

Solar pumping inverter

a new generation controller





Brife introduction

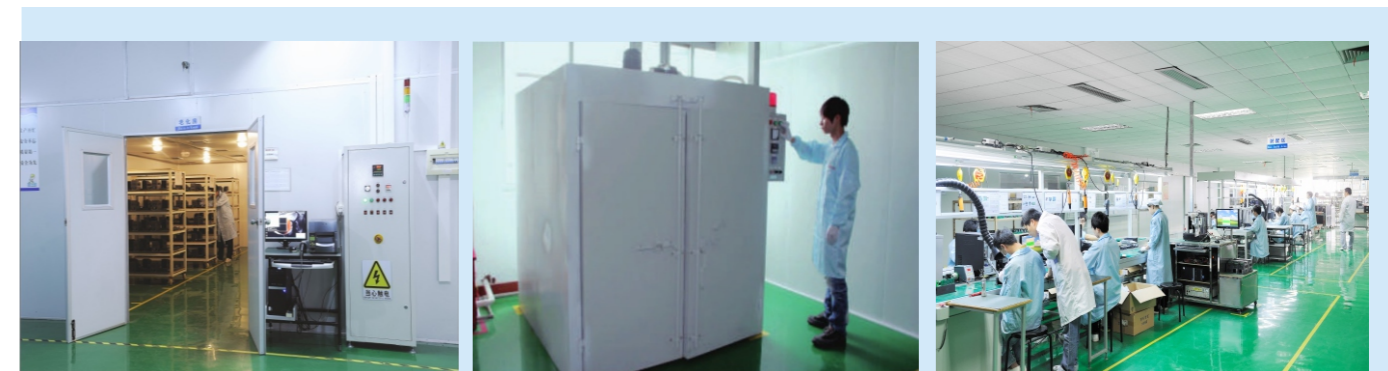
Shenzhen Veikong Electric CO.,Ltd. a high-tech enterprise which has been specializing in researching, manufacturing and trading high, medium and low voltage inverter, providing our clients with integrated system solutions. We have professional R&D and devoted management team with more than 20 years' experience of theoretical research, product development and quality management. Veikong also is one of the first independent AC drives company in China. We adopt SPWM, sensorless vector control and vector and torque control technology in our VFD series inverters, which has reached the international advanced standard. The products can directly replace and be equivalent of Europe and the United States, Japan and other brands, providing customers with a powerful technical support. We have achieved popularity and qualification in VFD industry. Quality is the life of enterprise.

Veikong drives keeps following ISO9001 standard to manage and supervise quality. Our products have passed CE certification and other technical approval. To better meet customer requirements and market needs, Veikong drives keeps on upgrading new technologies and new products.

The customer is the source of enterprise. We are honored to put top priority on customers' requirements as well as achieving their requirements. Our products have been widely used in petroleum, chemical, melting, hoisting, electric power, building materials, water supply, plastics, textiles, printing, packing and other industries to create value for customers.



PCBA Production Line and Test



Burn-in

Lacquer

Assemble

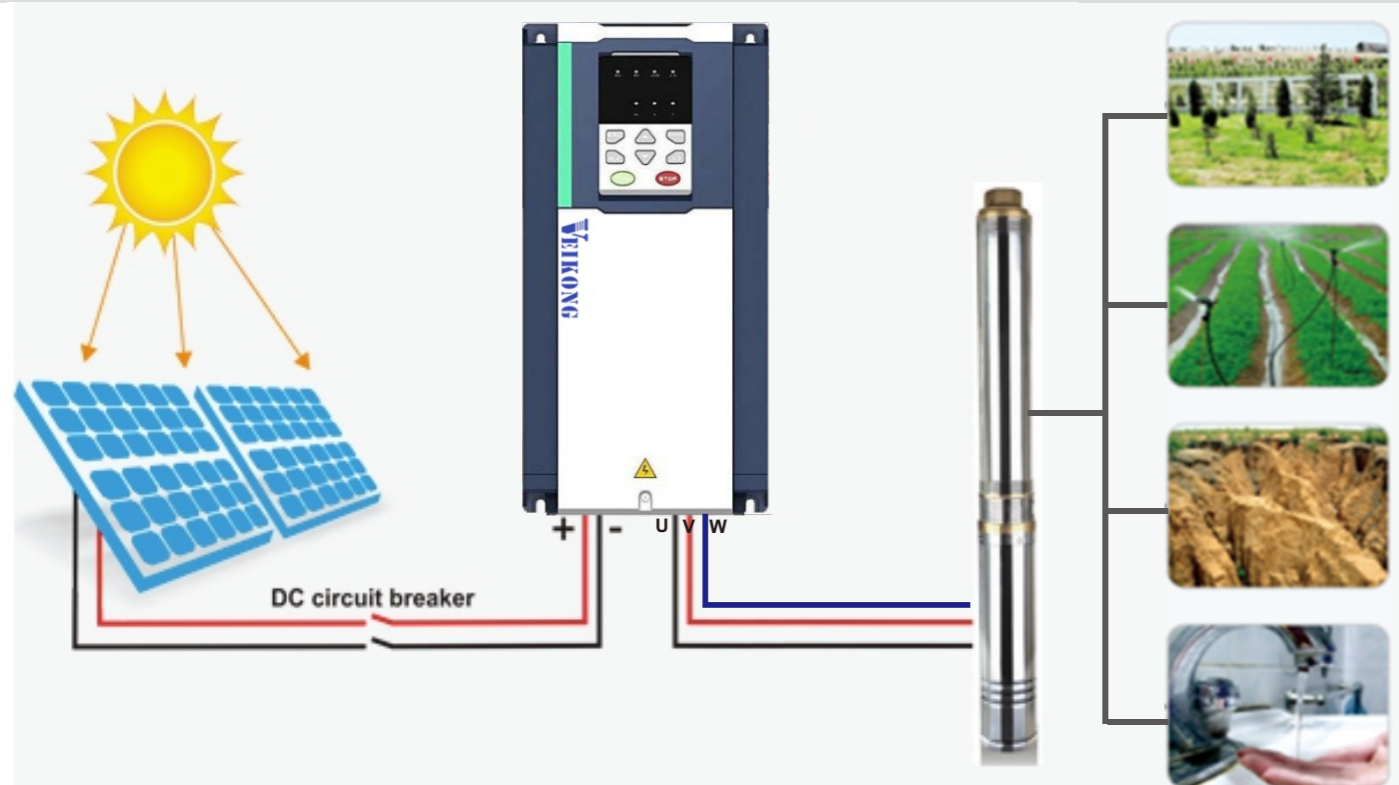


Automatic DT test platform

Automatic PCBA ATE test platform

Automatic FLASH test platform

VFD500-PV Solar Pumping Inverter



Key features

- Maximizing power generation efficiency of solar modules with the use of advanced MPPT control technology and automatic MPPT voltage tracking
- Adjust water outflow of pumps quickly on basis of sunlight intensity change
- Automatic hibernation and wake up
 - (1) Hibernate at high water level and wake up at low water lever
 - (2) Hibernate at sunrise and sunset and wake up at strong sunlight
- Built-in C3 EMC filter and DSP technology and Infineon PIM design,with functions of light weak protection,dry run and low voltage,full water warning, overvoltage and overtemperature protection
- Advanced calculation for Pump flow and monitoring display
- Automatic running without any commisioning in keypad control and GPRS monitoring option(as option)

220V Rating Data

Drive model	Max DC input current (A)	Rated output current (A)	Applicable water pump (KW)	SIZE
VFD500-20T00075-PV	6.7	4.5	0.75	Size A
VFD500-20T00150-PV	9.9	7	1.5	Size A
VFD500-20T00220-PV	14.1	10	2.2	Size A
VFD700-20T00400-PV	22.6	16	4	Size A

380V Rating Data

Drive model	Max DC input current (A)	Rated output current (A)	Applicable water pump (kW)	Size
VFD500-40T00075-PV	4.2	2.5	0.75	Size A
VFD500-40T00150-PV	6.1	4.2	1.5	Size A
VFD500-40T00220-PV	7.1	6	2.2	Size A
VFD500-40T00400-PV	16.5	9.4	4	Size A
VFD500-40T00550-PV	23.9	13	5.5	Size B
VFD500-40T00750-PV	30.6	17	7.5	Size B
VFD500-40T01100-PV	39.2	25	11	Size C
VFD500-40T01500-PV	49.0	32	15	Size C
VFD500-40T01850-PV	57	37	18.5	Size D
VFD500-40T02200-PV	69	45	22	Size D
VFD500-40T03000-PV	91	60	30	Size E
VFD500-40T03700-PV	114	75	37	Size E
VFD500-40T04500-PV	146	90	45	Size F
VFD500-40T05500-PV	190	112	55	Size F
VFD500-40T07500-PV	237	152	75	Size G
VFD500-40T09000-PV	273	176	90	Size G
VFD500-40T11000-PV	319	210	110	Size H
VFD500-40T13200-PV	389	256	132	Size H

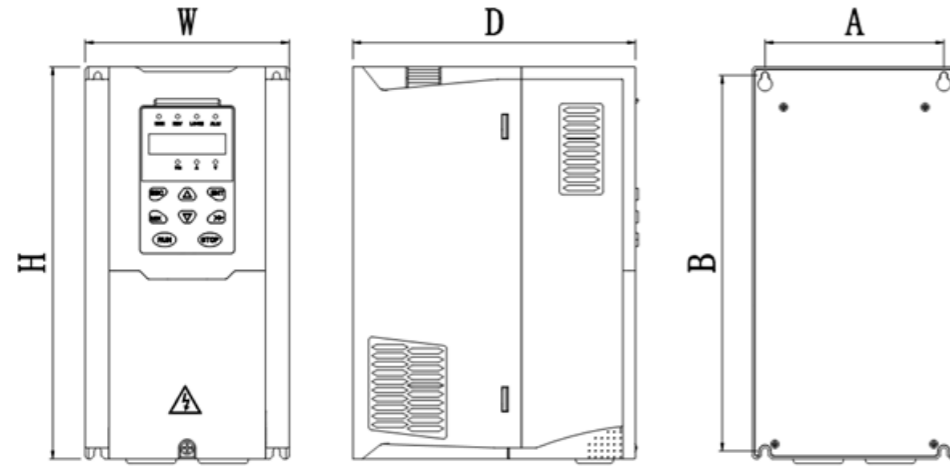
Noted:when the oupt voltage is 380V,the output current will be rated value;when the ouput voltage is 400V,415V or 440V,the output current will be calculated according to power

Electrical Specifications

Voltage	220V	380V
Max input DC voltage	450V	810V
Recommended MPPT voltage range	150~410VDC	250~800VDC
Recommended input voltage	330V	550V
MPPT efficiency	99%	
Input channel	2	
Rated output voltage	3-phase 220VAC	3-phase 380VAC
Output frequency range	0~60Hz	
Max efficiency of the machine	97%	
Ambient temperature range	-10 °C~50 °C, derating if the temperature is above 40 °C	
Cooling method	Air cooling	
Protection degree	IP20	
Altitude	Below 1000m; above 1% for every additional 100m.	
Standard	CE	

VFD500-PV Solar Pumping Inverter

Appearance and Mounting Hole Dimension



SIZE	Appearance and installation dimension (mm)							Mounting screws
	A	B	H	H1	W	D	Φd	
SIZE A	87	206.5	215	/	100	170	ø5.0	M4X16
SIZE B	114	239.5	250	/	130	180	ø5.0	M4X16
SIZE C	159	298	310	/	180	193	Ø6.0	M5X20
SIZE D	165	350	365		210	205	Ø6.0	M5X20
SIZE E	170	437	452.5		260	230	Ø7.0	M6X16
SIZE F	250	535	555		310	275	Ø10.0	M8X20
SIZE G	280	620	640		350	290	Ø10.0	M8X20

Electrical Specifications



Commercial/Agricultural irrigation system



Agricultural and animal husbandry water supply system



Barren hills governance system



Agricultural greenhouse water supply system



Landscape fountain system



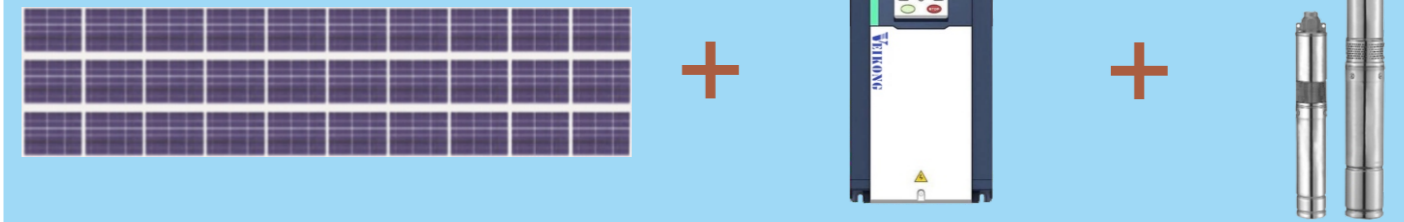
Solve water short problem

Common system configuration

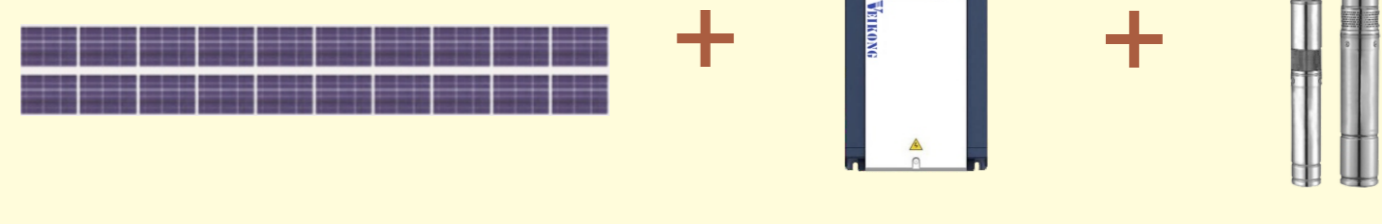
Water pump power (kw)	Drive model	Solar modules and configurations					
		Module type	Solar panel quantity	Parallel condition quantity	Total quantity	Total Power (kw)	Total input Voltage(v)
2.2	VFD500-40T00220-PV	SYP100-18	30	1	30	3	584
4	VFD500-40T00400-PV	SYP250-30	20	1	20	5	634
5.5	VFD500-40T00550-PV	SYP200-30	19	2	38	7.6	572
7.5	VFD500-40T00750-PV	SYP250-30	20	2	40	10	634
11	VFD500-40T01100-PV	SYP250-30	20	3	60	15	634

Input voltage DC250-780, adaptive MPPT search, the best operating voltage range 530-650VDC

The recommended configuration of 2.2kw deep-well pump system



The recommended configuration of 4.0kW deep-well pump system



The recommended configuration of 5.5kW deep-well pump system

