GREENMAX TECHNOLOGY

Solar Submersible Pumps

PROFILE:

Solar Water Supply System Consists Of Solar Generating Systems, Photovoltaic Water Pump Controller System And Pump. Solar Arrays Are In Series-parallel Of Solar Modules, Absorbing Solar Radiation Energy And Converting It Into Electricity To Supply Power For The Entire System. Photovoltaic Water Pump Controller Regulate The Running System, Turning Instable Dc Of Solar Array Into Stable Dc To Drive Dc Pump, And Regulates The Output Current In Accordance With Sunlight Intensity To Achieve Maximum Power Point Tracking (mppt), Maximizing The Use Of Solar Energy.

Solar Submersible Pump, Immersed Into The Water, Connects Motor With Pump Directly. It Consists Of Submersible Pump, Motor, Water Pipe, Cable, Protection Devices, Solar Panels And Etc. Solar Panels Convert Light Into Electrical Energy, Connecting To Dedicated Low- Voltage Solar Pump. It Is Convenient, Practical And Simple. The Solar Pump Pumps Automatically In The Sun, While It Pumps Continuously By Power Device With Little Sunshine. It Is Suitable For Irrigation, Gardening, Fountains, Family, Pastoral Grasslands, The Work Station, High Altitude Mountain In Remote Sunny Areas Without Electricity Supply, And Rivers, Reservoirs, Canals And Other Water Pumping Projects Used In Mining, Farming, Agriculture, Construction And Etc.

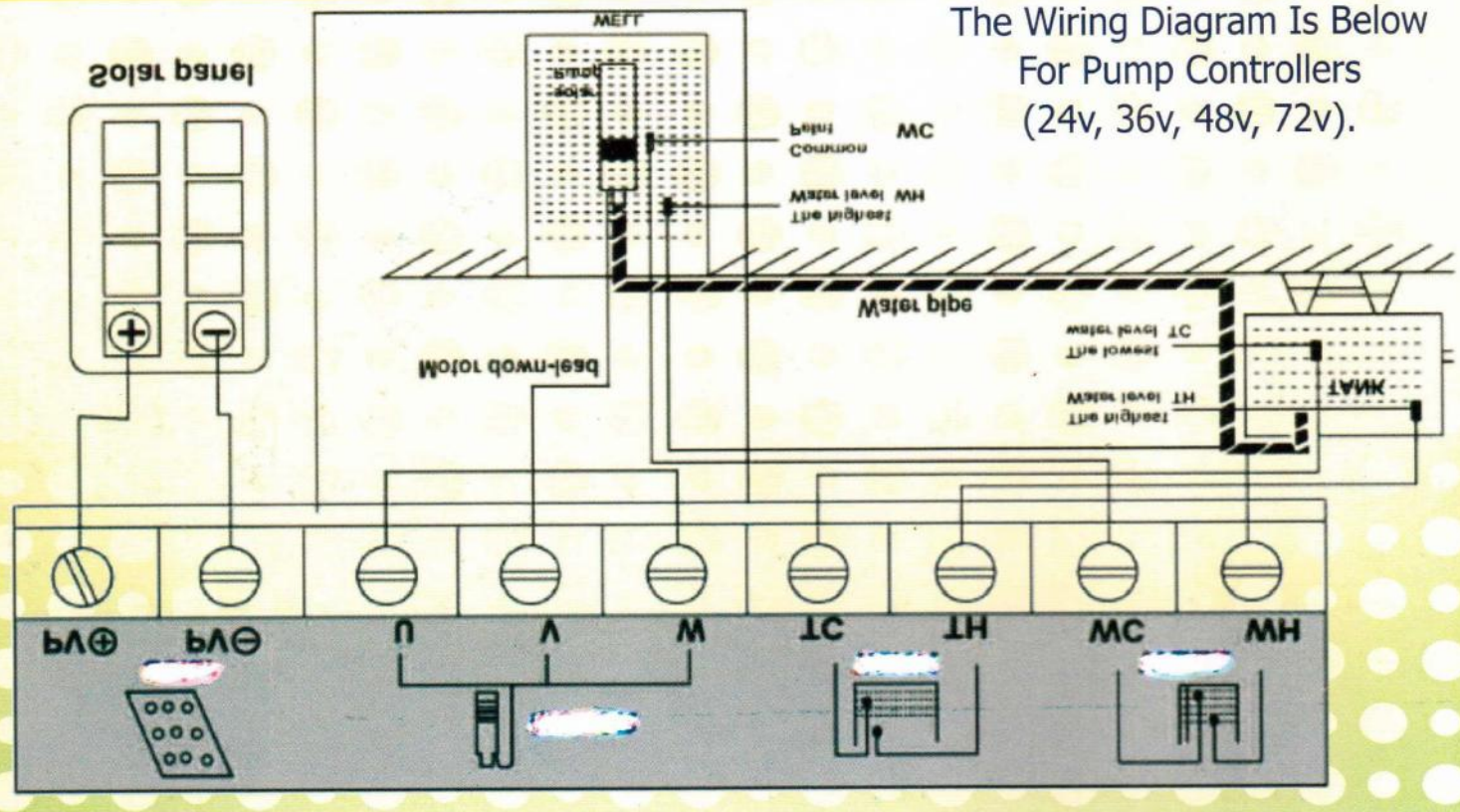
Application:

1) Permanent Magnet Brush less Motor, Combined With Controller, Reaches The Max Efficiency 85%, Achieves 20-25% Than The Traditional Ac One.
2) High-performance Wear-resistant Electric Pump, Introduced From The Advanced Foreign Technology, Is Equipped With Immersion Style Stainless Steel Submersible Motor Of The Current International Advanced Technology In Power Part, Pollution-free To Water, Up To 40 Meters Deep.
3) Adopt Stainless Steel Casing, Shaft Core, Coupling, Water Entry Base And Pump Body (Or Copper Alloy Water Entry Base, Pump Body) To Avoid Rust Or Corrosion, New Polymer Materials Of High-strength Wear-resistant Impeller Or Stainless Steel Impeller, Stainless Steel Blower Inlet Casing, New "floating Style" Structure Of Impeller Avoids Axial Pressure To Motor.

Product Feature:

1) Motor Control System Has Complete Electrical Protecting Controller Device, Against Under-voltage, Over-voltage, Over Flow, Overload, Water less Etc; Automatic Recovery; Controlling Water Height As Demand; Reliable, Safe And Maintain-free.
2) No Special Requirements On Well Pipe, Boosting Pie; Steel Pipe, Rubber Pipe, Plastic Pipe Can Also Be Used As Boosting Pips With Pressure Permits. Well Adaptability For The Environment, Small, Beautiful, Simple, Convenient, Economical, Noiseless, Pollution-free, Powerful, Energy-saving, Efficient & Environmentally Friendly,
3) Ambient Temperature: -20-50^{0}c.
4) Conversion Rate Of Single/ Polycrystalline Silicon Solar Modules Over 15%, Service Life 20-25 Years.
5) Maintenance-free Batteries/ Gel Batteries Service Life Over 10 Years.
6) Solar Charge/discharge Controller Life, Service Life 10 Years.
7) Solar Water Pump And Controller, Service Life Over 30,000 Hours.

The Wiring Diagram Is Below For Pump Controllers (24v, 36v, 48v, 72v).



SOLAR PUMP CONTROLLERS TECHNICAL SPECIFICATION

Rated Voltage		24vdc
Rated Current		10a
Biggest Open Voltage		36vdc
Max Power		360w
Voltage	Under Voltage	22.0+0.2vdc
	Best Working Voltage	29*0.2vdc
Current	Over Load	15a
	Over Current	20a
Dimension		147*232*65mm
Weight		1.10kg
Ambient Temperature		-20c+50c
Adaptive Solar Panel	Peak Voltage	29.8 Vdc
	Open - Circuit Voltage	36.9vdc
Connection Way		All Solar Panels In Parallel

Rated Voltage		36vdc
Rated Current		12a
Biggest Open Voltage		44vdc
Max Power		600w
Voltage	Under Voltage	32.0+0.2vdc
	Best Working Voltage	35+0.2.vdc
Current	Over Load	16a
	Over Current	20a
Dimension		147*232*65mm
Weight		1.10kg
Ambient Temperature		-20c+50c
Adaptive Solar Panel	Peak Voltage	35.6 Vdc
	Open - Circuit Voltage	43.5 Vdc
Connection Way		All Solar Parallel

Rated Voltage		48vdc
Rated Current		13.5a
Biggest Open Voltage		72vdc
Max Power		900w
Voltage	Under Voltage	42.0+0..2vdc
	Best Working Voltage	58+0.2vdc
Current	Over Load	18a
	Over Current	20a
Dimension		147*232*65mm
Weight		1.10kg
Ambient Temperature		-20c+50c

Rated Voltage		72vdc
Rated Current		15a
Biggest Open Voltage		88vdc
Max Power		1500w
Voltage	Under Voltage	42.0+0.2vdc
	Best Working Voltage	68+0.2vdc
Current	Over Load	18a
	Over Current	22 A
Dimension		147*232*65mm
Weight		1.10 Kg
Ambient Temperature		-20c~+50'c
Adaptive Solar Panel	Peak Voltage	35.6vdc
	Open - Circuit Voltage	43.5vdc
Connection Way		Each Two Solar Panels In Series To Become A Line Than All Lines In Parallel.

DC SOLAR SUBMERSIBLE PUMP MODEL LIST

DC SOLAR SCREW PUMP

Model	HP	Voltage (V)	Solar Power (W)	Max Flow (LPH)	Max Head (M)	Outlet (IN)
GMTS-0.75/14	0.25	24	200	1300	50	0.75"
GMTS-0.75/27	0.5	36	350	1800	100	0.75"
GMTS-0.75/50	0.75	36	700	2100	120	0.75"
GMTS-0.75/75	1	48	900	2300	140	0.75"
GMTS-0.75/100	1.5	72	1200	2300	160	0.75"
GMTS-0.75/130	2	72	1800	2300	180	0.75"

DC SOLAR SCREW PUMP

Model	HP	Voltage (V)	Solar Power (W)	Max Flow (LPH)	Max Head (M)	Outlet (IN)
GMTS-1.0/50	0.5	36	700	3000	60	1"
GMTS-1.0/75	1	48	1000	3600	80	1"
GMTS-1.0/100	1.5	72	1300	4000	100	1"
GMTS-1.0/130	2	72	1600	4200	120	1"

DC SOLAR CENTRIFUGAL PUMP

Model	HP	Voltage (V)	Solar Power (W)	Max Flow (LPH)	Max Head (M)	Outlet (IN)
GMTC1.0/30	0.25	24	450	2600	32	
GMTC1.0/50	0.5	36	750	2800	52	1"
GMTC1.0/75	1	48	900	3000	85	1"
GMTC1.0/100	1.5	72	1200	3200	106	1"

DC SOLAR CENTRIFUGAL PUMP

Model	HP	Voltage (V)	Solar Power (W)	Max Flow (LPH)	Max Head (M)	Outlet (IN)
GMTC-1.25/25	0.5	24	360	5000	28	1.25"
GMTC-1.25/40	0.75	36	500	5500	38	1.25"
GMTC-1.25/75	1	48	900	5500	58	1.25"
GMTC-1.25/100	1.5	72	1200	6000	72	1.25
GMTC-1.25/130	2	72	1500-1800	6500	98	1.25

Model	HP	Voltage	Solar Power (W)	Max Flow (LPH)	Max Head (M)	Outlet (IN)
		V/DC	W	LPH	M	1.5
GMTC-1.5/12	1.5	110	1200	8200	55	1.5
GMTC-1.5/18	2	150	1800	8200	100	1.5
GMTC-1.5/30	3	220	3000	8200	115	1.5
GMTC-2/40	4	300	4000	8200	158	2
GMTC-2/18	2	150	1800	13000	56	2
GMTC-2/30	3	220	3000	13000	92	2
GMTC-2/40	4	300	4000	13000	106	2
GMTC-2/18	2	150	1800	22000	32	2
GMTC-2/30	3	220	3000	22000	53	2
GMTC-2/40	4	300	4000	22000	62	2

Model	HP	Voltage	Power	Max Flow	Max Head	Outlet
		V/DC	W	LH	(M)	(Inch)
GMTC-3/30	3	220	3000	35000	31	3"/4"
GMTC-3/40	4	300	4000	35000	43	
GMTC-3/30	3	220	3000	49000	15	
GMTC-4/40	4	300	4000	49000	31	
GMTC-4/40	4	300	4000	70000	20	
GMTC-4/40	4	300	4000	72000	21	

DC SOLAR SUBMERSIBLE PUMP MODEL LIST

DC SOLAR CENTRIFUGAL PUMP

Model	HP	Voltage (V)	Solar Power (W)	Max Flow (LPH)	Max Head (M)	Outlet (IN)
GMTC-1.5/75	1	48	900	10000	30	1.5"
GMTC-1.5/100	1.5	72	1200	10000	44	1.5"
GMTC-1.5/130	2	72	1500-1800	10000	57	1.5"
GMTC-2.0/100	1	72	1200	15000	21	2"
GMTC-2.0/130	2	72	1500-1800	15000	28	2"

DC SOLAR CENTRIFUGAL PUMP

Model	HP	Voltage (V)	Solar Power (W)	Max Flow (LPH)	Max Head (M)	Outlet (IN)
GMT -3.0/130	2	72	1500-1800	23000	21	3"
GMT -3.0/130	2	72	1500-1800	28000	13	3"
GMT -4.0/130	2	72	1500-1800	46000	7000	4"

SOLAR DC SURFACE PUMP

Model	Voltage (V)	Power	Max Flow (L/H)	Max Head (M)	Outlet (In)	Max Suctm
GMT -SU/25	0.25	24	300	2100	32	8
GMT-SU/45	0.75	48	700	3000	50	8
GMT-SU/75	1	72	900	3000	60	8
GMT-SU/75	1	72	900	6600	30	8
GMT-SU/75	1	72	900	7500	26	8
GMT-SU/50	0.75	48	700	2700	40	9

AC SOLAR SUBMERSIBLE PUMP MODEL LIST

AC SOLAR PUMP

Model	Voltage (V)	HP	Max Flow (L/H)	Max Head (M)	Outlet (IN)
GMTS-AC-5F	220	2	25000	36	2"
GMTS-AC-7F	220	3	25000	52	2"
GMTS-AC-10F	380-415	4	25000	71	2"
GMTS-AC-13F	380-415	5	25000	91	2"
GMTS-AC-15F	380-415	7.5	25000	102	2"
GMTS-AC-18F	380-415	7.5	25000	125	2"
GMTS-AC-21F	380-415	10	25000	140	2"
GMTS-AC-25F	380-415	10	25000	168	2"

AC SOLAR PUMP

Model	Voltage (V)	HP	Max Flow (L/H)	Max Head (M)	Outlet (IN)
GMTS-AC-6	380-415	7.5	33000	86	3"
GMTC-AC-7	380-415	10	33000	101	3"
GMTS-AC-9	380-415	10	33000	129	3"
GMTS-AC-11	380-415	12	33000	158	3"
GMTS-AC-13	380-415	15	33000	187	3"

AC SOLAR PUMP

Model	Voltage (V)	HP	Max Flow (L/H)	Max Head (M)	Outlet (IN)
GMTS-AC-7	380-415	10	49000	100	3"
GMTS-AC-8	380-415	10	49000	114	3"
GMTS-AC-9	380-415	12	49000	129	3"
GMTS-AC-11	380-415	15	49000	157	3"

AC SOLAR PUMP

Model	Voltage (V)	HP	Max Flow (L/H)	Max Head (M)	Outlet (IN)
GMTS-AC-1	380-415	4	68000	15	4"
GMTS-AC-2	380-415	5	68000	29	4"
GMTS-AC-3	380-415	7.5	68000	44	4"
GMTS-AC-4	380-415	10	68000	58	4"
GMTS-AC-5	380-415	10	68000	69	4"
GMTS-AC-6	380-415	12	68000	83	4'
GMTS-AC-7	380-415	15	68000	93	4"

Specification Of Solar Submersible Pump

- **Profile:**

Adopt stainless steel screw and rubber stator, permanent Magnet Brushless motor with combination of motor and controller, the max Efficiency is over 85%, raises 25% than the traditional AC one.

- **Material:**

1) Stainless steel casing, shaft core, coupling and pump body; copper alloy connecting, base; rubber stator of high-strength and wear-resistant.

2) Water immersion style stainless steel submersible motor; graphite bearings.

- **Product Feature:**

1) Compact structure, high-lift, noiseless, pollution-free electrical protecting controller device, against under-voltage, over-voltage, overflow, overload, waterless etc; automatic recovery; controlling water height as demand.

2) Easy installation, maintenance-free, safe and reliable.

- **Application:**

These electric pumps series are workable within maximum head, as there are no restrictions of BDC. With the addition of high head, high efficiency and wide high efficiency zone, they are suitable for distance water irrigation, high efficienc of increasing oxygen on aquaculture, pumping water from deep well, gardening, fountain and etc.

- **Working Condition:**

1)Non-corrosive water; the volume ratio of sand content no more than 1%$ particle size less than 0.2mm.
2)Max Medium temperature up to +40 C; PH value remains 6.5-8.5.
3)Work close to the rated head and must be immersed in water.

SPECFICATION OF AC SUBMERSIBLE PUMP

- **Bearings With Sand Channels**

All Bearings are water lubricated and have a square shape, enabling sand particles, if any, to leave the pump together with the pumped liquid.

- **Inlet Steiner**

The inlet strainer prevents particles over a certain size from entering the pump.

- **Non-Return Valve**

All pumps are equipped with a reliable non-return valve in the valve casing preventing black flow in connection with pump stoppage. Furthermore, the short closing time of the non-return valve means that the risk of destructive water hammer is reduced to a minimum. The valve casi ng is designed for optimum hydraulic properties to minimize the pressure loss across the valve and thus contributes to the high efficiency of the pump.

- **Priming Screw**

All pumps are fitted with a priming screw, consequently, dry running is prevented because the priming screw will make sure that pump bearing are always lubricated. Due to semi-axial impellers of large pumps this priming is automatically provided. However, it applies to all pumps types that the water table is lowered to a level below the pump inlet neither pump more motor will be protected against dry running.

- **Stop Ring**

The stop ring prevents damage to the pump during transport and in case of up-trust in connections with start-up. The stop ring which is designed as a trust bearing limits axial movements of the pump shaft. The stationary part of the stop ring is secured in the bowl . the rotating part is fitted above the collets.

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