

# **General Vector Control**

# **SSI900**

200V(Three-phase Power supply) 0.4~5.5KW 200V(Three-phase Power supply) 0.4~1.5KW







**Trancporte** 



**Packing machinery** 



**Agriculture machinery** 



**Automatic rolling shutter door** 



**Fitness facility** 

### **Advanced drive controlling**

### New non-sense vector control performance

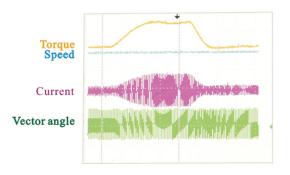
Occupational performance of non-sense vector control, timely lifiting load troque response, to satisfy customers broad torque load demand.such as conveyor application and so on.

Instantaneous power-off then restart, with acceleration, deceleration setting, let you have a safe movement in the area of opening loop control.

Function of lean PID control,torgue,slip compensation control,allowing you have a optimum performance when adjusting.

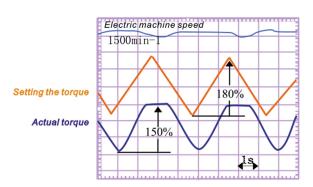
### Swift variety

Non-sense vector control,torque variety<20ms



### Torque limitation of protecting machine

Providing torgue limitation, when torque command more than the maximum torque machinery can bear, inverter can be more properly premise equipment safety protection torque limit play mechanical maximum efficiency within the set of maximum torque.



### The function of simple PLC

The function of simple PLC,can finish simple combination running of multiple section instruction

### Advanced drive controlling

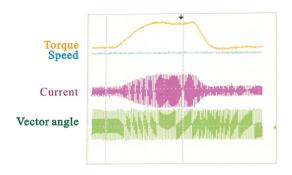
### New non-sense vector control performance

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### **Swift variety**

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### Restore user parameters

When debugging or misoperation resulting parameter confusion, can choose to restore default parameters, can also restore parameters that user conseve before, hard to cause the parameters of chaos

Restore default parameters

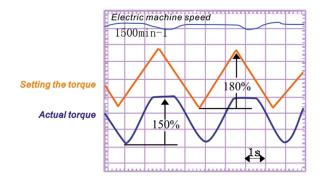
### Restore users parameters

### **Environmental design**

- With three-paint treatment process about dust-proof, moisture-proof,anti-mildew
- P Design of wide voltage range
- The whole series of independent design

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### Advanced self-learning function

Dynamic and static self-learning function, can give full play to drive performance in either way

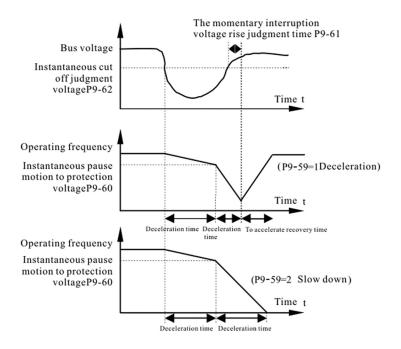
#### Ultra low noise

Overload frequency 1KHz~16KHz

### Provide support for stable operation

Even if the load or power fluctuations and even the momentary interruption will continue to run

With perfect of prevention stall function, can effctively prevent the motor stall. Without depening speed sensor can make the motor running state freely and Motor start easily, speed the search function and transient keep running function, can prevent the inverter from transient abnormal trip



### Perfact protection function

High accuracy current detection, can finish protecting function precisly and swiftly, complete overload prote ction(0L/0L1/0L2), over voltage/current stall prevent functional, short circuit to ground protection, abnormal rest, momentary outages tracking function, improve the operation continuity.

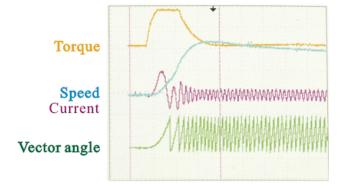
### **Envviromental protection performance**

Using SPW way, not only can suppress electromagnetic interfernce, also can reduce noise.

### The superior torque characteristics

Standard with the current vector control which is the level of the first. High starting torque is achieved 150% /0.5Hz, can also limit torque. In order to maximize the capacity of the motor, is also equipped with a self learning function.

### The superior torque charateristics



### Frequency setting potentionmeter

With frequency setting potentiometer: The operation frequency can be adjusted through the potentiometers, so the scene is very convenient to adjust frequency

Frequency setting potentionmeter



# Typical application

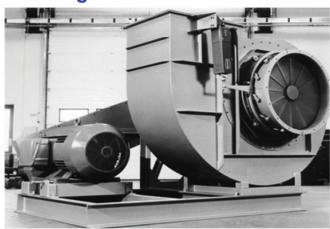


Fluid machinery

## Air conditioner



# Winding machine



### SSINVERTER

High-EFFECT! MINI! RELIABL!



Small machinery

# **Grinding machinery**



**Packing machinery** 

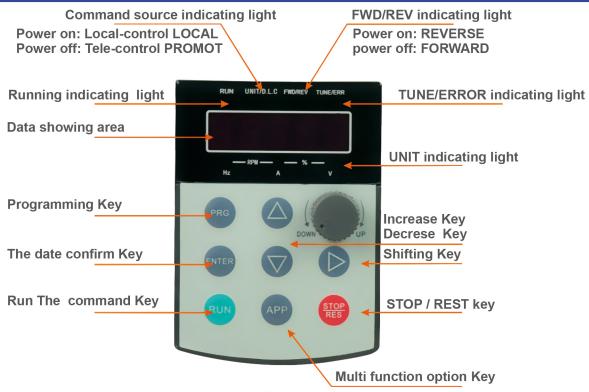
# **Light-duty press**



### **Method of operation**

# **Excellent of operating performance Fast setting**

#### All parts of name and function



### **KEY BOARD MENU**



#### **LED** instructions:

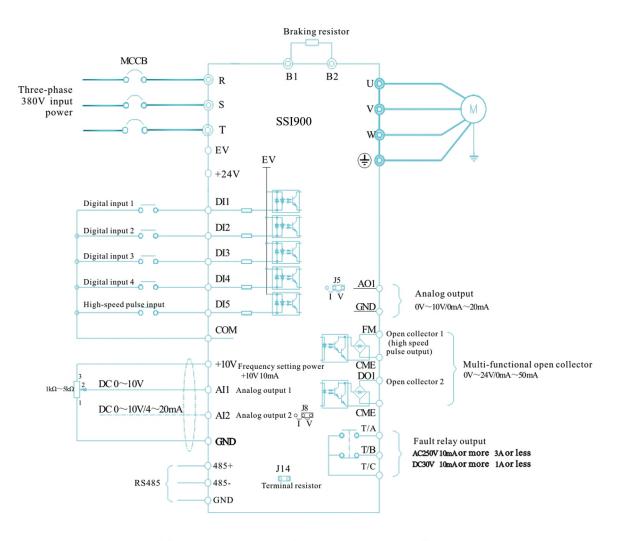
Indicator light	Light instctions							
Run	Running status indicating lighter: Power off indicates inverter is at stop; Power on indicates inverter is running;							
TUNE/ERR	TUNE/TORQUE CONTROL/ERR indicating lighter Power on indicatestorque control, lighter slow flash indicates TUNE,lighter qick flash indicates ERROR							
FWD/REV	Power off indicates FORWARD operation Power on indicates REVERSE operation							
UNIT/D.L.C	Power off indicates KEY CONROL Power on indicates TERMINAL CONTROL Lighter flash indicates serial communication operation							
Hz	a unit of frequency UNIT:Hz							
Α	Current indicating Lighter,Unit:A							
V	Votage indicating lighter:Unit:V							
RPM	Both lighter of Hz and A are on is ROLLING SPEED indicating lighter, UNIT: RPM							
%	Both lighter of A and on is PERCENT UNIT %							

#### **SSInverter**

High-EFFECT! MINI! RELIABL!

#### Standard wiring diagram

#### **DIAGRAM OF THREE-PASE INVERTER WIRING:**



Three-phase inverter wiring schematic

#### Note:

- 1.Terminal means main circuit terminal, means control circuit terminal
- 2.Bracking resistor according to the needs of users, detail see the braking resistor selection guide.

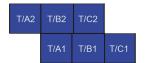
### Terminal wiring diagram

### Main circuit terminal marking instructions

Purpose	Terminal
Main circuit power input	R,S,T
Inverter output	U,V,,W
Braking resistor wiring	B1,B2
Grounding	=

### Control terminal marking instuctions

G	ND +10V AI1 AI2		Al2	DI2		DI3		DI3 DI4			DI5	СОМ				
	48	5+	4	85-	G	SND	F	401	CME	I	DO1	FN	1	+24\	<	ΕV



### Control terminal marking instructions

Туре	Terminal mark	Terminal name	Function instructions			
	+10V-GND	External power supply +10V	The external power+10V,the maximum output current:10mA,generally used for external potentiometer power,potentiometer resistance range:1K $\Omega$ ~5K $\Omega$			
Power	+24V+COM	External power supply +24V	The external power+24,Generally using for inputting and outputting terminals working power & External sensor power maximum output power:200mA			
	EV	External power input terminal	Default connecting with+24 ,when using external voltage signal drive DI1~DI5, Evneed to connect wit external power, also unpin the connector EV and +24.			
ijΑ	AI1-GND	Analog input terminals 1	1.lnput voltage range:DC0V~10V 2.input impedance;22kΩ			
Analog input	Al2-GND	Analog input terminals 2	1. Input range:DC0+10v/4Ma~20Ma,control board J8 jumper selection 2. input impedance:input voltage,22K $\Omega$ input current500 $\Omega$			
Digital input	DI1 DI2 DI3 DI4	Digital input 1 Digital input 2 Digital input 3 Digital input 4	1.Optocoupler isolation,Compatible bipolar input 2.Input impedance 2.4K $\Omega$ 3.voltage range when inputting electrical level:9V $^{\sim}$ 30V			
but	DI5	High-speed pulse input terminal	naddition to a DI1~DI4 function ,can also be used as a high-speed pulse input,the maximum input frequency:100KHz			
Analog output	AO1-GND	Digital output terminal 1	Selected by the control board J5 jumpers, output voltage range:0V~10V; output current range:0mA~20mA			
Digital output	DO1-CME	Digital output 1	Optocupler isolation bipolar open-collector outputs output voltage range:0V~24V output current range:0mA~50mA			
output	FM-CME	High pulse output	By the restrict of function code P5-00" FM terminal output style choice.as the high speed pulse output,the highest frequency to 50KHz; when used as open-collector output and same to DO1 function			
Re	T/A-T/C	Normally open terminal	Contact driveing ability:			
Relay output	T/B-T/C	Normally closed terminal	AC250V, 3A CŎS⊘=0.4 DC 30V, 1A			

### SSInverter

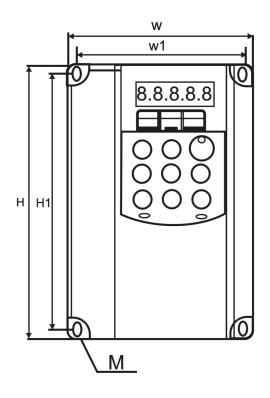
### HIGH-EFFECT! MINI! RELIABLE!

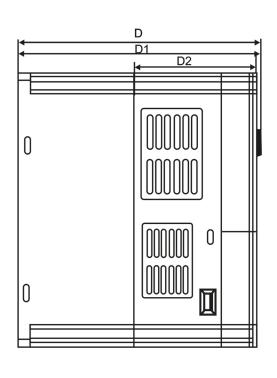
# Standard Specification

	TYPE	Ļ		SPEC	FICATION	S							
	A700	0.5	1	2	3	5	7.5						
2	Horsepower capacity (HP)	0.4	0.75	1.5	2.2	3.7	5.5						
220V	Rated power (KW)	1.5	3.0	4.0	5.9	8.9	17						
	Rated capacity (KVA)	2.1	3.8	5.1	9.0	13	25						
	Horsepower capacity (HP)		1	2	3	5	7.5	10					
ယ	Rated power(KW)		0.75	1.5	2.2	3.7	5.5	7.5					
380V	Rated capacity (KVA)		1.5	3.0	4.0	5.9	8.9	11					
	Rated current(A)		2.1	3.8	5.1	9.0	13	17					
	The highest frequency	V/F control :0~3	200Hz ,vector cor	ntrol:0~320Hz									
	Carrier frequency	0.5KHz~16KHz	according to the	oad characteristi	cs,can be adjuste	d carrier freque	ncy automatical	ly.					
	The input frequency	Digital setting:0	0.01Hz;simulation	setting:the highe	st frequency*0.02	5%							
	resolution	Open loop vector control(SVC),V/F control											
	Control mode												
	Starting torque	0.5Hz/150% (SVC)											
	Speed range	1:100 (SVC)											
	The steady speed precision	+/-0.5%(SVC)											
	Overload capacity	150%rated current 60s;180% rated current 3s;											
	Torque boost	Automatic torque boost:manual torque boost0.1%~30.0%											
	V/F curve	In three ways:straight,multi-point type ,square type,											
	Acceleration and deceleration curve	lincear or S cure acceleration and deceration mode: four Kinds of acceleration and deceleration time; acceleration and deceleration time range 0.0~6500.0s											
	DC brake	DC braking frequency:0.00Hz~the maximum frequency;the braking time :0.0s~36.0s, braking action current value:0.0%~100.0%											
	Motor-driven control	Dynamic frequency range:0.00Hz~50.00Hz;motor-driven acceleration and deceleration time:0.0s~6500.0s											
Per	Simple PLC,multi-speed operation	Through the built-in PLC or control terminal to achieve 16 speed at most											
sonali	Built-in PID	Can be convenient to realize closed-loop control of process control system)											
Personalized function	Automatic voltage regulator(AVR)	When the power voltage changes,automatically keep the output voltage constant											
nction	Overvoltage and overcurrent stall control	Current and voltage automatically limit during the operation, prevent frequent over-voltage and over-current trip											
	Fast current Limiting function	Maximum limit reduce overcurrent faults,protect the inverter operation											
	Torque limit and control	"excavator" characteristic, the automatic torque limit during the operation, pravent frequency over-current trip											
	Power on peripheral equip ment safety self-inspection	can be realized on the peripheral devices safety inspection, such as grounding, short											
	Common DC bus function	can realized m	ultiple inverters of	common DC bus	function								
	Textile swing frequency control	multiple delta f	requency control										
	Timing control	timing control	function:set the ti	me range 0h~655	35h								
	Run the command channel		:Operation panel ( ety of mode switc		ninal given,seial c	ommunication	port terminals aı	e given.					
	The frequency of the source	total of 10 Kinds of frequency source:given digital,analog voltage given,analog current given,pulse given, serial port given.through a variety of mode switching)											
	Auxiliary frequency source	10kind of auxil	iary frequency sou	ırce.Flexible to re	alize the frequenc	cy tuning,freque	ency synthesis						
Run	The input terminal		ıt,one may make t ut terminals,one c					or current input					
	The output terminal	a high-speed pulse output terminal (optional for open collector type), 0KHz~100KHz square wave signal output, can realiz output frequency setting,the output freqency and other physical quantity; an analog output terminals,respectively, the optional 0.4mA~20m Ahuo 0/2V~10V,the output can be set frequency, the output freqency and other physical quantity,											
	The use of occasions	indoor,not dire	ct sunlight,no dus	t , corrosive gas,	flammable gas,oil	mist,water vap	or,water or salt e	etc.					
g	Altitude	below 1000m											
ıviro	The environment temperature	-10C~+40C(The	environment temper	ature At 40C~50C	ambient tempera,an	nunt to use )							
Environment	Humidity	below 95%RH,no	beads of condens	ation									
표	Vibration	below 5.9m/s2(	0.6g)										
	Storage temperature	-20°C~+60°C											

### Installation size

Machine outline and installation (unit:mm)



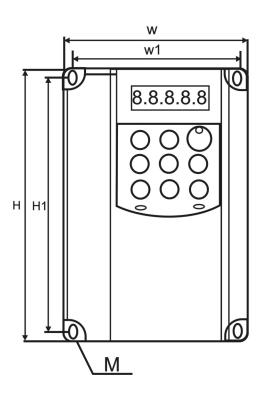


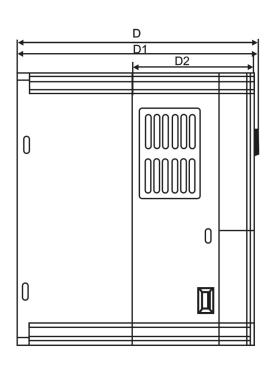
Specification type	votage	Н	H1	w	W1	D	D1	D2	М
SSI900-0R4(0.4kw) SSI900-0R7(0.75kw) SSI900-1R5(1.5kw) SSI900-1R2(2.2kw)	AC220V	185	173	125	163.5	163.5	160.5	81.5	M4
SSI900-0R7(0.75kw) SSI900-1R5(1.5kw) SSI900-2R2(2.2kw) SSI900-3R7(3.7kw)	AC440V	185	173	125	115	163.5	160.5	81.5	M4

### **SSInverter**

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Machine outline and installation size (unit:mm)
Size 2:





Spec	cification type	votage	Н	H1	w	W1	D	D1	D2	М
	00-3R7(3.7kw) 00-5R5(5.5kw)	AC220V	245	231	150	136	179	176	83	M5
	00-5R5(5.5kw) 00-7R5(7.5kw)	AC440V	245	231	150	136	179	176	83	M5

#### **Product assurance**

#### Warranty

#### Solemn promise:

Starting from the date of the users to purchase the products of our compony (vendor), Customer can enjoy the following after sale service:

- 1. Starting from the date of the users to purchase the products of our company, customer can enjoy one year of free equipment warranty(except exports sold abroad and nonstandad product)
- 2. Starting from the date of the users to purchase the products of our company, if any quality problems in one months, we promise returned or replacement, repair Kits
- 3. Starting from the date of the users to purchase the products of our company, if any quality problems in three months,we promise replacement,repair Kits
- 4. Starting from the date of the users to purchase the products of our company,custumer can enjoy a pay-needed maintenance service for life
- 5. Escape clause:product failures due to the following causes are of range of free equipment warranty (one year):
  - 1) The breakdown caused by the manipulation that has not follow the request of product manual
  - 2) Failures caused by repair the product and modify the product without authorization
  - 3) Failures caused by using beyond the stand range
  - 4) Failures cause by bad environment conditions
  - 5) Failures caused by earthquake, fire hazard, lightning stroke, other natural disasters.
  - 6) Failures damaged in the course of transportation(transportation selection by the customer,our company can provide the service of transportation)
- 6. In the following situations, our company have the right to provide support services:
  - 1) The trademark demaged or cannot be recognized
  - 2) Failed to meet the payment requirement
  - 3) Failures caused by repair the product and modify the product without authorization

### Beyond the Line of Duty

Because of the fault of the company's products, bring your company or the customer of your company the opporatunity loss.

and the damage cause by your company `s products, whether in the guarantee period, are not belong to scope of the guarantee.



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