

# S800 Series Inverter General mini type (IM)

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## COMPANY PROFILE



Savch Electric Co., Ltd was set up in Quanzhou, Fujian province in 2001 and established a research and development center in Shanghai. It is one of the first few companies to develop and produce motor drives in China. In 2005, it became China's top ten inverter brands. The company relies on a strong R & D team and world-class power electronics production and quality control system (OEM for top international brand) to provide customers with high-performance servo drives, inverters, computer controllers and other industrial control products.

The company focuses on the frontier technology fields of "industrial intelligence, energy saving, green energy" , and adheres to the core goal of "creating value for customers" , and establishes a technical R&D team that highly conforms to customer industry characteristics and highly integrated mechatronics and provide more efficient and resource-efficient system solutions for various industries customers. For the pass years, the company has established a global equal and close cooperation agent system, and customer service system with user satisfaction as an indicator, widely used in ceramics, packaging, textile, dyeing and finishing, engineering upgrading, lifting, road, CNC machine tools, glass, mining, petroleum, shipbuilding, military and even farming and animal husbandry and other equipment fields.

S800 series inverters are the upgraded products of the last series with more specific functions. The friendly interface and the considerate operation methods offer the great convenience to the users.

## Instruction



### Professional control program

- Customized core calculation program, smooth shift on forward and reverse running, Auto torque and slip compensation.

### Lower heat generation

- Advance 3phase to 2phase shift technology, reduce 33.3% of heat generation.

### Faster calculation speed

- Adopt nanometer production techniques, built-in dual core CPU improves the calculation speed greatly.

### Flexible combination

- Optional Keypad, customized I/O interface, introduces great convenience to the users.

### Reliability

- Protection: Over voltage (OU), low voltage (LU), over current (OCA / OCD / OCN), over heat (OH), over load (OL) etc.
- Over voltage / over current tall prevention.
- Exposed cooling fin with better heat dissipation effects.
- 3 sections of prohibited frequency could avoid resonance effectively.

### Great Performance

- Auto torque compensation-available to reach 150% when the start torque is 3HZ.
- Auto slip compensation-more accurate speed.
- Low noise-motor runs more stably.
- Great over load performance-available to run 65s on 150%of rated torque.

### Functions Description

- Main / auxiliary frequency superimposed control.
- Pulse input frequency control (Selective).
- Many stop methods (STOP key, AVI zeroing stop).
- Display: Voltage, current, set frequency and the actual frequency, rotation (User defines).
- Wobble frequency
- Available to achieve 16 sections of program running with built-in PLC.
- Other functions: power lost memory, reverse running prohibition, AVR, DC braking, acceleration and deceleration auto adjustment, password protection on parameter.
- Extended keypad could achieve parameter copy.

### Input Output

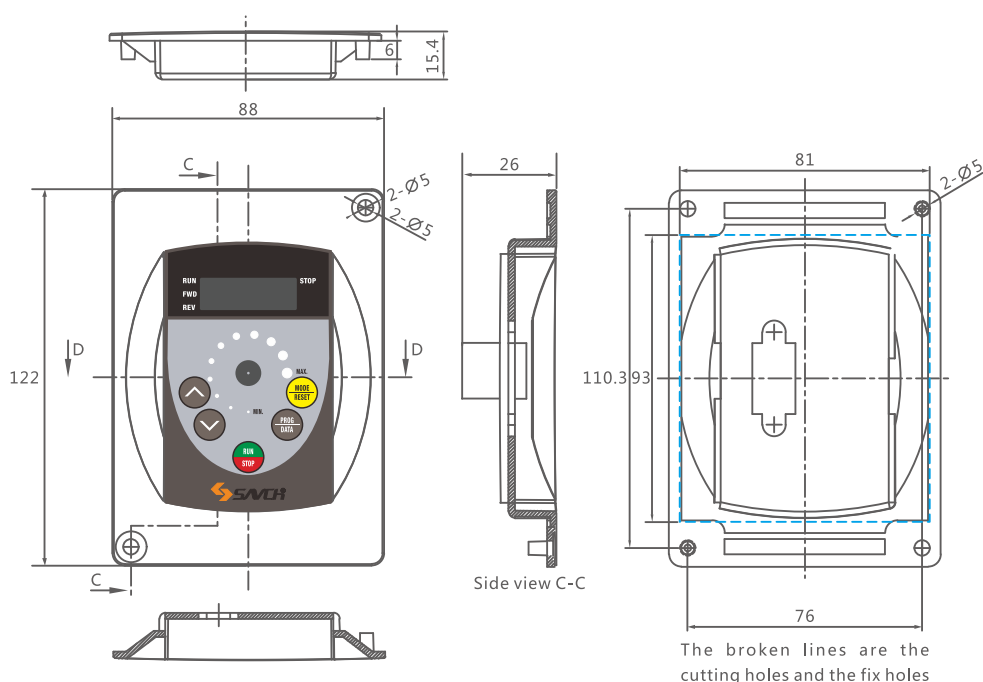
- Input : 2 line / 3 line control , external EF , UP / DOWN , program running auto control , counting , pulse input , control running direction with FWD / REV triggering.
- Output: FWD / REV running indication, counting arrival indication, program running indication, frequency arrival indication, over torque indication, low voltage indication.

## Model description

<b>S</b>	<b>800</b>	<b>–</b>	<b>2S</b>	<b>1.5</b>	<b>G</b>
SAVCH	Products series		2S : 220V Single phase	0.2 : 0.2kW 0.4 : 0.4kW 0.75 : 0.75kW With actual frequency	G: General use

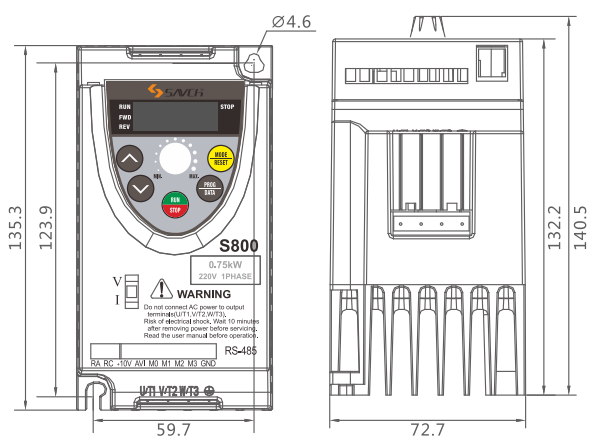
## Operation keypad

Dimension (Unit: mm)



## External Dimensions

External Dimensions of inverter (Unit: mm)



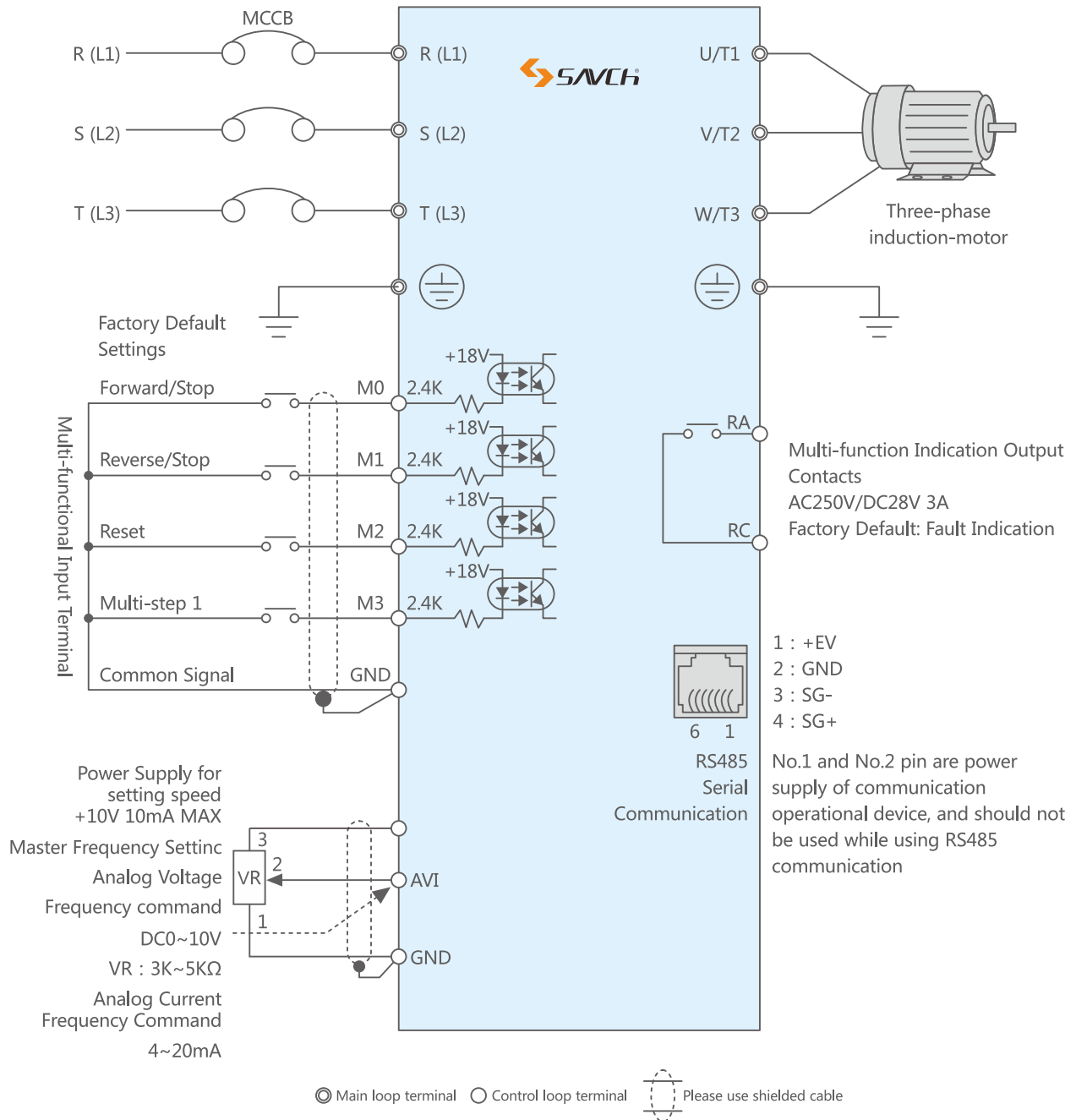
Inverter Size (Unit: mm)

Type	S800-2S0.2G~0.75G
W	72.7
H	135.3
D	140.5
W1	59.7
H1	123.9

# Product Specification

Item			Specifications		
Level of input voltage			220V		
Type S800-2S			0.2G	0.4G	0.75G
Applicable motor power(kW)			0.2	0.4	0.75
Output	Rated output capacity(kVA)		0.6	1.0	1.6
	Rated output current (A)		1.6	2.5	4.2
	Maximum output voltage(V)		Correspond to input voltage		
	Range of output frequency(Hz)		0.1 to 400Hz		
Power	Rated input current (A)		4.9	6.5	9.7
	Permissible variation range of input voltage		Single phase power. 200 to 240V. 50/60Hz		
	Variation range of power frequency		5%		
Controlling Characteristics	Control mode		V/f and static vector regulation (carrier frequency 2KHz-10KHz)		
	Output frequency resolution		0.1Hz		
	Torque characteristics		There is torque compensation, slip compensation and at 3Hz the activating torque can reach above 150%.		
	Tolerance of overload		150% of the rated output current , 60 sec		
	Acceleration/deceleration time		0.1-600 sec (can have independent settings respectively)		
	V/f curve		Setting 6 fixed curves + any V/f curves		
	Action position standard of avoiding losing speed		Setting with the percentage of rated current , 20-200%		
Operation Characteristics	Frequency setting signal	Panel operation	Setting by▲▼ buttons or V.R		
		External signal	AVI / ACI setting , UP / DOWN setting ,communication setting , pulse input setting		
	Running operating signal	Panel operation	Setting by RUN , STOP buttons		
		External signal	M0,M1,M2 and M3 form run of various run modes;RS485 communication port		
	Multifunction input signal		Selection of section command 0-15. FWD/REV inching motion command, acceleration/deceleration prohibition command, switching command of first and second acceleration/deceleration. Selection of counter, program run, external b.b (NC, NO), Pulse input. two kinds of 3-line wiring modes, output prohibition		
	Multifunction output signal		During run , run frequency arrival , Setting frequency arrival , counter arrival , zero speed , abnormal displays in b.b, program run command , FWD / REV running direction command		
Other functions			Swing frequency function, 16-level speed PLC programmed run, AVR function, S-curve, avoid losing speed of over voltage, check of abnormal records, adjustment of carrier frequencies, setting of REV prohibiting, DC braking, Setting of re-start after transient power-off using starting frequency, Setting of frequency upper and lower limits, parameter locking/reset		
Protection Functions			Over voltage ,over current, low voltage, limit of over load, electronic thermoelectric station, overheating, self-testing, grounding protection ,abnormal contact		
Cooling mode			Natural cooling		
Environment	Installation height		Height below 1000m, indoor, (free of corrosive gas , liquid and dust filth)		
	Environment temperature		-10℃~40℃(no dewing and no freezing)		
	Storing temperature		-20℃~+60℃		
	Environment dampness		Below 90%RH without moister		
	Vibration		Under 20Hz 9.80665m/s² (1g), 20 to 50Hz 5.88 m/s² (0.6g)		

# Basic wiring diagram








※ The main circuit terminal of the single-phase model takes R / L1 , S / L2 as the input power port.



## Application

Satisfy the needs of low frequency drive needs, especially the use of middle and small machines. The flexible combination could meet the requirements of matched development and achieve the machinery automation. Many fields could introduce these series.


Industry	Examples
 <p>Logistics equipment</p>	<p>Assembly line, conveying equipment, auto storage &amp; transport equipment.....</p>
 <p>Electronic manufacturing equipment</p>	<p>Winding machine, wave soldering machine, PCB equipment, foam mechanical equipment, small plastic machinery.....</p>
 <p>Machine tools equipment</p>	<p>Engraving machine, centerless grinder, line cutting machine. EDM machine.....</p>
 <p>Textile machinery</p>	<p>Small flat knitting machine, glove machine, winding machine, spreading machine, loom.....</p>
 <p>Others</p>	<p>Stone cutting machine, washing machine, printing equipment, pharmaceutical machinery, food machinery, medical equipment, fitness appliance (treadmill, body shaping machine), screen print machine, fan &amp; water pump (water supply).....</p>

## COOPERATIVE CLIENT




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**Qualification**  
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