

GD170-PV Series

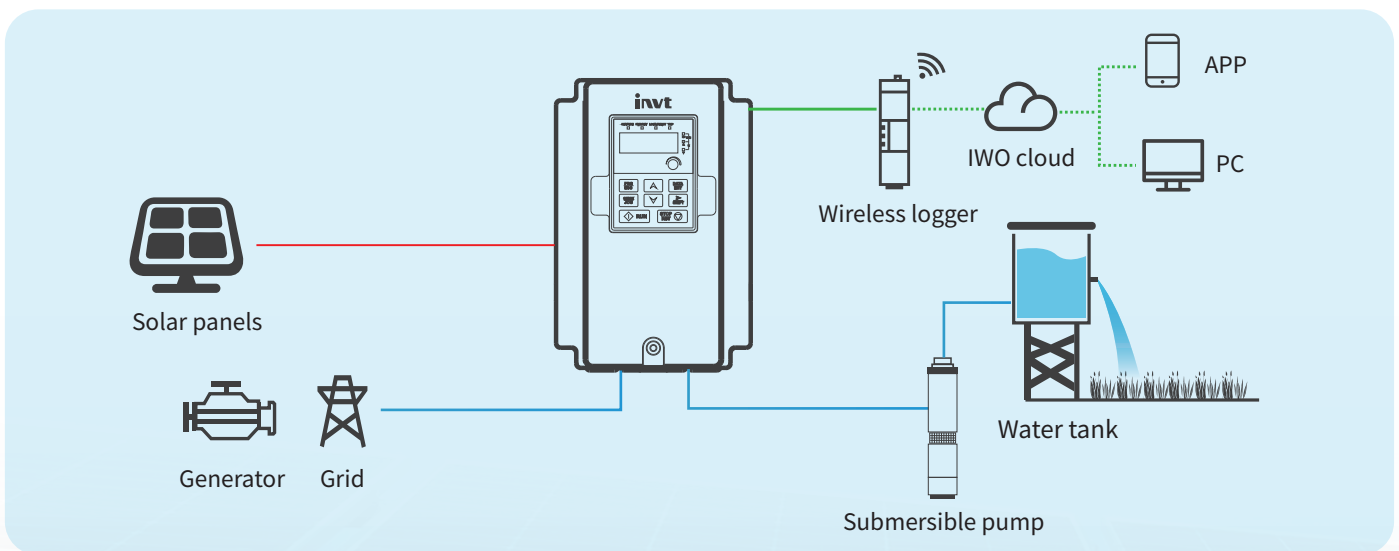
Solar Pump Controller



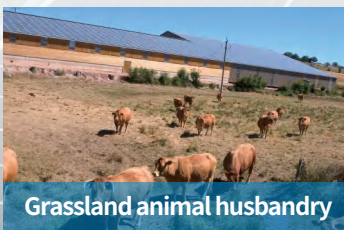
GD170-PV Series Solar Pump Controller



- Hybrid operation (AC supply & PV supply)
- Advanced MPPT algorithms
- High efficiency and stability
- Effective protection function
- Intelligent IOT
- Drive multi types of pumps (PMSM, AM, Single phase motors, etc)



Application scenarios



Product Specification

DC input	
Max DC voltage(V)	800
Start voltage(V)	300
Min. work voltage(V)	250
Recommended MPPT voltage(V)	300~750
Recommended input work voltage(V)	550
AC input	
Input voltage(Vac)	3PH 380 (-15%) ~440 (+10%) -4 3PH 220 (-15%) ~240 (+10%) -2 1PH 220 (-15%) ~240 (+10%) -S2 & -SS2
Input frequency(Hz)	47~63
AC output	
Output voltage(Vac)	0-input voltage
Output frequency(Hz)	0-400
Control performance	
Control method	V/F (SVPWM)
Pump type	Asynchronous, synchronous and single phase motor.
Overload capability	120% of rated current: 1 minute 150% of rated current: 10 seconds
Others	
Protective degree	IP20
Cooling method	Forced air cooling
Interface	LED keypad
Professional function	
Protection function	Low water level, overload, overcurrent, overvoltage, weak sunlight alarm, overheating, etc.
MPPT function	Automatic factory setting
Auto run/stop	Sleep when the light is weak, and wake up when the light is strong
Water level monitor	Sleep when the water is full, and wake up when the water level is low
Certification	
Certification standard	CE

Product Parameters

Voltage	Model	Rated output power (kW)	Max. DC input current (A)	Rated input current (A)	Rated output current (A)	Product dimension (mm)
1PH 220V Input/output	GD170-0R4-SS2-PV	0.4	9	6.5	4.2	80*160*123.5
	GD170-0R7-SS2-PV	0.75	9	9.3	7.2	80*185*140.5
	GD170-1R5-SS2-PV	1.5	12	15.7	10.2	
	GD170-2R2-SS2-PV	2.2	12	24	14	
1PH 220V	GD170-0R4-S2-PV	0.4	9	6.5	2.5	80*160*123.5
	GD170-0R7-S2-PV	0.75	9	9.3	4.2	80*185*140.5
	GD170-1R5-S2-PV	1.5	12	15.7	7.5	
	GD170-2R2-S2-PV	2.2	12	24	10	
3PH 220V	GD170-1R5-2-PV	1.5	12	7.7	7.5	146*256*167
	GD170-2R2-2-PV	2.2	12	11	10	170*320*196.3
	GD170-004-2-PV	4.0	20	17	16	
	GD170-5R5-2-PV	5.5	30	25	20	
	GD170-7R5-2-PV	7.5	40	33	30	

Voltage	Model	Rated output power (kW)	Max. DC input current (A)	Rated input current (A)	Rated output current (A)	Product dimension (mm)
3PH 380V	GD170-0R7-4-PV	0.75	9	3.4	2.5	80*185*140.5
	GD170-1R5-4-PV	1.5	9	5	4.2	
	GD170-2R2-4-PV	2.2	12	5.8	5.5	
	GD170-004-4-PV	4.0	16.5	13.5	9.5	
	GD170-5R5-4-PV	5.5	23.9	19.5	14	
	GD170-7R5-4-PV	7.5	30.6	25	18.5	
	GD170-011-4-PV	11	39.2	32	25	170*320*196.3
	GD170-015-4-PV	15	49	40	32	
	GD170-018-4-PV	18.5	50	47	38	
	GD170-022-4-PV	22	60	51	45	200*340.6*184.3
	GD170-030-4-PV	30	81	70	60	
	GD170-037-4-PV	37	90	80	75	250*400*202
	GD170-045-4-PV	45	130	98	92	
	GD170-055-4-PV	55	150	128	115	282*560*238
	GD170-075-4-PV	75	200	139	150	
	GD170-090-4-PV	90	250	168	180	338*554*326
	GD170-110-4-PV	110	300	201	215	
	GD170-132-4-PV	132	360	265	260	500*870*360
	GD170-160-4-PV	160	430	310	305	
	GD170-185-4-PV	185	500	345	340	500*870*358
GD170-200-4-PV	200	550	385	380		
GD170-220-4-PV	220	480	430	425	750*1410*380	
GD170-250-4-PV	250	525	485	480		

Note: Power range up to 500kW

Online Platform

INVT solar water pump remote monitoring platform. Option 4G & WIFI data logger.



4G standard version



WiFi version



Remote upgrade



After-sales management



Fault per-alarm



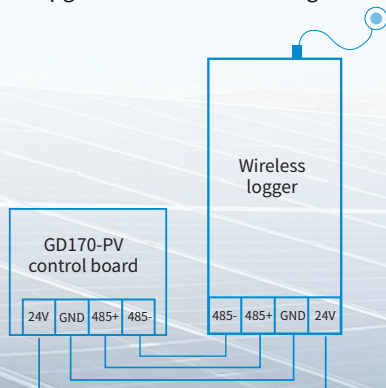
Remote monitoring



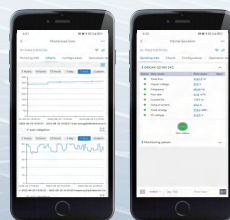
Historic data query



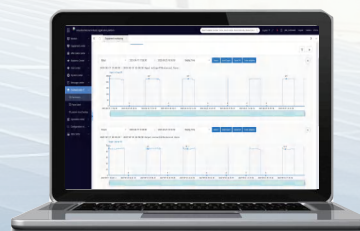
Data analysis statistics



Diagram



APP



PC client



Reactor

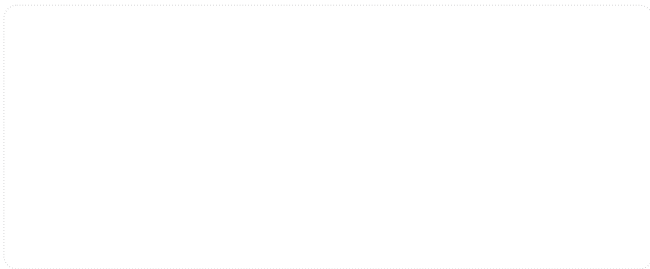
When the distance between the controller and motor is longer than 50m, we suggest adding an output reactor.



Model	Output reactor	Dimension (mm)
GD170-1R5-2-PV	GDL-OCL0010-4CU	110*84*130
GD170-2R2-2-PV	GDL-OCL0010-4CU	110*84*130
GD170-004-2-PV	GDL-OCL0020-4CU	155*76*140
GD170-5R5-2-PV	GDL-OCL0020-4CU	155*76*165
GD170-7R5-2-PV	GDL-OCL0035-4AL	155*135*130
GD170-0R7-4-PV	GDL-OCL0005-4CU	110*84*130
GD170-1R5-4-PV	GDL-OCL0005-4CU	110*84*130
GD170-2R2-4-PV	GDL-OCL0006-4CU	110*84*130
GD170-004-4-PV	GDL-OCL0010-4CU	110*84*130
GD170-5R5-4-PV	GDL-OCL0014-4CU	155*76*140
GD170-7R5-4-PV	GDL-OCL0020-4CU	155*76*165
GD170-011-4-PV	GDL-OCL0025-4CU	155*135*130
GD170-015-4-PV	GDL-OCL0035-4AL	155*135*130
GD170-018-4-PV	GDL-OCL0040-4AL	155*135*130
GD170-022-4-PV	GDL-OCL0050-4AL	195*130*165
GD170-030-4-PV	GDL-OCL0060-4AL	195*130*165
GD170-037-4-PV	GDL-OCL0075-4AL	195*130*165
GD170-045-4-PV	GDL-OCL0092-4AL	195*135*165
GD170-055-4-PV	GDL-OCL0115-4AL	250*170*230
GD170-075-4-PV	GDL-OCL0150-4AL	250*175*230
GD170-090-4-PV	GDL-OCL0220-4AL	250*175*230
GD170-110-4-PV	GDL-OCL0220-4AL	250*175*230
GD170-132-4-PV	GDL-OCL0265-4AL	290*190*250
GD170-160-4-PV	GDL-OCL0330-4AL	290*190*250
GD170-185-4-PV	GDL-OCL0400-4AL	290*190*250
GD170-200-4-PV	GDL-OCL0400-4AL	290*190*250
GD170-220-4-PV	GDL-OCL0450-4AL	320*212*320
GD170-250-4-PV	GDL-OCL0500-4AL	320*212*320
GD170-280-4-PV	GDL-OCL0560-4AL	320*240*340
GD170-315-4-PV	GDL-OCL0660-4AL	320*240*340
GD170-355-4-PV	GDL-OCL0660-4AL	320*240*320
GD170-400-4-PV	GDL-OCL0720-4AL	320*240*320
GD170-450-4-PV	GDL-OCL0820-4AL	385*250*395
GD170-500-4-PV	GDL-OCL1000-4AL	385*250*395



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