

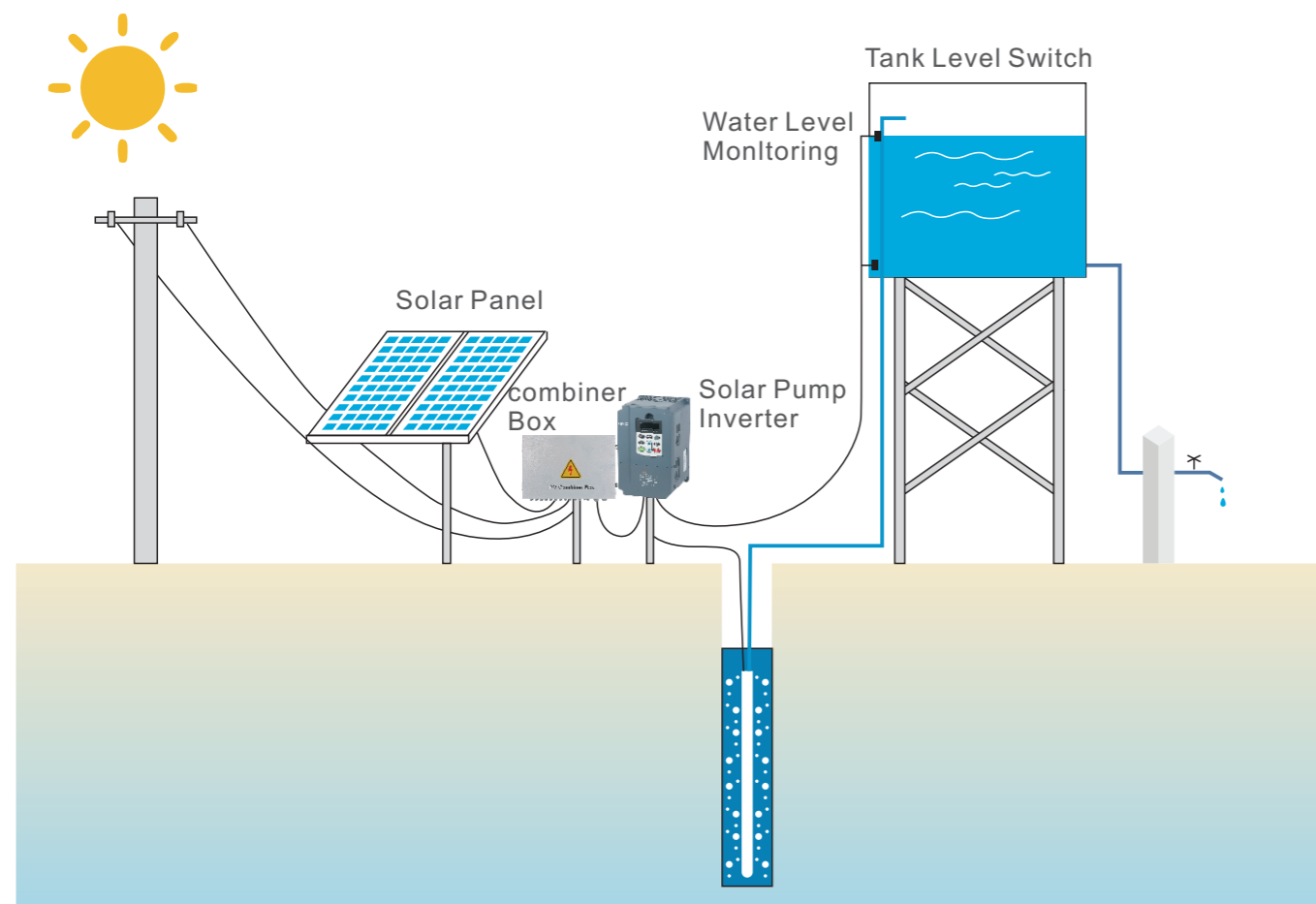
Photovoltaic DC Components

YCB2000PV Series DC Variable Frequency Drive

Solar pumping system

The YCB2000PV solar pumping system serves to provide water in remote applications where electrical grid power is either unreliable or unavailable. The system pumps water using a high-voltage DC power source such as a photovoltaic array of solar panels. Since the sun is only available during certain hours of a day and only in good weather conditions, the water is generally pumped into a storage pool or tank for further usage. And water sources are those natural or special such as river, lake, well or waterway, etc.

Solar pumping system is constituted by solar module array, combiner box, liquid level switch, solar pump etc. It aims at providing solutions for the region that suffers water shortage, no power supply or uncertain power supply.



Photovoltaic DC Components

YCB2000PV Series DC Variable Frequency Drive

General

In order to satisfy the demands of various pumping applications, YCB2000PV solar pump controller adopts Max Power Point Tracking and proven motor drive technology to maximize output from solar modules. It supports both single phase or three-phase AC input such as a generator or inverter from battery. The controller provides fault detection, motor soft start, and speed control. YCB2000PV controller is designed to proceed these features with the plug and play, ease of installation.

Selection

YCB2000PV	T	5D5	G
Model	Output voltage	Adaptive power	Load type
Photovoltaic Inverter	S: Single phase AC220V T: Three phase AC380V	0D75:0.75KW 1D5:1.5KW 2D2:2.2KW 4D0:4.0KW 5D5:5.5KW 7D5:7.5KW 011:11KW 015:15KW 110:110KW	G: Constant torque

YCB2000PV Series DC Variable Frequency Drive

Flexibility

Compatible with IEC standard three-phase asynchronous induction motors
Compatible with popular PV arrays
Grid supply option

Remote monitoring

Standard Rs485 interface equipped for each solar pump controller
Optional GPRS/Wi-Fi/ETHERNET RJ45 modules for remote access
Spots value of solar pump parameters monitoring available from anywhere
History of solar pump parameters and events lookup support
Android/iOS monitoring APP support

Cost effectiveness

Plug-and-play system design
Embedded motor protection and pump functions
Battery-free for most applications
Effortless maintenance

Reliability

10-year market proven experience of leading motor and pump drive technology
Soft start feature to prevent water hammer and increase system life
Built-in overvoltage, overload, overheat and dry-run protection

Smartness

Self-adaptive maximum power point tracking technology up to 99% efficiency
Automatic regulation of pump flow
Self-adaptation to the motor used in the installation

Protection

Surge protection
Overvoltage protection
Undervoltage protection
Locked pump protection
Open circuit protection
Short circuit protection
Overheat protection
Dry run protection

General data

Ambient Temperature Range: -20°C~60°C,
> 45°C, Derating as required
Cooling Method: Fan Cooling
Ambient Humidity: ≤95%RH



YCB2000PV Series DC Variable Frequency Drive

Technical data

Model	YCB2000PV-S0D7G	YCB2000PV-S1D5G	YCB2000PV-S2D2G	YCB2000PV-T2D2G	YCB2000PV-T4D0G
Input data					
PV Source					
Max input voltage(Voc)[V]	400			750	
Min input voltage, at mpp[V]	180			350	
Recommended voltage, at mpp	280VDC~360VDC			500VDC~600VDC	
Recommended amps input, at mpp[A]	4.7	7.3	10.4	6.2	11.3
Recommended max power at mpp[kW]	1.5	3	4.4	11	15
Alternate AC generator					
Input voltage	220/230/240V AV(±15%), Single Phase			380V AV(±15%), Three Phase	
Max amps(RMS)[A]	8.2	14.0	23	5.8	10.0
Power and va capability [kVA]	2.0	3.1	5.1	5.0	6.6
Output data					
Rated output power[kW]	0.75	1.5	2.2	2.2	4
Rated output voltage	220/230/240V AC, Single Phase			380V AC, Three Phase	
Max amps(RMS)[A]	4.5	7.0	10	5.0	9.0
Output frequency	0-50Hz/60Hz				
Pump system configuration parameters					
Recommended solar panel power(KW)	1.0-1.2	2.0-2.4	3.0-3.5	3.0-3.5	5.2-6.4
Solar panel connection	250W×5P×30V	250W×10P×30V	250W×14P×30V	250W×20P×30V	250W×22P×30V
Applicable pump (kW)	0.37-0.55	0.75-1.1	1.5	1.5	2.2-3
Pump motor voltage(V)	3 phase 220	3 phase 220	3 phase 220	3 phase 380	3 phase 380

Photovoltaic DC Components

YCB2000PV Series DC Variable Frequency Drive

Technical data

Model	YCB2000PV-T5D5G	YCB2000PV-T7D5G	YCB2000PV-T011G	YCB2000PV-T015G	YCB2000PV-T018G
Input data					
PV source					
Max input voltage(Voc)[V]	750				
Min input voltage, at mpp[V]	350				
Recommended voltage,at mpp	500VDC~600VDC				
Recommended amps input,at mpp[A]	16.2	21.2	31.2	39.6	46.8
Recommended max power at mpp[kW]	22	30	22	30	37
Alternate AC generator					
Input voltage	380V AV(±15%), Three Phase				
Max amps(RMS)[A]	15	20	26.0	35.0	46.0
Power and va capability [kVA]	9.0	13.0	17.0	23.0	25
Output data					
Rated output power[kW]	5.5	7.5	11	15	18.5
Rated output voltage	380V AC,Three Phase				
Max amps(RMS)[A]	13	17	25.0	32.0	37
Output frequency	0-50Hz/60Hz				
Pump system configuration parameters					
Recommended solar panel power(KW)	7.2-8.8	9.8-12	14.3-17.6	19.5-24	24-29.6
Solar panel connection	250W×40P×30V 20 series 2 parallel	250W×48P×30V 24 series 2 parallel	250W×60P×30V 20 series 3 parallel	250W×84P×30V 21 series 4 parallel	250W×100P×30V 20 series 5 parallel
Applicable pump (kW)	3.7-4	4.5-5.5	7.5-9.2	11-13	15
Pump motor voltage(V)	3 phase 380	3 phase 380	3 phase 380	3 phase 380	3 phase 380

Photovoltaic DC Components

YCB2000PV Series DC Variable Frequency Drive

Technical data

Model	YCB2000PV-T022G	YCB2000PV-T030G	YCB2000PV-T037G	YCB2000PV-T045G
Input data				
PV source				
Max input voltage(Voc)[V]	750			
Min input voltage, at mpp[V]	350			
Recommended voltage,at mpp	500VDC~600VDC			
Recommended amps input,at mpp[A]	56.0	74.0	94.0	113
Recommended max power at mpp[kW]	44	60	74	90
Alternate AC generator				
Input voltage	380V AV(±15%), Three Phase			
Max amps(RMS)[A]	62.0	76.0	76.0	90.0
Power and va capability [kVA]	30.0	41.0	50.0	59.2
Output data				
Rated output power[kW]	22	30	37	45
Rated output voltage	380V AC,Three Phase			
Max amps(RMS)[A]	45	60	75	90
Output frequency	0-50Hz/60Hz			
Pump system configuration parameters				
Recommended solar panel power(KW)	28.6-35.2	39-48	48.1-59.2	58.5-72
Solar panel connection	250W×120P×30V 20 series 6 parallel	250W×200P×30V 20 series 10 parallel	250W×240P×30V 22 series 12 parallel	250W×84P×30V 21 series 4 parallel
Applicable pump (kW)	18.5	22-26	30	37-40
Pump motor voltage(V)	3 phase 380	3 phase 380	3 phase 380	3 phase 380

Photovoltaic DC Components

YCB2000PV Series DC Variable Frequency Drive

Technical data

Model	YCB2000PV-T055G	YCB2000PV-T075G	YCB2000PV-T090G	YCB2000PV-T110G
Input data				
PV source				
Max input voltage(Voc)[V]	750			
Min input voltage, at mpp[V]	350			
Recommended voltage,at mpp	500VDC~600VDC			
Recommended amps input,at mpp[A]	105	140	160	210
Recommended max power at mpp[kW]	55	75	90	110
Alternate AC generator				
Input voltage	380V AV(±15%), Three Phase			
Max amps(RMS)[A]	113	157	180	214
Power and va capability [kVA]	85	114	134	160
Output data				
Rated output power[kW]	55	75	93	110
Rated output voltage	380V AC,Three Phase			
Max amps(RMS)[A]	112	150	176	210
Output frequency	0-50Hz/60Hz			
Pump system configuration parameters				
Recommended solar panel power(KW)	53-57	73-80	87-95	98-115
Solar panel connection	400W*147P*30V 21series 7 parallel	400W*200P*30V 20 series 10 parallel	400W*240P*30V 20 series 12 parallel	400W*280P*30V 20 series 4 parallel
Applicable pump (kW)	55	75	90	110
Pump motor voltage(V)	3PH 380V			

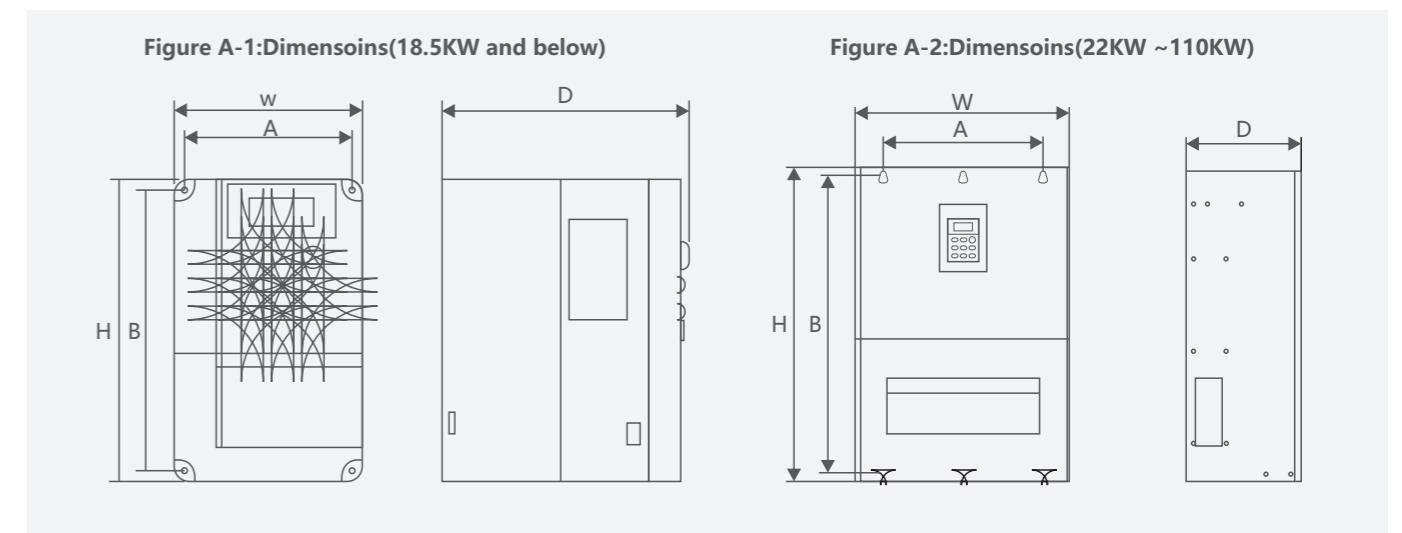
Photovoltaic DC Components

YCB2000PV Series DC Variable Frequency Drive

External dimension

Model	Size	W(mm)	H(mm)	D(mm)	A(mm)	B(mm)	Mounting Aperture
YCB2000PV-S0D7G	125	185	163	115	175	4	
YCB2000PV-S1D5G							
YCB2000PV-S2D2G							
YCB2000PV-T0D7G							
YCB2000PV-T1D5G							
YCB2000PV-T2D2G	150	246	179	136	230	4	
YCB2000PV-T3D0G							
YCB2000PV-T4D0G							
YCB2000PV-T5D5G							
YCB2000PV-T7D5G							
YCB2000PV-T011G	218	320	218	201	306	5	
YCB2000PV-T015G							
YCB2000PV-T018G							
YCB2000PV-T022G	235	420	210	150	404	5	
YCB2000PV-T030G	270	460	220	195	433	6	
YCB2000PV-T037G							
YCB2000PV-T045G	320	565	275	240	537	6	
YCB2000PV-T055G							
YCB2000PV-T075G							
YCB2000PV-T090G	380	670	272	274	640	8	
YCB2000PV-T110G							

Overall and mounting dimensions(mm)





Scenic spot of daocheng yading, shangri-la:

System installed in Scenic Spot of Daocheng Yading, Shangri-la to cloth barren mountains with greenery scene. 3pcs 37kW solar pumps, 3PCS YCB2000PV-T037G Solar Pump Controllers.

System capacity:160KW

Panels:245W

Altitude:3400M

Pumping³height:250M

Flow:69M /H

