

Solar Pump Inverter



VEICHI

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Official Website
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About us

Veichi (stock code: 688698) has always committed to electric drive and industrial control since its foundation. As an all-round company engaged in R & D, manufacturing and sales on high-tech industrial automation products, Veichi has been identified with several honorary titles such as the third patch of Specialized and Sophisticated Enterprises That Produce New and Unique Products, New and High-tech Enterprise, Jiangsu Engineering Technology Research Center, Jiangsu Provincial-level Enterprise Technology Center, Jiangsu Private-own Technical Enterprise, and has obtained the highest level of enterprise credit. Through years of independent research and development, Veichi now has been authorized with patents totaling 163 by the end of June, 2023, and among them 43 are for invention.

Having established R & D center and manufacturing bases in Suzhou, Shenzhen and Xi'an, added with the wholly-owned subsidiary in India, Veichi now are dealing with customers from several nations and regions and has the full capability to provide safe, competitive and trustworthy products and services to customers from the larger world.

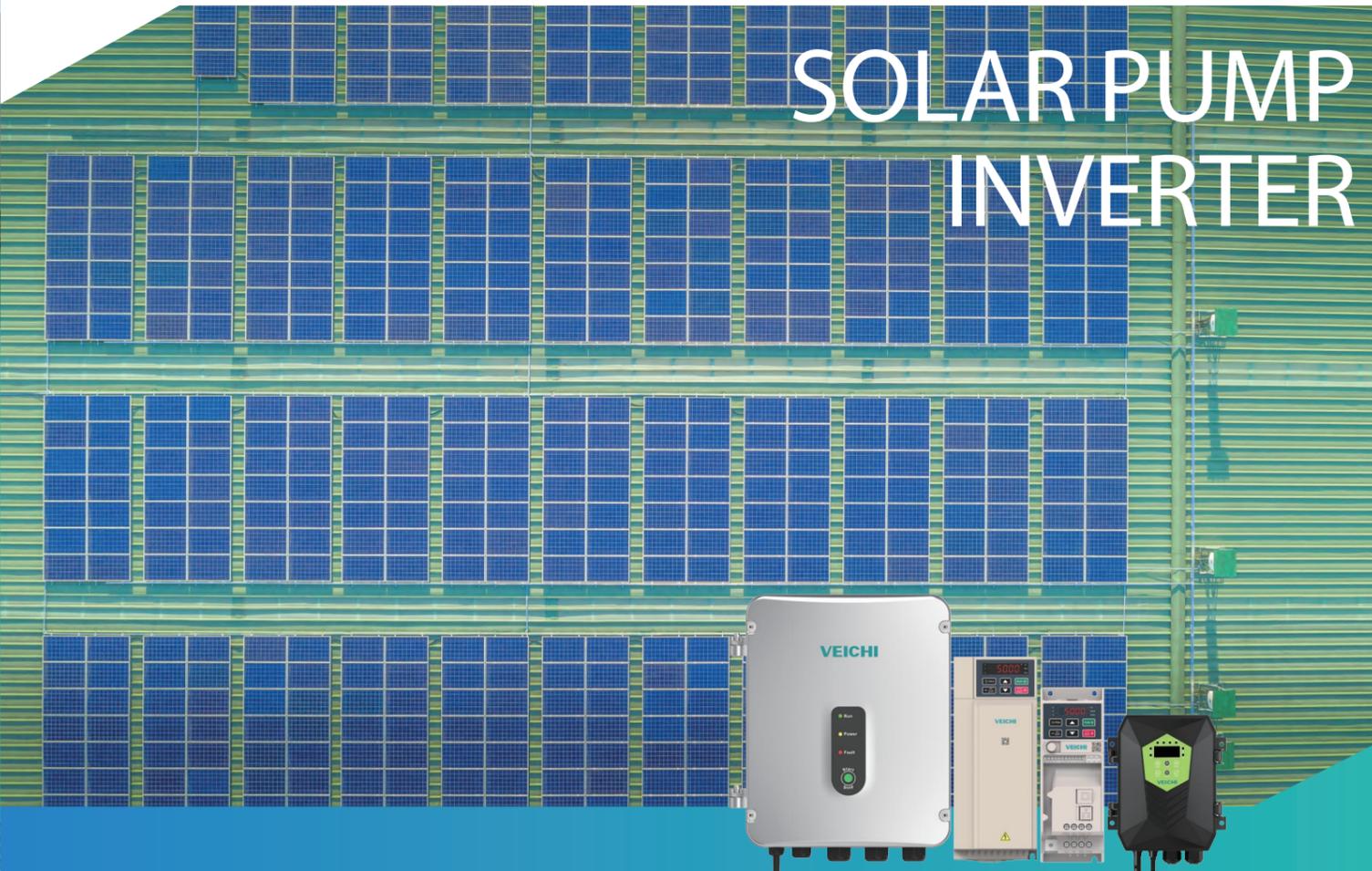
Veichi provides various products including AC drive, servo

system, and control system, which are applied in all sorts of fields like Heavy industry, mining, petroleum and petrochemical, machine tools, hydraulic transmission, photovoltaic water, high-efficiency energy, robotics, printing and packaging, textile, new energy, medical and many other industries

20 service stations and 211 contracted distributors cover 31 provinces on China mainland and Hong Kong, Macao and Taiwan regions, which guarantees a massive and efficient network for sales and services for our customers.

Veichi will continue to abide by the operation philosophy, that is, guided by market demand and driven by technological innovation, enlarge and enhance its core business like AC drive, servo system, control system and SIOTs. And Veichi will always be devoted to providing quality products and services for customers and further make contributions to the development of electric drive and industrial control.

SOLAR PUMP INVERTER



In the context of intensifying world energy crisis, Veichi Electric launched the SI series of photovoltaic water pumps in line with new energy and sustainable development concepts, and they have gained a good reputation both at home and abroad so far. The SI series of photovoltaic water pumping systems are used to provide clean water resources in remote areas short of electric power facilities. The controller converts the DC power from the photovoltaic array into AC power and drives various water pumps so on sunny days, the SI series PV water pumping system can continuously pump water (the water source can be natural or special, such as rivers, lakes, wells or waterways, etc.).

2022

- Xi'an R&D Center established
- Veichi Digital Energy subsidiary established

2020

- A-share of science and technology innovation board landing
- Awarded as provincial Specialized and Sophisticated "Small Giant" Firms That Produce New and Unique Products

2021

- A Veichi controlled subsidiary established
- Awarded as the third patch of Specialized and Sophisticated "Small Giant" Firms That Produce New and Unique Products

2023

- Suzhou Veichi Phase II project put into operation
- Suzhou Veichi Phase III Project put into construction
- Veichi Medical Equipment subsidiary established

2016

- First stage of Suzhou Veichi project put into operation
- First generation of motion control system launched

2014

- First stage of Suzhou Veichi project groundbreaking and put into construction

2005

- Beginning of entrepreneurship in Shenzhen
- First-generation of AC drive successfully launched

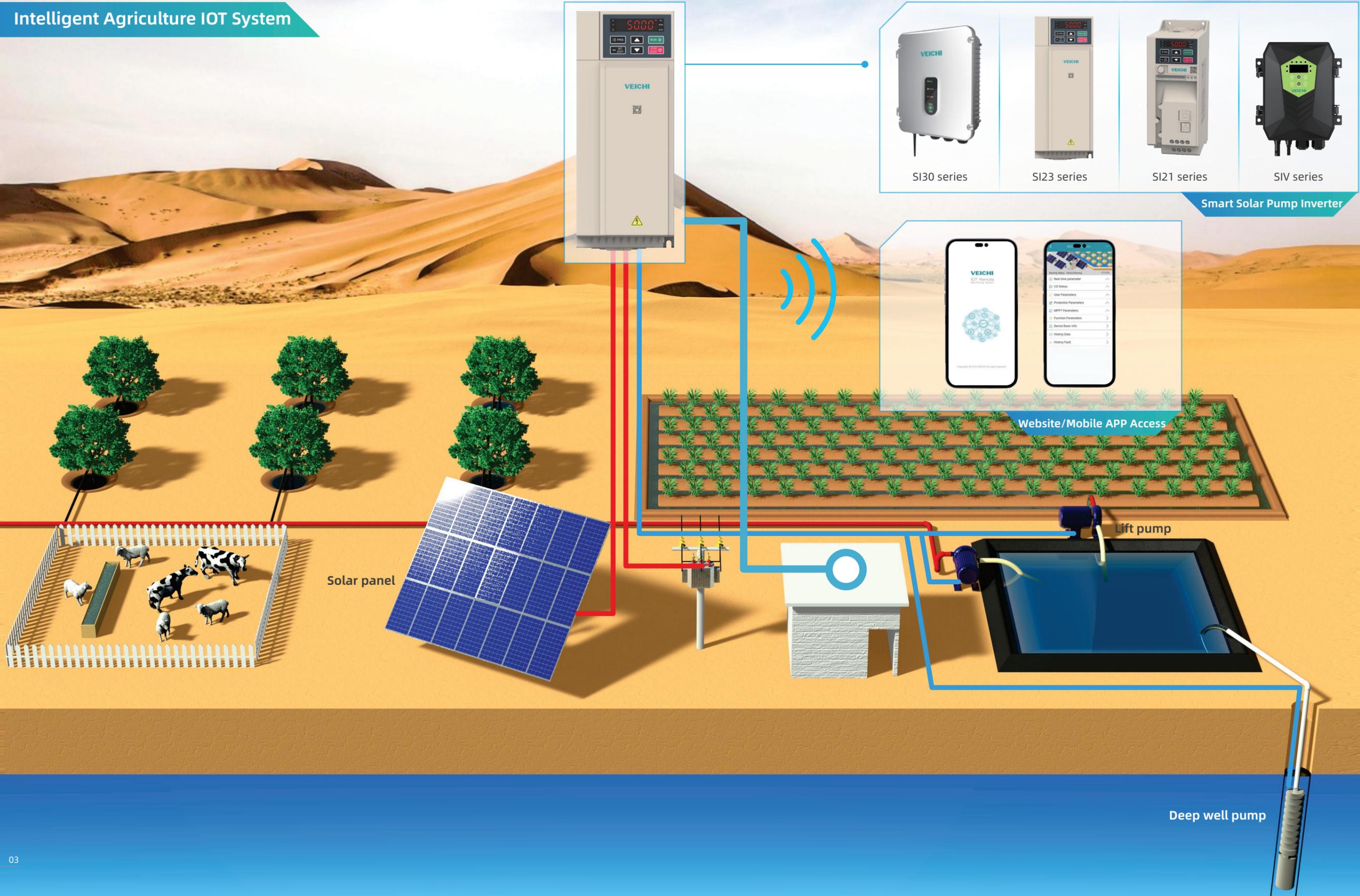
2013

- Suzhou Veichi Electric Co., Ltd established
- First generation of servo system successfully developed

2019

- Indian subsidiary established
- Restructure to a company limited by shares

Intelligent Agriculture IOT System



Smart Solar Pump Inverter

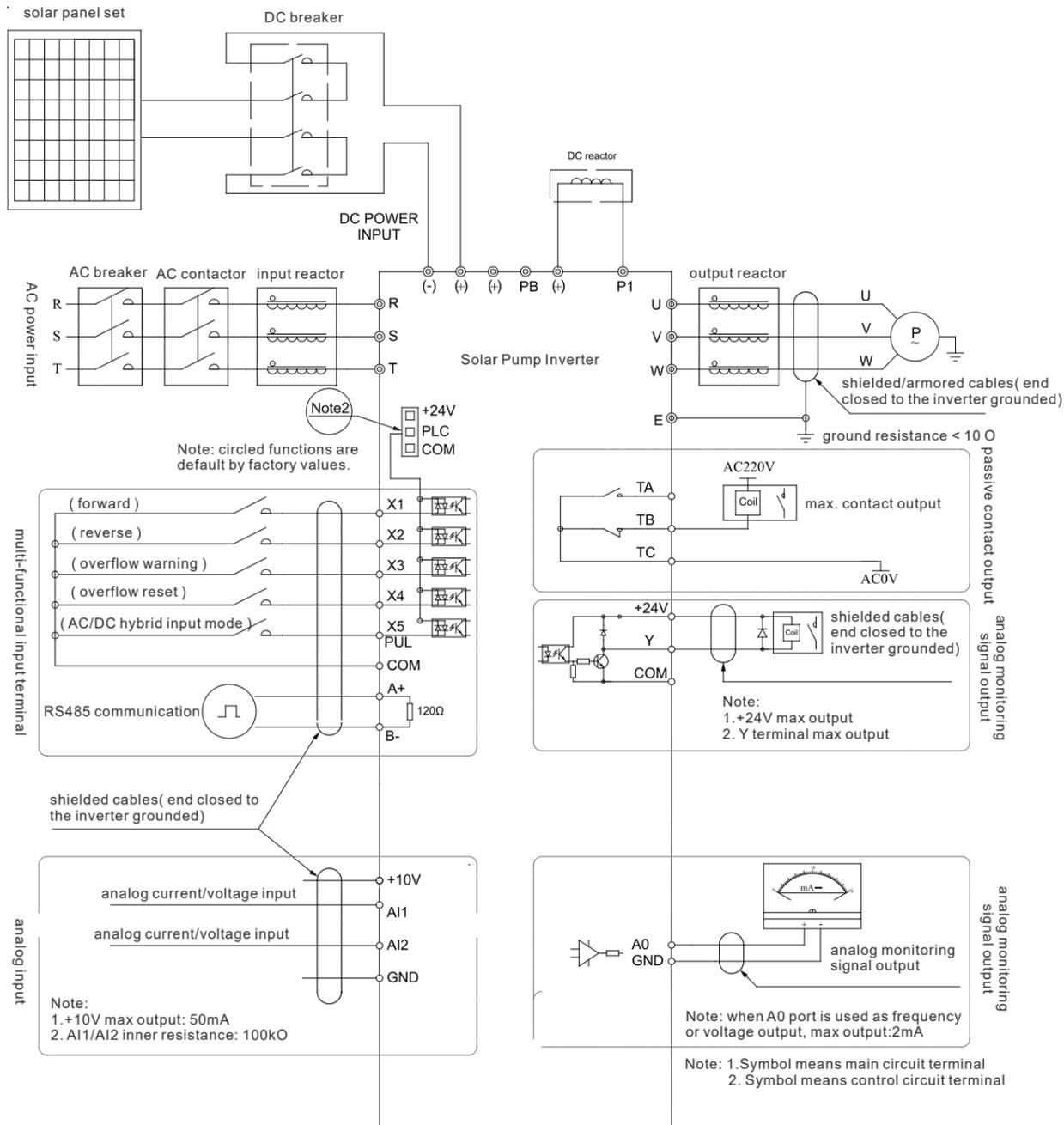
Website/Mobile APP Access

Solar panel

Lift pump

Deep well pump

SI30 Series Electric Wiring



SI23 Series Solar Pump Inverter

New structure | High efficiency | Reliable Performance



Product Features

New look, narrow body

- Book-like narrow structure saves up 60% space max.
- New keyboard with simple design appearance simplifies operation .
- European terminals raises wiring efficiency.

Comply With Multiple International Standards Certification

EN 61800/EN 61000/EN IEC 61000
IEC 61683/IEC 62109~1/IEC62109-2



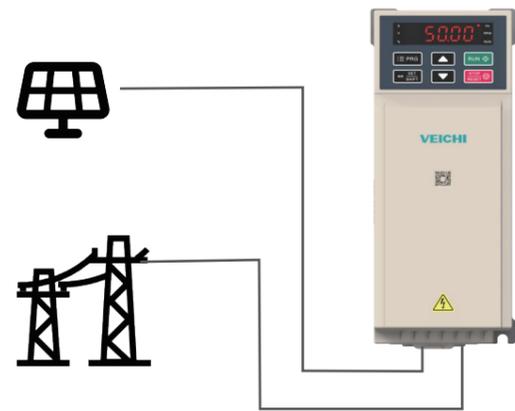
Top algorithm

- Asynchronous, single-phase, permanent magnet synchronous, synchronous reluctance etc. pump motors applicable
- Internationally leading self-learning algorithm with accurate and consistent motion control
- High-bandwidth current vector with 12 times high-precision weak magnetic output



AC/DC switching

When the battery board power is lower than the set value, battery board will be switched to the utility power to ensure the normal operation of the system until the battery board power is restored to the set value, then the utility power will be switched back again to supply power .



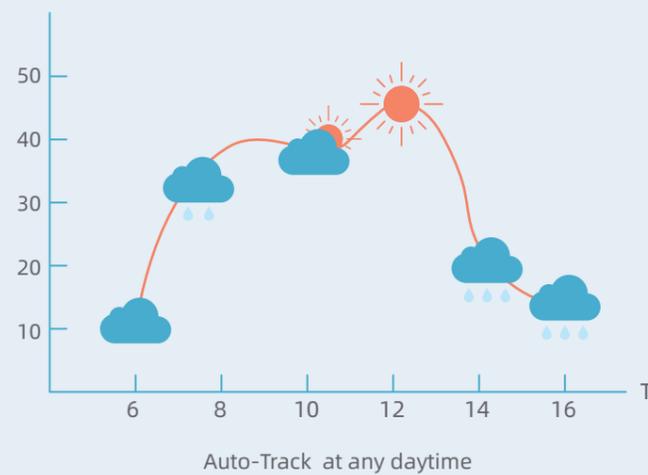
Smart IOT

- Support Gps positioning, wifi data connection, offline data storage .
- Unattended, real-time, remote control .
- Big data analysis, calculation of cumulative power generation and flow .
- Auto identification of various APN remote data analysis devices and one-key Router connection.



Customized photovoltaic functions

- MPPT enables real-time adjustment of the optimal output frequency.
- Complete pump protections extend service life.
- Customized PQ curve offers users cumulative flow and power generation.
- AC/DC mixed input, timing, and water pump cleaning etc. meet market demands.



SI23 Series Naming Rules

SI23 - D3 - 2R2G - A

Product Category
SI:stands for the solar pump inverter

Product Series
Different series are represented by different two-digit numbers

Voltage Class
D1:155V DC, suitable for the 110V AC pumps 3PH/Single phase
D3:311V DC, suitable for the 220V AC pumps 3PH/Single phase
D5:540V DC, suitable for the 380V AC pumps 3PH
T3:540V DC, suitable for the 380V AC pumps 3PH

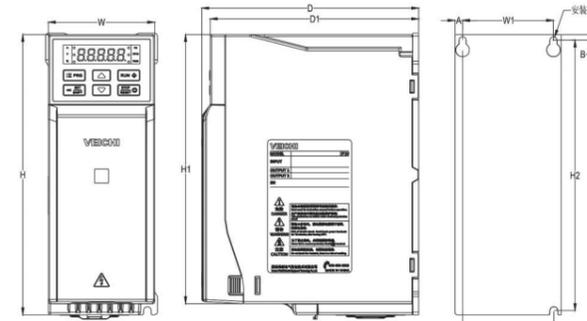
Suffix
A stands for standard, while non-A stands for machines without any brands "I" IOT物联网模块 (选配)

Rated Power
R75G=0.75KW
1R5G=1.5KW
004G=4KW
011G=11KW

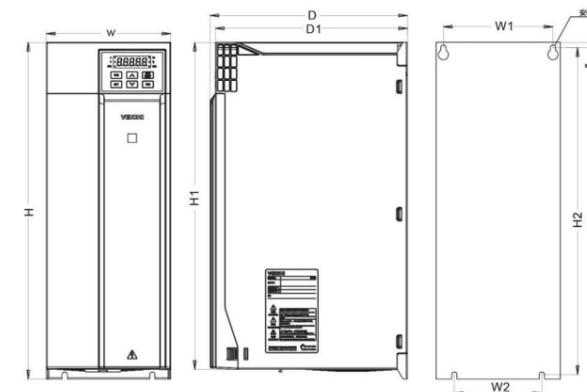
Technical Specification

MODEL	D1	D3	SS2	D5	T3
PV Input					
Input voltage range	60~400V	150~450V	150~450V	250~780V	300~850V
Recommended Voc voltage	175~380V	360~430V	360~430V	620~750V	620~750V
Maximum MPPT efficiency	≥99.9%	≥99.9%	≥99.9%	≥99.9%	≥99.9%
AC Input					
Input voltage range	Single/three-phase 110V	Single/three-phase 220V	Single/three-phase 220V~240V	Three-phase 380V	Three-phase 380V
Input voltage frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Output					
Output voltage range	110~230V	150~230V	150~230V	230~460V	230~460V
Output frequency range	0~600Hz	0~600Hz	0~600Hz	0~600Hz	0~600Hz
Output power range	0.75~1.5kW	0.75~55kW	0.75~55kW	0.75~30kW	37~500kW
Power		Rated output current			
0.75kw	7A	4A	7A	3A	-
1.5kw	10A	7A	10A	4A	-
2.2kw	-	10A	16A	6A	-
4kw	-	16A	30A	10A	-
5.5kw	-	20A	42A	13A	-
7.5kw	-	30A	55A	17A	-
11kw	-	42A	-	25A	-
15kw	-	55A	-	32A	-
18.5kw	-	70A	-	38A	-
22kw	-	80A	-	45A	-
30kw	-	110A	-	60A	-
37kw	-	130A	-	-	75A
45kw	-	160A	-	-	90A
55kw	-	200A	-	-	110A
75kw	-	-	-	-	150A
90kw	-	-	-	-	180A
110kw	-	-	-	-	210A
132kw	-	-	-	-	250A
160kw	-	-	-	-	310A
185kw	-	-	-	-	340A
200kw	-	-	-	-	380A
Control Performance					
Motor type	Asynchronous motors Permanent magnet synchronous motor Synchronous reluctance motor	Asynchronous motors Permanent magnet synchronous motor Synchronous reluctance motor	Single phase motor	Asynchronous motors Permanent magnet synchronous motor Synchronous reluctance motor	Asynchronous motors Permanent magnet synchronous motor Synchronous reluctance motor
Control mode	V/F control, open-loop vector control, closed-loop vector control, voltage-frequency separated control				
Overload capacity	150% of rated load for 60s, 180% of overload capacity for 10s, 200% of overload capacity for 0.5s				
System					
Installation	20%~95%RH (condensation free)				
Protection class	Hitch mounting				
Working temperature	IP20				
Cooling method	-10~60°C				
Humidity	Forced air cooling				
Installation environment	Altitude lower than 1000m. Derate 1% for each 100m rise when above 1000m.No condensation, icing, rain, snow, hail, etc., solar radiation below 700W/m2, air pressure 70kPa ~ 106kPa				
Protection					
Common protection	Undervoltage / overvoltage	√	√	√	√
	Input/output phase loss	√	√	√	√
	Overload	√	√	√	√
	Overcurrent	√	√	√	√
	Drive overheat	√	√	√	√
	Short circuit between phases and to ground	√	√	√	√
Specialized protection	Low frequency	√	√	√	√
	Pump overcurrent	√	√	√	√
	Dryout	√	√	√	√
	Min. power	√	√	√	√
	Overflow	√	√	√	√
Sleep protection	√	√	√	√	√

Plastic model

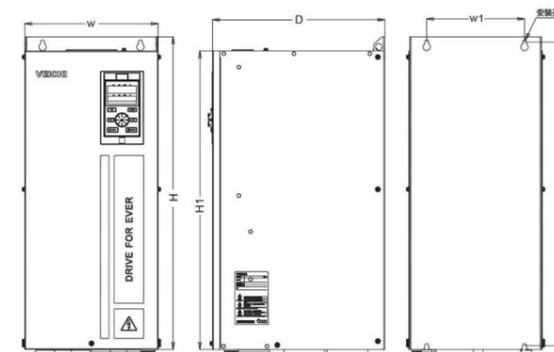


Model	Overall dimension (mm)				Installation dimension (mm)				Installation aperture		
	W	H	H1	D	D1	W1	W2	H2		A	B
SI23-D1-R75G-A	76	200	192	155	149	65	65	193	5.5	4	M4
SI23-D1-1R5G-A											
SI23-D3-R75G-A											
SI23-D3-1R5G-A											
SI23-SS2-R75G-A											
SI23-D5-R75G-A											
SI23-D5-1R5G-A											
SI23-D5-2R2G-A											
SI23-D3-2R2G-A											
SI23-D3-004G-A											
SI23-SS2-1R5G-A	100	242	231	155	149	84	86.5	231.5	8	5.5	M4
SI23-SS2-2R2G-A											
SI23-D5-004G-A											
SI23-D5-5R5G-A											
SI23-D3-5R5G-A											
SI23-SS2-004G-A											
SI23-SS2-5R5G-A											
SI23-D5-7R5G-A											
SI23-D5-011G-A											
SI23-D5-011G-A											



Model	Overall dimension (mm)				Installation dimension (mm)				Installation aperture	
	W	H	H1	D	D1	W1	W2	H2		A
SI23-D3-7R5G-A	142	383	372	225	219	125	100	372	6	M5
SI23-D3-011G-A										
SI23-SS2-7R5G-A										
SI23-D5-015G-A										
SI23-D5-018G-A										
SI23-D5-022G-A										
SI23-D3-015G-A										
SI23-D3-018G-A										
SI23-D3-022G-A										
SI23-D5-030G-A										
SI23-T3-037G-A	172	430	/	225	219	150	150	416.5	7.5	M5
SI23-D3-018G-A										
SI23-D3-022G-A										
SI23-D5-030G-A										
SI23-T3-037G-A										

Steel model



Model	Overall dimension (mm)				Installation dimension (mm)		Installation aperture
	W	H	H1	D	W1	H2	
SI23-D3-030G-A	240	560	535	310	176	544	M6
SI23-D3-037G-A							
SI23-D3-045G-A							
SI23-T3-045G-A							
SI23-T3-055G-A							
SI23-T3-075G-A							
SI23-D3-055G-A							
SI23-T3-090G-A							
SI23-T3-110G-A							
SI23-T3-132G-A							
SI23-T3-160G-A	350	738	680	405	220	715	M8
SI23-T3-185G-A							
SI23-T3-200G-A							
SI23-T3-200G-A	360	940	850	480	200	914	M16
SI23-T3-200G-A							