VEICHI

# SI32 Series
## Solar Pumping Inverter




Stock Code：688698

## IP65 for SI32 Series

Secured waterproof design for durable and reliable operation.
Outdoor application with AC and DC input for continuous operation.

**IP65**

## Max. power up to 22kW

A wide range of motor types compatible up to 6,500rpm for high-efficiency operation.

**22kW**

## Anti-reverse connection and anti-backflow

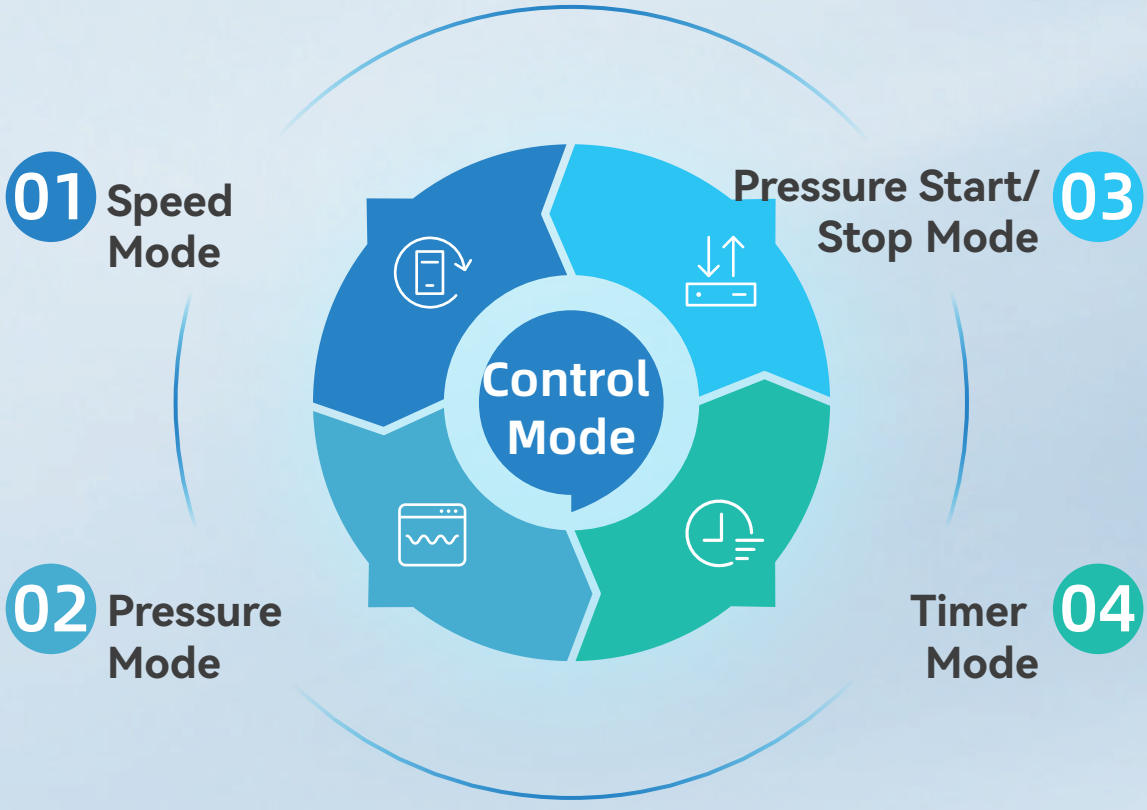
Enhanced the system security for lower potential risks due to improper operation or unforeseen circumstances.

**2 Key Functions**



# 4 flexible control modes integrated for constant pressure operation

Easily set F22.03 [Application Macro]=3 for speed mode, pressure mode, pressure start/stop mode, and timer mode.
Among them, the speed in the speed mode and time mode is decided by the speed parameters while the speed of pressure mode is regulated by PID control.






# PID Disconnection Detection

## Robust Safety Guarantee in Pressure Mode and Pressure Start-Stop Mode

With reference to the alarm threshold setting, the system is able to ensure pressure control accuracy while responding to potential faults and hazardous situations, improving overall efficiency and safety.

# IOT platform

## 4G remote control with visual monitoring

Real-time monitoring

Device management

Remote setting

Intelligent alarm

WEB/APP



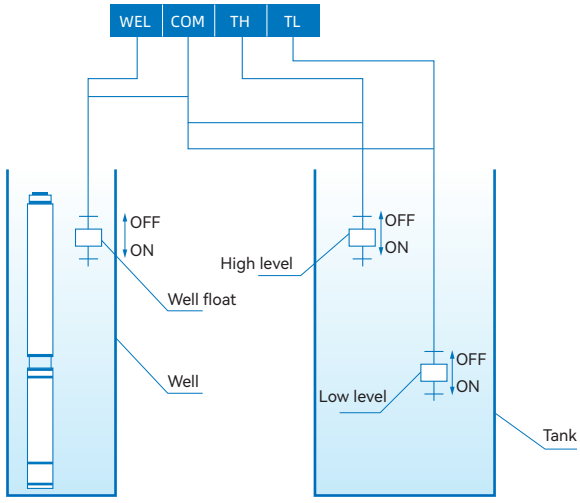


## Multiple pressure sensors

Built-in common sensor types and ranges are free to be changed by users.

## Real-time monitoring and control of water levels in wells and cisterns by float switches

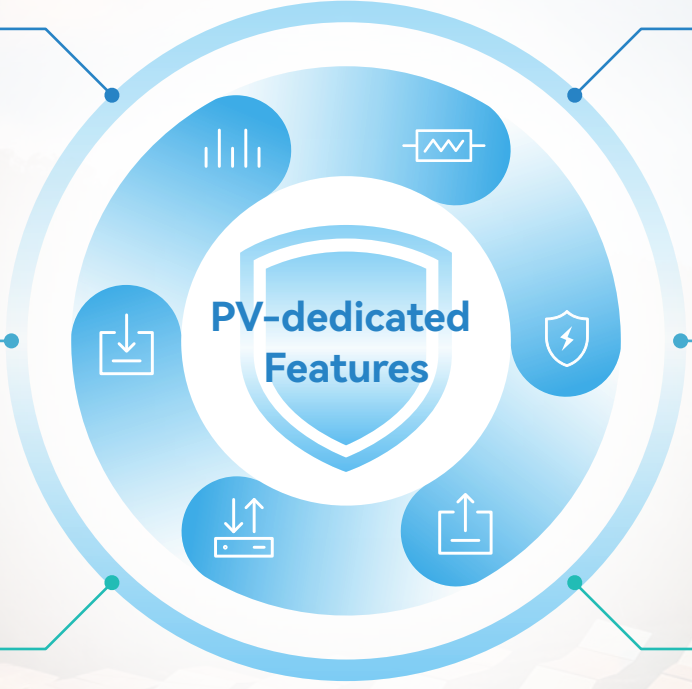
The float switch triggers a signal to start the pump when the cistern drops to a certain level, and stops it when the water level reaches the upper limit, thus maintaining the water in a reasonable range, and at the same time, it can prevent the pump from idling work when there is less or no water at all in the well.




| Mark | Name | Description |
|---|---|---|
| TH | High float | TH connects to one end of the switch and COM connects to the other. When the switch is on, the motor stops and the system enters the high water level protection. When the switch is off, it exits the high water level protection. |
| TL | Low float | TL connects to one end of the switch and COM connects to the other. When the switch is on, the system will jump to the low water level and start the motor immediately. When the switch is off, it exits the low water level status. |
| WEL | Water shortage | WEL connects to one end of the switch and COM connects to the other. When the switch is on, the motor stops and the system enters the water shortage protection. When the switch is off, it exits the water shortage protection. |

# MPPT efficiency up to 99.8%

## Maximize the efficient capture and conversion of solar energy with minimal energy loss




Low-frequency protection

Min. power protection

Dry-out protection

Over-current protection

Low-pressure sleep Protection

Overflow protection

Solar power brings people closer to nature, making life better!

# Application:

Agricultural irrigation

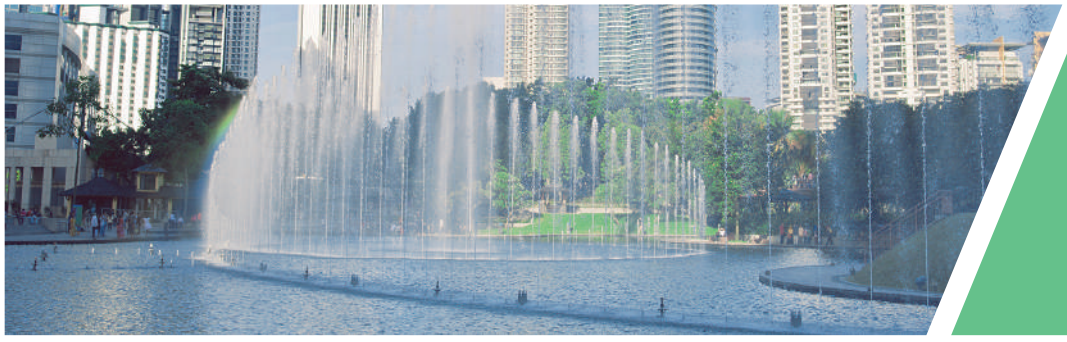




Desert governance

Grassland livestock





Urban springs

Household water



# Naming Rules:

## SI32 - D5 - 004G - A

**Product Series**
Product Code SI32

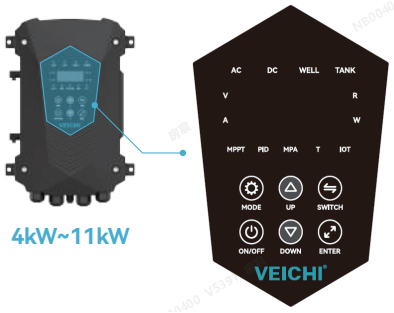
**Voltage Level**
D5: 540V DC

**Suffix Type**
A: With VEICHI logo
Empty: Netual

**Motor Power**
004G: 4kW
5R5G: 5.5kW
7R5G: 7.5kW
011G: 11kW

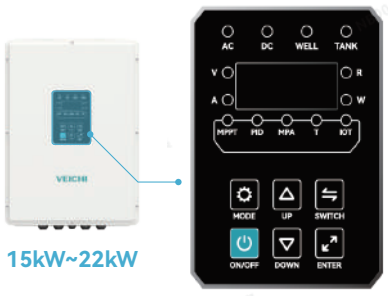
# Model and Appearance:

| Model | Rated Power (kW) | DC Input (V) | AC Input (V) | Rated Output Current (A) |
|---|---|---|---|---|
| SI32-D5-004G-A | 4 | 250~850 | 380~480 | 10 |
| SI32-D5-5R5G-A | 5.5 | 250~850 | 380~480 | 13 |
| SI32-D5-7R5G-A | 7.5 | 250~850 | 380~480 | 17 |
| SI32-D5-011G-A | 11 | 250~850 | 380~480 | 25 |




4kW~11kW

| Model | Rated Power (kW) | DC Input (V) | AC Input (V) | Rated Output Current (A) |
|---|---|---|---|---|
| SI32-D5-015G-A | 15 | 250~850 | 380~480 | 32 |
| SI32-D5-018G-A | 18.5 | 250~850 | 380~480 | 38 |
| SI32-D5-022G-A | 22 | 250~850 | 380~480 | 45 |




15kW~22kW

# Technical Specifications:

| | |
|---|---|
| **Input** | |
| DC voltage | 250~850V DC |
| Sugg. voltage | 620~750V DC |
| Max. MPPT efficiency | ≥99.9% |
| AC voltage/frequency | 3PH 380~480V 50/60Hz |
| Allowable fluctuation | -15%~10%, voltage imbalance rate: < 3%; frequency: ±5% |
| **Output** | |
| Output voltage | Output under rated conditions: three-phase, 0~input voltage (converted to AC values), deviation < 5% |
| Output frequency | 0.00Hz~599.00Hz |
| Output frequency accuracy | ±0.5% of the max. frequency |
| **Control Performance** | |
| Motor type | Asynchronous motor, synchronous motor, and synchronous reluctance motor |
| Control mode | V/F control, SVC, FVC, V-F split control |
| Modulation | SVPWM |
| Carrier frequency | 1.0kHz~16.0kHz |
| Overload capacity | 150% of rated load for 60s, 180% of rated load for 10s and 200% of rated load for 0.5s under 4kHz |
| **Display and Keys** | |
| Digital tube | Built-in panel for parameter display |
| Key function | Single and combined presses against accidental operation |
| **Environment** | |
| Installation method | Wall-mounting |
| Protection level | IP65 |
| Working environment | Install them in the places without oil, dust, corrosive,flammable and explosive gases in the air, vibration,condensation, icing, rain, snow, hail, etc., |
| Ambient temperature and humidity | -10℃~+50℃, derate above 40℃, 60℃ max. (no-load)<br>5%RH~95%RH (non-condensation) |
| Altitude | <1000 meters,derate by 1% for every 100 meters rise above 1000m |
| Vibration | 5.9M/s2 (0.6G) under 9Hz~200Hz. |
| Storage temperature | -30℃~+60℃ |
| **Protection** | |
| General | Under-voltage, over-voltage, i/o phase loss, overload, over-current, over-heat, phase-to-phase short-circuit, short-circuit to ground, stall and auto-tuning failure |
| PV-dedicated | Low-frequency, pump over-current, dry-out, min. power protection, overflow, and sleep protection |
| Constant pressure | PID disconnection detection |

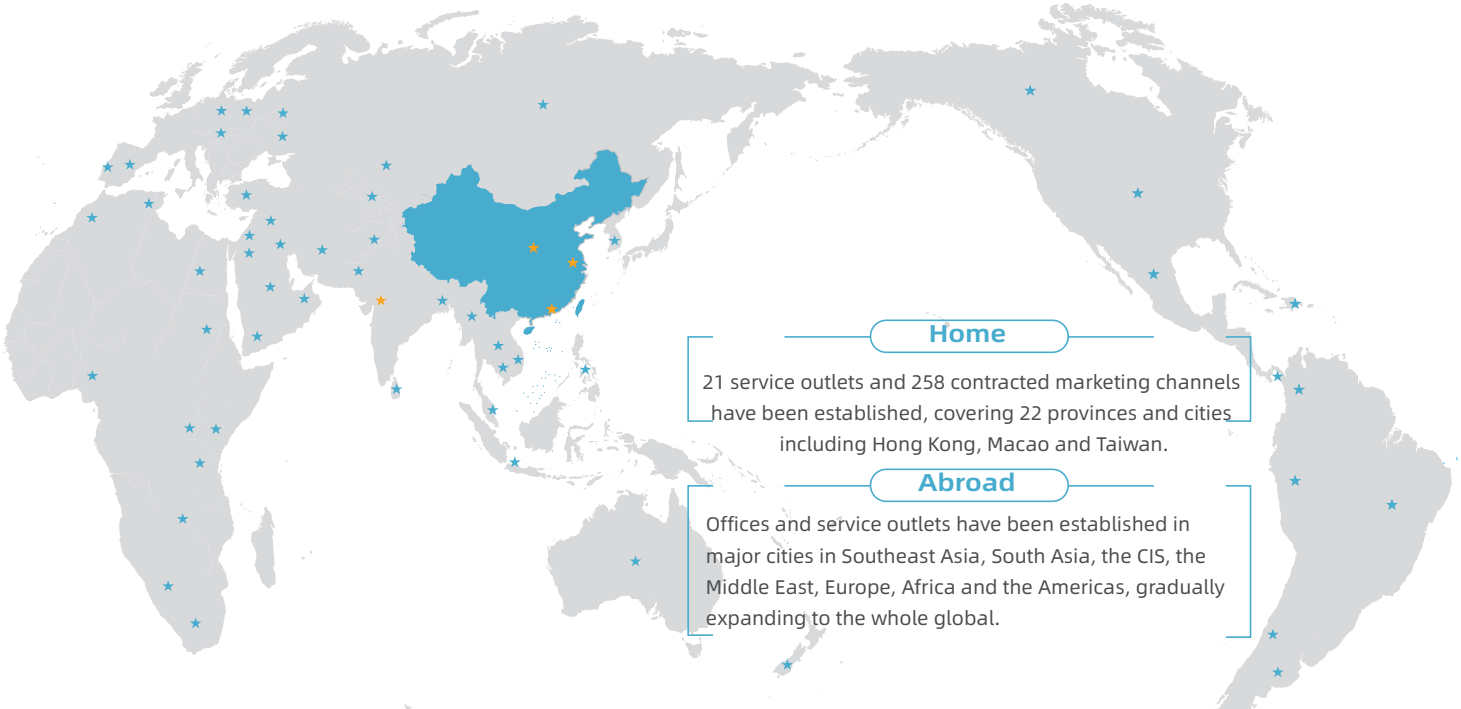
# Main Circuit Terminal

| Type | Mark | Name |
|---|---|---|
| Input | R, S, T | Three-phase 380V power input terminals |
| | -, + | DC bus positive and negative input terminals |
| Output | U, V, W | Drive output terminal |
| Ground |  | Grounding terminal |

# Control Circuit Terminal

| Type | Mark | Name | Description |
|---|---|---|---|
| Power | +10V<br>GND | +10V | Provide +10V power supply to the external devices, with maximum output current of 50mA; generally used as the power supply for external potentiometer with the resistance range of 1kΩ~5kΩ |
| | +24V<br>GND | +24V | Provide +24V power supply to the external devices; generally used as the power supply for DI and DO terminals and external sensors.<br>Max. output current: 100mA |
| AI | AI | Encoder signal input | Range: DC 0V~10V(0mA~20mA) |
| DI | TH<br>TL<br>WELL<br>X4 | X1<br>X2<br>X3<br>X4 | Opto-isolator, compatible with bipolar input<br>1. Input impedance: 4.4KΩ<br>2. Voltage at high-level input: 10V~30V<br>3. Voltage at low-level input: 0V~5V |
| Communication | A+<br>B- | 485 communication terminal A<br>485 communication terminal B | For 485 communication |

# Service and Support



**Home**

21 service outlets and 258 contracted marketing channels have been established, covering 22 provinces and cities including Hong Kong, Macao and Taiwan.

**Abroad**

Offices and service outlets have been established in major cities in Southeast Asia, South Asia, the CIS, the Middle East, Europe, Africa and the Americas, gradually expanding to the whole global.

01 **Pre-sales**

Technology promotion, site survey and energy efficiency assessment

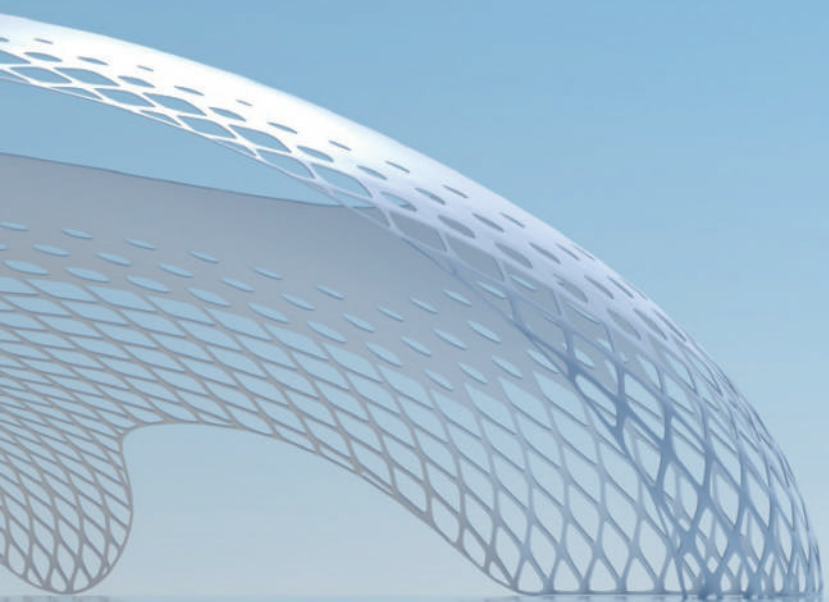
02 **In-sales**

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

03 **Post-sales**

Regular return visits, timely maintenance and repair and user training





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