VEICHI

Renewable Energy Products



VEICHI

Shenzhen Veichi Electric Co., Ltd

Third floor,Building Chunsheng,Lulingya Industrial Park,No.1 Tangtou community,Shiyan street,Baoan District,Shenzhen
Tel: +86-0755-3686 1688
Fax:+86-755-2968 5680 E-mail:overseas@veichi.com

Facebook: https://www.facebook.com/veichiglobal/

Suzhou Veichi Electric Co., Ltd

No.1000 Songjia road, Wuzhong Economic and Technological Development Zone, Suzhou
Tel:+86-512-6617 1988
Fax:+86-512-6617 3610

Whatsapp: +86- 138 2881 8903 Http://www.veichi.org

Wechat Official Account

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SI22 Mini Solar Pump Inverter

SI22 puts uncompromising performance and potential in your application. It's thinner and lighter than ever before, yet powerful enough to help you take your ideas even further.

Product Features



Ultrahigh Cost Performance

Working as smart assistant for farmers，economical and practical.

SI22-D1-1R5G



SI22-D3-2R2G



Save 4 pcs panels(save 50% $)

Similar water flow per day





Small Body

Palm-sized, reducing installation space & delivery cost.







Smart IOT

Wireless data transmission card



Supports wide frequency bands for global application

Small size,integrated design,easy to install and use

Support wifi transmission LAN could be built through wifi in someplace without network coverage

Powerful internet manage platform,free to manage field equipment

Built in GPS+Beidou positioning chips,dual positioning system

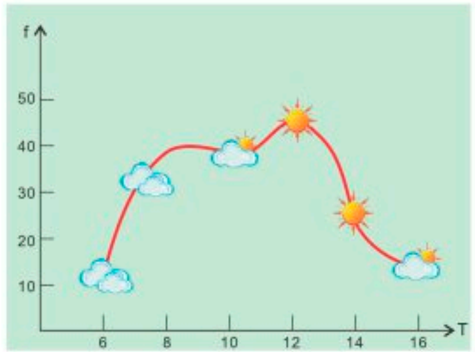


Driving Multi-types of Pumps

1. Three-phase AC pump:One –key operation at default setting
2. Single-phase AC pump:Soft start and smooth running
3. Three-phase AC PMSM pump:Perfectly driving high-efficiency PMSM pump by open-loop and sensor-less vector control
4. Brushless DC pump:Compliantly driving 10A or below BLDC pump

MPPT Technology:Auto-track the whole voltage range

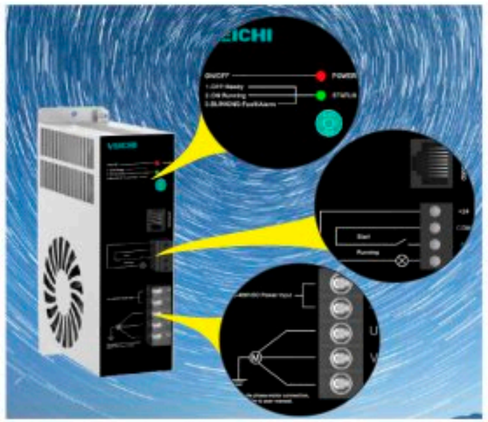
- Wide input voltage range 60-400VDC
- MPPT efficiency more than 99%
- Auto-track at daytime



Auto-Track at any daytime

Modern Stylish

One technology & one art,Easy to understand



SI22 Product Model

SI 22 - D1 - 1R5G

- 1R5G: Suitable water pump power
  - R75G:0.75KW
  - 1R5G:1.5KW
  - 2R2G:2.2KW
  - Note:Maximum power of D1:1.5KW Maximum power of D3:2.2KW
- D1 : DC156V,suitable for driving AC110V pump
- D3 : DC311V,suitable for driving AC220V pump
- 22 : Series No.
- SI : Renewable Energy Product

Technical Specification

Solar Pump Inverter Power(KW)	Pump		Max solar power input (KW)	Max DC input voltage V	Recommend Voc voltage (V)	Rated Output Current(A)	Output frequency(Hz)
	Rated Power (KW)	Rated Voltage(V)					
SI22-D1 series, DC60-400VDC input, 3 phase 110-230VAC output, suitable for 110VAC pump							
0.75	0.75	110	1.0	400	175-380	7A	0-320
1.5	1.5	110	1.95	400	175-380	10A	0-320
SI22-D3 series, DC60V-400V input, 3 phase 220-240VAC output, suitable for 220VAC pump							
0.75	0.75	220	1.0	400	360-400	4A	0-320
1.5	1.5	220	1.95	400	360-400	7A	0-320
2.2	2.2	220	2.86	400	360-400	10A	0-320

Technical Specification

Items		Specification
Power Input	Voltage	60-400VDC
	Inverter Efficiency	》96%
Output	MPPT Efficiency	More than 99%
	Output Frequency Range	0-320Hz (320Hz or more can be customized)
	Overload Capacity	150% of rated current for 1 minute , 180% for 10 seconds , 200% for 0. second
Basic Function	Solar Pump Protection	Dry run、low frequency、low power、dormancy、water fulfilled and over -current of pump protections
	IOT Module	Support plug and play IOT module
	DI/DO	1 loop digital input,1 loop collector circuit output
	Auxiliary Power	24VDC , maximum output 100mA
	Water Pump Types	Three -phase AC AM pump (110VAC/220VAC) , three-phase AC PMSM pump , BLDC pump (10A or below) , single-phase pump (10A or below)
	Basic Protection	Over voltage、under voltage、over current、overload、over heat、Hall fault、short circuit between phases、grounding short circuit、output phase loss、etc.
Environment	Installation Site	Indoor,altitude less than 1000m, free corrosive gases and direct sunlight
	Temperature、Humidity	-10—60℃
	Installation Mode	Hanging
	Ingress Protection	IP20
	Cooling	Forced air cooling
International Certificate	CE	

Recommended Configuration

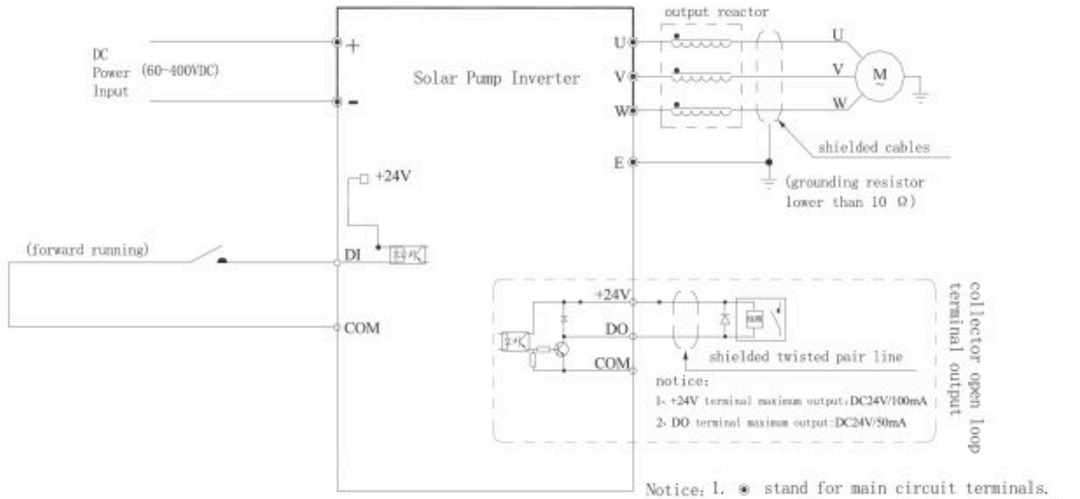
Solar pump inverter model	Solar panel model 1			Solar panel model 2		
	Voc: 21V±2V			Voc: 36V±2V		
	P±3W	Isc	configuration	P±3W	Isc	configuration
SI22-D1-R75G	30W	2.75A	11*3	180W	7.33A	6*1
SI22-D1-1R5G	60W	3.48A	10*3	285W	9.41A	6*1
SI22-D3-R75G	30W	2.75A	17*2	——	——	——
SI22-D3-1R5G	60W	3.48A	17*2	180W	7.33A	11*1
SI22-D3-2R2G	90W	5.5A	17*2	250W	8.92A	11*1

Note:

1.Total Voc of the recommended configuration should be at least 1.15 times of bus voltage of inverter.
As D1 type, the minimum Voc should be 110*1.414*1.15=178.8V（180V）.
As D3 type, the minimum Voc should be 220*1.414*1.15=357.6V（360V）.

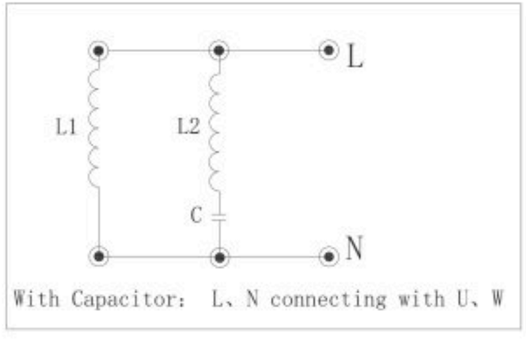
2. Total power of recommended configuration should be at least 1.2 times of pump power.

Standard Wiring for three phase motor

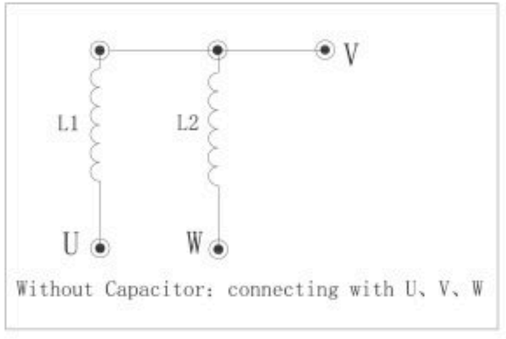


Notice: 1. ◉ stand for main circuit terminals.
2. ○ stand for control circuit terminals.

Wiring for single phase motor



With Capacitor: L、N connecting with U、W



Without Capacitor: connecting with U、V、W

Industry Applications



Farmland Irrigation



Landscape Fountain



Desert Management



Drinking Water



Pool Water Supply