

SOWAKAM

SW100 Series

Book Type

Variable Frequency Drive

www.sowakam.com



SOWAKAM

Book Type
Variable Frequency Drive



Certified

Satisfies CE certification
Satisfies International
standard: EN61800-3

Easy to use

Support parameter copy
Support panel external
reference

Stable and reliable

Spray UV paint
Strong environmental adaptability,
stable and reliable

Strong function

Support synchronous
asynchronous motor drive
Book type saves space

Wide voltage range

Single phase 200-240
Three phase 380-480

Multiple control methods

V/F
SVC
MPPT



SW100 Advantage

Easy to use

Panel

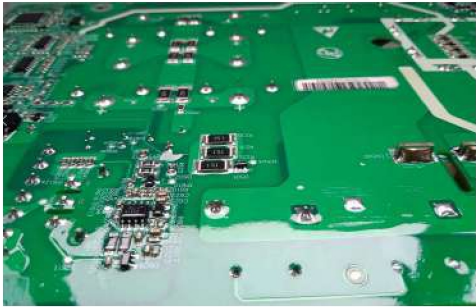
Support parameter copy
Support panel external reference



Stable and reliable

UV paint

Automatic spraying of UV paint, uniform coverage, smoother and more delicate



Strong function

Synchronous & asynchronous motor integrated

Compatible with synchronous machine and asynchronous machine, energy-saving transformation is effortless



Synchronous motor



asynchronous motor



MOTOR TYPE :

CONTROL MODE :

Synchronous motor

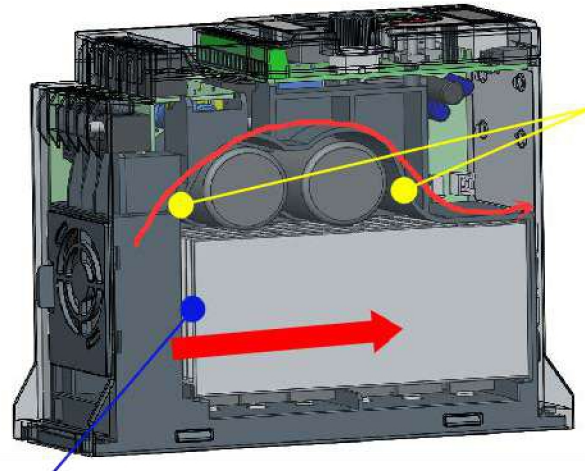
SVC, VF, MPPT

asynchronous motor

SVC, VF, MPPT

Book Type

The PCBA and the air duct are fully isolated, and both sides are fully enclosed, resisting various harsh pollution environments

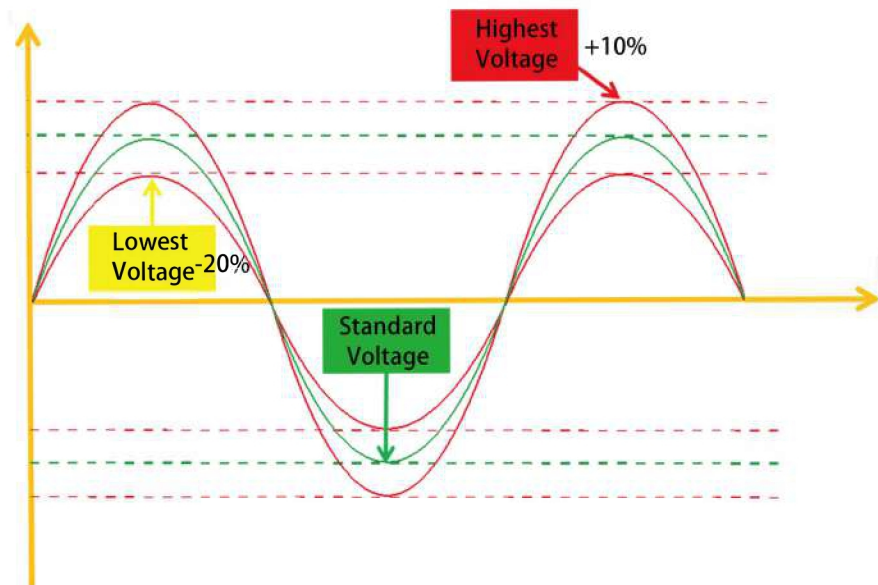


Wide voltage range

Wide area of use

- Support single phase 200-240V AC
- Support three-phase 200-240V AC
- Support three-phase 380-480V AC
- Can be used at -20% ~ +10% of the above voltage

Comply with most national grid standards

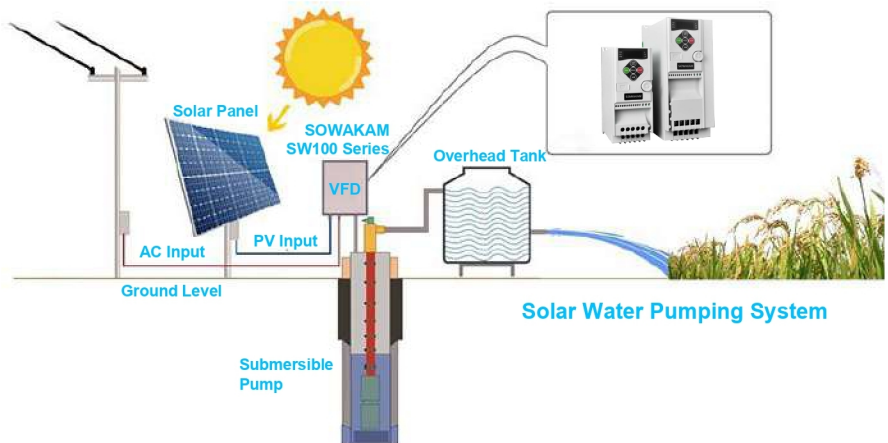


Multiple control methods

SVC V/F MPPT

MPPT

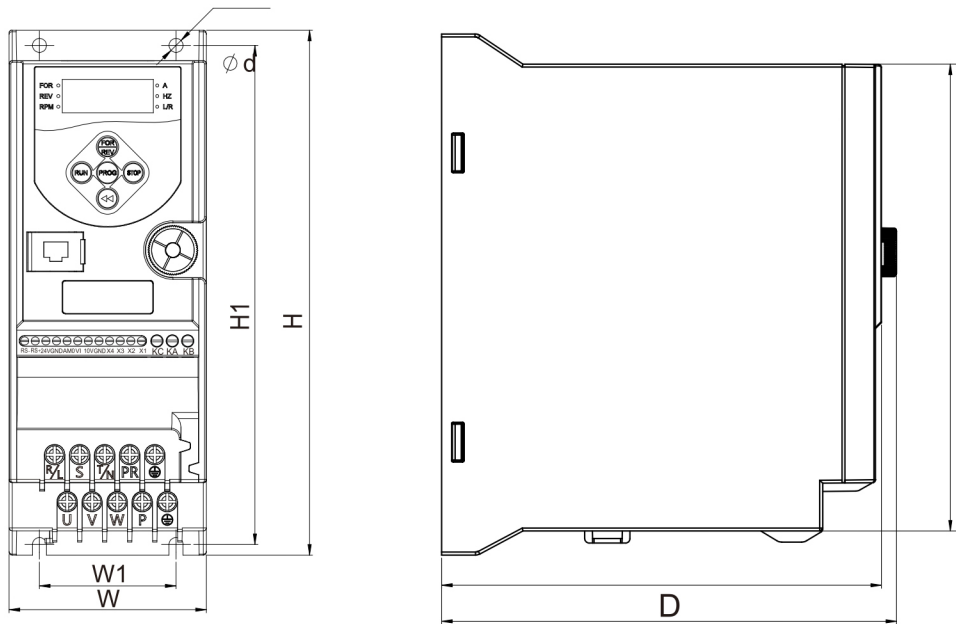
- Comprehensive voltage level Support single phase/three phase 220V, and three phase 380V solar water pump VFD
- Easy to use Simply connect the photovoltaic panel to the VFD, few parameters need to be set, and the PV pump can be automatically started after power-on





Appearance and Installation Size

0.4-7.5KW Shape



Product Mode	Machine Dimensions			Installation dimensions		
	H	W	D	H1	W1	d
Single phase 220V 0.4KW Single phase 220V 0.75KW Single phase 220V 1.5KW Single phase 220V 2.2KW	173	65	151	165	45	4.6
Single phase 220V 3.0KW Single phase 220V 4.0KW	219	85	164	211	65	4.6
Three phase 380V 0.4KW Three phase 380V 0.75KW Three phase 380V 1.5KW Three phase 380V 2.2KW Three phase 380V 3.0KW	173	65	151	165	45	4.6
Three phase 380V 4.0KW Three phase 380V 5.5KW Three phase 380V 7.5KW	219	85	164	211	65	4.6



SW100- Specification

Name		Specification
Input Power	Voltage	1PH/3PH 200~240V -20%~+10%; 3PH 380~480V -20%~+10%;
	Frequency	48-62HZ;
	Max Unbalance	3%;
Output Power	Output Voltage	3PH 0~240V/0~480V;
	Output Frequency	Vector control;V/F:0-600Hz;
Main Control Function	Control Mode	V/F,Vector control; MPPT
	Start Torque	0.5Hz 150%;
	Overload Capacity	150% Rated output current(60s) , 200% Rated output current(1s);
	Carrier Frequency	V/F: 2K~ 16kHz, Vector: 2 K~ 10KHz;
	Speed Setting Resolution	Digital: 0.001Hz; Analog: 0.5% of Max Operation Frequency;
	Open Loop Speed Control Accuracy	30~4000rpm:Error±8rpm;
	Control Command Source	Operate Panel, Digital Terminal; Communication;
	Set Frequency Source	Panel; Analog; Pulse; Communication;
Acceleration and Deceleration time	4 Groups Acceleration and Deceleration time is 0.05-3600.00S;	
Basic Function	Torque open loop control, Motor self-learn, Motor Pre-excitation, Motor Rotation Compensation, Automatic Load Compensation, Automatic Voltage Stabilizing Function, Multi-Point V/F curve, Acceleration and Deceleration Curve, DC Braking, AC Braking, Rotation Speed Limited, Current Limited, Torque Limited, Frequency Tracking Start, Auto Reset Restart, JOG Control, External Control of Multistage Speed, Mechanical Braking, UP/DOWN Function, High speed pulse input and output function, Built in PID Controller;	
Protect Function	Phase Loss Protection of Power Supply, Short-voltage Protection, Over-voltage Protection, Overcurrent Protection, Over-load Protection, Phase Loss Protection of Output, Output short circuit Protection, Output Grounded Protection, Signal Disconnection, AMA Fail, CPU Fault, Button Inhibit, Copy Failure, LCP Communication Error, Parameter Read Only, Value Out of Range, Not ecutable in Running;	
IO Panel Control Terminal	Input Terminal	4 digital input terminals; One channel (X3) supports high-speed pulse input up to 100KHZ; 1 analog input terminals (0-10V voltage signal, 0-20mA current signal can be switched through the DIP switch J3);
	Output Terminal	1 analog output terminals, support 0-10V voltage output 1 relay output terminals (KA/KB is normally open, KA/KC is normally closed)
	Power Supply Terminals	1 Group10V Power Supply Terminal, Max Output Current:10mA; 1 Group 24V Power Supply Terminal, Max Output Current:100mA;
	Communication Terminals	Max Baud Rate 38400bit/s
Panel	5 Digit 8 Segment LED display	Display the frequency/alarm/Status and other information
	Monitoring Function	Set Value, Output Frequency, Feedback Value, Output Current, DC Bus Voltage, Output Voltage, Output Power, Output Terminals State, Input Terminals State, Input Analog Value, Analog Output Value, History 1-3 Fault Records and Accumulated Working Hours;
	Indicator Light	Indicator Light FOR, REV, RPM, Hz, A, L/R display various states of Inverter;
Environment	Protection Level	IP20;
	Operation Temperature	-10°C~40°C, Over 40°C need bigger capacity inverter;
	Operation Humidity	5%-85%(95% No drops of water);
	Vibration	< 5.9m/S ² (0.6g);
	Highest Altitude	1000m, Over 1000m need bigger power inverter;
	Length of Motor Wire line	Shielding wire: 50m; Unshielding wire: 10m;
Others	DC reactor	No;
	Braking Unit	Built-in.



SW100- Specification

Type	Input voltage	Input current (A)	Output current (A)	Power
R40G1B	1×200-240V	6.5	2.3	0.40
R75G1B	1×200-240V	11.3	4.0	0.75
1R5G1B	1×200-240V	18.5	7.0	1.5
2R2G1B	1×200-240V	23.9	11	2.2
003G1B	1×200-240V	28.1	13	3.0
004G1B	1×200-240V	36.4	17	4.0
R40G2B	3×200-240V	3.6	2.5	0.4
R75G2B	3×200-240V	6.5	5.0	0.75
1R5G2B	3×200-240V	11	7.5	1.5
2R2G2B	3×200-240V	17.7	11	2.2
003G2B	3×200-240V	23	13	3.0
004G2B	3×200-240V	27	17	4.0
R40G3B	3×380-440V	2.4	1.2	0.4
	3×440-480V	2.1	1.7	
R75G3B	3×380-440V	3.7	2.1	0.75
	3×440-480V	3.2	2.1	
1R5G3B	3×380-440V	6.4	4	1.5
	3×440-480V	5.5	3.6	
2R2G3B	3×380-440V	8.9	5.6	2.2
	3×440-480V	7.7	5.1	
003G3B	3×380-440V	13.4	7.3	3.0
	3×440-480V	11.8	6.8	
004G3B	3×380-440V	15.8	9.8	4.0
	3×440-480V	13.6	9	
5R5G3B	3×380-440V	21.3	13.3	5.5
	3×440-480V	18.4	12.1	
7R5G3B	3×380-440V	28.3	17.7	7.5
	3×440-480V	24.4	16.1	

NOTE:
G1 is single phase 200-240V input
G2 is three phase 200-240V input
G3 is three phase 380-480 input

SW100- Control loop wiring diagram

