –5kΩ	entiometer as the ensor
Power supply Maximum output power: 200mA It is connected with +24V based on factory default setting When external signal is utilized to drive DI1–DI5, OP needs to be with external power supply and disconnected with +24V power ter Power supply Maximum output power: 200mA It is connected with +24V based on factory default setting When external signal is utilized to drive DI1–DI5, OP needs to be with external power supply and disconnected with +24V power ter Input voltage scope: DC 0V–10V Input resistance: 22 kΩ Input scope: 0Vdc–10Vdc/0mA–20mA, which depends on the J9 is control board. Input resistance: the resistance is 22 kΩ when the voltage is input	connected
OP Laternal power input terminal When external signal is utilized to drive Di1-Dl5, OP needs to be of with external power supply and disconnected with +24V power terminal 1 Al1-GND Analog input terminal 1 Input voltage scope: DC 0V-10V Input resistance: 22 kΩ Analog input input Analog input terminal 2 Input scope: 0Vdc-10Vdc/0mA-20mA, which depends on the J9 j control board. Input resistance: the resistance is 22 kΩ when the voltage is input	connected minal
Analog input Al2–GND terminal 1 Input resistance: 22 kΩ Input resistance: 22 kΩ Input scope: 0Vdc–10Vdc/0mA–20mA, which depends on the J9 j control board. Input resistance is 22 kΩ when the voltage is input	
input Al2-GND Analog input terminal 2 control board. Input resistance is 22 kΩ when the voltage is input	
	and 500Ω
DI1-OP Digital input 1	
DI2-OP Digital input 2 Opto-couplers isolation, compatible with bipolar inputs	
DI3-OP Digital input 3 Input resistance: 1.39 kΩ Voltage scope when the active level is input: 9V-30V	
Digital DI4-OP Digital input 4	
input DI5-OP High speed pulse input terminal Apart from having the characteristics of DI1-DI4, it can be taken a speed pulse input channel. The maximum input frequency: 100kHz Input resistance: 1.03 kΩ	s the high-
Analog output Analog output Analog output 1 Analog output 1 Voltage or current output depends on J7 jumper on control board. Output voltage scope: 0V-10V Output current scope: 0mA-20mA	
Digital output Digital output	ted (at this to be drive
FM-COM High-speed pulse output Restrained by function code P5-00 "FM terminal output mode so The maximum frequency can reach 100kHz when it is used as houlse output; It has the same specification as DO1 when it is take-collector output.	igh-speed
Relay T/A-T/B Normally closed terminal Contact drive ability;	
output T/A-T/C Normally open terminal 250Vac, 3A, COSØ=0.4 30Vdc, 1A	

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Technical Parameters of Converter

Adaption (kW) 0.4 0.75 1.1 1.5 2.2 3.0 3.7 5.5 7.5 11 1.5 18.5 22 3.0 3.7 Motor (HP) 0.5 1 1.5 2.2 3.0 3.4 5.5 7.5 10 15 20 22 3.0 40 5.0 Motor (HP) 0.5 1 1.5 2.0 3.1 3.8 5.1 7.2 9.0 13.0 17.0 25.0 32.0 37 45 60 75 75 75 9.0 10 15 5 2.0 32.0 37 45 60 75 75 75 9.0 10 15 5 2.0 32.0 37 45 60 75 75 75 9.0 10 15 5 2.0 32.0 37 45 60 75 75 75 9.0 10 15 5 2.0 32.0 37 45 60 75 75 75 9.0 11.4 16.7 21.9 26.0 35.0 32.0 37 45 60.0 75 72.0 Motor (HP) 60 75 75 9.0 110 132 160 200 22.0 25.0 35.0 38.5 46.5 62.0 72.0 Motor (HP) 60 75 10.0 125 15.0 17.0 25.0 32.0 38.0 38.5 46.5 61.0 45.0 18.0 Motor (HP) 60 75 10.0 125 15.0 17.0 25.0 32.0 38.0 38.0 38.5 46.5 61.0 45.0 Motor (HP) 60 75 10.0 125 15.0 17.0 25.0 32.0 32.0 38.0 38.5 46.5 61.0 45.0 Motor (HP) 60 75 10.0 125 15.0 17.0 25.0 32.0 32.0 38.0 38.5 46.5 61.0 45.0 Motor (HP) 60 75 10.0 125 15.0 17.0 25.0 32.0 32.0 38.0 38.5 46.5 61.0 45.0 Motor (HP) 60 75 10.0 125 15.0 17.0 25.0 32.0 32.0 32.0 38.5 46.5 61.0 45.0 Motor (HP) 60 75 10.0 125 15.0 17.0 25.0 32.0 32.0 32.0 32.0 38.5 46.5 61.0 45.0 125 1		Item						S	oecifica	tion							
Motor (HP) 0.5		TXXG(B)	0.4	0.7	1.1	1.5	2.2	3.0	3.7	5.5	7.5	11	15	18.5	22	30	37
Part		Adaption (kW)	0.4	0.75	1.1	1.5	2.2	3.0	3.7	5.5	7.5	11	15	18.5	22	30	37
Output Three-phase O-input voltage Three-phase O-input voltage Three-phase O-input voltage Three-phase O-input voltage Carrier frequency Carrier frequen	Output	Motor (HP)	0.5	1	1.5	2	3	4	5	7.5	10	15	20	22	30	40	50
The maximum of public change based on parameters South Edge Sout		current (A)	1.5	2.0	3.1	3.8	5.1	7.2	9.0	13.0	17.0	25.0	32.0	37	45	60	75
South Continue C		Output voltage	Three	e-phase	e O-inp	ut volta	ige										
Carline Carl		The maximum output frequency	500H	z (chan	ge bas	ed on p	aramet	ers)									
Rated in purpose the property of the property			0.8kH	lz−8.0k	Hz (car	rier free	quency	can be	automa	atically	adjuste	d accor	ding to	load ch	naracte	ristics)	
Rated voltage Rated input (VA)		capacity	150%	rated o	currenc	y for 60	s										
Rated output Outp		current (A)	1.8	2.4	3.7	4.6	6.6	9.0	11.4	16.7	21.9	26.0	35.0	38.5	46.5	62.0	72.0
Province			AC: three-phase 380V-480V, 50/60Hz														
Power capacity Powe	Inpu	range of voltage															
Heat dissipation 0.039 0.046 0.057 0.068 0.081 0.109 0.138 0.201 0.24 0.355 0.454 0.478 0.551 0.694 0.816	≒		±5%, actual allowable scope: 47.5Hz-63Hz														
Item TXXG(B) 45 55 75 90 110 132 160 200 220 250 280 315 355 400 450			2	2.8	4.1	5	6.7	9.5	12	17.5	22.8	33.4	42.8	45	54	52	63
Item TXXG(B) 45 55 75 90 110 132 160 200 220 250 280 315 355 400 450	Thermal		0.039	0.046	0.057	0.068	0.081	0.109	0.138	0.201	0.24	0.355	0.454	0.478	0.551	0.694	0.815
TXXG(B)	design		-	-	-	9	9	9	20	24	30	40	42	51.9	57.4	118.5	118.5
TXXG(B) 45 55 75 90 110 132 160 200 220 250 280 315 355 400 450 Adaption (kW) 45 55 75 90 110 132 160 200 220 250 280 315 355 400 450 Motor (HP) 60 75 100 125 150 180 220 275 300 340 380 430 485 545 618 Rated output current (A) 91 112 150 176 210 253 304 377 426 465 520 585 650 725 820 Output voltage The maximum output frequency Overload capacity Current (A) 89 106 139 164 196 240 287 365 410 441 495 565 617 687 782 Rated voltage Rated voltage Rated voltage Allowable fluctuation range of frequency Allowable fluctuation range of requency Power capacity (kVA) 81 97 127 150 179 220 263 334 375 404 453 517 565 629 716 Exhaust air rate (CFM) 12.2 12.2 218.6 287.2 354.2 547 627 638.4 722.5 789.4 882 645 860 860 860	Pr	otection level	IP20														
Adaption (kW) 45 55 75 90 110 132 160 200 220 250 280 315 355 400 450 Motor (HP) 60 75 100 125 150 180 220 275 300 340 380 430 485 545 618 Rated output current (A) 91 112 150 176 210 253 304 377 426 465 520 585 650 725 820 Output voltage The maximum output frequency 500Hz (change based on parameters) Carrier frequency Overload capacity Rated input current (A) 89 106 139 164 196 240 287 365 410 441 495 565 617 687 782 Allowable fluctuation range of voltage Allowable fluctuation range of voltage Allowable fluctuation range of voltage Allowable fluctuation range of frequency Power capacity Power capacity 81 97 127 150 179 220 263 334 375 404 453 517 565 629 716 (KVM) Exhaust air rate (CFM) 122.2 122.2 218.6 287.2 354.2 547 627 638.4 722.5 789.4 882 645 860 860 860 860 860 860 860 860 860 860		Item						Sı	oecifica	tion							
Motor (HP) 60 75 100 125 150 180 220 275 300 340 380 430 485 545 618 Rated output current (A) 91 112 150 176 210 253 304 377 426 465 520 585 650 725 820 Output voltage The maximum output frequency 500Hz (change based on parameters) 500Hz (change based on parameters) 500Hz (change based on parameters) 150% rated currency for 60s Rated input current (A) 89 106 139 164 196 240 287 365 410 441 495 565 617 687 782 Rated voltage Rated frequency AC: three-phase 380V-480V, 50/60Hz Allowable fluctuation range of voltage Allowable fluctuation range of voltage Allowable fluctuation range of frequency ±5%, actual allowable scope: 47.5Hz-63Hz Power capacity (kVA) 81 97 127 150 179 220 263 334 375 404 453 517 565 629 716 Motor (HP) 60 75 100 121 1.57 1.81 2.14 2.85 3.56 4.15 4.55 5.06 5.33 5.69 6.31 6.91 7.56 Exhaust air rate (CFM) 122.2 122.2 218.6 287.2 354.2 547 627 638.4 722.5 789.4 882 645 860		TXXG(B)	45	55	75	90	110	132	160	200	220	250	280	315	355	400	450
Rated output current (A) 91 112 150 176 210 253 304 377 426 465 520 585 650 725 820 000 000 000 000 000 000 000 000 000		Adaption (kW)	45	55	75	90	110	132	160	200	220	250	280	315	355	400	450
Current (Å) 91 112 150 176 210 253 304 377 426 465 520 585 650 725 820 Output voltage The maximum output frequency Carrier frequency Overload capacity Rated input current (Å) 89 106 139 164 196 240 287 365 410 441 495 565 617 687 782 Rated voltage Rated frequency Allowable fluctuation range of voltage Allowable fluctuation range of requency Power capacity 81 97 127 150 179 220 263 334 375 404 453 517 565 629 716 Heat dissipation 1.01 1.21 1.57 1.81 2.14 2.85 3.56 4.15 4.55 5.06 5.33 5.69 6.31 6.91 7.56 Exhaust air rate (CFM) 122.2 122.2 218.6 287.2 354.2 547 627 638.4 722.5 789.4 882 645 860 860 860		Motor (HP)	60	75	100	125	150	180	220	275	300	340	380	430	485	545	615
Voltage			91	112	150	176	210	253	304	377	426	465	520	585	650	725	820
The maximum output frequency 500Hz (change based on parameters)		Output voltage	Three	e-phase	e O-inp	ut volta	age										
Decided capacity 150% rated currency for 60s 150% rated curr	Outpu	The maximum output frequency	500H	z (chan	ge bas	ed on p	aramet	ers)									
Rated input current (A) 89 106 139 164 196 240 287 365 410 441 495 565 617 687 782			0.8kH	lz−8.0k	Hz (car	rier free	quency	can be	automa	atically	adjuste	d accor	ding to	load ch	naracte	ristics)	
Rated input current (A) 89 106 139 164 196 240 287 365 410 441 495 565 617 687 782			150%	rated o	currenc	y for 60	s										
Rated frequency Allowable fluctuation range of voltage Allowable fluctuation range of voltage Allowable fluctuation range of frequency Power capacity (kVA) Heat dissipation (kW) Exhaust air rate (CFM) Rated frequency -15-10%, actual allowable scope: AC 323 V-528V 47.5Hz-63Hz 220 263 334 375 404 453 517 565 629 716 481 97 127 150 179 220 263 334 375 404 453 517 565 629 716 482 645 860 860 860		Rated input	89	106	139	164	196	240	287	365	410	441	495	565	617	687	782
range of voltage Allowable fluctuation range of frequency Power capacity (kVA) 81 97 127 150 179 220 263 334 375 404 453 517 565 629 716 Heat dissipation (kW) 1.01 1.21 1.57 1.81 2.14 2.85 3.56 4.15 4.55 5.06 5.33 5.69 6.31 6.91 7.54 Exhaust air rate (CFM) 122.2 122.2 218.6 287.2 354.2 547 627 638.4 722.5 789.4 882 645 860 860 860		Rated frequency	AC: th	nree-pl	nase 38	80V-48	0V, 50/	60Hz									
Power capacity (kVA) 81 97 127 150 179 220 263 334 375 404 453 517 565 629 716 (kVA) 1.01 1.21 1.57 1.81 2.14 2.85 3.56 4.15 4.55 5.06 5.33 5.69 6.31 6.91 7.54 (CFM) 122.2 122.2 218.6 287.2 354.2 547 627 638.4 722.5 789.4 882 645 860 860 860	Inpu	range of voltage	-15-	10%, ad	ctual all	owable	scope:	AC 323	3 V-52	8V							
Heat dissipation (kW) 1.01 1.21 1.57 1.81 2.14 2.85 3.56 4.15 4.55 5.06 5.33 5.69 6.31 6.91 7.54	Et.	range of frequency	± 5%	, actua	ıl allowa	able sco	pe: 47.	5Hz-6	3Hz								
	J	(kVA)					179	220	263	334	375	404		517	565	629	716
	ermal de	(kW)															7.54
Protection level IP20 IP00	nDIS.		122.2	122.2	218.6	287.2	354.2	547	627	638.4	722.5	789.4	882	645	860	860	860
	Dr	otection level	IP20							IP00							

Technical Specification of Converter

	Item		Technical Specification					
	Frequency instruction	Digital setting: 0.01Hz; Simu	lation setting: the maximum frequency × 0.025%					
	Control mode	Open-loop vector control (S	SVC); Closed-loop vector control (FVC); V/F control					
	Starting torque	0.25Hz/150%(SVC); 0Hz	/180%(FVC)					
	Speed regulation range	1:200(SVC)	1:1000(fvc)					
	Precision of steady speed	±0.5%(SVC)	±0.02%(FVC)					
	Torque control precision	FVC: ±3%; SVC: 5Hz以	上±5%					
	Torque boost	Automatic torque boost; Mai	nual torque boost 0.1%-30.0%					
Е	V/F curve	Four modes: straight type; multi-point type; V/F totally separated; V/F not totally separated						
Basic functions	Acceleration and deceleration curves	Acceleration and deceleration mode of straight or S curve; Four kinds of acceleration and deceleration time with a range of 0.0–6500.0s						
ctions	DC brake	DC brake starting frequency: 0.00Hz-the maximum frequency; brake time: 0.0s-36.0s; Current value of brake action: 0.0%-100.0%						
	Inching control	Inching frequency scope: 0.00Hz-50.00Hz; Inching acceleration and deceleration time 0.0s-6500.0s						
	Simple PLC and multi-stage velocity operation		eration at most through internal PLC or control terminal					
	Internal PID	It can facilitate closed-loop	control system through process control					
	Automatic voltage adjustment (AVR)		natically maintained constant when grid voltage fluctuates					
	Over-voltage and over- current stall control	It will automatically limit the cover-current and over-voltage	urrent and voltage during the operation period to avoid frequent ge resulting in tripping					
	Fast current limiting function	Over-current fault can be minimized to protect the normal operation of converter						
	Torque limiting and control	It can automatically limit the torque during the operation period to avoid frequent over-current resulting in tripping; vector control mode can be used to control torque						
	Instantaneous stop does not work	Load feedback energy can compensate the voltage drop at the time of instantaneous outage and maintain the continuous operation of converter in a short time						
	Fast current limiting	It can avoid the frequent occurrence of over-current fault of converter						
	Virtual IO	Simple logic control can be realized through five groups of virtual DIDO						
Pe	Timed control	Timed control function: time scope of 0.0min-6500.0min can be set						
rson	Multi-motor switching	Switch control of two motors	can be realized through two sets of motor parameters					
alize	Multi-thread bus support	Six kinds of on-site bus can b and EtherCAT	e supported: Modbus, Profibus-DP, CANlink, CANopen, Profinet					
Personalized function	Over-heat protection of motor		selected and analog input Al3 can accept motor Γ 100 and PT 1000)					
ction	Multi-encoder support	It supports difference, open	collector, UVW, rotary transformer etc.					
	User programmable	User-programmable card can mode can be compatible with	be selected to realize secondary development and programmable the company's PC					
	Strong background software	It supports converter parameter operation and virtual oscilloscope function; Internal state of converter can be monitored through oscilloscope						
0	Operation instruction	Operation panel setting, control terminal setting, and serial communication port setting can be switched through multiple modes						
Operation	Frequency instruction	10 kinds of frequency instructions, pulse setting and se	ctions: digital setting, analog voltage setting, analog current rial port setting. It can be switched through multiple modes.					
ח	Auxiliary frequency instruction	10 kinds of auxiliary frequen synthesis can be flexibly rea	cy instructions. Auxiliary frequency fine-tuning and frequency lized.					

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	Item	Technical Specification
Ope	Input terminal	Standards: 5 DI terminals, among which 1 supports the 100kHz high-speed pulse input at most 2 AI terminals, among which 1 only supports 0–10V voltage input and the other supports 0–10V voltage input or 0–20mA current input expansion ability; 5 DI terminals 1 AI terminal supports –10V–10V voltage input and PT100/PT1000
Operation	Output terminal	Standards: 1 high–speed pulse output terminal (open collector type can be selected) supports 0–100kHz square signal output 1 DO terminal 1 relay output terminal 1 AO terminal supports 0–20mA current output or 0–10V voltage output
Dis	LED display	Display parameters
play a	LCD display	Optional. Operation contents are suggested in Chinese/English
Display and keyboard	Parameter copy	Parameters can be rapidly copied through LCD operation panel option.
	Key lock and function selection	It can be used to realize some or all locking of key and define action range of some keys to avoid maloperation
T	Open-phase protection	Input and output open-phase protection
	Instantaneous overcurrent protection	Stop when the rated input current is above 250%
	Over-voltage protection	Stop when the loop DC voltage is above 820V
Protection function	Under-voltage protection	Stop when the main loop DC voltage is below 350V
tion f	Over-heat protection	Protection will be triggered when inverter bridge is overheating
uncti	Over-load protection	Stop when operating with 150% of rated current for 60s
9	Over-current protection	Stop for protection when exceeding 2.5 times of rated current of converter
	Brake protection	Overload protection of brake unit and short-circuit protection of brake resistance
	Short-circuit protection	Short-circuit protection of output inter-phase and short-circuit protection of DC-GND
	Operation place	It shall be used indoors free from direct sunlight, dust, corrosive gas, combustible gas, oil mist, water vapor, dropping water or salt etc.
Env	Altitude	There is no need to derate when used below 1000m, 1% shall be reduced for every increase of 100m above 1000m. The maximum altitude shall not exceed 3000m and the manufacturer shall be contacted if the altitude exceeds 3000m (Note: 0.4–3kW driver shall not be used at an altitude greater than 2000m and the manufacturer shall be contacted if the altitude exceeds 2000m)
Environment	Environmental temperature	-10°C−+50°C . When the environmental temperature reaches 40–50°C, derating shall be used and 1.5% shall be derated for every increase of 1°C of environmental temperature
_	Humidity	Lower than 95% RH, without condensation
	Vibration	Smaller than 5.9m/s2 (0.6g)
	Storage temperature	−20°C~+60°C



MINI HIGH-PERFORMANCE VECTOR CONVERTER



Product introduction

Economical converter is a mini converter specially designed for the light industry and is characterized by its economy, small and exquisite appearance. It is as big as the palm, which greatly saves installation space and transportation cost. Advantages such as very cost-effective performance, strong function and convenient installation are popular with users. Besides, Converter is simple and fashionable, integrating technology and art. It can be used to drive various low-power motors (0.75–5.5KW), with very powerful function. It is widely used in various application fields of many countries and receives strong approval from customers. It is extensively used in spinning, printing and dyeing, carving, food processing and other industries.

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Product features

- ◆ Compact structure and easy installation
- ◆ It is designed in a down-in and down-out type, which is convenient for wiring inside the small control cabinet, with neat and beautiful layout
- ◆ It is equipped with an independent air duct and can be applied in dusty occasions
- ◆ It has internal standard 485 communication function
- ◆ Personalized design provides convenient wiring and durability

Technical parameters

- ◆ Input voltage: 1AC220V ± 15% 3AC220V ± 15% 3AC380V ± 15%
- ◆ Output power scope: 220V: 0.75kW-1.5kW, 380V: 0.75kW-2.2kW
- ◆ Output frequency: 0-300Hz. Product can be customized when the frequency is above 600Hz
- ◆ Input frequency: 47–63Hz and power factor ≥95%
- ◆ Operation command source: panel setting, terminal setting and RS485 communication setting
- ◆ Frequency setting source: panel digit setting, analog setting, RS485 serial communication setting, multistage simple PLC setting, PID setting etc.
- ◆ Overload capacity: 150% rated current for 60s and 180% rated current for 3s
- ◆ Carrier frequency: 1.0kHz-15.0kHz. It automatically adjust according to temperature and load characteristics
- ◆ Frequency resolution: digital quantity setting is 0.01Hz and analog setting is the maximum frequency multiplied by 0.1%
- ◆ Torque boost: manual torque boost 0-30%
- ◆ Inching operation: frequency scope: 0.0Hz-the maximum output frequency, inching acceleration and deceleration time: 0-3600.0s
- ◆ Simple PLC and multi-stage velocity operation: 8-stage velocity operation can be realized at most
- ◆ Automatic voltage regulation: Output voltage can be automatically maintained constant when grid voltage fluctuates

Application scenarios

- ◆ Textile, food and small processing center
- ◆ Bearing processing industry: super-finishing machine
- ◆ Water supply etc.

Schematic Diagram of Overall Dimension of Converter



Overall and Installation Dimension Table

Converter model	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)		
Converter model	Installation	dimension	Overall dimension				
SN580-0.75KW							
SN580-1.5KW	80	155	155 165 89 175 184 97	125			
SN580-2.2KW	80	155		89	125		
SN580-3.0KW							
SN580-3.7KW	0.7	175		0.7	136		
SN580-5.5KW	87	1/5		97			

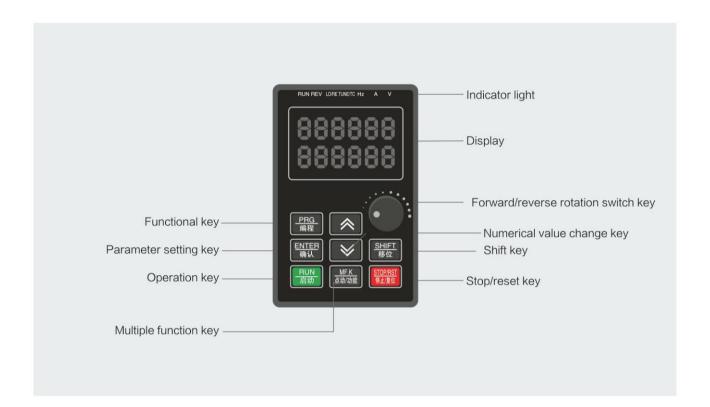
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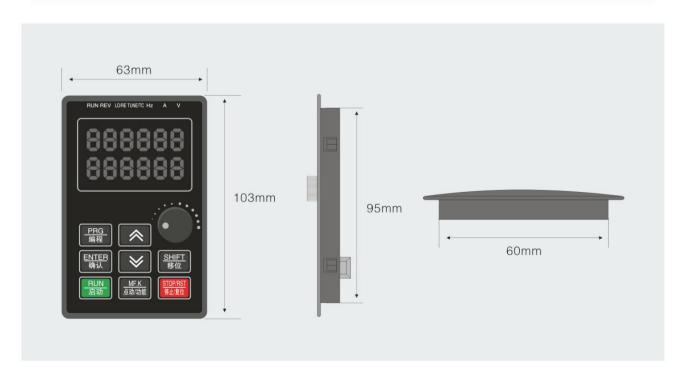




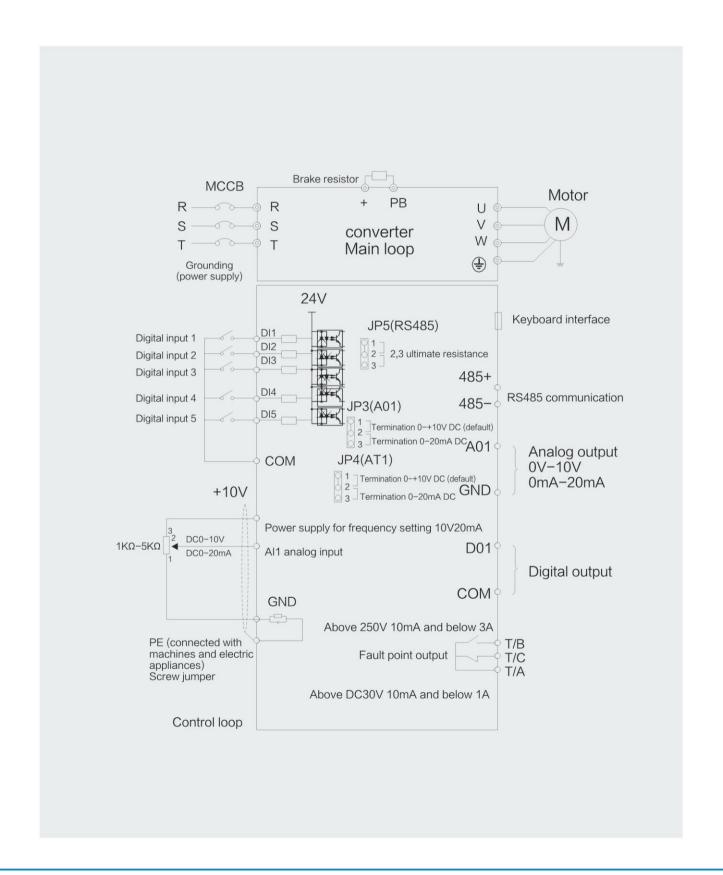
Keyboard key instruction



Keyboard frame dimension



Standard Wiring Diagram of Converter



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Technical Specification of Converter

Item	Technical specification					
Control system	Common current vector converter highly integrating performance and function					
Driving performance	High-efficiency drive induction motor					
Maximum frequency	Vector control: 0-500Hz					
Maximum requericy	V/F control: 0-3200Hz					
Carrier frequency	0.5KHz-16KHz					
Carrier frequency	Carrier frequency can be automatically adjusted according to load characteristics					
Input frequency	Digit setting: 0.01Hz					
resolution	Simulation setting: maximum frequency × 0.025%					
011	Open-loop vector control (SVC)					
Control mode	V/F control					
Ctartia a tarres	G model machine: 0.1Hz/150% (SVC)					
Starting torque	P model machine: 0.1Hz/100%					
Range of speed regulation	1:100 (SVC)					
Precision of steady speed	±0.5% (SVC)					
Overdend and an invite	G model machine: 150% rated current for 120s; 180% rated current for 10s					
Overload capacity	P model machine: 120% rated current for 60s; 150% rated current for 3s					
Torque boost	Automatic torque boost; Manual torque boost 0.1%-30.0%					
V/F curve	Three kinds of modes: straight type; Multi-point type; n-th power model V/F curve (1.2n power, 1.4th power, 1.6th power, 1.8th power and 2nd power)					
V/F separation	2 kinds of modes: totally separated and partially separated					
Curve acceleration and deceleration mode	Acceleration and deceleration mode of straight or S curve; Four kinds of acceleration and deceleration time with a range of 0.0–6500.0s					
	DC brake frequency: 0.00Hz-the maximum frequency; brake time: 0.0s-36.0s;					
DC brake	Current value of brake action: 0.0%-100.0%					
Inching control	Inching frequency scope: 0.00Hz-50.00Hz;					
Inching control	Inching acceleration and deceleration time 0.0s-6500.0s					
Simple PLC and multi- stage velocity operation	Realize 16-stge velocity operation at most through internal PLC or control terminal					
Internal PID	It can facilitate closed-loop control system through process control					
Automatic voltage regulation	Output voltage can be automatically maintained constant when grid voltage fluctuates					
Over-voltage and over- current stall control	It will automatically limit the current and voltage during the operation period to avoid frequent over-current and over-voltage resulting in tripping					
Fast current limiting function	Over-current fault can be minimized to protect the normal operation of converter					
Torque limiting and control	It has "excavator" characteristics and can automatically limit the torque during the operation period to frequent over-current resulting in tripping; closed-loop vector control mode can be used to control torque					

	Item	Technical specification		
Per	Instantaneous stop does not work	Load feedback energy can compensate the voltage drop at the time of instantaneous outage and maintain the continuous operation of converter in a short time		
Personalize functions	Fast current limiting	It can avoid the frequent occurrence of over-current fault of converter		
lize 1S	Timed control	Timed control function: time scope of 0.0min-6500.0min can be set		
	Command source	Operation panel setting, control terminal setting, and serial communication port setting. It can be switched through multiple modes		
	Frequency source	11 kinds of frequency sources: Keyboard potentiometer, digit setting, analog voltage setting, analog current setting and serial port setting. It can be switched through multiple modes.		
Operation		5 digit input terminals		
	Input terminal	1 analog input terminal		
		1 supports 0-10V voltage input or 0-20mA current input		
S		1 digital output terminal		
	Output terminal	1 rely output terminal		
		1 analog output terminal, supporting 0-10V and 0-20mA voltage output		
Displ keyt ope	Keyboard potentiometer	It is equipped with keyboard potentiometer		
Display and keyboard operation	Protective function	Short circuit detection of powered-on motor, open-phase protection of input and output, over-current protection over-voltage protection, under-voltage protection, overheat protection, overload protection etc.		
	Operation place	It shall be used indoors free from direct sunlight, dust, corrosive gas, combustible gas, oil mist, water vapor, dropping water or salt etc.		
Щ	Altitude	Below 1000m		
Environment	Suitable temperature	-10°C-+40°C (please derate for use under the environmental temperature of 40°C-50°C)		
ment	Humidity	When humidity is lower than 95%RH, the sewage drop will condensate		
	Vibration	Less than 5.9m/s (0.6g)		

Technical Parameters of Converter

Convertor model	Adaptiv	ve motor	Rated input	Rated output
Converter model	KW	HP	current	current
0.75KW-1	0.7	0.75	4.6	4.0
1.5KW-1	1.5	2	9	7.0
2.2KW-1	2.2	3	11.4	9.6
3.7KW-1	3.7	5	16.7	17.0
0.75KW-3	0.7	1	2.4	2.1
1.1KW-3	1.1	1.5	3.75	3.1
1.5KW-3	1.5	2	4.6	3.8
2.2KW-3	2.2	3	6.3	5.1
3.0KW-3	3.0	4	9.0	7.2
3.7KW-3	3.7	5	11.4	9.0
5.5KW-3	5.5	7.5	16.7	13.0

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SOLAR PHOTOVOLTAIC DRIVE INVERTER







Product introduction

A photovoltaic inverter is an inverter specially used in solar photovoltaic power generation systems. Its main functions include the following aspects:

- 1. Maximum power point tracking (MPPT): Photovoltaic inverters can achieve maximum power point tracking of solar panels through MPPT technology, thereby maximizing the power generation efficiency of solar panels.
- 2. Inverter function: Photovoltaic inverter can convert DC power into AC power to meet household or industrial power needs.
- 3. Data collection and monitoring: Photovoltaic inverters can collect data such as voltage, current, and power of solar panels, and realize real-time monitoring and management of the solar power generation system through the monitoring system.





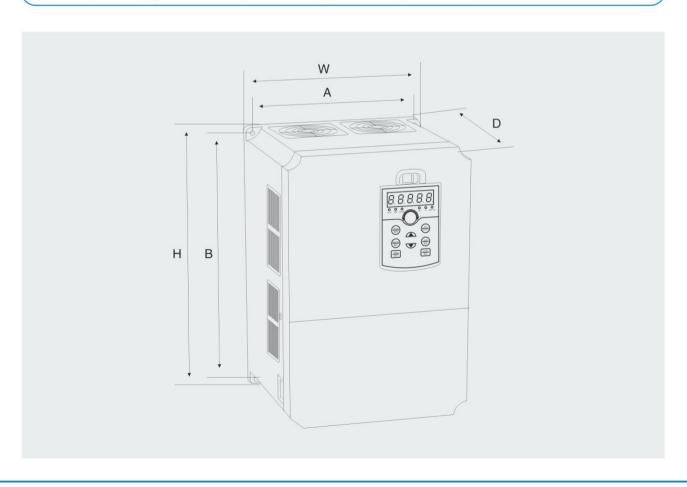
- 4. Communication function: The photovoltaic inverter can communicate with other devices through the communication interface, such as connecting to the power grid, connecting to the battery energy storage system, etc.
- 5. Safety protection function: Photovoltaic inverter can realize safety protection of solar power generation system, such as overvoltage protection, undervoltage protection, overcurrent protection, short circuit protection, etc.
- 6. Energy-saving function: Photovoltaic inverter can realize energy-saving control of solar power generation system by controlling the output power of solar panels.

In short, the photovoltaic inverter is an indispensable key equipment in the solar power generation system. The improvement and optimization of its functions can improve the efficiency and safety of the solar power generation system.

Application scope

Solar photovoltaic series V/F and vector control economical inverters are widely used in many fields, such as CNC machine tools, water pumps, textile machinery, etc.

Schematic Diagram of Overall Dimension of Converter



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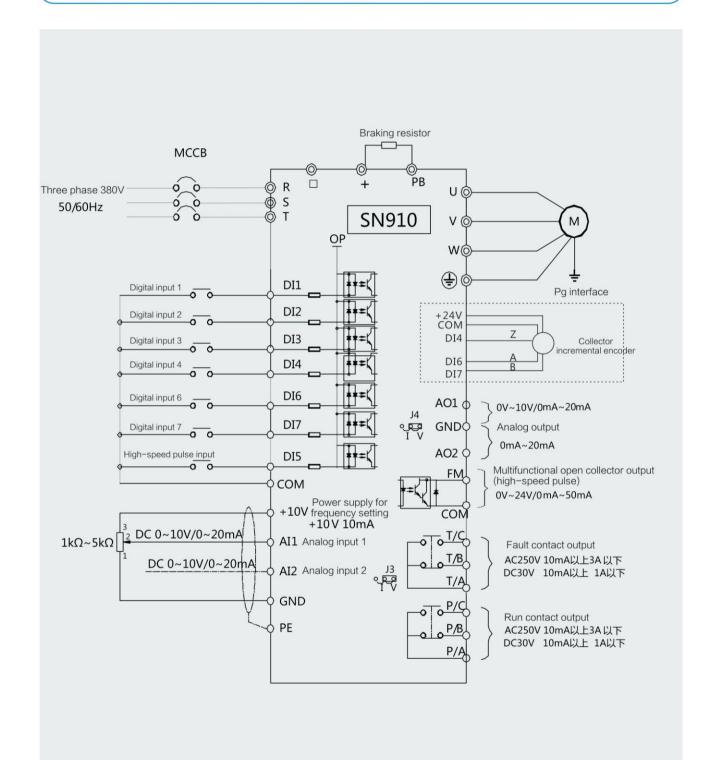




Overall and Installation Dimension Table

Converter model	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	Installation
	Installation dimension		Overall dimension			hole diameter (mm)
SN910-0D7G-4T						
SN910-1D5G-4T	115	173	185	125	163	4
SN910-2D2G-4T						
SN910-004G/5D5P-4T	136	230	245	150	175	5
SN910-5D5G/7D5P-4T						
SN910-7D5G/011P-4T						
SN910-011G/015P-4T		306	320	218	215	5
SN910-015G/018P-4T	201					
SN910-018G/022P-4T						
SN910-022G/030P-4T	175	400	410	220	190	6
SN910-030G/037P-4T	232	435	450	275	225	8
SN910-037G/045P-4T						
SN910-045G/055P-4T	200	550	570	325	265	8
SN910-055G/075P-4T						
SN910-075G/090P-4T	260	580	600	385	265	8
SN910-090G/110P-4T	260	630	650	385	300	8
SN910-110G/132P-4T						
SN910-132G/160P-4T	300	820	843	380	335	8
SN910-160G/185P-4T						
SN910-185G/200P-4T	390	880	903	520	335	10
SN910-200G/220P-4T						
SN910-220G/250P-4T						
SN910-250G/280P-4T	420	910	935	580	335	10
SN910-280G/315P-4T						
SN910-315G/350P-4T	420	928	954	625	335	10
SN910-350G-4T	-	-	1500	850	400	
SN910-400G-4T						
SN910-450G-4T						
SN910-500G-4T		-	1750	1000	400	
SN910-560G-4T	н					
SN910-630G-4T						

Frequency converter control loop wiring method



Note: The control loop wiring method of all frequency converters is the same. The above picture is a schematic diagram of the wiring of a three−phase 380V frequency converter. The terminal of indicates the main circuit terminal and of indicates the control loop terminal.

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BACKPACK CONSTANT PRESSURE WATER SUPPLY INVERTER







Product introduction

The backpack type constant pressure water supply inverter series is a dedicated inverter for constant pressure water supply with complete power. It has the advantages of complete power series, complete functions, excellent performance, complete protection measures, and user-friendly operation. The special frequency converter for constant pressure water supply inherits the advantages of the general frequency converter, and adds a high-performance control program for the constant pressure water supply system. Without the need for additional control equipment, the function of constant pressure water supply is realized, simplifying the water supply system and saving customers' costs.

It adopts variable frequency constant pressure water supply, which has the advantages of high efficiency, energy saving, stable pressure, reliable operation, simple operation, convenient installation, small area, low noise, no pollution, low investment and high efficiency.



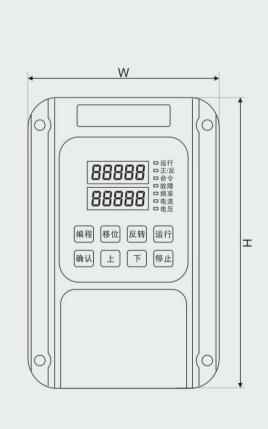


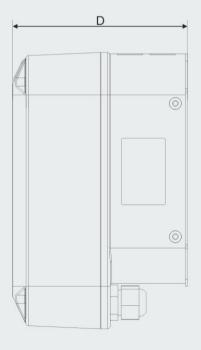
Application scope

Especially suitable for:

- 1. Domestic water supply and hot water heating systems in hotels, office buildings, apartments, residential areas and other places;
- 2. Fire water supply systems for high-rise buildings and large civil buildings;
- 3. Industrial and mining production enterprises;
- 4. Various types of water plants.

Schematic Diagram of Overall Dimension of Converter





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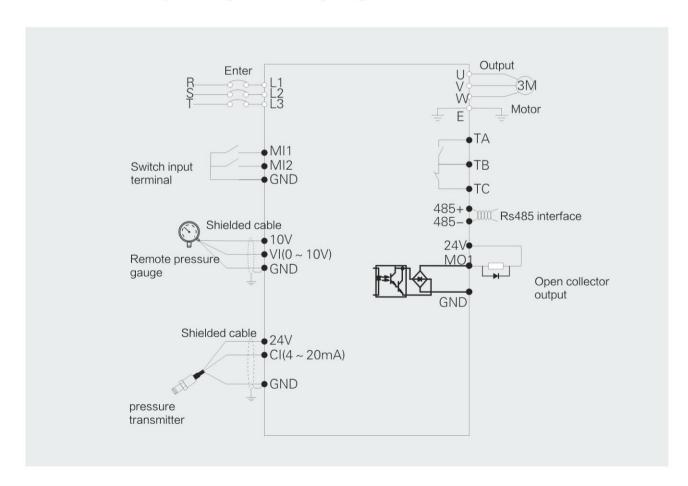


Overall and Installation Dimension Table

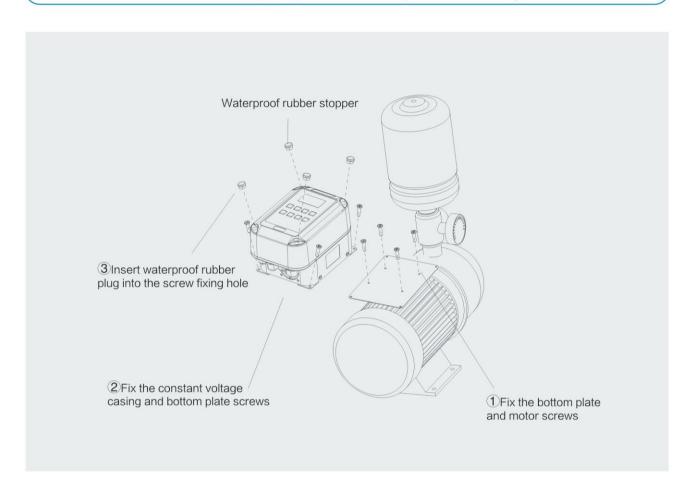
Converter model	H(mm)	W(mm)	D(mm)
Converter model	Overall dimens		
SN530-0.75KW/220V		135	123
SN530-1.5KW/220V			
SN530-2.2KW/220V			
SN530-0.75KW/380V	195		
SN530-1.5KW/380V			
SN530-2.2KW/380V			
SN530-4.0KW/380V		155	130
SN530-5.5KW/380V	235		
SN530-7.5KW/380V			

Basic wiring diagram

The wiring part of the frequency converter is divided into main loop and control loop. The user can lift the cover of the casing, and the main circuit terminals and control circuit terminals can be seen. The user must connect them accurately according to the following wiring circuits.



Installation and disassembly diagram of intelligent constant pressure machine



Rated current output meter

Voltage	single phase	Three phases		
voltage	220V	220V(240V)	380V(415V)	
Power(KW)	current(A)	current(A)	current(A)	
0.4	2.3	2.3	-	
0.75	4	4	2.8	
1.5	7	7	4.4	
2.2	9.6	9.6	5.8	
4	17	17	10	
5.5	25	25	13	
7.5	-	32	17	

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