

HBDTECH



Shenzhen HBDTECH technology Co., Ltd focused on development, production, sales and service of Industrial automation and drive products, we have a strong independent research and development of high-performance inverters, transformers, and integration of electrical transmission products, through listen and understand our clients requirement, by improving and upgrading our product functions and performance continuously , we provide and develop perfect products and solutions according to different requirement of the industry. The company's strong R & D team can quickly provide customers with tailor-made technology solutions.

Our production strictly through the ISO9000 quality management system and CE certification, the modern assembly line production, independent development of computer automated testing equipment, high-temperature aging machine automation equipment, the whole load of rigorous testing machine debugging automation equipment, aging, testing, to ensure product quality and reliable.

Trust born hope, unity cohesion strength! HBDTECH is your professional electrical partner!



2 SMT lines
1 wave soldering line



2 low power assembly lines
2 medium power assembly lines
1 high power assembly line
1 special model assembly line



Factory area of 5,000 square meters
Warehouse 1000 square meters
Production exceeds 200,000 PCS/year

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SHENZHEN HBDTECH TECHNOLOGY CO., LTD

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PV500 SERIES FOR SOLAR WATER PUMP INVERTER

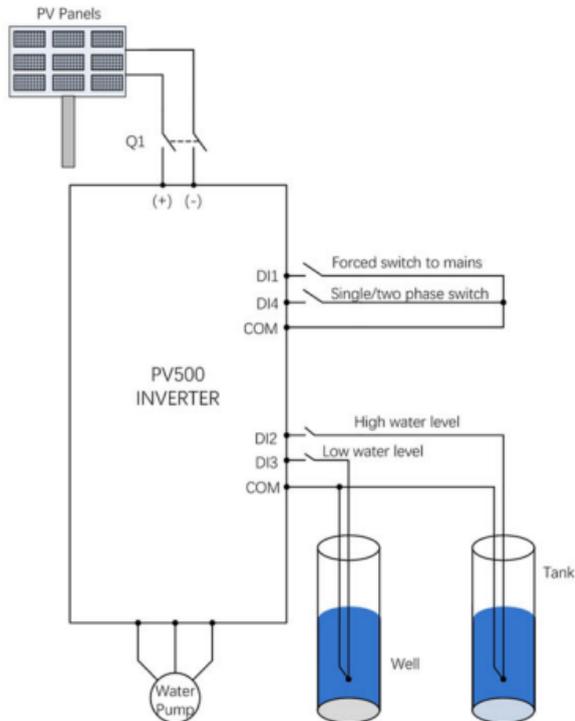
Voltage level:

Provide two voltage classes:220V and 380V,voltage parameter as follow:

Voltage Level	Voltage Range	Recommended Voltage
220V	140V-400V	265V-365V
380V	240V-800V	420V-680V

Function and features introduction:

- 1.Accurate and quickly MPPT algorithm tracking PV battery maximum power point;
- 2.Running voltage can be set manual or MPPT automatic tracking;
- 3.Can all-weather auto running, also can manual to realize "the sunrise and sunset"
- 4.Can AC mains power supply or PV battery power supply switch;
- 5.Auto sleep function/ light loading protection/weak light detection and other functions;
6. Water level test function, support terminal/ analog quantity test;
- 7.The controller perfect protection function, over voltage/over current/default test ;
- 8.Exactly shows PV frequency,PV DC current and other running parameters ;
- 9.Support general converter basic functions, such as circuit start/stop,RS485/Modbus communication;



PV500 SERIES INVERTER MODEL AND APPEARANCE

Type	Drive method	Power capacity KVA	Input current A	Output current A	Shape case
Single-phase power capacity: 220V, 50/60Hz					
PV500-0004M1	0.4	0.5	5.4	2.5	S00
PV500-0007M1	0.75	1	8.2	4	S00
PV500-0015M1	1.5	2	14	7	S00
PV500-001701	0.75	1	4.2	4	A05
PV500-001901	1.5	2	14	7	A05
PV500-002301	2.2	3	23	10	A05
Three-phase power capacity: 220V, 50/60Hz					
PV500-004002	4	5	20.1	10	A02
PV500-005502	5.5	7.5	28	15	A03
PV500-007502	7.5	10	37.1	22	A03
PV500-011002	11	15	49.8	30	A04
PV500-015002	15	20	65.4	40	A05
PV500-018502	18.5	25	81.6	45	A05
PV500-022002	22	30	97.7	50	A06
PV500-030002	30	40	122.1	60	A06
PV500-037002	37	50	157	75	A07
PV500-045002	45	60	185	90	A07
PV500-055002	55	70	215	110	A08
PV500-075002	75	100	300	150	A09
Three-phase power capacity: 380V, 50/60Hz					
PV500-000703	0.75	1	3.4	2.1	A01
PV500-001503	1.5	2	5	3.8	A01
PV500-002303	2.2	3	5.8	5	A01
PV500-004003	4	5	10.5	9	A02
PV500-005503	5.5	7.5	14.6	13	A02
PV500-007503	7.5	10	20.5	17	A02
PV500-011003	11	15	28	25	A03
PV500-015003	15	20	35	32	A03
PV500-018503	18.5	25	48.5	38	A04
PV500-022003	22	30	65.5	45	A04
PV500-030003	30	40	82	60	A05
PV500-037003	37	50	76	75	A05
PV500-045003	45	60	92	90	A06
PV500-055003	55	70	113	110	A06
PV500-075003	75	100	157	150	A07
PV500-093003	93	125	180	170	A07
PV500-110003	110	150	214	210	A08
PV500-132003	132	175	256	250	A08
PV500-160003	160	210	307	300	A09
PV500-180003	185	250	385	340	A09
PV500-200003	200	260	385	380	A09
PV500-220003	220	300	430	415	A09
PV500-250003	250	350	488	470	A10
PV500-280003	280	370	525	520	A10
PV500-315003	315	400	560	565	A10



Shape case: S00,A01



Shape case: A02,A03,A04

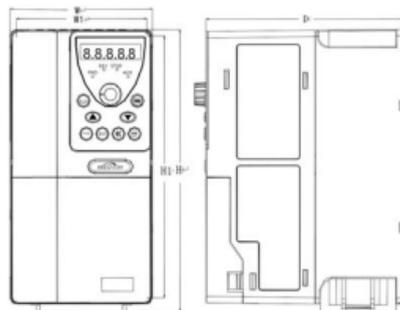


Shape case: A05

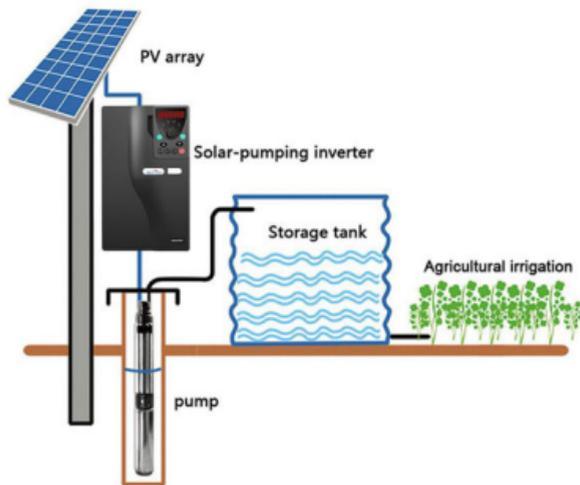


Shape case: A06,A07, A08,A09,A10

PRODUCT SIZE



Product Shape No.	Power(kW)	Shape Size(mm)			Installation Dimension(mm)		Hole Diameter(mm)
		H	W	D	H1	W1	
A00	0.4~1.5KW	170	86	131.5	159	75	5mm
A01	2.2~4.0KW	180	96	151	165.2	83.6	5mm
A02	5.5~7.5KW	221.6	113	166.5	202	98.7	5mm
A03	11~15KW	265	160	171.5	244.3	143	6.5mm
A04	18.5~22KW	302.5	192	171.5	277	172	8.5mm
A05	30~37KW	348.5	227	171.5	323	208.5	8.5mm
A06	45~55KW	490	327.5	238	459	202.5	10mm
A07	75~93KW	595	352	299	574	260	10mm
A08	110~132KW	690	370	350	635.5	302	10mm
A09	160~220KW	775	470	363	745	330	10mm
A10	250~315KW	963	600	381	933	400	12mm
A11	355~500KW	1361.5	818	404.5	1280	520	28mm



Part Name	Specifications			
Solar Pump inverter Model	PV500-0022G3	PV500-0040G3	PV500-0055G3	PV500-0075G3
Solar Panel	250W*16	250W*32	250W*48	250W*64
Solar Input Voltage	576 V			
Pump Voltage	3ph 380 V			
Pump Model	Y130Q112-36/6-2.2	Y130Q112-66/11-4	Y130Q112-90/15-5.5	Y130Q112-120/20-7.5
Rated Head	36 m	66 m	90 m	120 m
Flow	12 m ³ /H			
Working Time	Daytime			
Pump Type	Deep well pump			
Outlet Size	65 mm			
Fan of Pump	6 pcs	11 pcs	15 pcs	20 pcs
Speed of Motor	2860 rpm			
Pump Power	2.2 kW	4 kW	5.5 kW	7.5 kW
Other Functions	MPPT			
	Auto sleep/start			
	Multiple protection			

Part Name	Specifications				
Solar Pump inverter Model	PV500-0015G3	PV500-0022G3	PV500-0040G3	PV500-0055G3	PV500-0075G3
Solar Panel	200W*16	250W*16	250W*32	250W*48	250W*64
Solar Input Voltage	576 V				
Pump Voltage	3ph 380 V				
Pump Model	Y130Q6-40/10-1.5	Y130Q6-72/12-2.2	Y130Q15-120/20-4	Y130Q6-135/27-5.5	Y130Q6-200/38-7.5
Rated Head	60 m	72 m	120 m	135 m	230 m
Flow	5 m ³ /H				
Working Time	Daytime				
Pump Type	Deep well pump				
Outlet Size	60 mm				
Fan of Pump	10 pcs	12 pcs	20 pcs	27 pcs	38 pcs
Speed of Motor	2860 rpm				
Pump Power	1.5 kW	2.2 kW	4 kW	5.5 kW	7.5 kW
Other Functions	MPPT				
	Auto sleep/start				
	Multiple protection				

Part Name	Specifications				
Solar Pump inverter Model	PV500-0015G3	PV500-0022G3	PV500-0040G3	PV500-0055G3	PV500-0075G3
Solar Panel	200W*16	250W*16	250W*32	250W*48	250W*64
Solar Input Voltage	576 V				
Pump Voltage	3ph 380 V				
Pump Model	Y130Q8-48/9-1.5	Y130Q8-60/10-2.2	Y130Q8-90/15-4	Y130Q8-120/20-5.5	Y130Q8-156/26-7.5
Rated Head	48 m	60 m	90 m	120 m	156 m
Flow	8 m ³ /H				
Working Time	Daytime				
Pump Type	Deep well pump				
Outlet Size	50 mm				
Fan of Pump	8 pcs	10 pcs	15 pcs	20 pcs	26 pcs
Speed of Motor	2860 rpm				
Pump Power	1.5 kW	2.2 kW	4 kW	5.5 kW	7.5 kW
Other Functions	MPPT				
	Auto sleep/start				
	Multiple protection				





Part Name	Specifications						
Solar Pump inverter Model	PV500-0007G1	PV500-0015G1	PV500-0022G1	PV500-0007G3	PV500-0015G3	PV500-0022G3	PV500-0040G3
Solar Panel	200W*8	200W*16	200W*24	100W*16	200W*16	250W*16	250W*32
Solar Input Voltage	288 V			576 V			
Pump Voltage	3ph 220 V			3ph 380 V			
Pump Model	Y100QJ2-45/9-0.6	Y100QJ2-80/16-1.5	Y100QJ2-110/22-2.2	Y100QJ2-45/9-0.6	Y100QJ2-80/16-1.5	Y100QJ2-110/22-2.3	Y100QJ2-150/30-4
Rated Head	45 m	80 m	110 m	45 m	80 m	110 m	150 m
Flow	2 m ³ /H			2 m ³ /H			
Working Time	Daytime						
Pump Type	Deep well pump						
Outlet Size	25 mm						
Fan of Pump	9 pcs	16 pcs	22 pcs	9 pcs	16 pcs	22 pcs	30 pcs
Speed of Motor	2860 rpm						
Pump Power	0.6 kW	1.5 kW	2.2 kW	0.6 kW	1.5 kW	2.2 kW	4 kW
Other Functions	MPPT						
	Auto sleep/start						
	Multiple protection						

Part Name	Specifications					
Solar Pump inverter Model	PV500-0007G1	PV500-0015G1	PV500-0022G1	PV500-0007G3	PV500-0015G3	PV500-0022G3
Solar Panel	200W*8	200W*16	200W*24	100W*16	200W*16	250W*16
Solar Input Voltage	288 V			576 V		
Pump Voltage	3ph 220 V			3ph 380 V		
Pump Model	Y100QJ4-32/8-0.6	Y100QJ4-60/15-1.5	Y100QJ4-84/21-2.2	Y100QJ4-32/8-0.6	Y100QJ4-60/15-1.5	Y100QJ4-84/21-2.2
Rated Head	32 m	60 m	84 m	32 m	60 m	84 m
Flow	2 m ³ /H			2 m ³ /H		
Working Time	Daytime					
Pump Type	Deep well pump					
Outlet Size	32 mm					
Fan of Pump	8 pcs	15 pcs	21 pcs	8 pcs	15 pcs	21 pcs
Speed of Motor	2860 rpm					
Pump Power	0.6 kW	1.5 kW	2.2 kW	0.6 kW	1.5 kW	2.2 kW
Other Functions	MPPT					
	Auto sleep/start					
	Multiple protection					





Cable Connection

The positive pole of solar panel connect to "R", negative pole connect to "T", U V W connect with cable of pump. R S T can be connected single/three phase AC power, but we can not use AC power and DC power together.

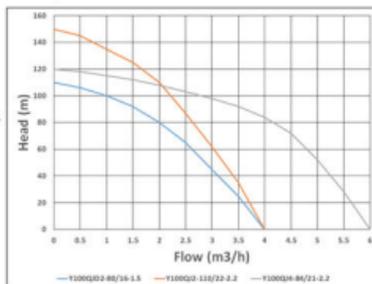
Husbandry Water Supply System

The system consists of solar modules, solar pump controller, pump, micro-irrigation system and reservoir. The system uses solar power to pump water to meet the water needs of plant and animals, With no need of electricity, diesel generators and batteries. It replaces energy storage with water storage. The whole system is fully automated, Maintenance-free, economic and environment friendly.

Material of Parts

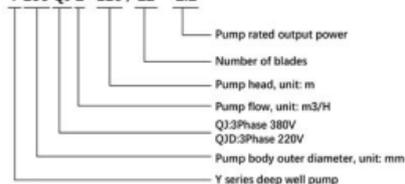
Outlet: Cast Iron
 Pump Body: Stainless Steel
 Impeller: Stainless Steel
 Bearing: NSK Brand
 Motor: Permanent Magnetic Synchronous
 Warranty: (2 years)

Curve



Model Explanation

Y 100 Q1 2- 110 / 22 - 2.2



Technical Data

Pump Model	Voltage	Pump Power (kW)	Rate Head (m)	Flow (m³/h)	Pump Type	Outlet Size (mm)	Fan of Pump	Speed of Motor			
Y130Q12-65/9-0.8	AC 220V 0-60Hz	0.8	45	2	Deep well pump	25	8	2800(rpm)			
Y130Q12-86/16-1.5		1.5	80								
Y130Q12-110/22-2.2		2.2	110								
Y130Q14-32/3-0.6		0.6	32						4	32	8
Y130Q14-60/3-1.5		1.5	60								
Y130Q14-84/21-2.2		2.2	84								
Y130Q12-45/3-0.6		0.6	45	2		25	8				
Y130Q12-80/3-1.5		1.5	80								
Y130Q12-110/22-2.2		2.2	110								
Y130Q12-150/36-4		4	150						4	32	8
Y130Q14-32/3-0.6		0.6	32								
Y130Q14-60/3-1.5		1.5	60								
Y130Q14-84/21-2.2	2.2	84	5	40	10						
Y130Q15-60/3-1.5	1.5	60									
Y130Q15-70/12-2.2	2.2	72									
Y130Q15-125/20-4	4	125				8	50	15			
Y130Q15-135/21-5.5	5.5	135									
Y130Q15-205/38-7.5	7.5	205									
Y130Q18-40/3-1.5	1.5	48	12	85	20						
Y130Q18-60/3-2.2	2.2	60									
Y130Q18-80/3-4	4	90									
Y130Q18-125/20-5.5	5.5	125									
Y130Q18-150/26-7.5	7.5	150									
Y130Q12-36/3-2.2	2.2	36				12	85	11			
Y130Q12-66/11-4	4	66									
Y130Q12-96/15-5.5	5.5	99									
Y130Q12-120/15-7.5	7.5	120									



Cable Connection

The positive pole of solar panel connect to "R", negative pole connect to "T", U V W connect with cable of pump. R S T can be connected single/three phase AC power, but we can not use AC power and DC power together.

Model Explanation

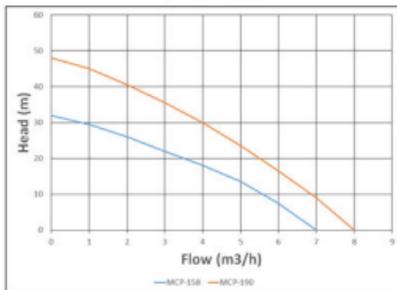
MCP - 130
 Parameter Code
 Centrifugal Pump

Material of Parts

Outlet: Cast Iron
 Pump Body: Cast Iron
 Impeller: Cast Iron
 Bearing: NSK Brand
 Motor: AC Asynchronous Motor
 Warranty: (2 years)

Technical Data

Pump Model	Voltage	Pump Power (kW)	MAX Head (m)	MAX Flow (m ³ /h)	Pump Type	Outlet Size (mm)	Package size (mm)	Weight (Kg)
MCP-130	AC 220V 0-60Hz	0.4	22	5.4	Centrifugal pump	25	30.5-18.5-22	11
MCP-146		0.55	28	6		25	32-21-26	13
MCP-150		0.75	29.5	7.8		25	32-21-26	14
MCP-158		0.75	32	7		25	32-21-26	15
MCP-170		1.1	36	10		32-25	36-25-31	20
MCP-190		1.5	48	9		32-25	38.5-24.5-32	25



Cable Connection

The positive pole of solar panel connect to "R", negative pole connect to "T", U V W connect with cable of pump. R S T can be connected single/three phase AC power, but we can not use AC power and DC power together.

Model Explanation

MHF-5B
 Parameter Code
 Large Flow Centrifugal Pump

Material of Parts

Outlet: Cast Iron
 Pump Body: Cast Iron
 Impeller: Cast Iron
 Bearing: NSK Brand
 Motor: AC Asynchronous Motor
 Warranty: (2 years)

Technical Data

Pump Model	Voltage	Pump Power (kW)	MAX Head (m)	MAX Flow (m ³ /h)	Pump Type	Outlet Size (mm)	Package size (mm)	Weight (Kg)
MHF-5B	AC 220V 0-60Hz	0.75	13	36	Centrifugal pump	50	36-22-27	15
MHF-SAM		1.5	20	22		50	38.7-21-26.5	20.5
MHF-6C		1.1	11.9	72		80	45.5-16-23	25
MHF-6E		1.5	14.7	72		80	41-25-32	28.5
MHF-6BF		1.5	14.7	72		80	41-25-32	28.5
MHF-6AR		2.2	18.5	78		100	44.5-15-32	37.5
MHF-7BR		3	24.8	132		100	49-27-34.5	41

