Goodrive100-01

Inverter for PV Pump

Innovation, Value, Teamwork

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Industrial Automation： ■Frequency Inverter ■Servo & Motion Control ■Motor & Electric Spindle ■PLC ■HMI ■Intelligent Elevator Control System ■Traction Drive

Electric Power： ■SVG ■Solar Inverter ■UPS ■Online Energy Management System

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Product introduction

Positioned in environmental-friendly and economical PV market, the product is applicable to PV pump system, replaces water storage with electric storage and needs no battery modules. The direct current generated by solar modules is input to the inverter and then converted into the alternating current to drive various pumps directly. Additionally, the output frequency is adjustable in real time according to sunlight intensity change.

Product features

- Maximizing power generation efficiency of solar modules with the use of advanced MPPT control technology
- Adjusting water outflow of pumps quickly on basis of sunlight intensity change
- Automatic hibernation and wakeup
  (1)Hibernate at high water level and wake up at low water level
  (2)Hibernate at sunrise and sunset and wake up at strong sunlight
- Underload protection and fault protection of water level sensor avoiding pumping off after water supply dries up
- TI DSP technology and Infineon PIM design, with functions of overcurrent, overvoltage and overtemperature protection, built-in C3 filter, achieving reliable, automatic and unattended running

Application

Mainly applied to industries of agriculture and forestry irrigation, desert control, grassland animal husbandry and municipal water

Specifications

1.Parameters

Max input DC voltage	800VDC
Recommended MPPT voltage range	350~750VDC
Recommended input voltage	513VDC
MPPT efficiency	99.9%
Input channel	1
Rated output voltage	3-phase 380VAC
Output frequency range	0~60Hz
Max efficiency of the machine	97%
Ambient temperature range	(G-type inverter with water pump)
Cooling method	Air cooling
Protection degree	IP20
Altitude	Below 1000m; above 1000m, derate 1% for every additional 100m.
Standard	CE

2.Power degree

Inverter model	Max DC input current (A)	Rated output current (A)	Applicable water pump (kW)
GD100-01-0R7G-4	4.2	2.5	0.75
GD100-01-1R5G-4	6.1	3.7	1.5
GD100-01-2R2G-4	7.1	5	2.2
GD100-01-004G-4	16.5	9.5	4
GD100-01-5R5G-4	23.9	14	5.5
GD100-01-7R5G-4	30.6	18.5	7.5
GD100-01-011G-4	39.2	25	11
GD100-01-015G-4	49.0	32	15

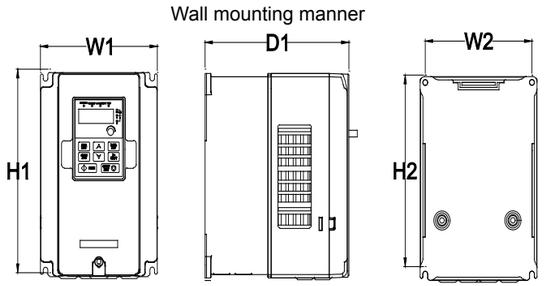
Note: When the output voltage is 380V, the output current will be the rated value; when the output voltage is at 400V, 415V or 440V, the output current will be calculated according to power.

3.Recommended solar array configuration

Inverter model	Max DC input current	Open-circuit voltage degree of solar module											
		20±3V		30±3V		36±3V				42±3V			
	(A)	Module power ±5Wp	Modules per string *strings	Module power ±5Wp	Modules per string *strings	Module power ±5Wp	Modules per string *strings	Module power ±5Wp	Modules per string *strings	Module power ±5Wp	Modules per string *strings	Module power ±5Wp	Modules per string *strings
GD100-01-0R7G-4	4.2	35	24*1	-	-	-	-	-	-	-	-	-	-
GD100-01-1R5G-4	6.1	60	24*1	-	-	-	-	-	-	-	-	-	-
GD100-01-2R2G-4	7.1	90	24*1	-	-	155	14*1	-	-	180	12*1	-	-
GD100-01-004G-4	16.5	85	24*2	220	18*1	140	14*2	-	-	170	12*2	-	-
GD100-01-5R5G-4	23.9	-	-	-	-	195	14*2	-	-	240	12*2	-	-
GD100-01-7R5G-4	30.6	-	-	210	18*2	175	14*3	-	-	205	12*3	310	12*2
GD100-01-011G-4	39.2	-	-	205	18*3	195	14*4	-	-	235	12*3	-	-
GD100-01-015G-4	49	-	-	210	18*4	175	14*6	215	14*5	250	12*5	310	12*4

4.Dimension

Wall mounting manner



Power	W1	W2	H1	H2	D1	Hole size
0.75kW~2.2kW	126.0	115.0	186.0	175.0	155.0	5
4kW~5.5kW	146.0	131.0	256.0	243.5	167.0	6
7.5kW~15kW	170.0	151.0	320.0	303.5	196.3	6