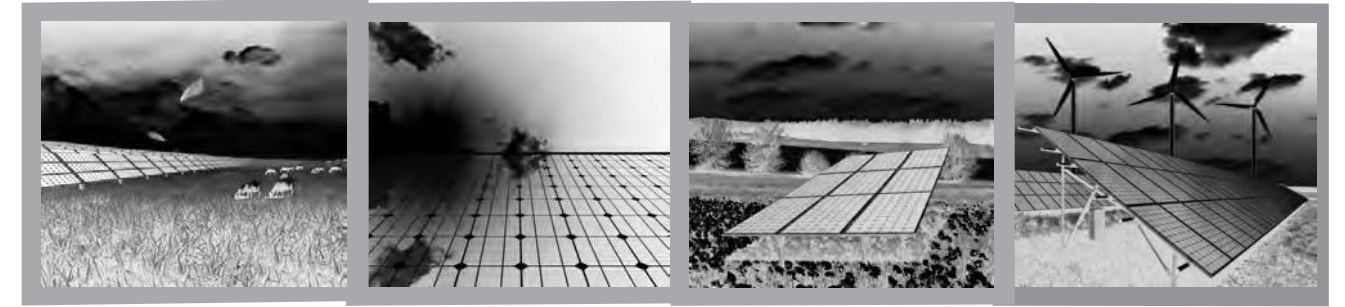


INNOVATION • CONCENTRATION • SERVICE • WIN-WIN



Solar Pumping Inverter

FRECON

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For FRECON Website

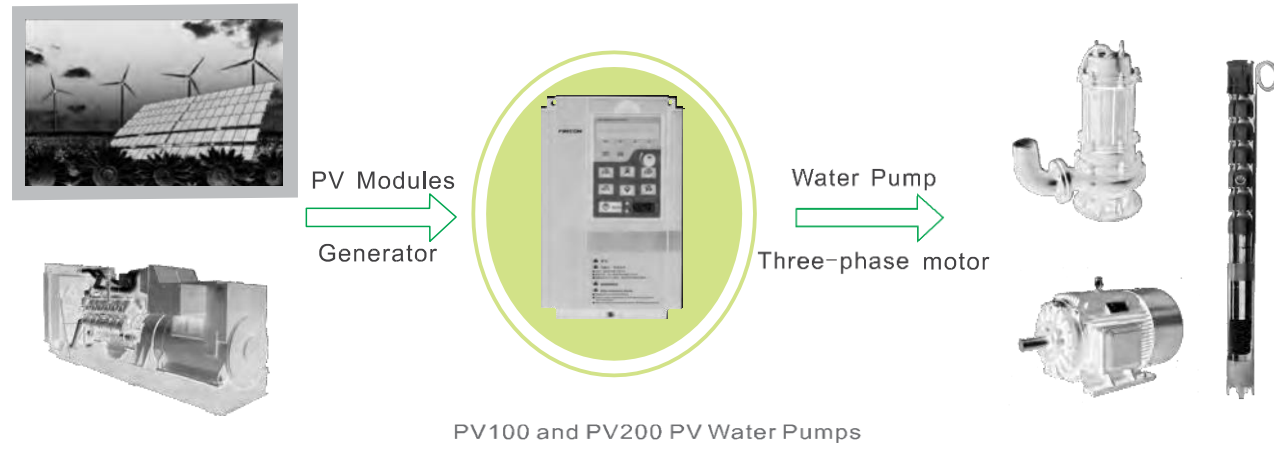
2016(V1.0)





Products Application

Solar Water Pump System---Agro-forestry



Energy Input

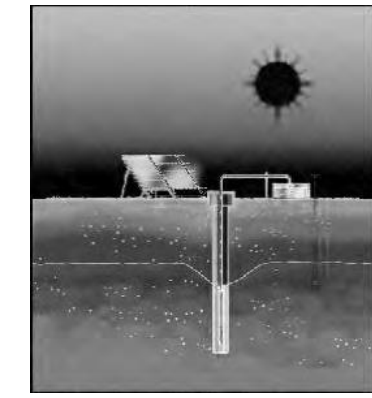
- ◆ Solar PV Power Supply [Without Batteries]
- ◆ Diesel Generator Power Supply
- ◆ 380V mains supply

Dedicated Controller

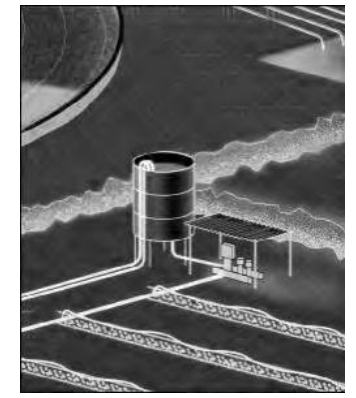
- ◆ Solar Power Input
- ◆ No batteries, reduce costs, reduce pollution
- ◆ Generators or mains supply is also available
- ◆ Possess function of inverter

Loads can be used

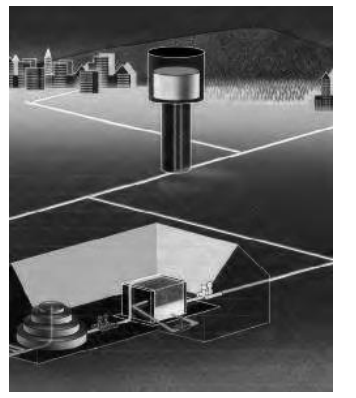
- ◆ Three-phase asynchronous motor
- ◆ Three-phase water pumps



Pumping of ground-water
Irrigation facilities
Wells Pumping
Sunshine drought resisting



Water-storage irrigation
Water-saving irrigation
Irrigation Drip Irrigation
Constant pressure micro jet



Residential Domestic Water
Water treatment

PV pumping system___City Life Applications



Domestic Water Urban Landscape Micro landscape green ng Suburban Water Conservat on
 Safety Dr nk ng Water Commun ty nvo vement Waterscapé ii | | Founta n D ese Power Shar ng i i
 Water Pur f cat on C v c Square Art f c a Lakes ii | | Hydtolog cal rhon tor ng power supply i | | i |
 Sea Water Desa nat on li i

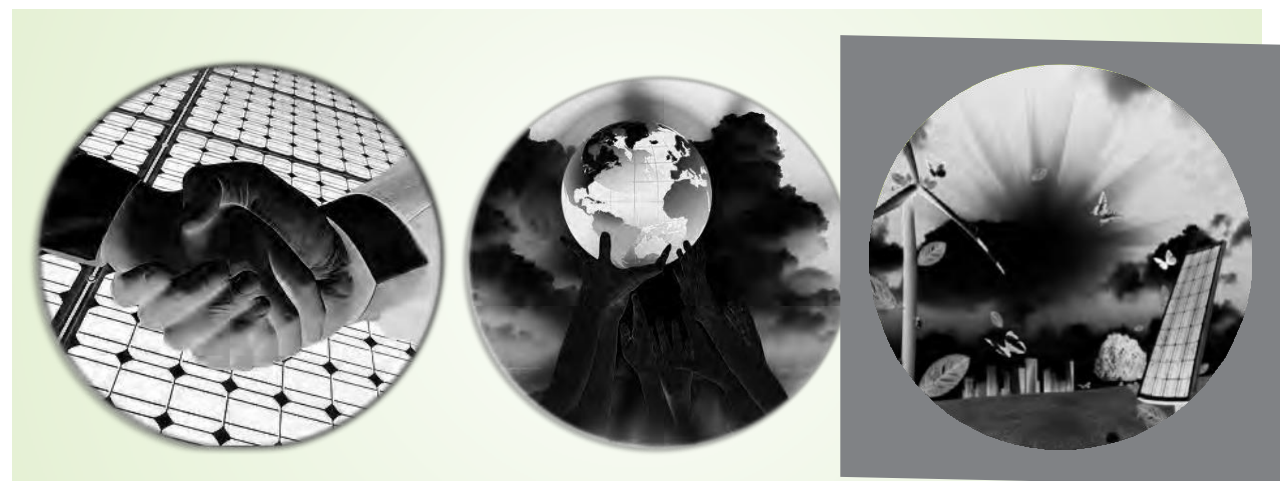
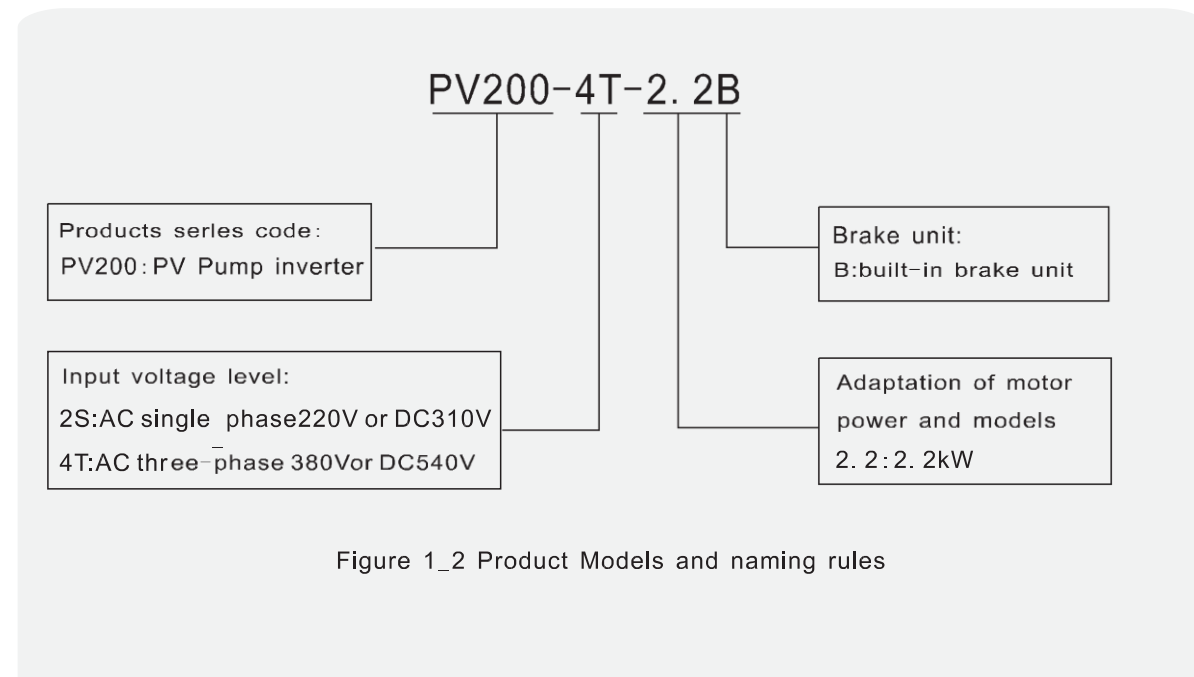
Product Features

- ◆ Built_in self_adaptive high_accuracy photovoltaic array MPPT algorithm, accuracy up to 99%
- ◆ The maximum water flow output in equal environment
- ◆ Compatible with AC/DC two inputs
- ◆ LED displays the real_time system status and parameters
- ◆ RS485_based real_time remote monitoring system
- ◆ Motor soft_start can avoid water hammer effect, improve the system life
- ◆ Quick installation design, no additional maintenance
- ◆ Built-In all-directional protection and dlagnostic mechanisms

Product Selection

Model Description

Numbers, marks and letters combined on product_sticker expresses their belong series, suitable power supply kinds, power level and other informations.



Three-phase 220V output product models and the technical parameters

| Models | kWP Solar Array Power Recommended | A Max Input DC Current A | A Output current A | Adaptive Motor kW |
|---------------|-----------------------------------|--------------------------|--------------------|-------------------|
| PV100-2S-0.2B | 0.35 | 2.5 | 1.6 | 0.18、0.2、0.25 |
| PV100-2S-0.4B | 0.6 | 4.5 | 2.5 | 0.37、0.4 |
| PV100-2S-0.7B | 1.1 | 7.5 | 4.2 | 0.75 |
| PV100-2S-1.5B | 2.25 | 10 | 7.5 | 1.5 |
| PV100-2S-2.2B | 3.3 | 18 | 9.5 | 2.2 |

Input Parameters

PV Input

| | |
|-------------------------------------|------------|
| Max Input DC Voltage | 400VDC |
| MPPT Voltage Range Recommended | 250~350VDC |
| Input Operation Voltage Recommended | 310VDC |

Power Grid or Back-up Generator Input

| | |
|---------------|-----------------------------|
| Input Voltage | Single-phase 220V(-15%~30%) |
|---------------|-----------------------------|

Output Parameters

| | |
|----------------------|----------------------------|
| Rated Output Voltage | 3PH 220V |
| Output Frequency | 0~600.00Hz(OFF 0~50.00Hz) |

Protection

| | |
|---------------------|--|
| Built-In Protection | Lightning-proof, over-current, overvoltage, output phase protection, underrun, under-voltage, short circuit, overheat, pumps run dry, etc. |
|---------------------|--|

General Parameters

| | |
|-------------------------|---|
| Application Site | No direct sunshine, no dust, corrosive gas, combustible gas, oil mist, steam, dripping or salinity etc. |
| Altitude | 0~2000 m Derated use above 1000m, per 100m, the rated output current decrease 1%. |
| Environment Temperature | -10°C ~ 40°C (Environment Temperature be 40°C ~ 50°C, please keep derated use. |
| Humidity | 5~95%, non-condensation |
| Vibration | less than 5.9 m/s ² (0.6g) |
| Storage Temperature | -20°C ~ +70°C |
| Efficiency | Rated Power Run ≥ 93% |
| Installation | Wall or rail mounting |
| Protection Grade | IP20 |
| Cooling | Forced Air Cooling |

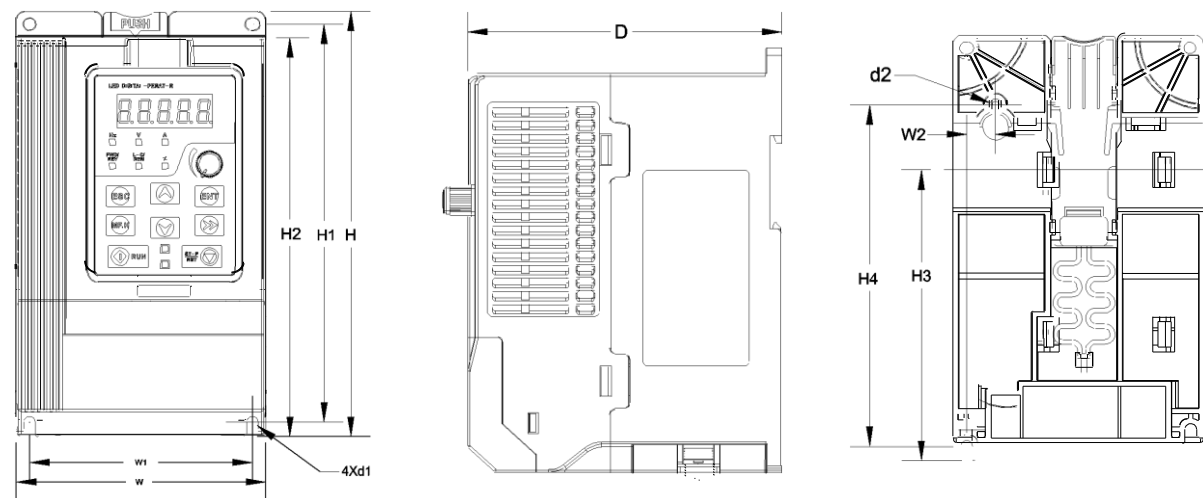
Three-phase 380V output products model and the technical parameter

| Models | kWP Solar Array Power Recommended | A Max Input DC Current A | A Output current A | Adaptive Motor kW |
|---------------|-----------------------------------|--------------------------|--------------------|-------------------|
| PV100-4T-0.7B | 1.1 | 4.5 | 2.5 | 0.75 |
| PV100-4T-1.5B | 2.25 | 7.5 | 4.2 | 1.5 |
| PV100-4T-2.2B | 3.3 | 10 | 5.5 | 2.2 |
| PV100-4T-4.0B | 6 | 18 | 9.5 | 3.7、4 |
| PV200-4T-0.7B | 1.1 | 4.5 | 2.5 | 0.75 |
| PV200-4T-1.5B | 2.25 | 7.5 | 4.2 | 1.5 |
| PV200-4T-2.2B | 3.3 | 10 | 5.5 | 2.2 |
| PV200-4T-4.0B | 6 | 18 | 9.5 | 3.7、4 |
| PV200-4T-5.5B | 8.3 45 | 20 100 | 13 | 5.5 |
| PV200-4T-7.5B | 11 | 30 | 17 | 7.5 |
| PV200-4T-011B | 16 | 40 | 25 | 11 |
| PV200-4T-015B | 22 | 50 | 32 | 15 |
| PV200-4T-018B | 25.9 | 60 | 37 | 18.5 |
| PV200-4T-022B | 33 | 80 | 45 | 22 |
| PV200-4T-030B | | | 60 | 30 |

| Input Parameters | |
|--|---|
| PV Input | |
| Max Input DC Voltage | 800VDC |
| MPPT Voltage Range Recommended | 450~600VDC |
| Input Operation Voltage Recommended | 540VDC |
| Power Grid or Back-up Generator Input | |
| Input Voltage | Three-phase 220V(-15%~30%) |
| Output Parameters | |
| Rated Output Voltage | 3PH 380V |
| Output Frequency | 0~600.00Hz(OFF 0~50.00Hz) |
| Protection | |
| Built-In Protection | Lightning-proof, over-current, overvoltage, output phase protection, underrun, under-voltage, short circuit, overheat, pumps run dry, etc. |
| General Parameters | |
| Application Site | No direct sunshine, no dust, corrosive gas, combustible gas, oil mist, steam, dripping or salinity etc. |
| Altitude | 0~2000m |
| Environment Temperature | Derated use above 1000m, per 100m, the rated output current decrease 1%. -10°C~40°C (Environment Temperature be 40°C~50°C, please keep derated use. |
| Humidity | 5~95%, non-condensation |
| Vibration | less than 5.9 m/s ² (0.6g) |
| Storage Temperature | -20°C~+70°C |
| Efficiency | Rated Power Run ≥ 93% |
| Installation | Wall-mounted or flange (wall) installation |
| Protection Grade | IP20 |
| Cooling | Forced Air Cooling |

Mounting Dimensions

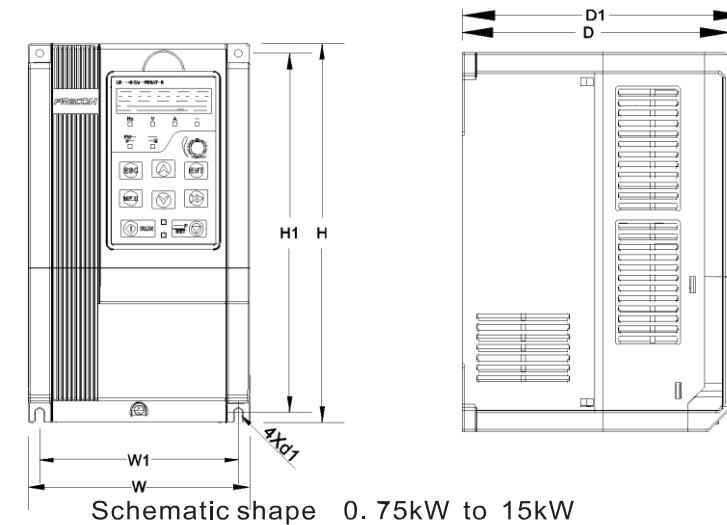
PV100 overall and installation dimensions



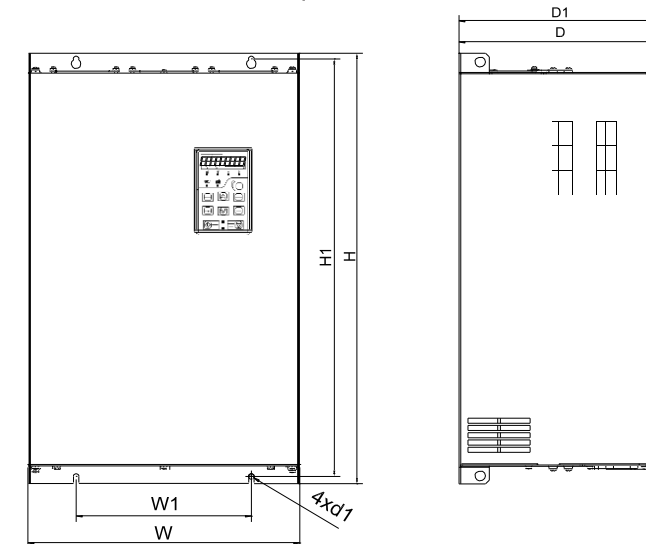
Appearance and mounting dimensions (mm)

| Model | W | H | D | W1 | W2 | H1 | H2 | H3 | H4 | Mounting | Mounting | Weight (Kg) |
|-----------------------------------|-----|-----|-----|-----|----|-------|-----|-------|-------|----------------|----------------|----------------|
| | | | | | | | | | | Aperture d1 | Aperture d2 | |
| Single-phase power : 220V 50/60Hz | | | | | | | | | | | | |
| PV100 2S 0.2B | | | | | | | | | | | | |
| PV100 2S 0.4B | 95 | 162 | 120 | 85 | 11 | 151.5 | 152 | 110 | 130 | 4.5 | 4.5 | 1.1 |
| PV100 2S 0.7B | | | | | | | | | | | | |
| PV100 2S 1.5B | | | | | | | | | | | | |
| PV100 2S 2.2B | 110 | 173 | 135 | 100 | 11 | 163 | 163 | 121.8 | 140.5 | 4.5 | 5 | 1.5 |
| Three-phase power : 380V 50/60Hz | | | | | | | | | | | | |
| PV100 4T 0.7B | | | | | | | | | | | | |
| PV100 4T 1.5B | 110 | 173 | 135 | 100 | 11 | 163 | 163 | 121.8 | 140.5 | 4.5 | 5 | 1.5 |
| PV100 4T 2.2B | | | | | | | | | | | | |
| PV100 4T 4.0B | | | | | | | | | | | | |

PV200 overall and installation dimensions



Schematic shape 0.75kW to 15kW



Schematic shape 18.5kW to 30kW

Appearance and mounting dimensions (mm)

| Model | W | W1 | H | H1 | D | Mounting | Weight (Kg) |
|---|-----|-------|-----|-------|-----|----------|----------------|
| | | | | | | Aperture | |
| Three-phase power : 380V 50/60Hz Range : 15% ~ +30% | | | | | | | |
| PV200-4T-0.7B | | | | | | | |
| PV200-4T-1.5B | 117 | 106.6 | 187 | 176.6 | 160 | 4.5 | 2.2 |
| PV200-4T-2.2B | | | | | | | |
| PV200-4T-4.0B | | | | | | | |
| PV200-4T-5.5B | 146 | 131 | 249 | 236 | 177 | 5.5 | 3.2 |
| PV200-4T-7.5B | | | | | | | |
| PV200-4T-011B | 198 | 183 | 300 | 287 | 185 | 5.5 | 5.4 |
| PV200-4T-015B | | | | | | | |
| PV200-4T-018B | | | | | | | |
| PV200-4T-022B | 255 | 176 | 459 | 443 | 220 | 7 | 15.5 |
| PV200-4T-030B | | | | | | | |