ZK200-P

Solar Pumping Inverter

ZK200-P

Compact,Flexible

Based on the industry demand of small power, small size and easy speed regulation, the mini inverter is targeted. As a compact inverter with small size and large capacity, ZK200-P has significant advantages such as high power density, high EMC specification design and high reliability.

As a book type narrow body inverter,ZK200-P pays attention to hardware,software,structureand test in every detail in the whole process of development,so as to ensure the Scientificity,preciseness and practicability of the product.

PRODUCT APPEARANCE INTRODUCTION

Small compact design

Separate air ducts
Reliable heat dissipation

Standard potentiometers
Easy to debug

LED keyboard
Display Enrichment

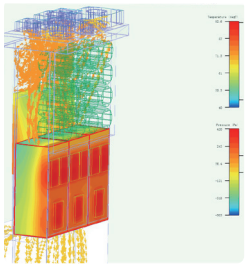
External keyboard
Parameter Copy,
Run optimization

European style terminals
Easy wiring

Structural & Hardware Features

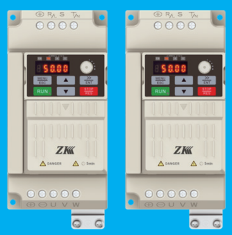
Easy Maintenance

Features an easy-to-maintain removable cooling fan that can be easily installed and removed.



Advanced Thermal Design

Wide tooth surface heat dissipation and high air velocity design ensure that the full-power AC drive can be used in a high-temperature environment without capacity reduction.



Small and compact design

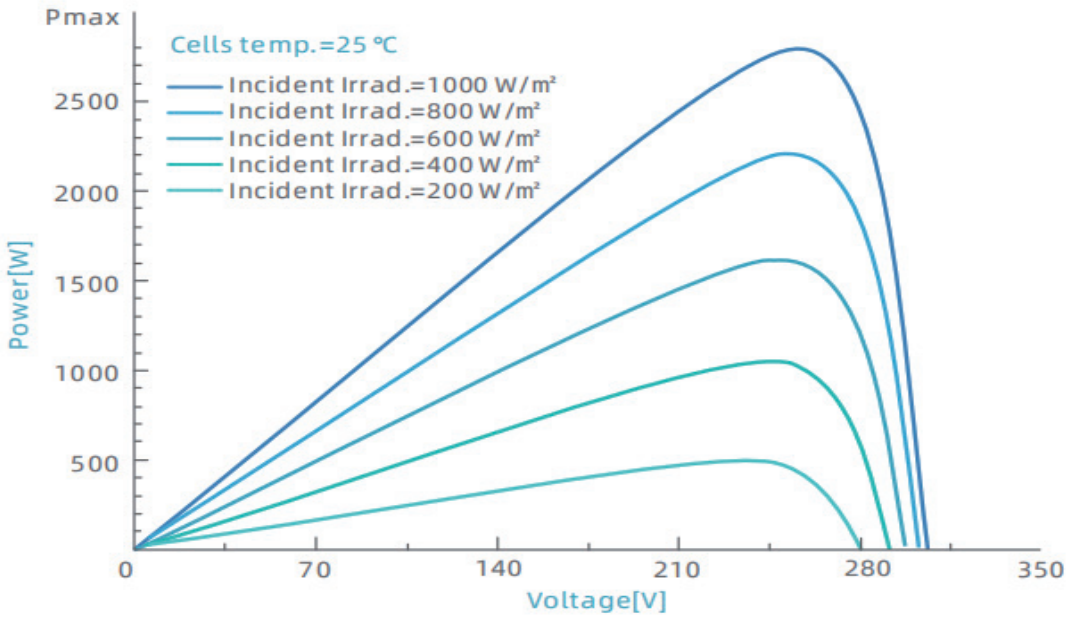
Optimal power density design, effectively minimize the product volume; support for wall-mounted installation, DIN-rail installation, to adapt to a variety of installation environments.

Removable keyboard

Newly designed keyboard, better operability, debugging is more convenient, and the keyboard supports the external lead, the installation has a variety of ways.

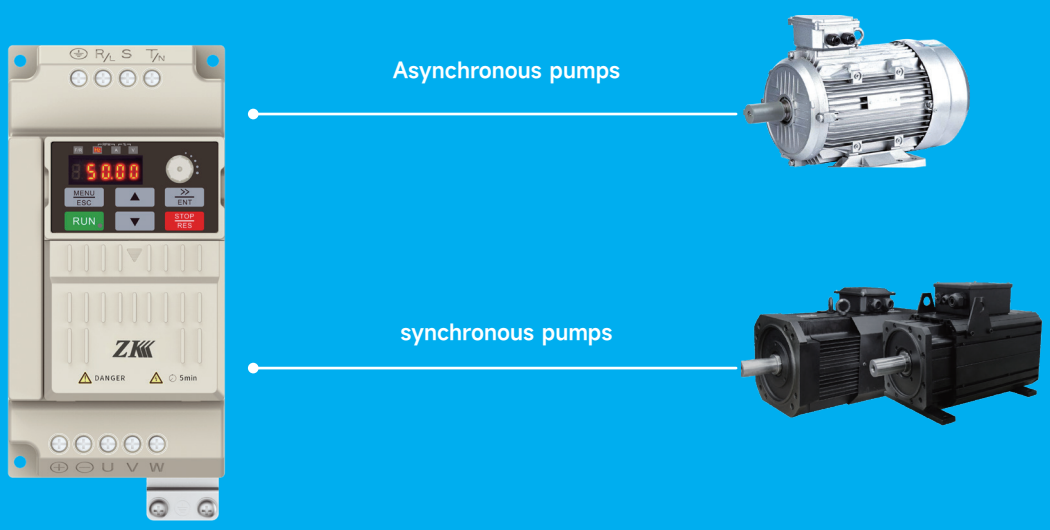
Advanced MPPT Technology

Whole voltage range: Efficiency up to 99.8%



Driving Multiple Types of Pumps

Compatible with synchronous machine and asynchronous machine,energy-saving transformation is effortless.



Various Specific Functions

- One-key operation .
- Dormancy、dry run、low speed、minimum power、pump over current .
- Water fulfilled、output power limit、PQ curve、pump clean 、constant pressure control .

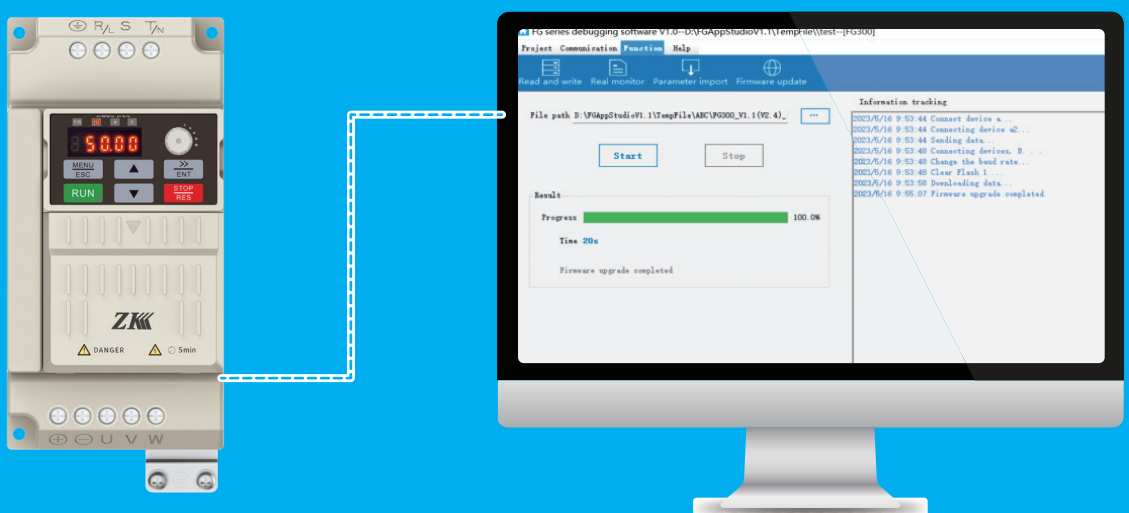
Low Speed | Dry run | Pump Over Current | Minimum power

PQ curve | Dormancy | Constant Pressure Control

One-key Operation | Water Fulfilled | Pump Clean | ••• •••

Maintenance Tools

Complete monitoring,configuration, optimization and diagnostic services are provided by FGAppStudio running on PC tool.



Intelligent monitoringbrings smart irrigation

Custom PQ curve

automatically calculate the parameters most concerned by users based on the curve, such as flow speed, daily flow, cumulative flow, daily power generation, and cumulative power generation.

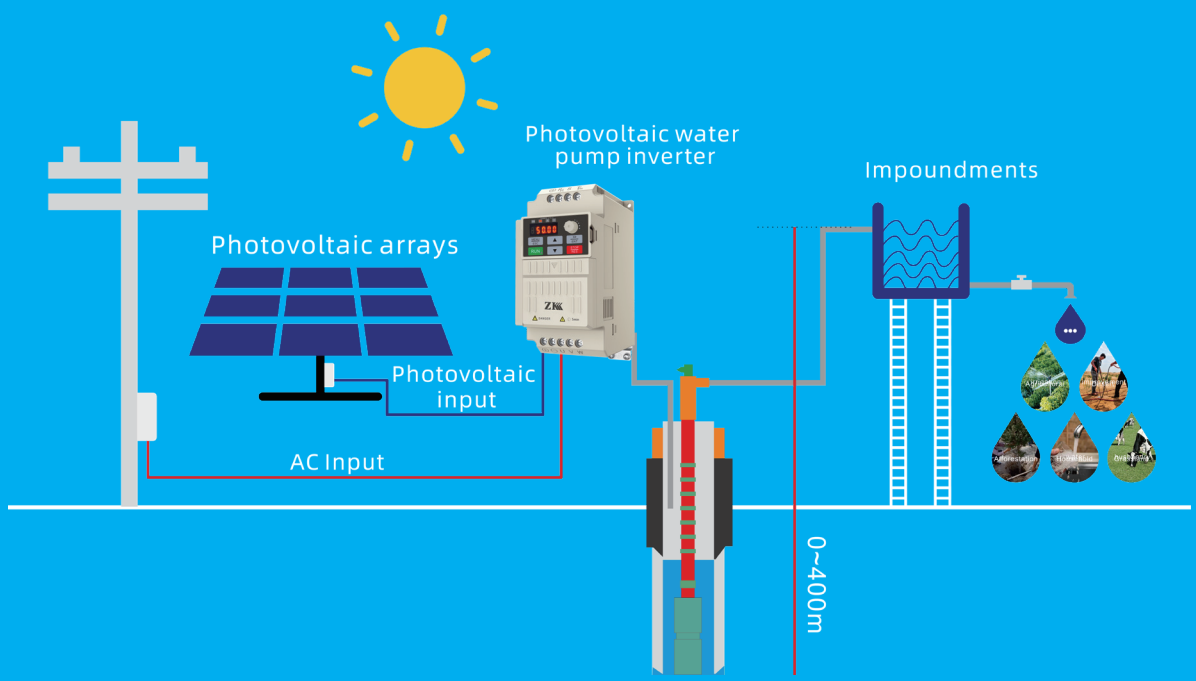
Intelligent IOT system

IOT data platform, wireless transmission technology(GPRS, Bluetooth or WIFI), intelligent judgment of needs for water and fertilizer for achieving smart irrigation.

Remote control of mobile APP can be controlled home

- Bluetooth, WIFI and GPRS wireless transmission Technology.
- Widely-used multi-language switching.
- Digital display Of current data are clear and accurate.

Solar Pumping Inverter application system



NAMING RULES

ZK200 - 4T - 7.5G B - P	
① Inverter series ZK200 series Solar photovoltaic water pump inverter	③ Adaptive motor power 0.75: 0.75KW 7.5: 7.5KW
② Voltage Class 1T: Suitable for driving pumps with 110VAC 2T: Suitable for driving pumps with 220VAC 4T: Suitable for driving pumps with 380VAC	④ B:Built-in Braking Unit Blank: No; B:Yes
	⑤ P: Photovoltaic water pump inverter

SOLAR PUMP DRIVE MODEL ANALYSIS

Product model	Voltage level	Input power		Power range
		DC	AC	
ZK200-1T-xxG-P	110V	90-400VDC	Single-phase 110VAC	0.75-1.5kW
ZK200-2T-xxG-P	220V	150-450VDC	Single-phase 220VAC	0.4-2.2kW
ZK200-4T-xxG-P	380V	250-800VDC	Three-phase 380VAC	0.4-22kW

TECHNICAL SPECIFICATIONS

For other customized parameters,please contact our engineers to get!

Solar Pump Inverter Power (KW)	Pump		Maximum Input Power of Solar panel (KW)	Maximum Input DC Voltage (V)	Total Voc range (V)of Recommended Panels	Rated Output Current (A)	Output Frequency Range (Hz)
	Rated Power (KW)	Rated Voltage (V)					
ZK200-1T Series: Input 90-400VDC, 3 Phase 110-230VAC Output, Suitable for AC 110V Pumps							
0.75	0.75	110	1.0	400	175-380	7.0	0-599.00
1.5	1.5	110	1.95	400	175-380	9.6	0-599.00
ZK200-2T Series: Input 150-450VDC,3 Phase 150-230VAC Output, Suitable for AC 220V Pumps							
0.4	0.4	220	0.55	450	360-430	2.3	0-599.00
0.75	0.75	220	1.0	450	360-430	4.0	0-599.00
1.5	1.5	220	1.95	450	360-430	7.0	0-599.00
2.2	2.2	220	2.86	450	360-430	9.6	0-599.00
ZK200-4T Series: Input 250-800VDC 3 Phase 230-460VAC Output, Suitable for AC 380V Pumps							
0.4	0.4	380	0.6	800	620-750	1.5	0-599.00
0.75	0.75	380	1.0	800	620-750	2.5	0-599.00
1.5	1.5	380	2.2	800	620-750	3.8	0-599.00
2.2	2.2	380	3.3	800	620-750	5.1	0-599.00
4.0	4.0	380	5	800	620-750	9.5	0-599.00
5.5	5.5	380	8	800	620-750	13	0-599.00
7.5	7.5	380	10	800	620-750	17	0-599.00
11	11	380	14.3	800	620-750	25	0-599.00
15	15	380	19.5	800	620-750	32	0-599.00
18.5	18.5	380	23.4	800	620-750	37	0-599.00
22	22	380	28.6	800	620-750	45	0-599.00

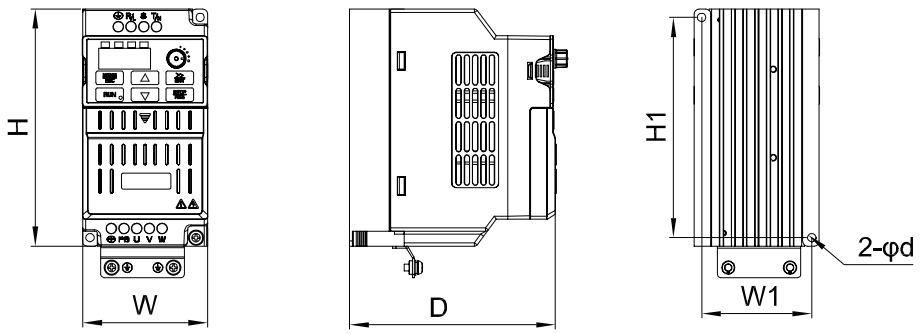
TECHNICAL SPECIFICATIONS

Items		Specifications
Power input	Voltage	1T: 90VDC to 400VDC 2T: 150VDC to 450VDC 4T: 250VDC to 800VDC
	Frequency	50Hz/60Hz, Tolerance ±5%
	Voltage range	Continuous voltage fluctuation ±15%,short fluctuation -15% ~ +15%
		Voltage out-of-balance rate<3%
	Total Voc range (V) of recommended panels	1T Type: 175-380VDC 2T Type: 360-430VDC 4T Type: 620-750VDC
Power output	Adaptive motor type	three-phase asynchronous motor, Permanent magnet synchronous motor
	Output voltage (V)	three-phase: 0% ~ rated input voltage,error < ±3%
	Output frequency (Hz)	0.00% ~ 599.00Hz; Unit: 0.01Hz
	Overload capacity	150% rated current/1 min, 180% rated current/10s, 200% rated current/0.5s
Basic functions	ACC/DEC time	0.0 ~ 30000s
	Switching frequency	0.5kHz ~ 16kHz
	Frequency setting	Digital setting + control panel, Communication, Analog setting, Terminal pulse setting
	Motor start-up methods	Started from starting frequency,Speed tracking start
	Motor stop methods	Ramp to stop, Free stop
Protection function	Solar pump protection function	Dry run, Low frequency, Low power, Dormancy, Water full, Pump over current protection
	Basic protection function	Inverter unit protection, Overcurrent during acceleration, Overcurrent during deceleration, Over current at constant speed, Overvoltage during acceleration, Overvoltage during deceleration, Overvoltage at constant speed,Undervoltage, Power input phase loss, Power output phase loss, Inverter overload, Motor overload, Current detection fault, Inverter temperature exceeds the limit, Load becoming 0 , Too large speed deviation, Short circuit to ground, External equipment fault, Fast current limit fault, Communication fault, Master slave control communication disconnection, EEPROM read-write fault, PID feedback lost during running, Data storage fault, Control power supply fault, Motor switchover fault during running, Accumulative running time reached

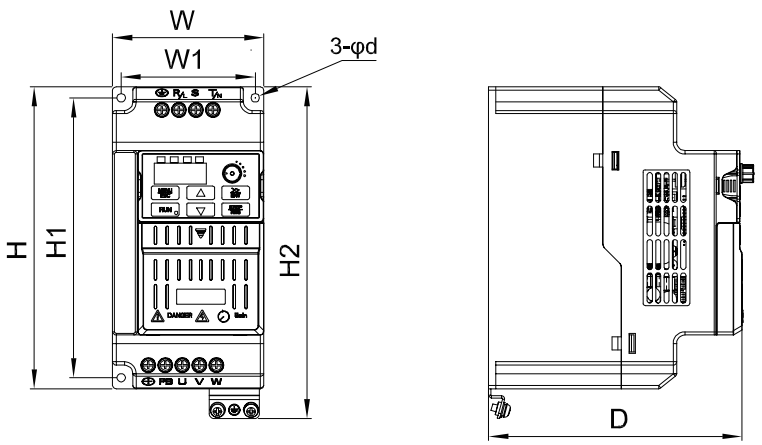
Items		Specifications
Featured functions	Parameter copy, parameter backup, common DC bus, free switchover between two motors' parameters, flexible parameter displayed & hidden, various master & auxiliary setting and switchover, flying start, a variety of Accel/Decel curves optional, brake control, 16-step speed control programmable (2-step speed supports flexible frequency command), wobble frequency control, fixed length control, count function three history faults, over excitation brake, over voltage stall protection, under voltage stall protection, restart on power loss, skip frequency, frequency binding, four kinds of Accel/Decel time, motor thermal protection, flexible fan control, process PID control, simple PLC, multi-functional key programmable, droop control, autotuning, field-weakening control, high-precision torque restraint, V/f separatedcontrol	
Environment	Place of operation	Indoors, no direct sunlight, free from dust, corrosive gases, flammable gases, oil mist, water vapor, water drop or salt, etc.
	Altitude	0~2000m. De-rate 1% for every 100m when the altitude is above 1000 meters
	Ambient temperature	-10°C ~ 50°C , The rated output current should be derated 1% for every 1°C when the ambient is 40°C ~ 50°C
	Relative humidity	0~95%, no condensation
	Vibration	Less than 5.9m/s² (0.6g)
	Storage temperature	-20°C ~ +60°C
Others	IP grade	IP20
	Cooling method	Forced air cooling, Natural cooling

INSTALLATION DIMENSION DRAWING

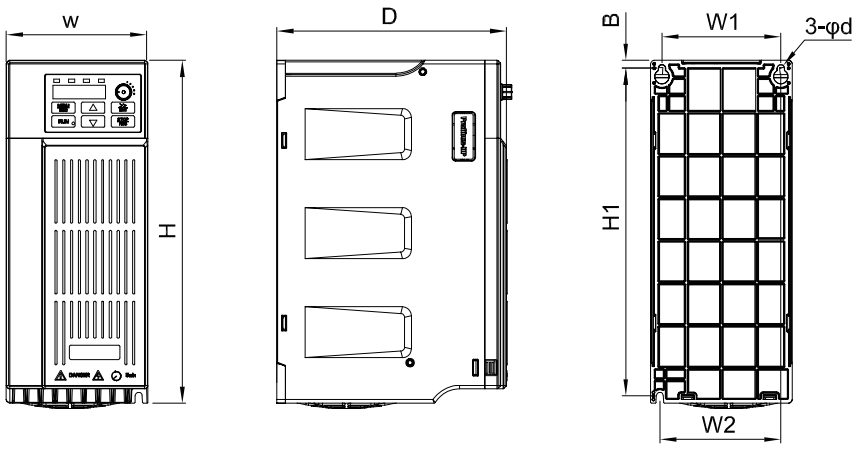
Schematic diagram of P1



Schematic diagram of P2



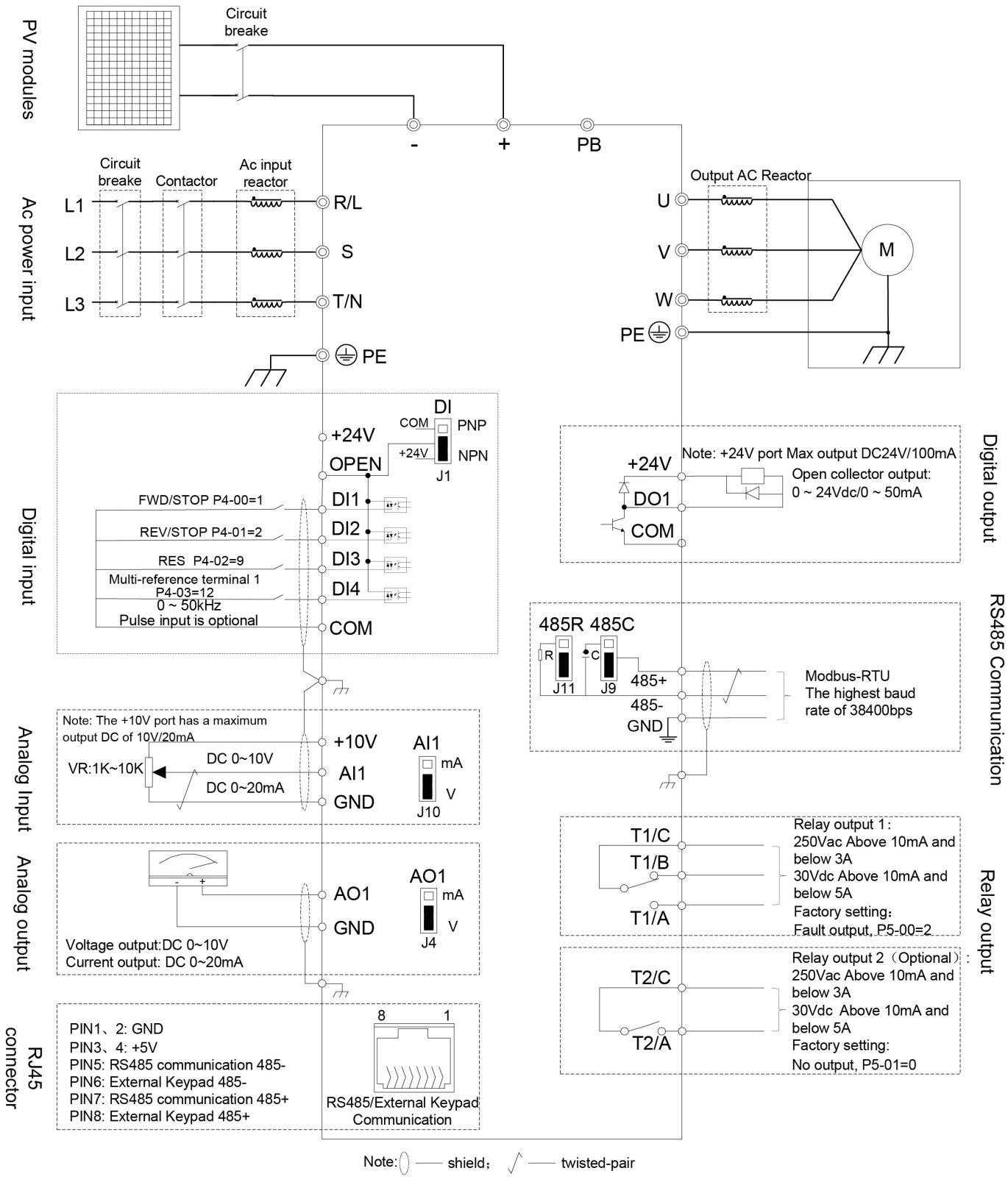
Schematic diagram of P3



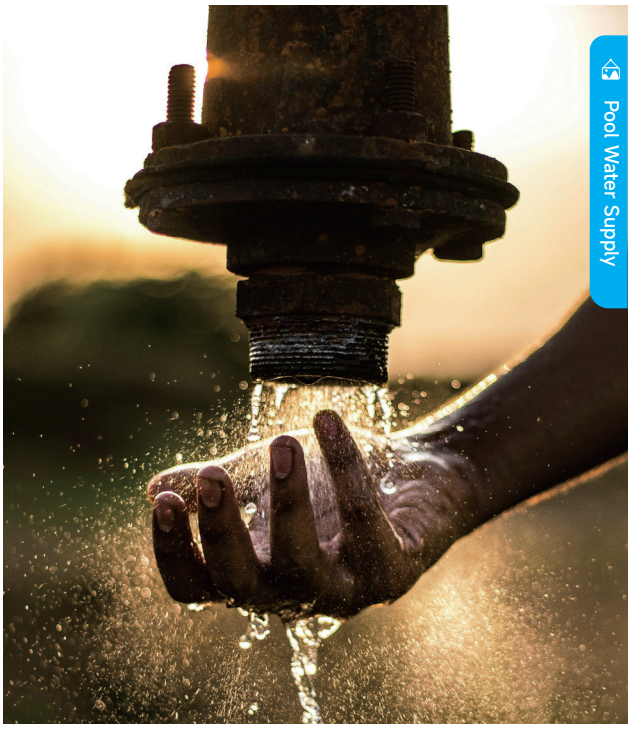
DIMENSIONS

Model	External and installation dimensions(mm)							NW (Kg)	Outline Specification DiaGram
	H	D	W	W1	W2	H1	d		
ZK200-1T									
ZK200-1T-0.75G-P	142	138	75	66	/	132	5.0	1.0	P1
ZK200-1T-1.5G-P	180	151	90	80	/	167	5.0	1.4	P2
ZK200-2T									
ZK200-2T-0.4G-P	142	123	75	66	/	132	5.0	0.9	P1
ZK200-2T-0.75G-P	142	138	75	66	/	132	5.0	1.0	
ZK200-2T-1.5G-P									
ZK200-2T-2.2G-P	180	151	90	80	/	167	5.0	1.4	P2
ZK200-4T									
ZK200-4T-0.4G-P	142	123	75	66	/	132	5.0	0.9	P1
ZK200-4T-0.75-P	142	138	75	66	/	132	5.0	1.0	
ZK200-4T-1.5-P									
ZK200-4T-2.2-P									
ZK200-4T-4.0-P	180	151	90	80	/	167	5.0	1.4	P2
ZK200-4T-5.5G-P									
ZK200-4T-7.5GB-P	242	165	100	84	85	232	5.0	2.6	P3
ZK200-4T-11GB-P	320	181	116	98	98	307	5.5	3.5	
ZK200-4T-15GB-P	383	223.5	142	125	100	372	5.5	7	
ZK200-4T-18.5GB-P									
ZK200-4T-22GB-P									

STANDARD WIRING DIAGRAM



INDUSTRY APPLICATIONS



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

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