solar pump inverter

Technical specifications of the AD series









Boost photovoltaic smart irrigation

Ultra-lowvoltage operation mode

AC/DC Automatic Identification

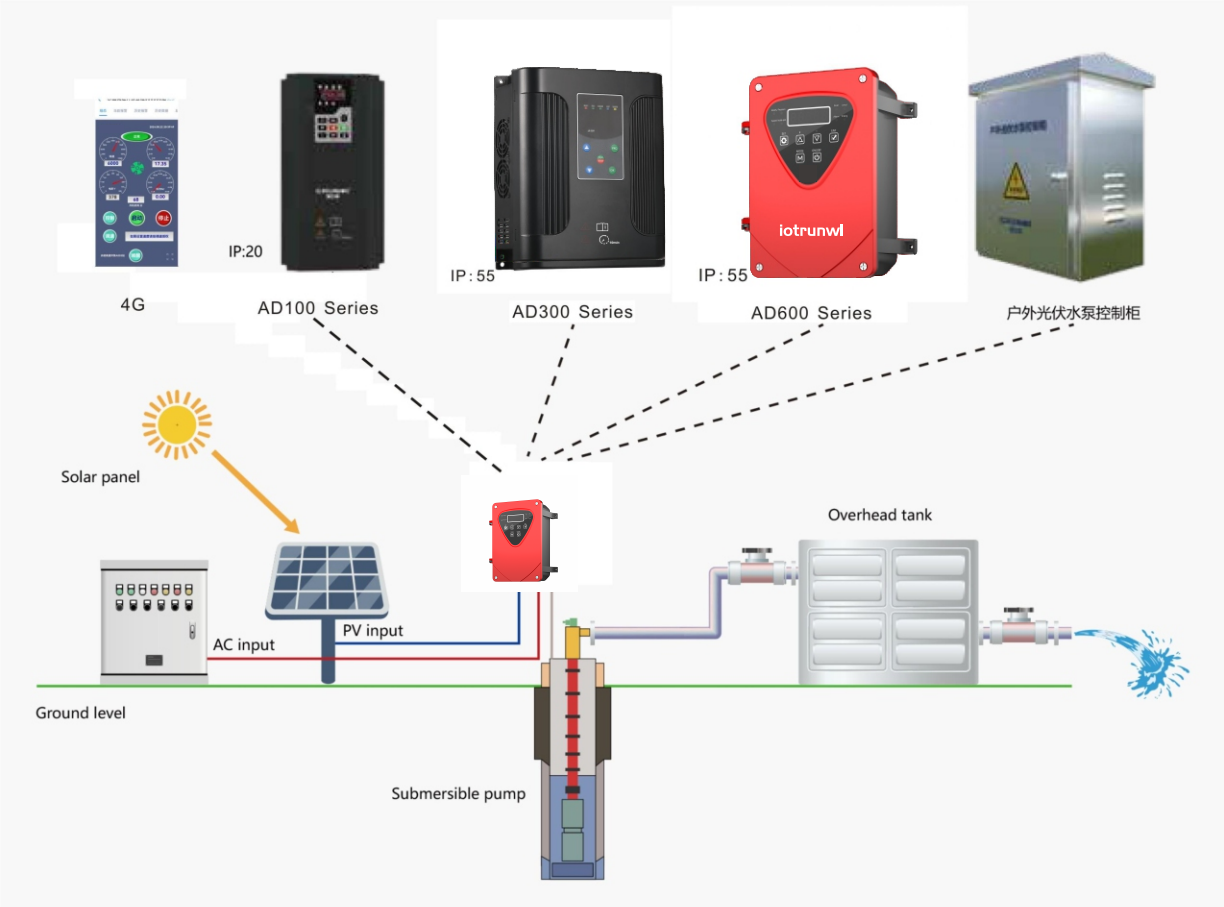
Synchronous and asynchronous drivers in one

Constant pressure/speed regulation/gear selection, three in one

All-roundprotection of the pump

4G remote control

INTELLIGENT FREQUENCY CONVERSION SYSTEM FOR PHOTOVOLTAIC WATER PUMPS





Agricultural irrigation



Afforestation



Animal husbandry



Domestic water

Introduction

Product function

- Suitable for driving all AC aynchronous motor pumps,or high speed permanent magnet synchronous motor pumps.
- Operational modes：
  Three basic modes：Constant pressure +Speed regulation +Multi-speed .
  Three auxiliary controls：Float switch +digital water level monitoring +Timing.
- Operational modes:
  - Local control - via the operation panel .
  - Automatic start/stop with current
  - 4G Remote monitoring .
- Maximum power point monitoring（MPPT）, fast responseand stableoperation.
- Dual mode input, compatiblewith DC or ACpower input
- Fully automatic operation, digital control of data storage and protection functions.
- Low water level probe sensor and water level control function .
- Ambient temperature: -15to +50. C.

Nine control modes：

1：Speed governing+Double float（normallyopen）self-resettingmode；

2：Speed governing+Water level self-resettingmode；

3：Speed governing+Timed operation mode；

4：Multi speed +Double float（normallyopen）self-resettingmode；

5：Multi-gearspeed+Water level self-resettingmode；

6：Multi-gearspeed+Timed operation mode；

7：Constant pressure（4—20mA）+Double float（normallyopen）self-resettingmode；

8：Constant pressure（4—20mA）+Water level self-resettingmode

9：Constant pressure（4—20mA）+Timed operation mode；

Nameplate and model description

MODEL: AD600 - F0110 L 43
INPUT: 3PH 380v 50/60Hz
OUTPUT: 3PH 0~380v 0~500Hz
POWER: 11.0KW 25.0A

S/N
42422515003

AD 600 - F055 L 43

- 63 three phase — AC660v — 660v
- 43 Three phase — AC400v — 400v
- 33 Three phase — AC220v — 220v
- 5. 5Kw



AD100 :
Deep well pump inverter



AD600 :
Outdoor integrated pump inverter



AD300:
Variable frequency cabinet outdoor for integrated well pump

Code	Power level	AD100	AD600	AD300
0015	1.5kw	✓		
0022	2.2kw	✓	✓	✓
0030	3.0kw	✓	✓	✓
0040	4.0kw	✓	✓	✓
0055	5.5kw	✓	✓	✓
0075	7.5kw	✓	✓	✓
0110	11.0kw	✓	✓	✓
0150	15.0kw	✓	✓	✓
0185	18.5kw	✓	✓	✓
0220	22.0kw	✓	✓	✓
0300	30.0kw	✓	✓	✓
0370	37.0kw	✓	✓	
0450	45.0kw	✓	✓	
0550	55.0kw	✓		
0750	75.0kw	✓		
0930	93.0kw	✓		
1100	110.0kw	✓		
1320	132.0kw	✓		
1600	160.0kw	✓		
1850	185.0kw	✓		
2000	200.0kw	✓		

AD100 option list（IP20）:

Model	Rated Current A)	Output Voltage MAX(V)	Pump applicable (KW)	Packing Size W*H*D (mm)	MPPT Voltage (VDC)	Weight (KG)	Protection
AD100-0007L23	4	0V～220V	0.75	220-140-168	250～375		IP20
AD100-0015L23	7	0V～220V	1.5		250～375		
AD100-0022L23	10	0V～220V	2.2		250～375		
AD100-0030L23	13	0V～220V	3.0	220-140-168	250～375		
AD100-0040L33	18	0V～220V	4.0		250～375		
AD100-0055L33	24	0V～220V	5.5	317-211-224	250～375		
AD100-0075L33	31	0V～220V	7.5		250～375		
AD100-0093L33	39	0V～220V	9.3	365-215-225	250～375		
AD100-0110L33	44	0V～220V	11.0		250～375		
AD100-0007L43	2.5	0V～380V	0.75	220-140-168	480-750		IP20
AD100-0015L43	3.7	0V～380V	1.5		480-750		
AD100-0022L43	5.1	0V～380V	2.2		480-750		
AD100-0030L43	6.5	0V～380V	3.0		480-750		
AD100-0040L43	9.0	0V～380V	4.0	220-140-168	480-750		
AD100-0055L43	13.0	0V～380V	5.5		480-750		
AD100-0075L43	16.0	0V～380V	7.5		480-750		
AD100-0093L43	20	0V～380V	9.3		480-750		
AD100-0110L43	25	0V～380V	11.0	317-211-224	480-750		
AD100-0150L43	32	0V～380V	15.0		480-750		
AD100-0185L43	38	0V～380V	18.5	365-215-225	480-750		
AD100-0220L43	45	0V～380V	22.0		480-750		
AD100-0300L43	60	0V～380V	30.0		480-750		
AD100-0370L43	75	0V～380V	37.0	650-406-275	480-750		
AD100-0450L43	90	0V～380V	45.0		480-750		
AD100-0550L43	110	0V～380V	55.0	750-460-275	480-750		
AD100-0750L43	150	0V～380V	75.0		480-750		
AD100-0930L43	170	0V～380V	93.0	850-505-275	480-750		
AD100-1100L43	210	0V～380V	110.0		480-750		
AD100-1320L43	260	0V～380V	132.0	1000-610-275	480-750		
AD100-1600L43	300	0V～380V	160.0		480-750		
AD100-1870L43	340	380V	187	1000-750-275	480-750		
AD100-2000L43	380	380V	200		480-750		
AD100-2200L43	380	380V	220		480-750		
AD100-2500L43	380	380V	250		480-750		
AD100-2800L43	380	380V	280		480-750		
AD100-3500L43	380	380V	350		480-750		

AD300 option list (IP55):

Model	Rated Current A)	Output Voltage MAX(V)	Pump applicable (KW)	Packing Size W*H*D (mm)	MPPT Voltage (VDC)	Weight (KG)	Protection
AD300-0022L23	10	0V～220V	2.2	224-277-187	250～375		IP55
AD300-0030L23	13	0V～220V	3.0		250～375		
AD300-0040L33	18	0V～220V	4.0		250～375		
AD300-0055L33	24	0V～220V	5.5	355-315-210	250～375		
AD300-0075L33	31	0V～220V	7.5		250～375		
AD300-0093L33	39	0V～220V	9.3		250～375		
AD300-0007L43	2.5	0V～380V	0.75	228-211-146	480～750		IP55
AD300-0015L43	3.7	0V～380V	1.5		480～750		
AD300-0022L43	5.1	0V～380V	2.2		480～750		
AD300-0030L43	6.5	0V～380V	3	334-277-187	480～750		IP55
AD300-0040L43	9	0V～380V	4		480～750		
AD300-0055L43	13	0V～380V	5.5		480～750		
AD300-0075L43	16	0V～380V	7.5		480～750		
AD300-0093L43	20	0V～380V	9.3		480～750		
AD300-0110L43	25	0V～380V	11		480～750		
AD300-0150L43	32	0V～380V	15	355-315-210	480～750		
AD300-0185L43	38	0V～380V	18.5		480～750		
AD300-0220L43	45	0V～380V	22		480～750		

AD600 option list(IP65):

Model	Rated Current A)	Output Voltage MAX(V)	Pump applicable (KW)	Packing Size W*H*D (mm)	MPPT Voltage (VDC)	Weight (KG)	Protection
AD600-0015L23	7	0V～220V	1.5	334-277-187	250～375		IP65
AD600-0022L23	10	0V～220V	2.2		250～375		
AD600-0030L23	13	0V～220V	3.0		250～375		
AD600-0030L43	6.5	0V～380V	3.0	334-277-187	480～750		IP65
AD600-0040L43	9	0V～380V	4.0		480～750		
AD600-0055L43	13	0V～380V	5.5		480～750		
AD600-0075L43	16	0V～380V	7.5		480～750		
AD600-0093L43	20	0V～380V	9.3		480～750		
AD600-0110L43	25	0V～380V	11	335-277-218	480～750		
AD600-0150L43	32	0V～380V	15		480～750		
AD600-0185L43	38	0V～380V	18.5	435-377-258	480～750		
AD600-0220L43	45	0V～380V	22		480～750		
AD600-0300L43	60	0V～380V	30		480～750		
AD600-0370L43	75	0V～380V	37		480～750		
AD600-0015L23	7	0V 220V	1.5	334-277-187			IP65
AD600-0022L23	10	0V 220V	2.2				
AD600-0030L23	13	0V 220V	3.0				
AD600-0030L43	6.5	0V 380V	3.0	334-277-187			IP65
AD600-0040L43	9	0V 380V	4.0				
AD600-0055L43	13	0V 380V	5.5				
AD600-0075L43	16	0V 380V	7.5				
AD600-0093L43	20	0V 380V	9.3				
AD600-0110L43	25	0V 380V	11	335-277-218			
AD600-0150L43	32	0V 380V	15				
AD600-0185L43	38	0V 380V	18.5	435-377-258			
AD600-0220L43	45	0V 380V	22				
AD600-0300L43	60	0V 380V	30				
AD600-0370L43	75	0V 380V	37				
AD600-0450L43	90	0V 380V	45				

Standard specification

Lists		specification	
Basic function	Control system	Performance and function highly integrated current vector inverter for water industry	
	Driving performance	High efficiency drive induction motor and synchronous motor.	
	Maximum frequency	Vector control : 0~500Hz;	
		V/F control : 0~3200 Hz。	
	Carrier frequency	0. 5kHz~15 kHz;	
		The carrier frequency can be automatically adjusted according to the load characteristics	
	Recommended MPPT voltage range	220V Vmp 260 to400VDC;	
		380V: Vmp 480 to700 VDC;	
	Control mode	Permanent magnet synchronous motor pump: open loop vector control (SVPWM);	
		Asynchronous motor pump: V/F control;	
	Operational mode	MPPT or ACVT	
	Starting torque	0. 5Hz/110%	
	Speed adjustable range	1 : 100 (SVC)	1 : 1000 (FVC)
	Speed stability accuracy	±0. 5% (SVC)	±0. 02% (FVC)
	Constant pressure accuracy	0. 01Mpa	
	Torque control accuracy	±5% (FVC)	
	Automatic voltage regulation (AVR)	When the grid voltage changes, it can automatically keep the output voltage constant.	
	Over voltage over loss rate control	Automatic current and voltage limit during operation to prevent frequent over voltage trip.	
	Fast current limiting function	Minimize the overcurrent fault and protect the normal operation of the inverter.	
Operation	Command setting	Operation panel given, control terminal given, serial communication port given. 4G/WiFiremote phone given (optional)	
	Frequency setting	Digital set, analog voltage set, analog current set, serial port set. 4G/WiFi remote phone given (optional)	
	Pressure setting	Digital set, analog voltage set, analog current set, serial port set. 4G/WiFi remote phone given (optional)	
	Input/output terminal	4 digital input terminals input;	
		2 breaker output terminals;	
		2 standard analog 4-20mA input terminals;	
Display and Keyboard operation	LED display	display parameter.	
	Key lock and function selection	To achieve partial or total key lock, define the scope of some keys to prevent misoperation.	
	Defensive function	Power-on motor short circuit detection, input and output phase loss protection, over current protection, over voltage protection, under voltage protection, overheat protection, overload protection, water shortage, card machine, high and low water level protection	
Applicable environment	Place of use	Indoor and outdoor, not directly exposed to the sun, no dust, corrosive gas, flammable gas, oil mist, water vapor, dripping or salt.	
	Altitudinal boundary	Less than 1000m. Above 1000m, the derate is reduced by 1% for every 100m increase.	
	Ambient temperature	-10 ° C to +40 ° C (If the ambient temperature is 40 ° C to 50 ° C, use it at a reduced rate).	
	Humidity	Less than 95% RH, no condensation.	
	Oscillation	Less than 5. 9m/s2 (0. 6g).	
	Storage temperature	-20℃ ~ +60 ℃。	


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