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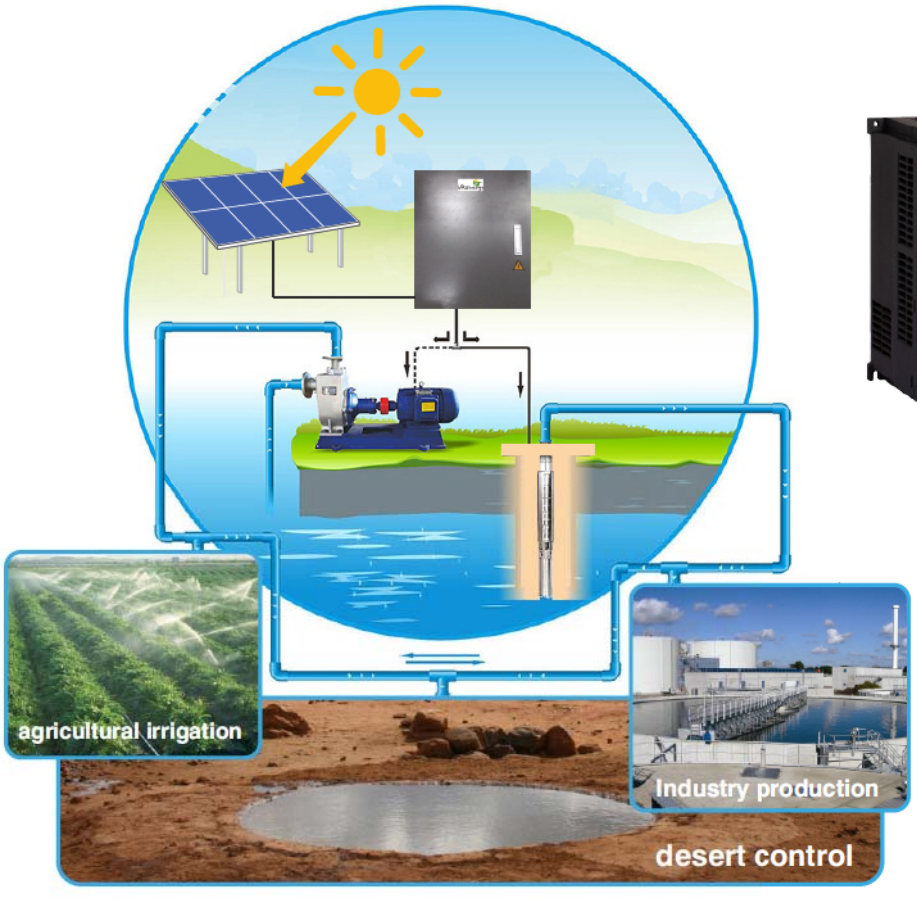
ENERGY FOR ALL



URE 100

URE 200

PUMP

Solar Pumping Controller (VFD)

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UREnergy®

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U R Energy started its journey in the solar industry in Australia in 2009 and within 6 years achieved a market leading position servicing 70,000+ residential and commercial customers across the Australian solar market. Inspired by the success in Australia, the company decided to expand globally and began operations in India in 2015 and the United States of America in 2016. The company now procures, develops and installs solar power systems at economic prices for residential, commercial and utility scale customers across the world including Australia, United States of America, India, Dubai, Africa, and United Kingdom. UR Energy group has installed 200+ MW Solar Plants across these countries and adding more daily.

Quality is at the core of our business whether it be the solar products we source, our installation process or the service we provide to our customers. U R Energy is an ISO 9001, ISO 14001 and OHSAS 18001 accredited company and we source the highest quality solar power systems from Tier 1, modern manufacturing facilities around the world.

The business was started with a single goal, to help accelerate the growth and adoption of solar power systems across the world, not only for its obvious environmental benefits but also for the economic benefits available to our customers. That's why we offer the highest quality products at the best price available on the market today and as always, backed by our 5% price beat guarantee.

GEDA | MNRE | CSA Group | ISO 9001 ISO 14001 OHSAS 18001 | SAA | TÜV | ETL | UL

Solar Pumping Inverter

UR100

UR200

Single Phase & Three Phase Pumping Inverter

- **Power**
  Single Phase 220V: 0.2KW~2.2KW
  Three Phase 220V: 0.2KW~2.2KW
  Three Phase 380V: 0.75KW~4KW
- **Terminal**
  5*Digital Input (DI1~DI4,DI7)
  2*Analog Input(0~10V,0~20mA)
  1*Digital Output(Y1)
  1*Relay Output(R1)

- **Power**
  Three Phase 220V: 0.75KW~75KW
  Three Phase 380V: 0.75KW~400KW
- **Terminal**
  7*Digital Input(DI1~DI7)
  3*Analog Input(0~10V,0~20mA,
  -10V~10V)
  2*Digital Output(Y1,Y2)
  2*Relay Output(R1,R2)

Product Range :-

UR100-4T-5.5B
UR200-4T-4B
UR200-4T-5.5B
UR200-4T-7.5B
UR200-4T-11B
UR200-4T-15B
UR200-4T-18.5B
UR200-4T-22B

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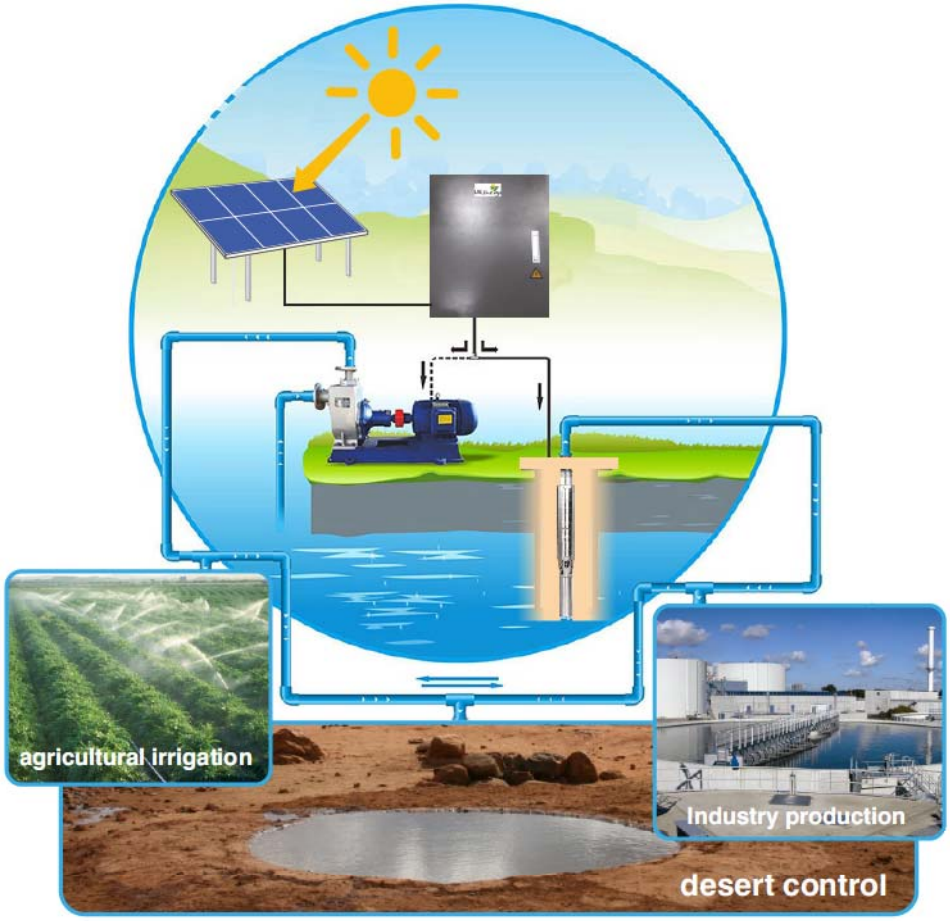
Solar Pumping System



- DC/AC Input Compatible
- DC: Solar PV Power Supply
- AC: Diesel Generator or Grid Supply
- Environment-protection, Economic
- Optimized MPPT Arithmetic, Accuracy Reached 99% and above.
- Multi-liquid-level Control
- Less Water, Full Water Liquid-Level Control, Liquid-Level Detector Failure Adjustment
- Pumping Water Much
- Water Pumping on the Same Circumstance
- Rich Protection Functions
- Featured with Protection Functions of Lightning-proof, Over-voltage, Over-current, Over-load, etc.
- Dormancy on weak light, awaken on strong light
- Auto-dormancy on weak light, auto-recover working on strong light, no need man-made operation.

Data Sheet

Model	UR100-2S-0.4B	UR100-2S-0.7B	UR100-2S-1.5B	UR100-2S- 2.2B	UR200-4T-0.7B	UR200-4T-1.5B	UR200-4T-2.2B
Maximum Input DC Voltage	450VDC				800VDC		
Recommended MPPT Voltage Range	250~350VDC				450~600VDC		
Working DC voltage of Inverter	120~450V				230V~800VDC		
Max MPPT efficiency	99%						
Grid or backup generator input							
Input Voltage	Single phase 220V(-15%~30%)				Three phase 380V (-15%~30%)		
Input frequency	50Hz (-5%~+5%)						
Output specification							
Drive mode	Variable Frequency Drive, output PWM, 3 phase						
Rated output voltage	3PH 220V				3PH 380V		
Applicable motor (kW)	0.4kW	0.75kW	1.5kW	2.2kW	0.75kW	1.5kW	2.2kW
Rated output current (A)	2.5A	4.2A	7.5A	9.5A	2.5A	4.2A	5.5A
Output frequency	0~600.00Hz (Off 0~50.00Hz)						
Protection							
Built-in Protection	Over-current , Overvoltage, Overheating						
	Output phase-lose						
	Under-load, under-voltage, Overload						
	Short circuit and etc						
	Dry run protection/Reverse Polarity						
General Parameters							
Power generated by PV panel	Built-in						
UP time of the pump	Built-in						
Full auto running	Built-in						
Over tank & dry run control	Built-in						
Application Site	No direct sunshine, no dust, corrosive gas, combustible gas, oil mist, steam, dripping						
Altitude	0~2000m, derated use above 1000m; Per 100m, the rated output current decrease 1%.						
Environment Temperature	-10~40 (Environment Temperature be 40~50, derated use.)						
Humidity	5~95%,non-condensation						
Vibration	less than 5.9 m/s² (0.6g)						
Storage Temperature	-20~+70						
Efficiency	Rated Power Run ≥93%						
Installation	Wall mounted or flange installation						
Protection Grade	IP20						
Cooling	Forced Air Cooling						
Package Size*	233*180*214	233*180*215	233*180*216	233*180*217	232*191*247		232*191*247
VFD Size*	110*173*135	110*173*136	110*173*137	110*173*138	117*187*60		117*187*60
VFD Size & Weight	Net weight: 1.47Kg, Gross weight: 1.9Kg	Net weight: 1.47Kg, Gross weight: 1.10Kg	Net weight: 1.47Kg, Gross weight: 1.11Kg	Net weight: 1.47Kg, Gross weight: 1.12Kg	Net weight: 2.2Kg, Gross weight: 2.3Kg		Net weight: 2.3Kg, Gross weight: 2.4Kg
Special Feature	Remote Monitoring System (if Required)						
	One Month Data Backup (via GPRS Data Logger)						

Remark : (*, **, ***) (W*H*D) Dimension are in mm

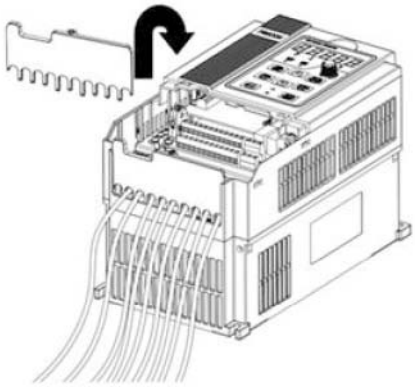
Data Sheet

Model	UR200-4T-4B	UR200-4T-5.5B	UR200-4T-7.5B	UR200-4T-11B	UR200-4T-15B	UR200-4T-18.5B	UR200-4T-22B
Maximum Input DC Voltage	800VDC						
Recommended MPPT Voltage Range	450~600VDC						
Working DC voltage of Inverter	230V~800VDC						
Max MPPT efficiency	99%						
Grid or backup generator input							
Input Voltage	Three phase 380V (-15%~30%)						
Input frequency	50Hz/60Hz (-5%~+5%)						
Output specification							
Drive mode	Variable Frequency Drive, output PWM, 3 phase						
Rated output voltage	3PH 380V	3PH 380V	3PH 300V/380V				
Applicable motor (kW)	4kW	5.5kW	7.5kW	11kW	15kW	18.5kW	22kW
Rated output current (A)	9.5A	13A	17A	25A	32A	37A	45A
Output frequency	0~600.00Hz (Off 0~50.00Hz)						
Protection							
Built-in Protection	Over-current , Overvoltage, Overheating						
	Output phase-lose						
	Under-load, under-voltage, Overload						
	Short circuit and etc						
	Dry run protection/Reverse Polarity						
General Parameters							
Power generated by PV panel	Built-in						
UP time of the pump	Built-in						
Full auto running	Built-in						
Over tank & dry run control	Built-in						
Application Site	No direct sunshine, no dust, corrosive gas, combustible gas, oil mist, steam, dripping						
Altitude	0~2000m, derated use above 1000m; Per 100m, the rated output current decrease 1%.						
Environment Temperature	-10~40 (Environment Temperature be 40~50, derated use.)						
Humidity	5~95%,non-condensation						
Vibration	less than 5.9 m/s² (0.6g)						
Storage Temperature	-20~+70						
Efficiency	Rated Power Run ≥93%						
Installation	Wall mounted or flange installation						
Protection Grade	IP20						
Cooling	Forced Air Cooling						
Package Size*	343*240*272	343*240*272	343*240*272	394*292*280		554*370*347	
Inverter Size*	146*249*177	146*249*177	146*249*177	198*300*185		255*459*220	
Inverter Size & Weight	Net weight: 3.08Kg, Gross weight: 4.03Kg		Net weight: 3.15Kg, Gross weight: 4.1Kg	Net weight: 5.7Kg, Gross weight: 6.83Kg	Net weight: 5.8Kg, Gross weight: 6.92Kg	Net weight: 14.5Kg, Gross weight: 16.4Kg	Net weight: 14.8Kg, Gross weight: 16.7Kg
Special Feature	Remote Monitoring System (if Required)						
	One Month Data Backup (via GPRS Data Logger)						

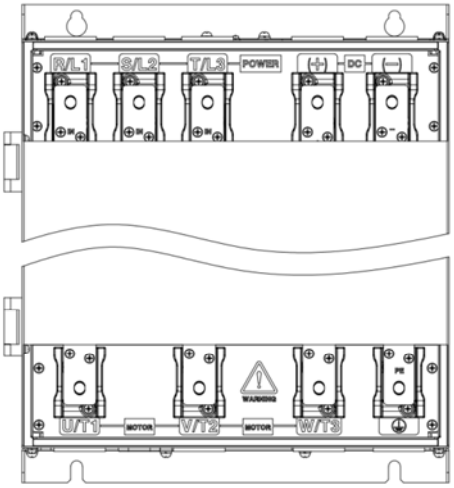
Remark : (*, **, ***) (W*H*D) Dimension are in mm

Installation & Wirings

Installation: support din rail mounting, wall mounting, and cabinet mounting.

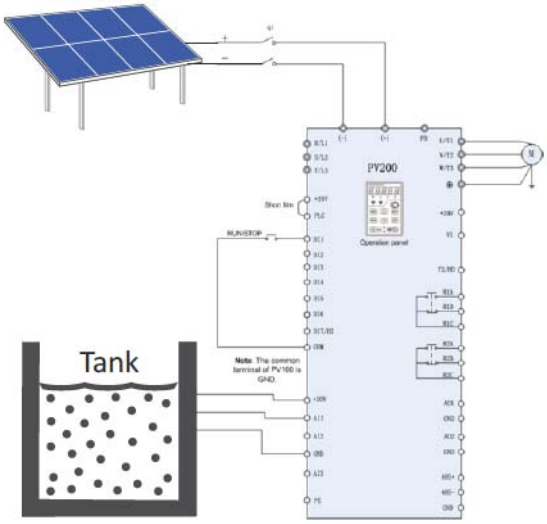


Wirings:
wires plug through the whole, wirings connected by top-enter and bottom-exit from 90kw, easy for cooper buswork wirings, built-in DC reactor, save space, save wirings.



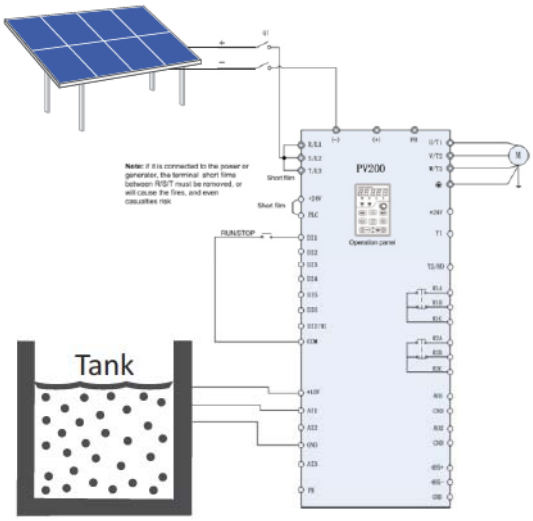
Wirings

PV Panels



220V ≤15KW or 380V ≤30KW
Wirings Drawing

PV Panels



220V ≥18KW or 380V ≥ 37KW
Wirings Drawing

FULL-AUTO RUNNING

After solar pumping inverter finish power-off,
when solar panel restore voltage, solar inverter need to do setting as below:

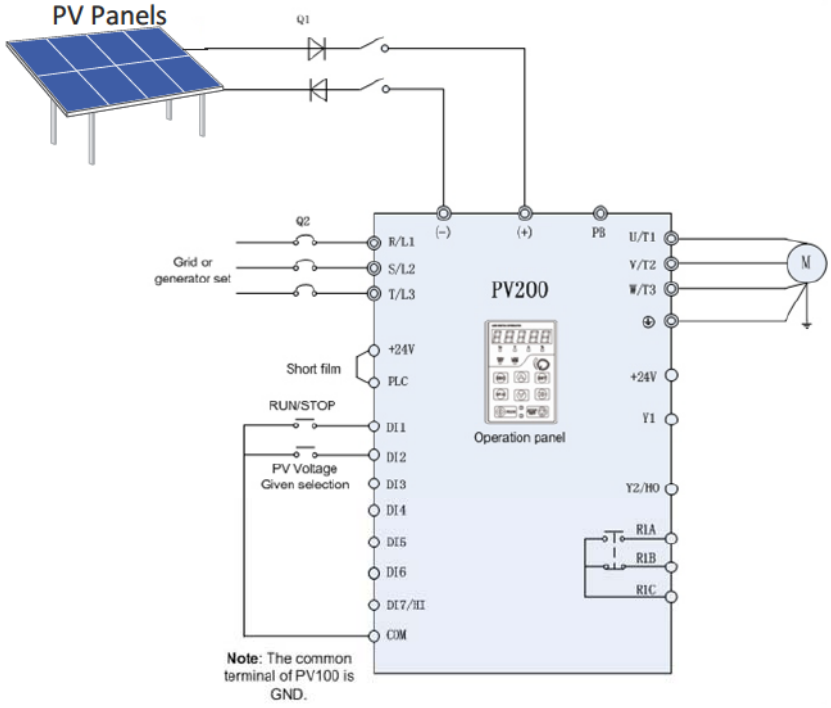
- Set F02.00 = 1, started by terminal ;
- DI1 and COM terminal been Shortened

WEAK-LIGHT VOLTAGE SETTING

System weak-light voltage set by H00.25

- 380V inverter lowest voltage to 250VDC
- 220V inverter lowest voltage to 120VDC

SWITCH BETWEEN SOLAR AND GRID



Method 1: Parameter Control

- disconnect Q1, and then close Q2, set H00.01=0, now power supplied by grid
- disconnect Q2 , and then close Q1 , set H00.01=1, now power supplied by solar panel

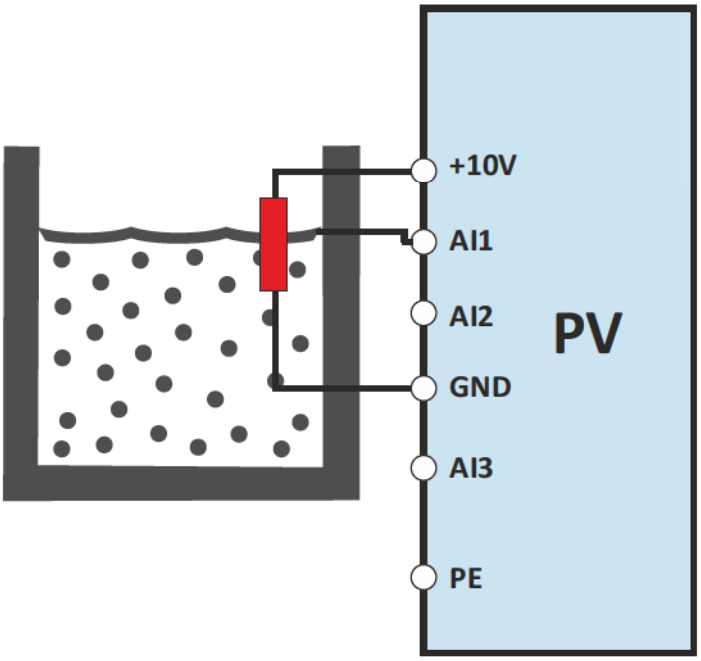
Method 2: Terminal Control
Set H00.01 0, F04.01=51

- disconnect Q1 , and then close Q2, disconnect DI2 , now power supplied by grid
- disconnect Q2 , and then close Q1, and shorten DI2, now power supplied by solar panel

CONTROL MODE

- Constant Voltage Adjustment Methods
  H00.02=0, voltage set by H00.03
- Voltage Range Setting MPPT
  H00.02=1, search voltage range H00.04~H00.05
- Auto- MPPT
  H00.02=2, system will auto-search the max power point according to solar panel voltage and sunlight intensity

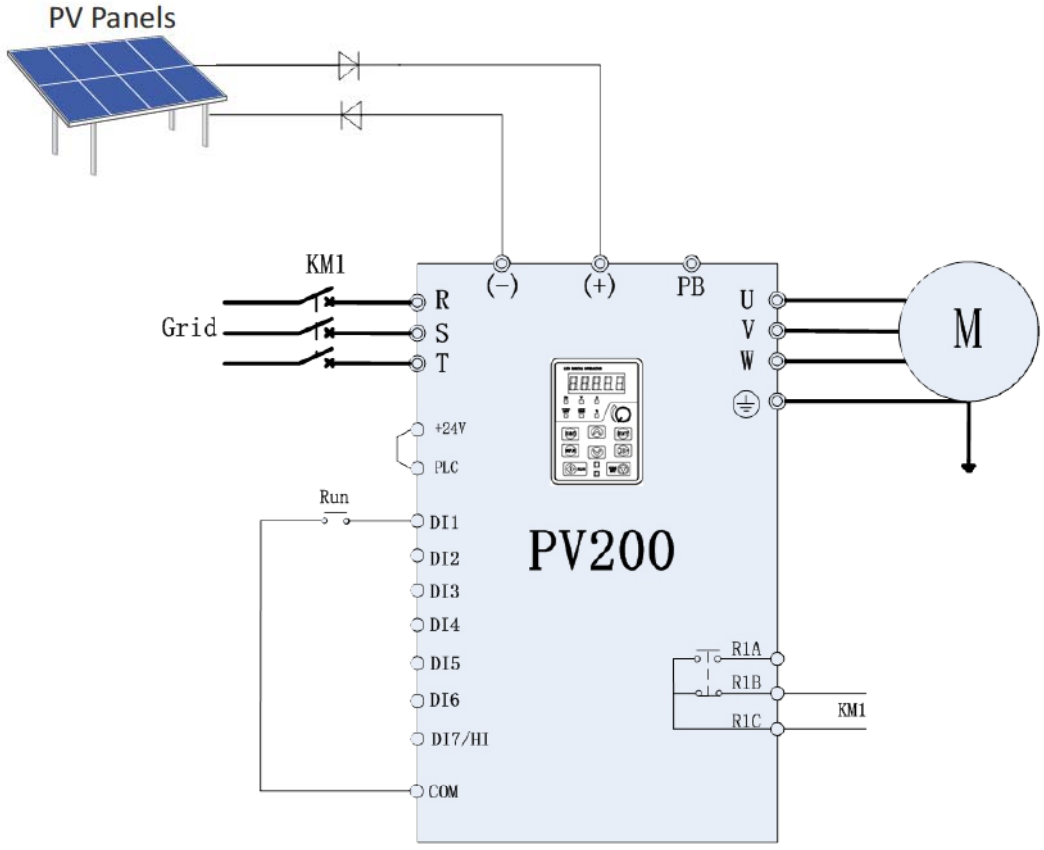
FLOATER DETECT THE FUNCTION OF FULL-WATER AND DRY-RUN



- H00.15 choose AI channel
- H00.17 is the value set to detect water level
- H00.24 is direction for floater detecting water level. When water level higher, and the detect value larger, set H00.24=1; when water level higher, and detect value smaller, set H00.24=0 。
- When water level higher than H00.17, after delay H00.18, system enter dormancy; when water level lower than H00.17, after delay H00.16, system will start automatically.

AUTO SWITCH GRID & SOLAR

- H00.27=1



PV Pump Special Inverter Model	Open Circuit Voltage Level of Solar Cell Components									
	20 ± 3V		30 ± 3V		36 ± 3V		42 ± 3V			
	Power of components ± 5Wp	Numbers of component per string*Numbers of string	Power of components ±5 Wp	Numbers of component per string*Numbers of string	Power of components ± 5Wp	Numbers of component per string*Numbers of string	Power of components ± 5Wp	Numbers of component per string*Numbers of string	Power of components ±5 Wp	Numbers of component per string*Numbers of string
URE200-4T-0.7B	30	29*1	-	-	-	-	-	-	-	-
URE200-4T-1.5B	60	30*1	-	-	-	-	-	-	-	-
URE200-4T-2.2B	90	30*1	-	-	145	18*1	175	15*1	-	-
URE200-4T-4.0B	85	28*2	220	22*1	140	17*2	160	15*2	-	-
URE200-4T-5.5B	-	-	-	-	195	17*2	220	15*2	-	-
etc										

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