VEICHI

Suzhou Veichi Electric Co.,Ltd.

No.1888 Songwei Road, Guoxiang Street, Wuzhong Economic and Technological Development Zone, Suzhou, Jiangsu Province, China.

Tel:+86-512-6617 1988 Fax:+86-512-6617 3610

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

WhatsApp:+86-138 2881 8903 Https://www.veichi.org

Official Website

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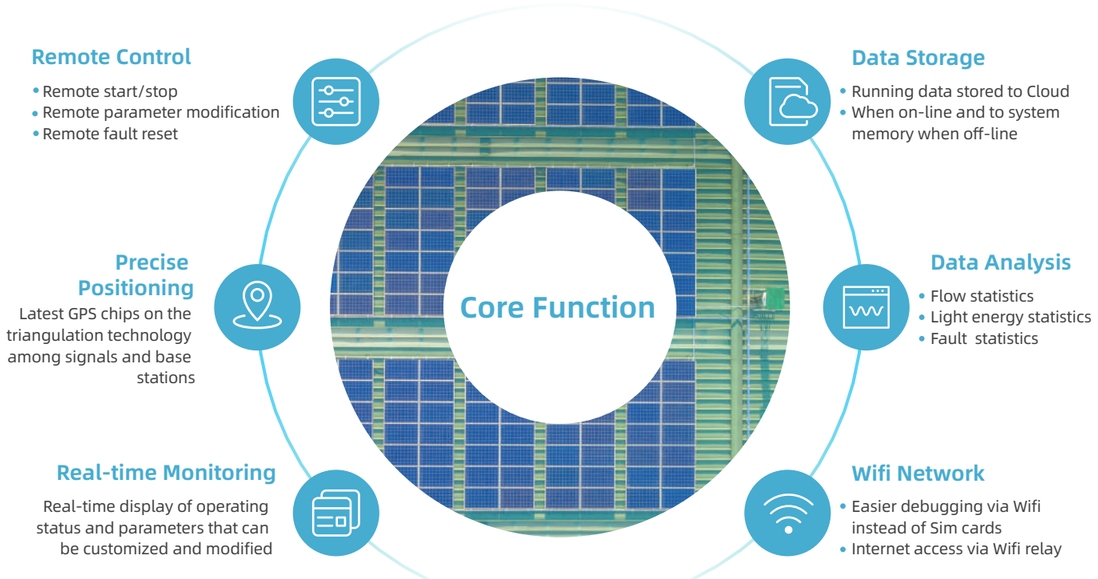
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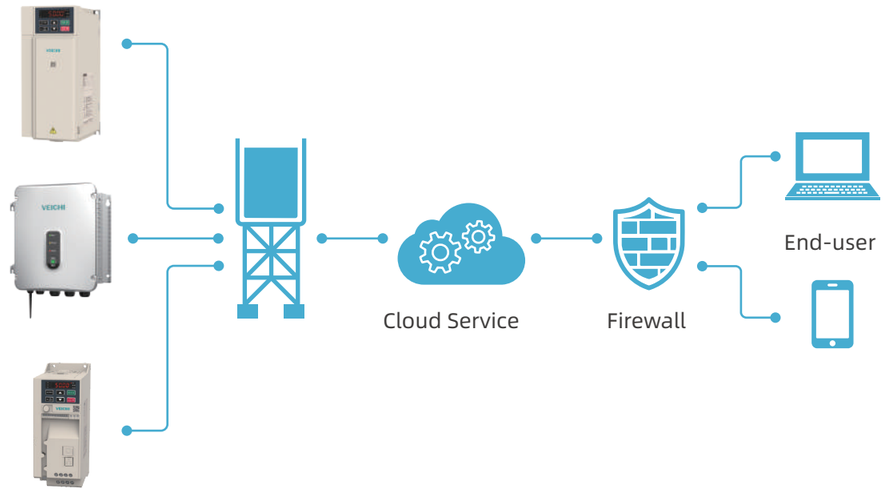
Solar Pump Inverter



Core Functions of IOT Products and System



Topological Graph of GPRS and Cloud Platform



SI30 Series Solar Pump Inverter

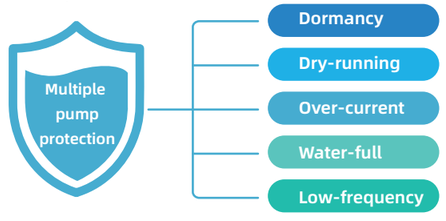
IP65 High Protection | One Key Start/Stop | Smart IOT



Product Features

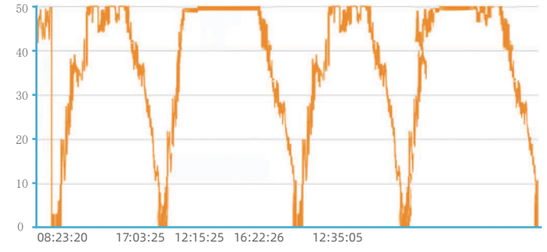
Multiple Pump Protections

- When the sunshine change, the solar panel output DC voltage is too low, the controller enters the dormant protection and alerts A.LPn .
- When running frequency too low, the controller will enter the low frequency protection and alert A.LFr; because the low frequency influence the pump cooling .
- When the inverter detects the output current is too low, the pump is prevented from running, automatically enters the dry-running and alerts A.LuT .
- When the running current is greater than the set threshold, the controller will automatically enter the overcurrent protection and alert the A.oLd .
- Through the terminal control and the liquid level sensor, the inverter can control the start and stop of the water pump according to the liquid level of the water tank .



Unattended, Automatic Operation, Remote Monitoring

- Unattended:After the system is installed, there is no need for personnel to be on duty.
- Automatic Operation:One key Start, inverter will automatically adjust the output frequency according to weather conditions, and upload fault alarm to IOT platform .
- Remote monitoring & control:Adjust operating parameters, handle and reset the fault remotely .



Adapt To Various Types Of Pumps

- AC Pumps：One key start/stop.
- PM synchronous pumps：Vector control, accurate Self -tuning of stator parameters .
- Single Phase: Single-phase/three-phase quick setting, simple operation .

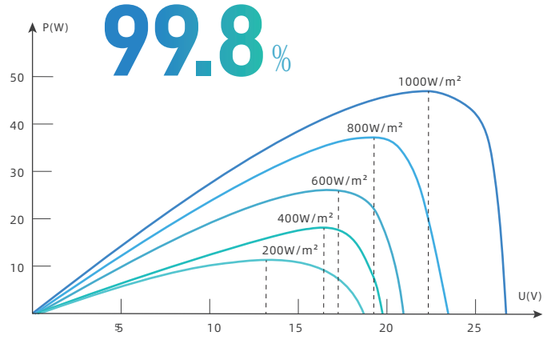


Hige-efficient MPPT

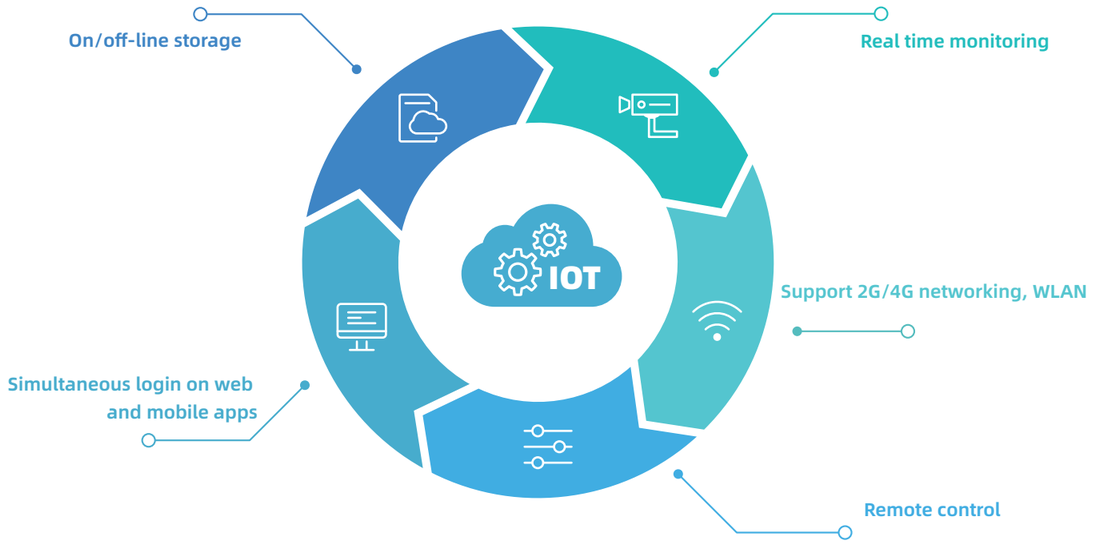
The software can quickly detect changes in bus voltage and then ensure the maximum output power of Solar panels when sunlight and temperature change .

MPPT efficiency up to:

99.8%



Smart IOT Platform

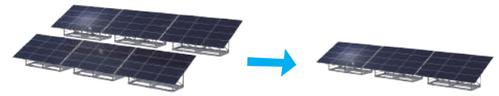


Comply With Multiple International Standards Certification

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

Voltage boost function

The voltage boost function on SI30 series minimizes the number of PV panels.



IP65 High Protection Level

Integral aluminum shell, up to:

25 years
of service life .

Overall protection:

IP65
waterproof display with one-key .
start and stop, safe and reliable waterproof connector .



SI30 Series Naming Rules

SI30 - D5 - 004G - R

Product Category
SI:stands for the solar pump inverter

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

Voltage Class
D1:155VDC, for three-phase and single-phase 110V AC synchronous, asynchronous, single-phase and BLDC pumps.
D3:311V DC, for three-phase and single-phase 220V AC synchronous, asynchronous, single-phase and BLDC pumps.
D5:540VDC, for three-phase and single-phase 380~460V AC synchronous and asynchronous pumps.

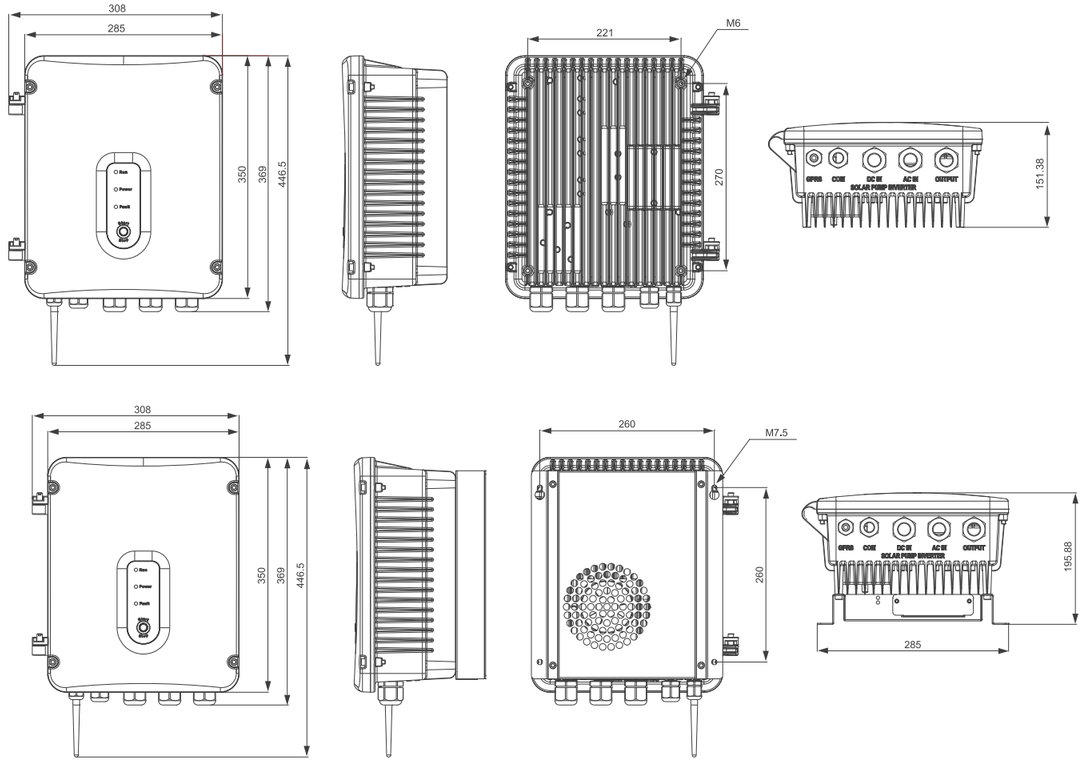
Rated Output Power
R75G=0.75KW
1R5G=1.5KW
004G=4KW
011G=11KW

Suffix
“R” stands for rectifier module
“I” stands for IOT module(optional)

Technical Specification

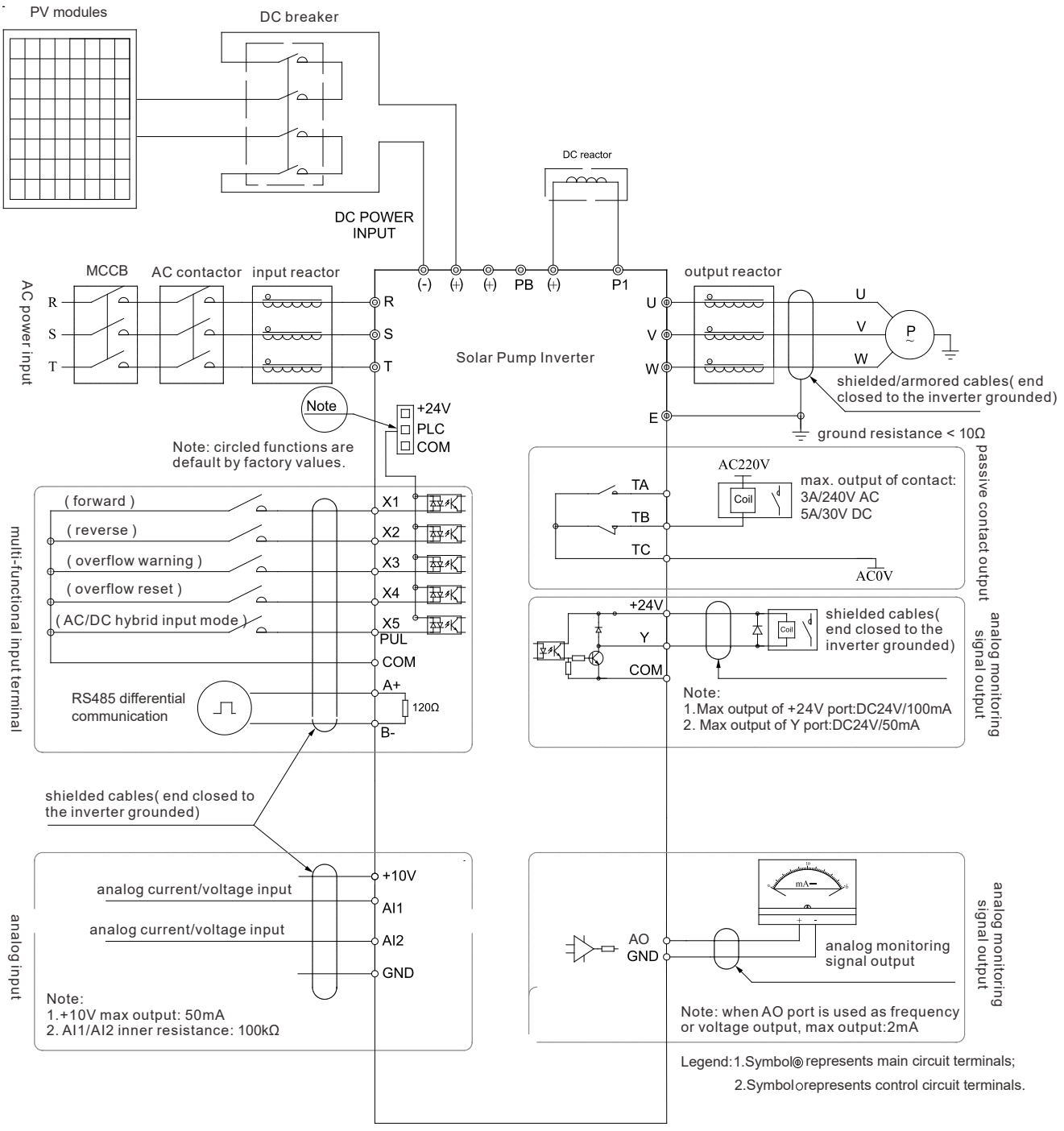
MODEL		D1	D3	D5
			PV Input	
Input voltage range		60~400V	150~450V	300~850V
Recommended Voc voltage		175~380V	360~430V	620~750V
Maximum MPPT efficiency		up to 99.8%	up to 99.8%	up to 99.8%
			AC Input	
Input voltage range		1PH 110V	1PH 220~240V	3PH 380~480V
Input voltage frequency		50/60Hz	50/60Hz	50/60Hz
			Output	
Output voltage range		110~230V	150~230V	230~460V
Output frequency range		0~599Hz	0~599Hz	0~599Hz
Output power range		0.75~1.5kW	0.75~2.2kW	0.75~11kW
Power		**Rated output current**		
0.75kW		7A	4A	2.5A
1.5kW		10A	7A	3.7A
2.2kW		-	10A	5A
4kW		-	-	10A
5.5kW		-	-	13A
7.5kW		-	-	17A
11kW		-	-	25A
			Control Performance	
Motor type		Asynchronous motor, 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		Hitch mounting		
Protection class		IP65		
Working temperature		-10~60℃		
Cooling method		Forced air cooling		
Humidity		20%~95%RH（condensation free）		
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 potection	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	√	√	√

SI30 Solar Pump Inverter Dimension



Inverter Model	Dimension(mm)			Installation dimension(mm)		Aperture Size
	W	H	D	W1	H1	
SI30-D1-R75G-R	308	446.5	151.38	221	270	M6
SI30-D1-1R5G-R						
SI30-D3-R75G-R						
SI30-D3-1R5G-R						
SI30-D3-2R2G-R						
SI30-D5-R75G-R						
SI30-D5-1R5G-R						
SI30-D5-2R2G-R						
SI30-D5-004G-R						
SI30-D5-5R5G-R	308	446.5	195.88	260	260	M7.5
SI30-D5-7R5G-R						
SI30-D5-011G-R						

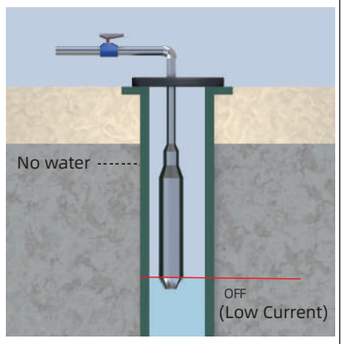
SI30 Series Electric Wiring



Exclusive Solutions For Water Pump Applications

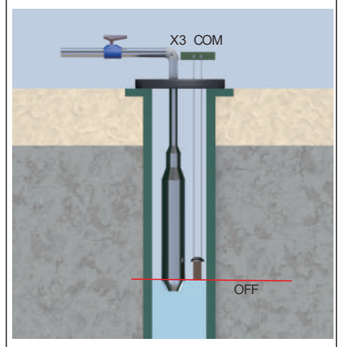
Dry running protection(No sensor)

When the well is empty, the output current will decrease, when the output current is lower than threshold value, dry running protection will be triggered



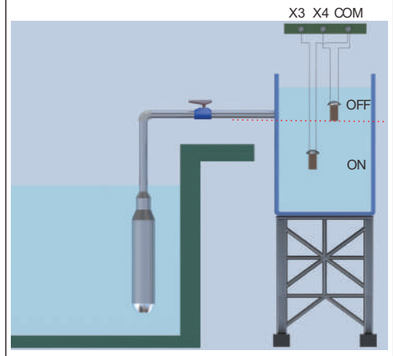
Dry running protection(One sensor)

When the downhole liquid level sensor detects water shortage, the frequency converter will enter into dry protection



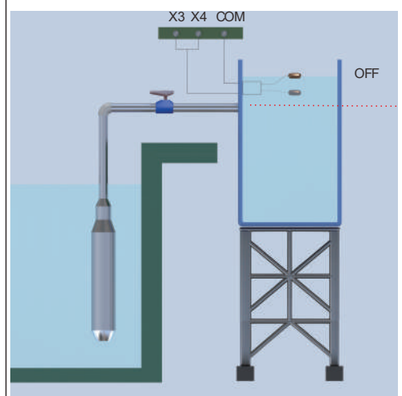
Water fulfil protection(Dual level sensor)

When the water level is higher than the high level sensor, it enters the water full protection. When the water level drops to the low level sensor, the inverter starts running



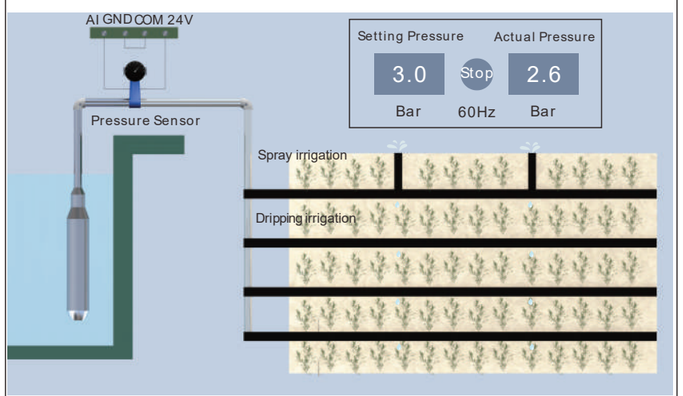
Water fulfil protection(Float switch)

The float switch controls the start and stop according to the liquid level

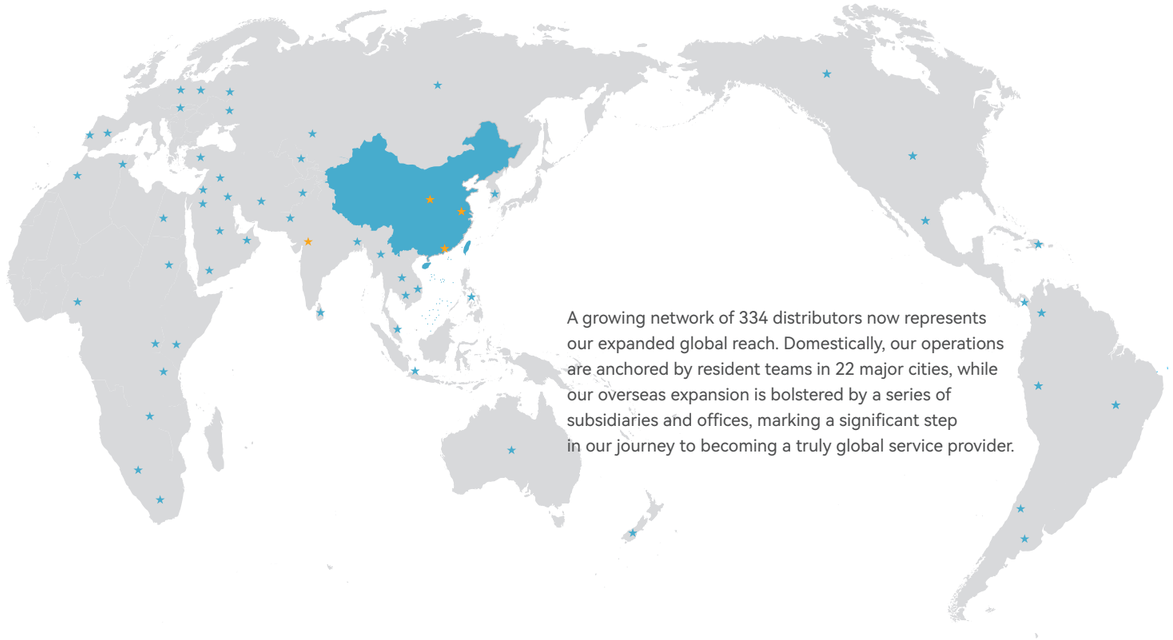


Constant pressure irrigation solution

Built-in PID algorithm, according to the pressure gauge feedback data to adjust the running frequency, to achieve constant pressure water supply



Service and Support



A growing network of 334 distributors now represents our expanded global reach. Domestically, our operations are anchored by resident teams in 22 major cities, while our overseas expansion is bolstered by a series of subsidiaries and offices, marking a significant step in our journey to becoming a truly global service provider.

01 Pre-sales

Technology promotion, site survey, proposal design, energy saving assessment

02 During-sales

Customization, design consultation, installation and commissioning, on-site training

03 After-sales

Regular return visits, regular maintenance, timelyrepairs, application instruction

