



SHENZHEN ZK Inverter



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Science and technology go to ordinary, cutting-edge with sincerity

Energy conservation ZK Drive

Company Profile



Shenzhen ZK Electric Technology Co., Limited is a high-tech enterprise focusing on the R&D, production, sales and service of motor drives. Main products: high, medium and low voltage frequency conversion, servo drives, photovoltaic inverters and other equipment and project solutions. Serving technology-driven, equipment manufacturing and upgrading in the industrial field, in line with the concept of quality, innovation, and transcendence, we are committed to providing customers with personalized technological innovation and industry progress solutions, and striving to achieve the common growth value of the company and the value of users. At present, the products have been widely used in various industries such as fans, water pumps, plastics, building materials, iron and steel, coal mines, machine tools, urban renovation projects, chemicals, papermaking and so on.

Product Introduction

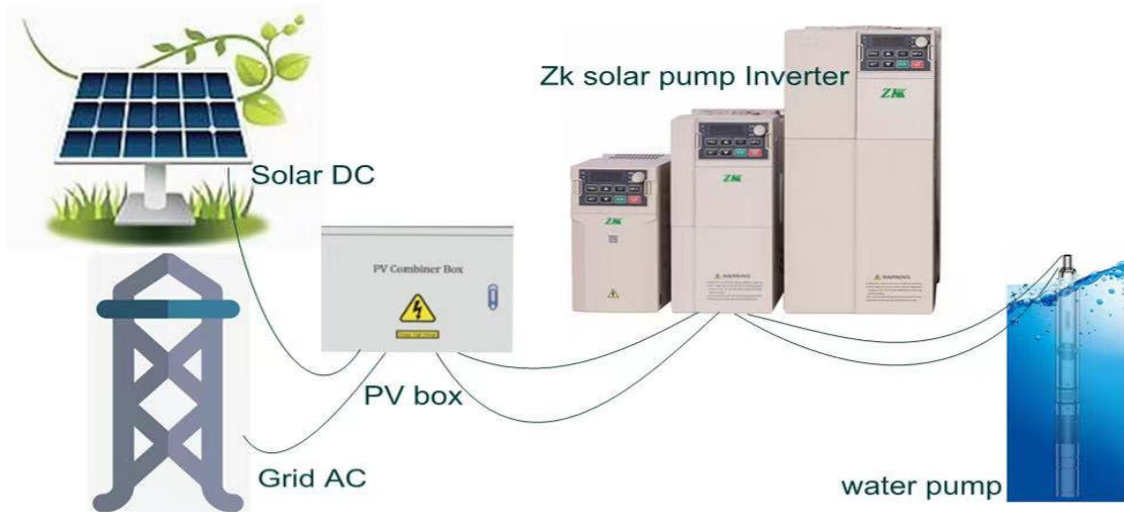
The latest generation of high-performance general-purpose inverters; S100 series VC control inverters; SU100 series MPPT solar pump inverter, etc. With speed control, torque compensation, slip compensation, energy-saving control, self-learning and other advanced application functions, It can drive asynchronous motors and permanent magnet synchronous motors. Voltage level: 220V, 380V, 660V, power range: 0.4KW-810KW

Application

- Metal, CNC machine, Wire drawing machines and other mechanical equipment
- Circulating pump、 Oilfield water injection pump、 Oil pump, music fountain
- Boiler drum, Induced fan, Counter-rotating fan, Blower etc ;
- Papermaking, Chemical, Pharmaceutical, Textile etc.



SU100 MPPT solar pump inverter



The SU100 series of photovoltaic inverters are based on the S100 series of inverters and are widely used in photovoltaic systems.

SU100 is very popular in countries lacking water and electricity. They want to use solar energy to get more water for household use, irrigation, agriculture, etc. It is a clean energy, a perfect replacement for existing diesel generator sets.

We have an experienced R&D team, and SG600 products are widely used in photovoltaic systems. Our agents/distributors enjoy a good reputation in the markets of the United States, the Middle East, Africa and other places.

Features:

- ✧ Maximum power point tracking (MPPT), fast response speed, stable operation
- ✧ Suitable for high-speed, high-frequency pump, PMSM, and synchronous motors run without tuning
- ✧ Dry running (load) protection, minimum speed protection, maximum current protection, minimum power input protection, phase loss protection, overcurrent protection
- ✧ PQ (power/flow) performance curve can calculate the flow output of the pump
- ✧ Compatible with dual-mode AC and DC power input
- ✧ Self-defined digital and analog level sensor for water full and low water protection
- ✧ Independent air duct design and enhanced three-proof paint protection, suitable for various damp and dusty harsh conditions
- ✧ Imported Infineon/Fuji and other IGBT modules to ensure product quality
- ✧ Enhanced lightning protection components
- ✧ Remote control module, used for remote monitoring, control, parameter modification, etc
- ✧ The MPPT efficiency with 99.8%, and the inverter power factor is not lower than 0.96 for inverters below 15kw.

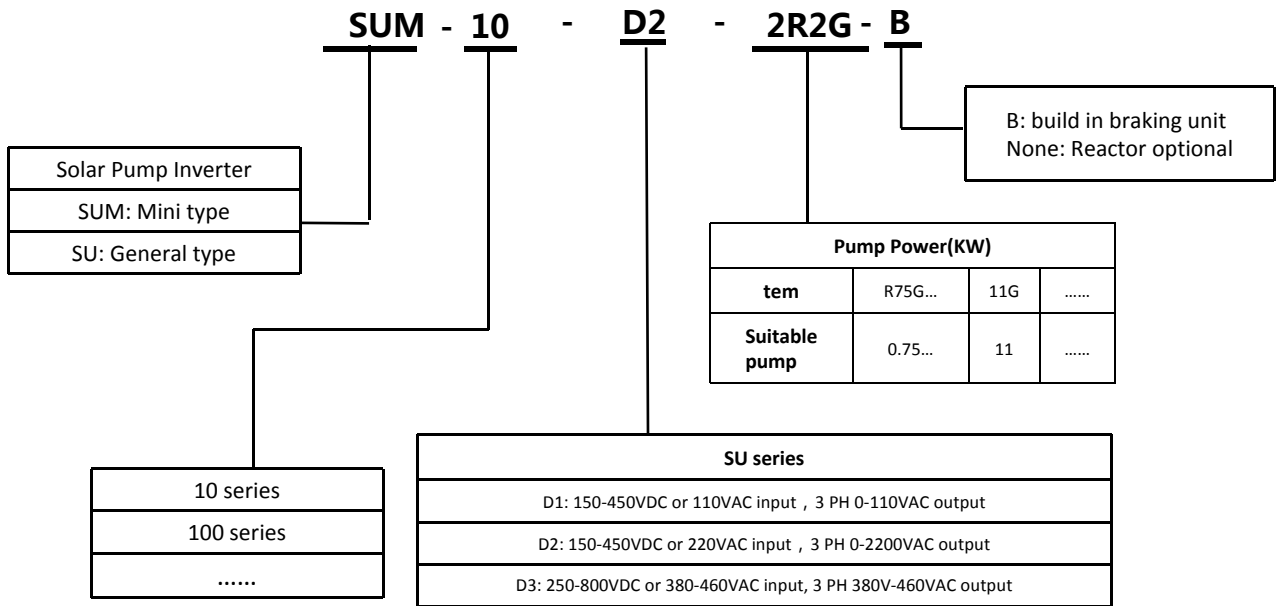
SU100 MPPT solar pump inverter

Specifications

Item		Specifications
Input	Rated Voltage/Frequency	80-450VDC for D1 110V pumps, 0.75KW-2.2KW 150-450VDC for D2 220V pumps, 0.75KW-2.2KW 250-800VDC for D3 380V pumps, 0.75KW-500KW
	Recommended MPPT voltage(VDC)	D1 series: Vmp 131 to 350 VDC D2 series: Vmp 280 to 375VDC D3 series: Vmp 450 to 750 VDC
	VFD Efficiency	above 96%
	MPPT Efficiency	above 99.6%
	Power factor	above 0.94(with DC reactor)
	Allowable Variablerange	Voltage:-20%~+20%, Frequency:±5%
Output	Rated Voltage	0~110V 220V 380V 480V
	Frequency Resolution	0.01Hz
	Overload capacity	G type-150% Rated Curren/1 minute,180%:10s,200%:rated
Basic Functions	Motor type	permanent magnet servo motor and asynchronous motor pumps.
	Solar pump control special performance	MPPT (maximum power point tracking), CVT (constant voltage tracking), auto/manual operation, dry run protection, low stop frequency protection, minimum power input, motor maximum current protection, flow calculating, energy generated calculating
	Running mode	MPPT , CVT, variable frequency mode
	Communication	RS485 Standard Interface,supporting two formats MODBUS protocol
Protection		Over Current protection;Over Voltage protection;Under Voltage protection; Over heat protection;Overload protection
Environment	Altitude	Below 1000m; above 1000m, derated 1% for every additional 100m.
	temperature	-10°C~+50°C
	Ambient temperature	Less than 90%RH, no water condenses
	Vibration	Less than 5.9m/sec 2(0.6G)
	Storage temperature	-30°C~+60°C
Structure	Level of Protection	standard IP20, operation IP54 IP55
	Cooling-down method	Forced air cooling
Installation		Indoor, ,free from direct sunlight, dust, corrosive gas,Oiliness gas, water vapour

SU100 MPPT solar pump inverter

Nameplate



Voltage Range of SU100 solar pump inverter

Model	Pump Voltage (VAC)	Input Voltage (VDC)	Overvoltage point (VDC)	Undervoltage point	Suggest Vmp	Suggest Voc
SU100-D1	For 110V AC	80V-450V	450V	80V	155VDC	190VDC
SU100-D2	For 220V AC	150V – 450V	450V	100V	310VDC	380VDC
SU100-D3	For 400V AC	250V– 800V	800V	200V	520VDC	650VDC

Selection of solar panel

Input voltage, power solar panels selection				
Pump Model	Inverter model	Vmp	Voc	Total power of solar panels
110VAC pump	SU100-D1	110*1.41=155VDC	190VDC	≧ (1.3 to 2.0) rated power of pumps It is also depend on the quality of solar panels. The more power input, the better performance
220VAC pump	SU100-D2	220*1.41=310VDC	372VDC	
380VAC pump	SU100-D3 (MAX 800VDC) standard	380*1.41=540VDC	648VDC	
480VAC pump	SU100-D3 (MAX 900VDC) customized	480*1.41=677VDC	812VDC	

SU100 MPPT solar pump inverter

Model List

SPI Models	Rate current (A)	Rate Power (kw)	Input DC range (VDC)	Best Voc input (VDC)	Output AC Voltage (VAC)	Weight (KG)
Mini type: 2S, 90-450VDC input range, Output 0-220VAC with MPPT						
SU10M-D2-R75G-B	4A	0.75kw	150-450	372VDC	0-220	1.5
SU10M-D2-1R5G-B	7A	1.5kw	150-450	372VDC	0-220	1.5
SU10M-D2-2R2G-B	10A	2.2kw	150-450	372VDC	0-220	1.5
SD100-D2-004G-B	16A	4.0kw	150-450	372VDC	0-220	3.5
General 4T 250-800VDC input, 0-380VAC output MPPT						
SU100-D3-R75G-B	2.5A	0.75kw	250-800	650VDC	0-380	2
SU100-D3-1R5G-B	3.8A	1.5kw	250-800	650VDC	0-380	3
SU100-D3-2R2G-B	5.1A	2.2kw	250-800	650VDC	0-380	3
SU100-D3-004G-B	9A	4.0kw	250-800	650VDC	0-380	3
SU100-D3-5R5G-B	13A	5.5kw	250-800	650VDC	0-380	4.5
SU100-D3-7R5G-B	17A	7.5kw	250-800	650VDC	0-380	4.5
SU100-D3-011G-B	25A	11kw	250-800	650VDC	0-380	5.0
SU100-D3-015G-B	32A	15kw	250-800	650VDC	0-380	8.0
SU100-D3-018G-B	37A	18kw	250-800	650VDC	0-380	8.0
SU100-D3-022G-B	45A	22kw	250-800	650VDC	0-380	12
SU100-D3-030G	60A	30kw	250-800	650VDC	0-380	17
SU100-D3-037G	75A	37kw	350-800	650VDC	0-380	18
SU100-D3-045G	91A	45kw	350-800	650VDC	0-380	35
SU100-D3-055G	112A	55kw	350-800	650VDC	0-380	36
SU100-D3-075G	150A	75kw	350-800	650VDC	0-380	45
SU100-D3-093G	170A	93 KW	350-800	650VDC	0-380	51
SU100-D3-110G	210A	110KW	350-800	650VDC	0-380	54
SU100-D3-132G	260A	132KW	350-800	650VDC	0-380	86
SU100-D3-160G	320A	160KW	350-800	650VDC	0-380	90
SU100-D3-185G	360A	185KW	350-800	650VDC	0-380	110
SU100-D3-200G	400A	200KW	350-800	650VDC	0-380	***
SU100-D3-220G	430A	220kw	350-800	650VDC	0-380	***
SU100-D3-250G	490A	250kw	350-800	650VDC	0-380	***
SU100-D3-280G	520A	280KW	350-800	650VDC	0-380	***
SU100-D3-315G	585A	315KW	350-800	650VDC	0-380	***
SU100-D3-355G	650A	355KW	350-800	650VDC	0-380	***
SU100-D3-400G	725A	400KW	350-800	650VDC	0-380	***
SU100-D3-***G	depend	Max to 500kw	350-800	650VDC	0-380	***

SU100 MPPT solar pump inverter

Dimensions

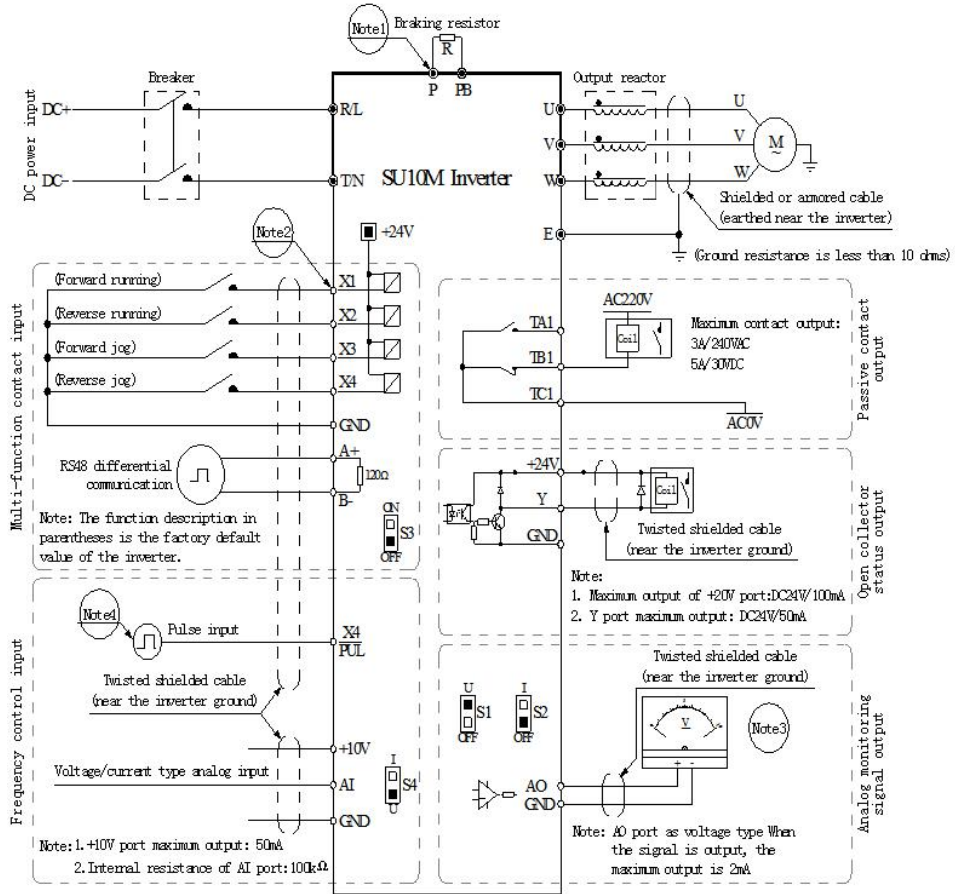


Inverter model	Dimensions (mm)				Installation (mm)		Mounting aperture
	W	H	D	D1	W1	H1	
SU10M-D2-R75G-B	89	190	135	144	79	180	M4×2
SU10M-D2-1R5G-B							
SU10M-D2-2R2G-B							
SU100-D3-R75G-B							
SU100-D3-1R5G-B							
SU100-D3-2R2G-B							
SU100-D2-004G-B	106	230	148	157	96	219	M4×3
SU100-D3-004G-B							
SU100-D3-5R5G-B							
SU100-D3-7R5G-B							
SU100-D3-011G-B	130	275	160	169	115	260	M5×3
SU100-D3-015G-B							
SU100-D3-018G-B	155	335	191	200	141.5	320	M5×4
SU100-D3-022G-B							
Inverter model	Dimensions (mm)				Installation (mm)		Mounting aperture
	W	H	H1	D	W1	H2	
SU100-D3-030G	195	445	420	235	150	430	4-M6
SU100-D3-037G							
SU100-D3-045G	240	560	520	310	176	544	4-M6
SU100-D3-055G							
SU100-D3-075G							
SU100-D3-093G	270	640	582	350	200	620	4-M8
SU100-D3-110G							

SU100 MPPT solar pump inverter



Wiring mode of Electrical circuit



Drinking water supply



Green irrigation systems



Agricultural irrigation systems



Livestock watering



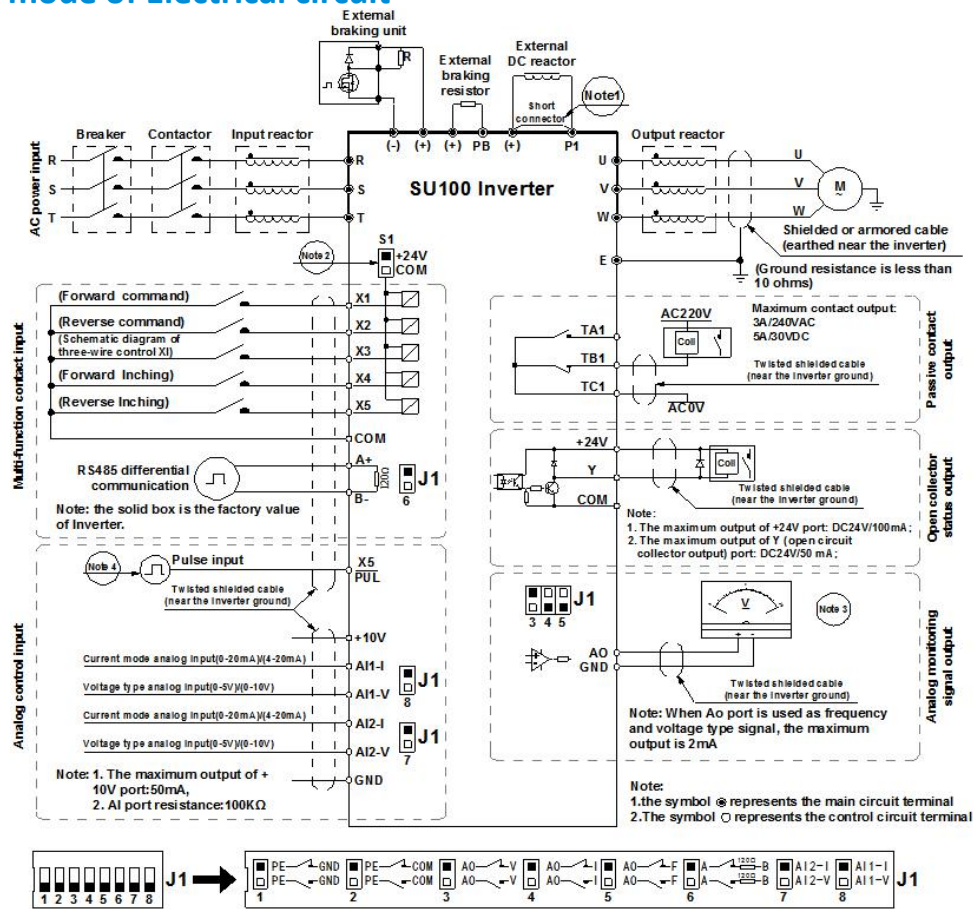
Swimming pool



Water tank

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Wiring mode of Electrical circuit



Drinking water supply



Green irrigation systems



Agricultural irrigation systems



Livestock watering



Swimming pool



Water tank