FUGONG

PV210

Solar Pumping Inverter

PRODUCT DESCRIPTION

The PV210 series solar pump inverter is a compact and highly integrated professional inverter. It adopts highperformance vect or control technology and is specifically optimized for solar pumping systems. The device integrates precise PID control, high-efficiency MPPT (Maximum Power Point Tracking).

High-efficiency energy saving

Incorporating advanced MPPT technology with fast response and stable operation, achieving up to 99.9% MPPT efficiency.

Safety and Reliability

Equipped with built-in soft start, over-voltage, over-load, under-voltage, and low solar irradiation protection functions to effectively extend product service life.

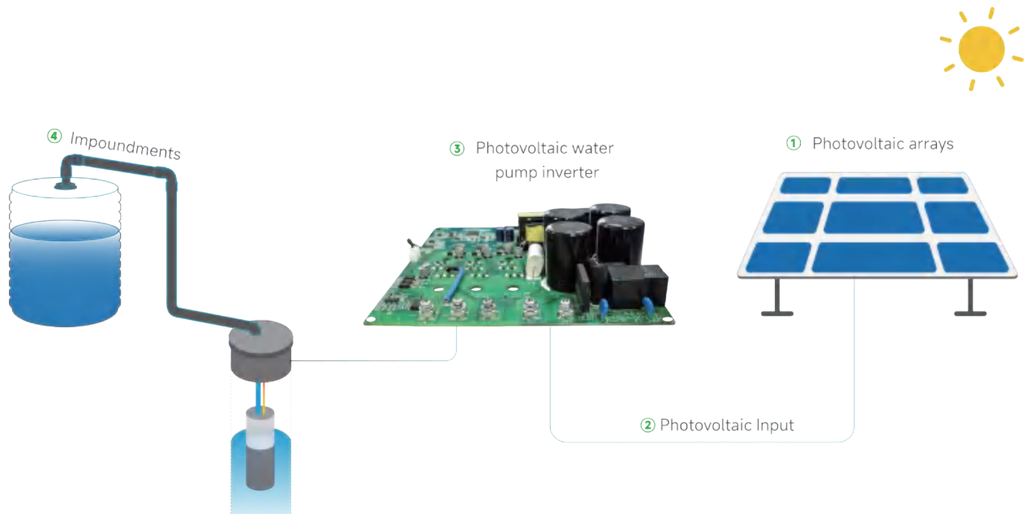
Dry run detection function

Automatically protects the water pump to prevent motor burnout during operation without water.

Easy and Convenient

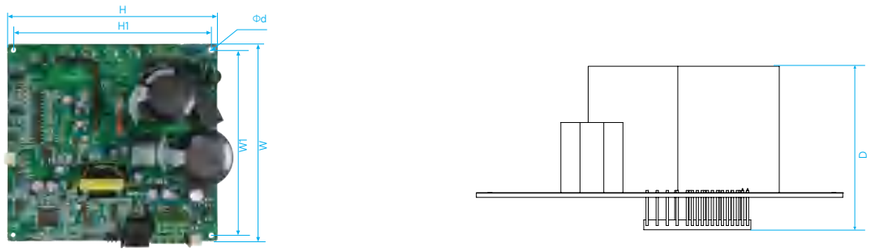
Supports external keyboard connection, making debugging convenient.Users can quickly put it into use without complex settings. Its built-in intelligent control algorithm can automatically match parameters of different water pumpsachieving plug-and-play functionality.

Solar Pumping Inverter application system

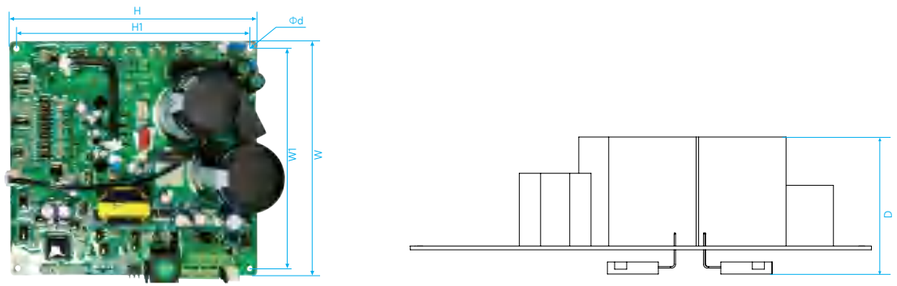


INSTALLATION DIMENSION DRAWING

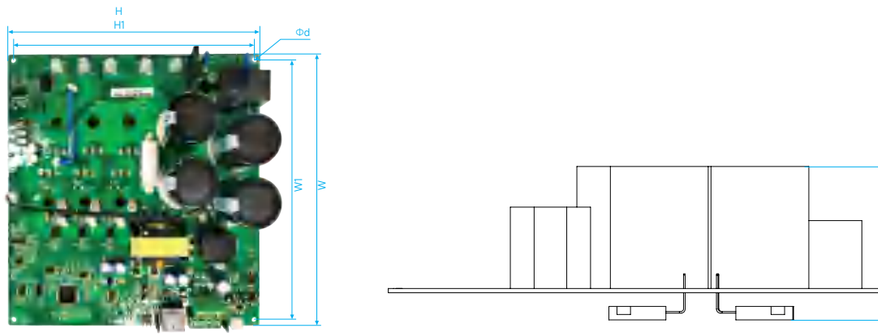
Schematic diagram of P1



Schematic diagram of P2



Schematic diagram of P3



DIMENSIONS

1T

60V DC to 400V DC input, Output:3-phase 110 ~ 230VAC, suitable for ac110 pump.

Model	Output current [A]	Output frequency range [Hz]	Applicable for pumps [kW]	External and installation dimensions[mm]						Outline Specification DiaGram
				W	D	H	W1	H1	d	
PV210-1T-0.75G	7.0	0-600	0.75	140	70	130	132	122	4-Φ3.5	P1
PV210-1T-1.5G	10	0-600	1.5							
PV210-1T-2.2G	16	0-600	2.2	175	70	190	167	182	4-Φ3.5	P3

2T

60V DC to 450V DC input, output:3-phase 220 ~ 240VAC, suitable for ac220 pump.

Model	Output current [A]	Output frequency range [Hz]	Applicable for pumps [kW]	External and installation dimensions[mm]						Outline Specification DiaGram
				W	D	H	W1	H1	d	
PV210-2T-0.75G	4.0	0-600	0.75	140	70	130	132	122	4-Φ3.5	P1
PV210-2T-1.5G	7.0	0-600	1.5							
PV210-2T-2.2G	10	0-600	2.2							
PV210-2T-3.7G	16	0-600	3.7	175	70	190	167	182	4-Φ3.5	P3

4T

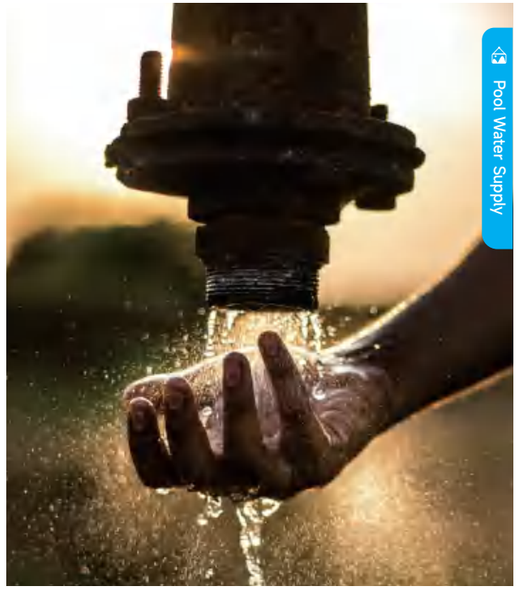
200V DC to 800V DC input , output:3-phase 230 ~ 460VAC,suitable for ac380 pump.

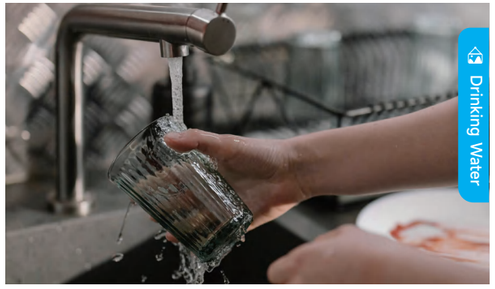
Model	Output current [A]	Output frequency range [Hz]	Applicable for pumps [kW]	External and installation dimensions[mm]						Outline Specification DiaGram
				W	D	H	W1	H1	d	
PV210-4T-3.7G	10	0-600	3.7	145	70	148	137	140	4-Φ3.5	P2
PV210-4T-5.5G	14	0-600	5.5	175	70	190	167	182	4-Φ3.5	P3
PV210-4T-7.5G	18	0-600	7.5							

TECHNICAL SPECIFICATIONS

Item		Specification
Power input	Voltage	1T: 60V DC to 400V DC 2T: 60V DC to 450V DC 4T: 200V DC to 800V DC
Power output	Adaptive motor type	Three-phase asynchronous motor, permanent magnet synchronous motor
	MPPT efficiency	maximal efficiency ⩾ 99%
	Output voltage	1T:3-phase 110 ~ 230VAC 2T:3-phase 220 ~ 240VAC 4T:3-phase 230 ~ 460VAC inaccuracy<5%
	Output frequency range	0 ~ 600Hz;unit:0.01Hz
	Overload capacity	G type: 150% rated current/1 min, 180% rated current/10s, 200% rated current/0.5s
Main control performance	Motor control mode	V/F without PG , VC without PG , MPPT
	Speed control range	Vector control without PG, rated load 1:100
	Steady speed accuracy	VC without PG: ⩽ 2% rated synchronized speed
	Starting torque	VC without PG: when 0.5Hz, 150% rated torque
	Torque response	VC without PG: ⩽ 20ms;
Product basic functions	Torque boost capacity	Auto torque upgrade 0.0 ~ 100.0%; Manual torque upgrade 0.0 ~ 30.0%
	V/F curve	4 modes: one linearity torque characteristic curve ,one self-setting V/F curve mode, one drop torque characteristic curve (1.1- 2.0 powers),and square V/F curve mode.
		2 modes: linear Acceleration/Deceleration and S curve Acceleration/Deceleration.
	Acceleration/Deceleration curve	4 sets of ACC/DEC, time unit 0.01s selectable, longest time: 650.00s.
	Rated output voltage	Rely on power supply voltage compensate function, while motor rated voltage is 100%, set it at the range of 50-100%(output can not over input voltage).
	Auto energy-saving running	While under V/F control mode, according to load situation, auto-optimize output voltage to save energy.
	Standard functions	PID control, speed track, power off restart, jump frequency, upper/lower frequency limit control, program operation, multi- speed, RS485.
	Frequency setting channels	Keyboard digital setting, keyboard potentiometer , Communication given.
	Running command channel	External Keyboard given、DI terminal given, communication given
	Input command signal	Start, stop, FWD/REV, JOG, multi-step speed, reset, ACC/DEC time selection, frequency given channel selection, exterior fault alarm.
Protective function		Overvoltage, under-voltage, current limit, over-current, overload, electric thermal relay, overheat, overvoltage stall, data protection, rapid speed protection, output phase failure protection.
Environment	Install place	altitude ⩽ 1000m,above 1000m down the rated amount, each increase of 100m down the rated mount of 1%;no condensation, ice ,rain, snow, hail; solar radiation below 700W/ m^2 , air pressure 70-106 kPa.
	Temperature, humidity	-10 ~ + 50 °C , derating above 40 °C , maximum temperature 60 °C (no-load operation)5% to 95% RH (non-condensing)
	Storage temperature	-20 ~ +60°C
	Protection grade	IP00
	Cooling method	Natural cooling/Forced air cooling

INDUSTRY APPLICATIONS





Due to the continuous upgrade of our company's products, changes in content will not be notified separately.

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