

You'll find within this catalog a large variety of our most popular Solar Products and Accessories.

What sets Solar Power and Pump apart is our live, by phone, sales and technical support.

Solar Power and Pump Supply services/rebuilds/repairs all of the pumps in this catalog in our facility in Elk City, Oklahoma. These pumps are then returned to a dealer with a refreshed warranty.

With more than 20 years of experience, dealers can rest assured that they are getting a system that will work, out of the box, backed up by technical support for issues when they arise.

Solar Power and Pump Supply offers a truly unique model that discourages waste, improves Customer satisfaction, maintains margins, and ultimately stands behind the products we sell.

If you are well driller or pump installer, download and submit your application. Join the SPP dealer network today!

Sales and System Design: 866-246-7652

Technical Support: 580-303-4086





The Dankoff Flowlight Booster Pump provides city water pressure anywhere. It has been a standard in home renewable energy systems since 1986 and is economical for domestic water supply, drip irrigation, and water purification.

A booster pump is far more cost effective than an elevated tank, providing pressure equivalent to over 100 feet (30 m) of elevation.

A Flowlight Booster Pump uses one third to one half the energy of a conventional AC pump and eliminates high starting surges.

It is more powerful, quieter, and much more durable than plastic RV/Marine pumps. Wearable parts are replaceable, and typically last 5 to 10 years. Overall life expectancy is 15 to 20 years.

Our complete instruction manual and easy installation kit make this pump simple for anyone to install and service, with no previous experience.



Suction Capacity

- Low speed model 20 vertical feet (6 m) at sea level
- Standard model 10 Feet (3 m) at sea level
- Subtract 1 ft. for every 1,000 ft. altitude (1 m for every 1,000 m) for both versions.
Note: Suction capacity may be further limited by intake pipe friction
- Excessive suction causes cavitation (vapor bubbles) creating noise and excessive wear. Intake piping should be 1" or larger
- Pump should be mounted as close to the water source as possible.

Choice of Capacity

- Standard Model for highest flow
- Low speed model (DC only) has higher pressure capacity, and is best when:
 - Suction lift is greater than 10 feet
 - Intake pipe is smaller than 1" size
 - Extra-quiet operation is desirable

Choice of Voltage

- 12, 24 or 48 VDC
- 115 VAC (low surge motor reduces inverter and wiring)

Construction

- Rotary vane pump mechanism (pulsation-free)
- Solid forged brass pump body with carbon-graphite and stainless steel working parts
- NSF® approved for drinking water
- Handles sea water and dissolved minerals
- Survives most freezes
- Permanent magnet, ball bearing DC motor, thermally protected
- Clear flexible hoses and pressure relief valve included

Additional Needs

- Battery-based power system (12 or 24 V) or AC (minimum 300 W inverter)
- Pressure tank, captive air type, minimum size: 40 gallon (150 l); larger is better, to reduce cycling and increase reserve capacity; available locally
- Foot valve (if pump is placed higher than water source)

Solar Surface Pump Technical Data

Dankoff Solar Flowlight Booster Pump



Filtration Requirement

This pump cannot tolerate dirt; water must be filtered clear

Accessories

- Intake strainer/foot valve with fine monel metal screen, stops coarse debris
- Inline filter (10") uses standard drinking water cartridges
- Intake filter/foot valve (30") replaces Intake Strainer and Inline Filter with a single unit, best for lowering into a shallow well
- Spare filter cartridges (10 micron spun fiber)
- Easy Installation Kit includes: pressure switch, pressure gauge, check, drain and shut-off valves and tank tee (manifold)
- Dry run switch prevents battery drain and pump damage if water source runs dry

Installation

- Pump may be mounted horizontally or vertically.
- Pump must not be submerged.
- It may be placed inside a 6" (120 cm) or larger well casing, suspended by rope.

Dimensions

- Length 16.5" (42 cm)
- Weight 15 lbs (7 kg)
- Flexible hose ends have 3/4" or 1" male pipe thread

Warranty

1 year against defects in materials and workmanship

V = Voltage · Specify 12, 24, 48, 115 AC

	Standard Model 2920-V				Low Speed Model 2910-V ¹			
Pressure PSI (kg/sq cm)	30 (2.1)	40 (2.8)	50 (3.5)	65 (4.6)	30 (2.1)	40 (2.8)	50 (3.5)	65 (4.6)
Flow Rate GPM (lpm)	4.5 (17)	4.3 (17)	4.3 (16)	4.1 (15)	3.4 (13)	3.3 (12)	3.1 (12)	2.7 (10)
Watt-Hrs. Per Gallon (per ltr) Pumped	0.6 (0.16)	0.67 (0.18)	0.75 (0.2)	1.1 (0.3)	0.6 (0.16)	0.67 (0.18)	0.75 (0.2)	1.1 (0.3)
Current Draw:								
AMPS 12V	13	15	16	22	10	11	12	15
AMPS 24V	6.5	7.5	8	11	5	5.5	6	7.5
AMPS 115V AC	1.7	2	2.1	2.9	AC data not yet available			

¹ Higher Suction Lift Capacity - See Text

Dependable water solutions since 1983

Subject to technical changes

DANKOFF SOLAR

321 W. 12th St., Elk City, OK 73644 USA

www.DankoffSolarPumps.com

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The Dankoff Solar SlowPump was the world's first commercially available low power solar pump. In response to those that claimed it was impossible, the Solar SlowPump was developed by Windy Dankoff in 1983, and has thousands of installed units worldwide over its nearly 40 year life.

Produced in a wide range of sizes, the Solar SlowPump is used to draw water from shallow sources and push it as high as 450 vertical feet through miles of pipeline.

Designed for reliability and maintainability, wear parts typically last 5-10 years, with an overall life expectancy of 15-20 years before rebuild.

Construction & Features

- Rotary vane mechanism (positive displacement) made of forged brass, carbon-graphite, and stainless steel
- NSF approved for drinking water
- Handles sea water and dissolved minerals
- Survives most freezes
- Permanent magnet, DC motor
- AC models use a low-surge PM motor that greatly reduces starting surges, inverter, and wire size requirements
- Installation and Service Manual is highly detailed and illustrated

Filtration Requirement

This pump *cannot* tolerate dirt, so water *must* be filtered clear. Failure to use an approved filtration unit will void the warranty of the pump. If water is very dirty, improve the source or consider using one of our dirt-tolerant pump models; SolarForce, SunCentric, or Solaram.



Solar-Direct Applications ("PV-Direct"/non-battery)

- Rated power of the PV array must meet Watts listed in the PV Watts column in the chart below
- Use of the Dankoff DC Controller will increase system performance nearly 30% over the course of one year and is required to start and run in low light conditions

Mechanical Characteristics

1300 Models

- Dimensions: 5 3/4 x 17 3/8 inch (14.61 x 44.14 cm)
- Fittings: 1/2 inch Female
- Weight: 12 lbs (5.45 kgs)

1400 Models

- Dimensions: 6 1/2 x 18 3/4 inch (16.51 x 47.63 cm)
- Fittings: 1/2 inch Female
- Weight: 25 lbs (11.34 kgs)

2500 Models

- Dimensions: 5 3/4 x 17 3/8 inch (14.61 x 44.14 cm)
- Fittings: 3/4 inch Male
- Weight: 13 lbs (5.9 kgs)

2600 Models

- Dimensions: 6 1/2 x 18 3/4 inch (16.51 x 47.63 cm)
- Fittings: 3/4 inch Male
- Weight: 29 lbs (13.16 kgs)

Solar Surface Pump Technical Data

Dankoff Solar SlowPump Surface Pump



Warranty

1 year against defects in materials and workmanship

Reading the Chart

Use the chart to determine a four-digit model number. Make note of the voltage indicated.

Total Lift = vertical distance from surface of the water source to the pipe outlet or top of storage tank, plus pipeline friction loss

GPM = U.S. Gallons Per Minute

LPM = Liters Per Minute

Total Lift		Model #1322			Model #1310			Model #1308			Model #1304			Model #1303			Model #2505			Model #2507		
Feet	Meters	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts
0-20	0-6	0.51	1.93	40	0.92	3.48	40	1.25	4.73	40	1.75	6.62	45	2.5	9.46	65	3.25	12.3	70	4	15.14	80
40	12	0.51	1.93	45	0.92	3.48	50	1.25	4.73	65	1.75	6.62	65	2.5	9.46	80	3.23	12.23	75	3.95	14.95	100
60	18	0.51	1.93	45	0.89	3.37	60	1.2	4.54	70	1.68	6.36	80	2.44	9.24	90	3.15	11.92	110	3.9	14.76	130
80	24	0.49	1.85	50	0.88	3.33	65	1.2	4.54	80	1.64	6.21	90	2.36	8.93	110	3.1	11.73	135	3.9	14.76	150
100	30	0.49	1.85	65	0.88	3.33	70	1.2	4.54	85	1.64	6.21	100	2.33	8.82	130	3.08	11.66	155	3.85	14.57	180
120	36	0.48	1.82	65	0.88	3.33	75	1.2	4.54	90	1.62	6.13	110	2.33	8.82	140	3.02	11.43	180	3.8	14.38	210
140	42	0.47	1.78	70	0.88	3.33	80	1.2	4.54	95	1.6	6.06	125	2.27	8.59	160	2.92	11.05	210	3.65	13.82	245
160	48	0.47	1.78	80	0.87	3.3	95	1.2	4.54	110	1.6	6.06	140	2.21	8.36	180	2.85	10.79	235			
180	54	0.47	1.78	85	0.86	3.26	100	1.18	4.47	120	1.57	5.94	150	2.11	7.99	190	2.75	11.41	255			
200	60	0.45	1.7	100	0.85	3.22	110	1.16	4.39	130	1.56	5.91	165	2.03	7.68	220						
240	72	0.44	1.67	120	0.83	3.14	130	1.14	4.31	150	1.54	5.83	190	1.96	7.42	235						
280	84	0.41	1.55	130	0.81	3.07	150	1.12	4.24	170	1.51	5.72	220									
320	96	0.41	1.55	150	0.79	3	170	1.1	4.16	195	1.48	5.6	245									
360	108	0.41	1.55	170	0.76	2.88	195	1.05	3.97	220												
400	120	0.4	1.51	190	0.73	2.76	220	1	3.79	250												
440	132	0.39	1.48	210	0.7	2.65	250															
480	146	0.25	0.95	260																		
520	158	0.25	0.95	310																		
560	170	0.2	0.76	340																		

Motor
1/5 Horsepower

PV-Direct Voltage
12 VDC, 24VDC, 48 VDC

Inverted Voltage (AC)
115 VAC

Total Lift		Model #1408			Model #1404			Model #1403			Model #2605			Model #2607		
Feet	Meters	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts
0-20	0-6	1.92	7.27	110				3.64	13.78	130				6.2	23.47	185
40	12	1.9	7.19	120				3.6	13.63	150				6.1	23.09	240
60	18	1.88	7.12	130				3.61	13.66	170				6.09	23.05	250
80	24	1.88	7.12	140				3.5	13.25	200				6.04	22.86	290
100	30	1.85	7	150				3.5	13.25	220				6.04	22.86	330
120	36	1.83	6.93	160				3.43	12.98	235				6	22.71	355
140	42	1.82	6.89	180				3.43	12.98	255				6	22.71	390
160	48	1.82	6.89	185				3.43	12.98	280				5.93	22.45	430
180	54	1.81	6.85	200				3.4	12.87	300	3.35	12.68	350	5.83	22.07	470
200	60	1.81	6.85	210				3.35	12.68	330	3.33	12.61	370	5.8	21.95	500
240	72	1.77	6.7	235				3.38	12.79	360	3.3	12.49	415	5.75	21.76	585
280	84	1.79	6.78	260				3.3	12.49	405	3.25	12.3	465	5.59	21.16	675
320	96	1.72	6.51	290	1.66	6.28	320	3.3	12.49	450	3.2	12.11	515			
360	108	1.75	6.62	310	1.66	6.28	350	3.2	12.11	520	3.16	11.96	565			
400	120	1.69	6.4	330	1.64	6.21	390	3.2	12.11	545						
440	132	1.69	6.4	355	1.62	6.13	430	3.1	11.73	610						
480	146	1.7	6.43	380												
520	158	1.61	6.09	400												
560	170	1.67	6.32	435												

Motor
1/2 Horsepower

PV-Direct Voltage
24 VDC, 48VDC

Inverted Voltage (AC)
115VAC

Performance at 15 or 30V (PV-Direct Voltage)
For battery, subtract 20% from Flow & Watts
24V pump may be run at 12V to yield 1/2 flow at 1/2 watts
Actual performance may vary ± 10%

Dependable water solutions since 1983

Subject to technical changes

DANKOFF SOLAR

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www.DankoffSolarPumps.com

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The Dankoff SunCentric uses solar-electric power to pump as much as 50,000 gallons (200 m³) per day from shallow water sources. Applications include irrigation, live stock watering, domestic water supply, pond management, water treatment, solar water heating, hydronic space heating, and fire protection. These pumps have been in worldwide use since 1989 and can be used without batteries.

Designed for reliability and maintainability, wear parts typically last 5-10 years, with an overall life expectancy of 15-20 years before rebuild.



PV Array-Direct Application

- A PV-direct system uses water storage instead of batteries. This is the simplest and most durable system for most applications
- A pump controller (linear current booster) is not required
- A solar tracker (optional) will help to maintain optimum flow through the entire solar day
- Storage of 3-7 days' water demand is recommended
- Optimum for circulation of solar-heated water

Battery Application

- A battery system is best where there is need for constant pressure or pressure on demand, where a tank is not feasible, or where a battery system is required for other power applications
- Batteries can be charged by any power source

Suction Capacity

- Suction limit is 10 vertical feet (3 m) at sea level—subtract 1 foot for every 1,000 ft. elevation (1 m per km)
- For best reliability, minimize or eliminate suction lift by placing the pump low and close to the water source. This will minimize the possibility of cavitation which causes excessive wear and loss of performance

Selecting a Pump

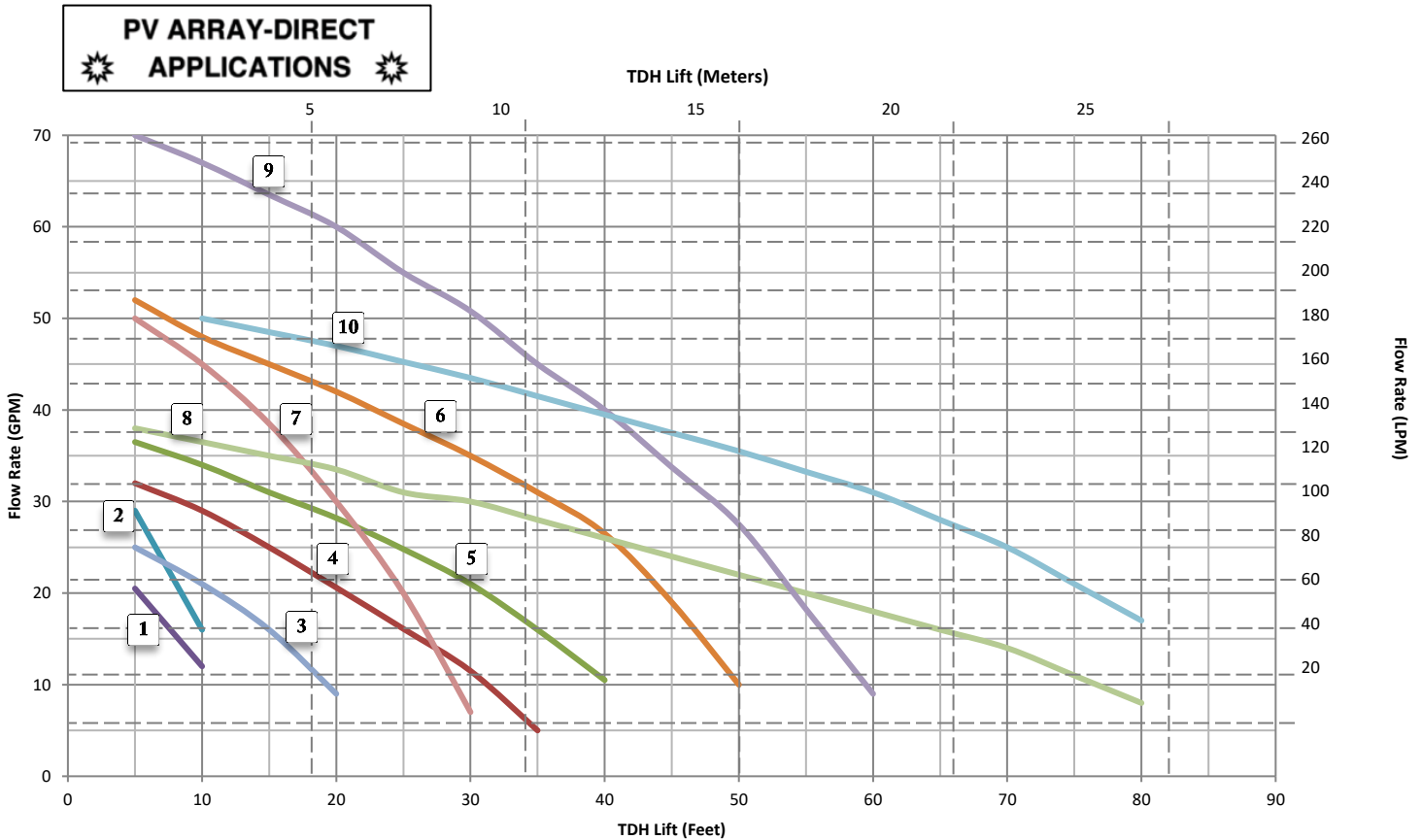
- Select the appropriate chart of “PV Array-Direct Models” or “Battery Models”
- Total Dynamic Head (TDH) = vertical distance from surface of the water source to the discharge or top of storage tank + pipe friction losses
- Locate the coordinates for the required head and flow. Find the pump curve that is nearest to that point
- If there is more than one curve to choose from, compare the power requirements. If PV-direct, the higher powered model will work better during low sun intensity
- For PV-Direct systems, array size (watts) is critical. Do not undersize the array. Oversizing will improve performance in low sunlight conditions
- Multiple pumps can be used to provide greater flow

Wire and Pipe Requirements

- Intake pipe: pipe should be as direct and short as possible. Avoid any high point that can trap an air pocket.
- Refer to a pipe sizing chart (included with the pump instructions). Pipe may need to be larger than the pump ports. Undersized pipe will greatly decrease pump performance
- Size the wire for less than 3% voltage drop. Undersized wire will greatly decrease pump performance

Solar Surface Pump Technical Data

Dankoff Solar SunCentric Surface Pump



Maintenance

- No routine maintenance required.
- Pump can be repaired in the field using ordinary tools and skills, without removing the pipes.
- Instruction manual shows illustrated repair details.
- Motor brushes: typical brush life peak hours = working voltage x 800/3rd digit of model number.
EXAMPLE: PV Direct Curve #60 is Model 7526 working at 30V. Typical brush life = 30 x 800/2 = 12,000 peak hours. This represents about 5-8 years of service.
- Shaft seal has a very long life under normal conditions. Purchase spare seals if water is loaded with abrasive silt or if pump can possibly run dry.
- For best reliability, minimize or eliminate suction lift by placing the pump low and close to the water source. This will minimize the possibility of cavitation which causes excessive wear and loss of performance.

Materials

- Pump body: cast iron, ASTM A48-76
- Impeller: glass filled polycarbonate
- Seal: carbon/ceramic, industry standard
- Temperature limit: 140°F (60°C)

#	CURVE	POWER REQUIREMENTS					MIN. PV ARRAY WATTS
		MODEL number	VOLTS nominal	Power at the Pump			
				VOLTS	AMPS	WATTS	
1	—	7324	12	15	6.0	90	117
2	—	7325	12	15	7.4	111	144
		7445	24	30	3.7	111	144
3	—	7442	36	45	3.5	158	205
4	—	7212	12	15	19.3	290	377
5	—	7322	24	30	9.7	290	377
6	—	7446	36	45	6.9	311	404
		7424	24	30	16.0	480	624
7	—	7444	48	60	8.0	480	624
		7521	36	45	16.4	739	959
9	—	7526	24	30	24.4	732	952
10	—	7622	36	45	19.0	855	1112

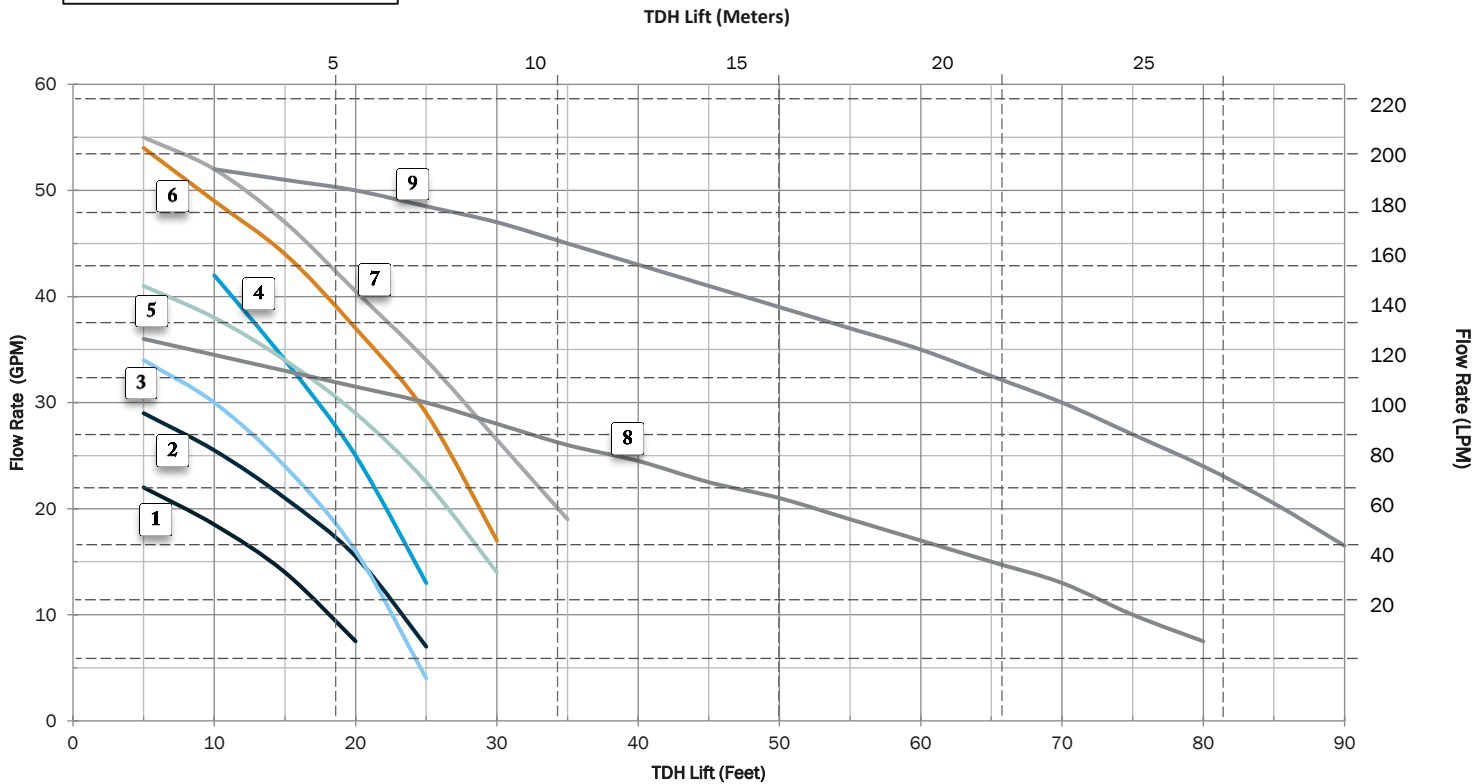
Pump Installation

- Pump must be sheltered from rain and direct sunlight.
- Horizontal position: place outlet at the top. It can be rotated to face horizontally or vertically upward.
- Vertical position: place motor on top.



Solar Surface Pump Technical Data

Dankoff Solar SunCentric Surface Pump



High Temperature Option

- Temperature limit: 240 °F (115 °C)
- Impeller: brass
- Brass impeller reduces flow by about 15 % (same watts)
- Order standard pump + High Temp Option

Accessories

- Foot Valve (for pump placed higher than water source)
- Float switches: please inquire
- Basket Strainer: swimming pool type, fits on pump inlet, catches debris and allows easy cleanout; 1 ¼" in/out, Item #DSP-11046

Spare Parts

- Seal & Gasket Kit: specify model number, if high temperature
- Motor Brush Kits: specify model number

POWER REQUIREMENTS					
#	CURVE	MODEL	VOLTS	AMPS	WATTS
1		7212	12	14.0	168
		7321	24	7.0	168
2		7322	24	8.3	199
		7442	48	3.8	182
3		7214	12	17.0	204
4		7415	12	23.6	283
5		7424	24	11.9	286
6		7425	24	14.4	346
		7446	48	7.8	374
7		7426	24	16.3	391
8		7511	24	27.1	650
		7521	48	13.5	648
9		7622	48	20.3	974





Warranty

1 year against defects in materials and workmanship

Overcurrent Protection

- Fuse or circuit breaker is required.
- Ampere rating = amps at the pump + 15-25 %
- Minimum DC voltage rating = volts at the pump x2. (Type FRN fuses are rated 125 V DC)

Technical Data - SunCentric

			Dimensions			Page size	
Pump Model Number X = third digit			Length (inches)	Height (inches)	Ship weight (lbs)	Inlet NPT	Outlet NPT
72x1	72x2	72x4	15.5	9.1	49	1 1/4"	1"
		72x5	17	10.5	54	1 1/2"	1 1/4"
		72x6	17	10.5	54	2"	1 1/2"
73x1	73x2	73x4	17	9.1	50	1 1/4"	1"
		73x5	18	10.5	55	1 1/2"	1 1/4"
		73x6	18	10.5	55	2"	1 1/2"
74x1	74x2	74x4	17	9.1	58	1 1/4"	1"
		74x5	18.5	10.5	63	1 1/2"	1 1/4"
		74x6	18.5	10.5	63	2"	1 1/2"
75x1	75x2	75x4	18	9.1	60	1 1/4"	1"
		75x5	19.5	10.5	65	1 1/2"	1 1/4"
		75x6	19.5	10.5	65	2"	1 1/2"
76x1	76x2	76x4	19	9.1	65	1 1/4"	1"
		76x5	20.5	10.5	70	1 1/2"	1 1/4"
		76x6	20.5	10.5	70	2"	1 1/2"

Dependable water solutions since 1983

Subject to technical changes





The Dankoff Solaram Surface Pump draws water from a shallow well, spring, pond, river, or tank. It can push water uphill over long distances for home, village, irrigation, or livestock uses and can be powered directly from a PV panel.

The Solaram is dirt and dry run tolerant, simple to maintain, is easy to install, and offers high lift and high flow capacity. It is ultra efficient, capable of pumping in low light conditions using less power than any other pump in the industry.

It is a multi-diaphragm industrial design of cast aluminum, oil filled crankcase with a permanent magnet DC motor, and a built in pressure relief valve.

The Solaram Surface Pump is unparalleled in the solar pumping industry for its reliability and performance, capable of pushing water over one mile (one KM).

Suction Capacity

25 vertical feet (7.8 m) at sea level. Subtract 1 ft. for every 1,000 ft. elevation (1m for every 1,000 m). Suction capacity may be further limited by intake pipe friction or gases in water. For best reliability, place pump as close to the water source as possible.

Construction

- Multiple diaphragm industrial design
- Cast aluminum pump body
- Neoprene diaphragm backed by pistons
- Non-toxic oil-filled crankcase
- Massive ball bearings
- Permanent Magnet DC Motor
- Gear (timing) belt drive
- Pressure relief valve included

Fittings

- Intake: 1-1 ¼" (25.4-31.2 mm) male pipe thread
- Outlet: 1" (25.4 mm) female pipe thread



Accessories

- Dankoff DC Controller to increase daily output up to 30%
- 1 ¼" (31.2 mm) Foot Valve (Item #DSP-11044) if pump is placed higher than water source
- Float Switch (Item #DSP-11003) for remote shut-off of the pump when tank is full
- Diaphragm and Oil Kit (Item #DSP-08503): Supplies for regular preventive maintenance
- Long-term Parts Kits (Item #DSP-08504): Three Diaphragm and Oil Kits, plus a gear belt and a motor brush set

Dimensions:

- 28" W x 16.5" H x 16" D (710 x 420 x 410 mm)
- Weight, max. 150 lbs (68 kgs)

Power System Requirements

- Solar (PV) array: Chart indicates power (W) required at the pump. For solar array-direct (non-battery) systems, the rated power of the PV array must exceed the pump watts by 25% or more
- 120V models: Use 10 x 12V or 5 x 24V modules in series
- Linear Current Booster (pump controller) is recommended to facilitate starting and to prevent stalling in low-light conditions
- Solar tracker: Optional, to increase daily yield (typically 30%)

Solar Surface Pump Technical Data

Dankoff Solar Solaram Surface Pump



Warranty

1 year against defects in materials and workmanship

Reading the Chart

Use the chart to determine a four-digit model number. Make note of the voltage indicated.

Total Lift = vertical distance from surface of the water source to the pipe outlet or top of storage tank, plus pipeline friction loss

GPM = U.S. Gallons Per Minute

LPM = Liters Per Minute

Total Lift		Model # ¹ __ 21			Model # ¹ __ 22			Model # ¹ __ 23			Model # ²
ft	m	GPM	LPM	W	GPM	LPM	W	GPM	IPM	W	V
0-80	24	3	11.4	170	3.7	14	207	4.6	17.4	285	
120	37	2.9	11	197	3.7	14	238	4.5	17.1	319	
160	49	2.9	11	225	3.6	13.6	268	4.5	17.1	352	
200	61	2.9	11	247	3.6	13.6	296	4.5	17.1	388	
240	73	2.8	10.6	265	3.6	13.6	327	4.5	17.1	427	
280	85	2.8	10.6	286	3.6	13.6	356	4.4	16.7	466	81 __
320	98	2.8	10.6	315	3.5	13.3	416	4.4	16.7	536	24V
360	110	2.8	10.6	342	3.5	13.3	416	4.4	16.7	572	
400	122	2.7	10.6	363	3.4	12.9	450	4.4	16.7	572	
480	146	2.7	10.2	416	3.4	12.9	505	4.3	16.3	649	
560	171	2.7	10.2	456	3.3	12.5	570	4.3	16.3	693	
640	195	2.7	10.2	502	3.3	12.5	623	4.2	15.9	774	82 __
720	220	2.6	10.2	551	3.2	12.1	690	4.1	15.5	856	24V
800	244	2.6	9.9	589	3.2	12.1	715	4.1	15.5	931	
880	268	2.6	9.9	647	3.2	12.1	774	4	15.2	1082	83 __
960	293	2.6	9.9	705	3.1	11.7	838	4	15.2	1190	120V

Total Lift		Model # ¹ __ 41			Model # ¹ __ 42			Model # ¹ __ 43			Model # ²
ft	m	GPM	LPM	W	GPM	LPM	W	GPM	LPM	W	V
0-80	24	6.2	23.5	258	7.5	28.4	339	9.4	35.6	465	
120	37	6	22.7	305	7.3	27.7	396	9.1	34.5	539	81 __
160	49	5.8	22	354	7.2	27.3	456	8.9	33.7	619	24V
200	61	5.7	21.6	400	7.1	26.9	513	8.9	33.7	693	
240	73	5.6	21.2	453	7	26.5	572	8.6	32.6	724	
280	85	5.5	20.8	499	6.9	26.2	628	8.4	31.8	801	82 __
320	98	5.4	20.5	548	6.8	25.8	686	8.3	31.5	869	24V
360	110	5.4	20.5	592	6.6	25	733	8.2	31.1	927	
400	122	5.3	20.1	649	6.5	24.6	782	8.7	33	1122	83 __
480	146	5.3	20.1	717	6.5	24.6	900	8.5	32.2	1265	120V
560	171	5.2	19.7	800	6.5	24.6	145	8.4	31.8	1397	
640	195	5.1	19.3	893	6.5	24.6	1116	8.2	31.1	1540	85 __
720	220				6.4	24.3	1287	8.1	30.7	1683	120V
800	244							8	30.3	1815	

Performance may vary ± 10%

¹ Second two model number digits

² First two model number digits

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Subject to technical changes





The Dankoff Solar Force Piston Pump is the ultra-efficient pump in the Dankoff product line, capable of pumping over long distances directly from a PV panel in low light conditions.

With up to 75% better efficiency over centrifugal or AC pumps, the Solar Force Piston Pump coupled with the Dankoff DC Controller offers unparalleled performance for regions with low light weather patterns for part of the year, and is dirt and dry run tolerant.

Designed for reliability and maintainability, wear parts typically last 5-10 years, with an overall life expectancy of 15-20 years before rebuild.

Pressurizing Application

Though the DC version is most efficient, the AC version uses a low-surge permanent magnet motor that greatly reduces starting surge, inverter size, and wire size requirements (when compared to conventional AC pumps).

Rugged and Reliable

Proven design with a 20-year life expectancy, simple to maintain with common tools (5-10 yr. maintenance interval)

Mechanical Drive

Allows engine or hand-lever backup

Illustrated Instruction Manual

Makes it easy for anyone to install and service, with no previous experience

Voltages Available

- 12, 24, 48 VDC
- 115 V or 230 VAC, 50-60 Hz

Note: PV-Direct full working voltage is typically 20% higher than nominal (example: 29 V for a 24 V system)



Construction

- Cast iron body
- Brass cylinder and valve seats
- Leather cup piston seals
- Neoprene valve seals
- Oil-bath crankcase
- Gear (timing) belt drive on PV models
- Standard V-belt on B models
- Pressure relief valve
- Permanent Magnet DC Motor
- Surge tank included (not in photo)

Suction Capacity

25 vertical feet (7.6 m) at sea level. Subtract 1 foot for every 1000 ft. elevation (1 m for every 1,000 m). Suction capacity may be further limited by intake pipe friction. Intake piping should be minimum 1" (3010, 3020 models) or minimum 1 1/4" (3040). For best reliability, place the pump as close to the water source as possible.

Fittings

- Intake: 1 1/4" female pipe thread
- Outlet: 1" female pipe thread

Solar Surface Pump Technical Data

Dankoff Solar SolarForce Piston Pump



Warranty

2 years against defects in materials and workmanship

System Requirements

- Solar-Direct Systems: Chart indicates power (w) required at the pump. The rated power of the PV array must exceed this number by 20 % or more. A pump controller (linear current booster) is required for the pump to start and run in varying light conditions. A solar tracker may be used to increase daily yield (40-55 % in summer).
- Pressurizing Systems: battery power system, pressure switch, and pressure tank of minimum 60 gallon (230 l) size (captive-air tank, available locally)

Dimensions

- 22 x 13 x 16" high (56 x 33 x 41 cm)
- With Surge Tank (not shown in photo), total height 26" (60 cm)
- Weight, max. 80 lbs (36 kg)
- Shipped in 2 to 3 boxes

Reading the Chart

Total Lift = vertical Distance from surface of the water source to the pipe outlet or top of storage tank

GPM = U.S. Gallons Per Minute

LPM = Liters Per Minute

Model Designation:

V=voltage, **B**=battery model, **PV**=PV array-direct model

V = Voltage · Specify 12, 24, 48, 115, 230 AC

Feet	Total Vertical Lift			Model #3010-V-B			Model #3020-V-B or PV			Model #3040-V-B or PV		
	Meters	PSI	KG/sq. cm	GPM	LPM	Watts	GPM	LPM	Watts	GPM	LPM	Watts
20	6.1	8.7	0.61	5.9	22.3	77	5.2	19.7	110	9.3	35.2	168
40	12.2	17.4	1.22	5.6	21.3	104	5.2	19.7	132	9.3	35.2	207
60	18.3	26	1.83	5.3	20.2	123	5.1	19.3	154	9.2	34.9	252
80	24.4	35	2.44	5	19.7	152	5.1	19.3	162	9.2	34.9	286
100	30.5	43	3.05	5.1	19.2	171	5	18.9	202	9.1	34.5	322
120	36.6	52	3.66	4.9	19.2	200	5	18.9	224	9.1	34.5	364
140	42.7	60	4.27	4.9	18.7	226	5	18.9	252	9.1	34.5	403
160	48.8	70	4.88				4.9	18.6	269			
180	54.9	78	5.49				4.9	18.6	280			
200	61	87	6.1				4.8	18.2	308			
220	67.1	96	6.71				4.7	17.8	314			

Specifications may vary ± 10%
PV Models are measured at 14, 28, or 56V (array direct)



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The Dankoff Solar BDC Rotary Impeller Pump (BDC RIP) has been specifically designed to be driven from a standard 12V vehicle electrical system for remote fluid transfer applications.

Developed from the highest quality components for long lasting performance, the BDC RIP is encased in a rugged, powder coated enclosure to keep it firmly mounted on a rig and protected from the abuses of exposure.

Leveraging years of solar efficiency knowledge, the BDC RIP strikes a perfect balance between electrical efficiency and flowrate, able to reliably produce over 12 GPM while drawing less than 400 watts from the vehicle electrical system. For remote fluid transfer applications, this level of efficiency is unheard of in such a durable package.

Construction & Features

- Handles caustics and dissolved minerals
- Survives most freezes
- Permanent magnet, DC motor
- Heavy duty self lubricating carbon bearings
- Rugged powder coated enclosure is designed to allow hand access for basic maintenance and connections while also protecting the pump from drops, falls, and the elements.
- Recessed on/off switch prevents accidental activation and protects the switch from damage
- Integrated 40 amp fuse prevents motor overload/burnout in case of suction blockage
- Installation and Service Manual is highly detailed and illustrated
- 20' (7m) self-priming suction lift



Filtration Requirement

- Fine abrasives like sand, silt, and other debris will accelerate pump wear and reduce flow. It is preferable if the pumped liquid is clean for longevity.

Solar-Direct Applications ("PV-Direct"/non-battery)

- Recommend use of a charge controller to run the BDC RIP models from a battery bank instead of PV Direct.

Mechanical Characteristics

BDC RIP-1212 Model

- Dimensions: 33 x 9 x 10 inches (84 x 23 x 25 cm)
- Fittings: 1" inlet and outlet
- Weight: 76 lbs (37 kgs)

BDC RIP-1218 Model

- Dimensions: 33 x 9 x 10 inches (84 x 23 x 25 cm)
- Fittings: 1 ¼" inlet and outlet
- Weight: 85 lbs (38 kgs)



Warranty

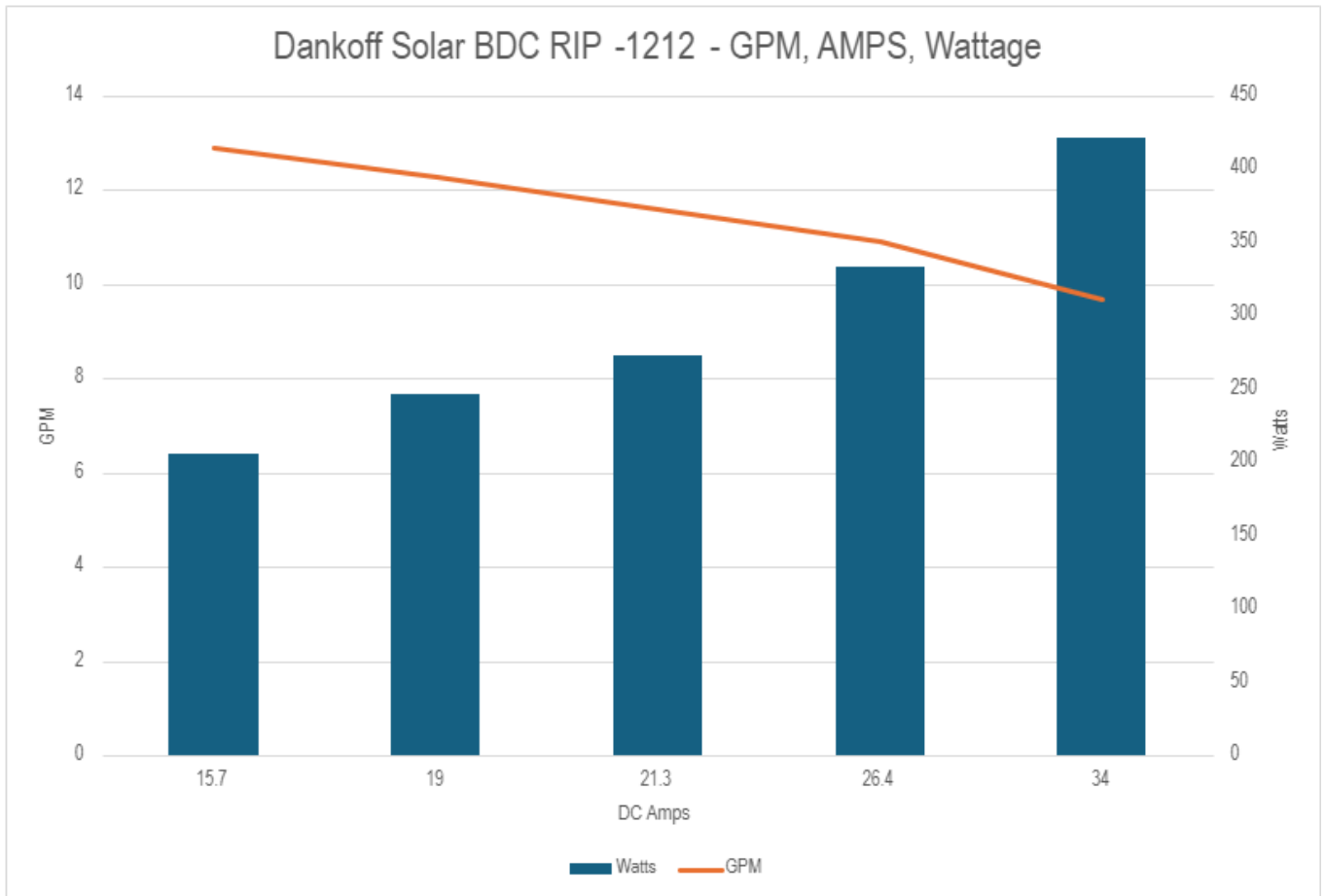
1 year against defects in materials and workmanship

Reading the Chart:

GPM = U.S. Gallons Per Minute

Watts = Energy over time consumed from battery (joule/sec)

DC Amps = Load on electrical system



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SR-2

Helical Rotor Submersible Solar Pump



- Nominal 36 volt motor
 - Usable output voltage range 12-36 volts
 - Power range of 200 to 730 watts
 - Solar, battery or dual-source
 - Maximum functional lift capability of 225 ft (75 m)
 - Max flow at 100 ft (30 m) is 5.8 gallons/min (22 liters/ min) with 304 watts and 39 volts PV input
 - Highly reliable, single moving part progressive cavity technology
 - Readily repairable in the field
 - 1 inch FNPT output must be used
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
 - 23 inches in height (58.4 cm)
 - 2 inch diameter (53 mm) fits 2 ¼ inch (57 mm) casing
 - Light weight – 8.5 pounds (3.9 kg)
 - Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
 - Brushless DC motor technology avoids conventional DC brush maintenance and replacement
 - All electronics are mounted above ground for longer life and easy access
 - CE certified
 - ISO 9001



SRC-M50T

DC Input Controller

- State of the art controller electronics contained in a NEMA standard conduit connection box
- Clear cover allows visible inspection of connections and LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input Voc tolerance of 50 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Wired for low water cutoff and for tank full float cutoff switches
- Fully adjustable speed control is easily accessed through a hinged, snap hasp cover
- Housed in a highly durable metal box with cooling fins cast on the back
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The following page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty



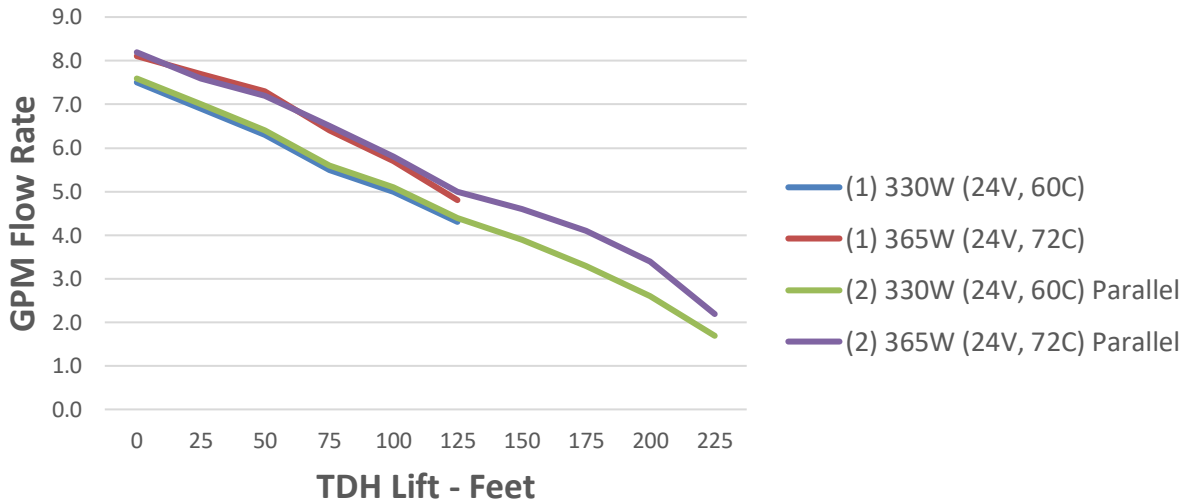
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5 Year Total Warranty for US/Canada Customers

- 2 years at full replacement cost
- 3 years of descending cost coverage (60%, 40%, 20% cost)

2 Year Warranty outside of US/Canada

Sunrotor SR-2 Helical Rotor Pump MRC-M50T DC Input Controller



Solar Panels	Solar Panel Size and Configuration	Total Array Wattage	Nominal Voltage to Controller	SunRotor Controller Model	TDH Lift - Ft / Gallons per Minute												
					0	25	50	75	100	125	150	175	200	225			
1	(1) 330W (24V, 60C)	330	36 VDC	SRC-M50T	7.5	6.9	6.3	5.5	5.0	4.3							
1	(1) 365W (24V, 72C)	365	39 VDC	SRC-M50T	8.1	7.7	7.3	6.4	5.7	4.8							
2	(2) 330W (24V, 60C) Parallel	660	36 VDC	SRC-M50T	7.6	7.0	6.4	5.6	5.1	4.4	3.9	3.3	2.6	1.7			
2	(2) 365W (24V, 72C) Parallel	730	39 VDC	SRC-M50T	8.2	7.6	7.2	6.5	5.8	5.0	4.6	4.1	3.4	2.2			

Solar Panels	Solar Panel Size and Configuration	Total Array Wattage	Nominal Voltage to Controller	SunRotor Controller Model	Amperage												
					0	25	50	75	100	125	150	175	200	225			
1	(1) 330W (24V, 60C)	330	36 VDC	SRC-M50T	3.2	4.2	5.1	6.6	7.5	9.0							
1	(1) 365W (24V, 72C)	365	39 VDC	SRC-M50T	3.5	4.5	5.2	6.5	7.8	9.0							
2	(2) 330W (24V, 60C) Parallel	660	36 VDC	SRC-M50T	3.2	4.2	5.1	6.4	7.5	9.0	9.8	10.9	11.5	11.5			
2	(2) 365W (24V, 72C) Parallel	730	39 VDC	SRC-M50T	3.5	4.5	5.2	6.5	7.8	9.0	10.0	11.0	11.5	11.50			

Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

Pump not intended for continuous 24/7 use. Warranty on battery-only systems are reduced to 1 year full replacement and 18 months of descending cost coverage every 6 months



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SR-4

Helical Rotor Submersible Solar Pump



- Nominal 24 volt operation
- Usable voltage range of 12-24 volts
- Power range of 195 to 390 watts
- Solar, battery or dual-source
- Maximum functional lift capability of 150 ft (46 m)
- Max flow at 100 ft (30 m) is 3.9 gallons/min (14.76 liters/min) with 202.5 watts and 38.2 volts PV input
- Highly reliable, single moving part progressive cavity technology
- Readily repairable in the field
- 3/4 inch FNPT output
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
- 19 inches in height (48.3 cm)
- 3 inch diameter (76 mm) fits 3.5 inch (89 mm) casing
- Light weight - 12 pounds (5.4 kg)
- Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- All electronics are mounted above ground for longer life and easy access
- Entire pump body is stainless steel to comply with all local code and pump installation requirements
- CE certified
- ISO 9001



SRC-M50T

DC Input Controller

- State of the art controller electronics contained in a NEMA standard conduit connection box
- Clear cover allows visible inspection of connections and LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input Voc tolerance of 50 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Wired for low water cutoff and for tank-full float cutoff switches
- Fully adjustable speed control is easily accessed through a hinged, snap hasp cover
- Housed in a highly durable metal box with cooling fins cast on the back
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The follow page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty.

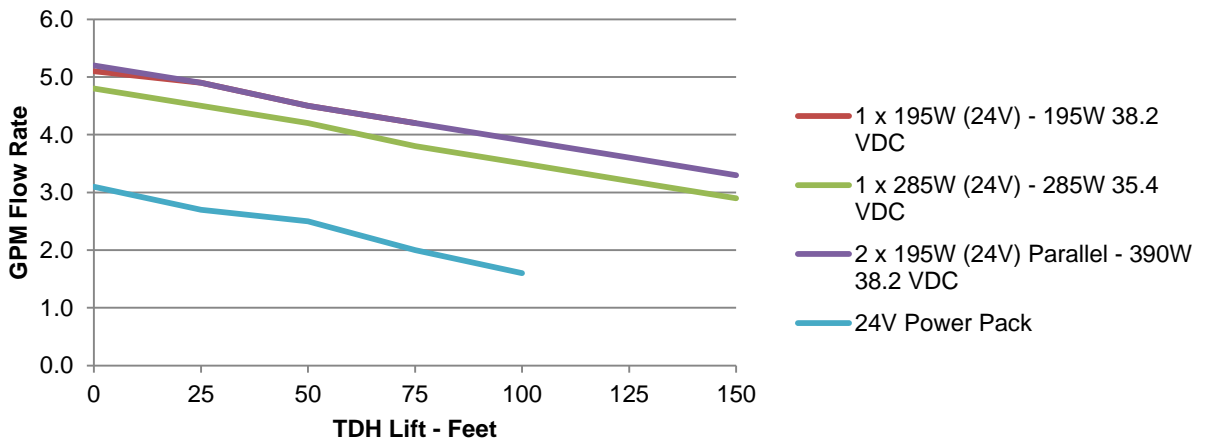


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2 Year Warranty Outside the U.S.
5 Year Total Warranty for
Customers in the U.S./Canada

- 2 years at full replacement cost
- 3 years declining (60%, 40%, 20% of the original purchase price)

SunRotor® SR-4 Helical Rotor Pump
SRC-M50T DC Input Controller



		TDH Lift - Feet / GPM Flow Rate									
Panels	Configuration	Watts	Nominal Voltage	0	25	50	75	100	125	150	
1	195 W (24V)	195	38.2 VDC	5.1	4.9	4.5	4.2				
1	285 W (24V)	285	35.4 VDC	4.8	4.5	4.2	3.8	3.5	3.2	2.9	
2	195 W (24V) Parallel*	390	38.2 VDC	5.2	4.9	4.5	4.2	3.9	3.6	3.3	
0	24V Power Pack**	N/A	24 VDC	3.1	2.7	2.5	2.0	1.6			
		Amperage									
Panels	Configuration	Watts	Nominal Voltage	0	25	50	75	100	125	150	
1	195 W (24V)	195	38.2 VDC	2.6	3.2	3.9	4.7				
1	285 W (24V)	285	35.4 VDC	2.3	3.0	3.7	4.4	5.1	5.7	6.5	
2	195 W (24V) Parallel	390	38.2 VDC	2.5	3.1	3.9	4.5	5.3	6.0	6.6	
0	24V Power Pack	N/A	24 VDC	2.8	3.5	4.2	5.1	6.0			

10 gauge wire 8 gauge wire

* Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

**Not intended for continuous 24/7 use. Subsequently, our warranty on battery-only systems are as follows: 1 year full replacement, and 18 months declining every 6 months (60%, 40%, 20%)



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SR-5

Helical Rotor Submersible Solar Pump



- Nominal 36 volt motor
 - Usable voltage range of 12-36 volts
 - Power range of 195 to 390 watts
 - Solar, battery or dual-source
 - Maximum functional lift capability of 150 ft (46 m)
 - Max flow at 100 ft (30 m) is 3.9 gallons/min (14.76 liters/ min) with 202.5 watts and 38.2 volts PV input
 - Highly reliable, single moving part progressive cavity technology
 - Readily repairable in the field
 - 3/4 inch FNPT output
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
 - 19 inches in height (48.3 cm)
 - 3 inch diameter (76 mm) fits 3.5 inch (89 mm) casing • Light weight - 12 pounds (5.4 kg)
 - Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
 - Brushless DC motor technology avoids conventional DC brush maintenance and replacement
 - All electronics are mounted above ground for longer life and easy access
 - Entire pump body is stainless steel to comply with all local code and pump installation requirements
 - CE certified
 - ISO 9001



SRC-M50T

DC Input Controller

- State of the art controller electronics contained in a NEMA standard conduit connection box
- Clear cover allows visible inspection of connections and LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input Voc tolerance of 50 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Wired for low water cutoff and for tank full float cutoff switches
- Fully adjustable speed control is easily accessed through a hinged, snap hasp cover
- Housed in a highly durable metal box with cooling fins cast on the back
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The following page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty



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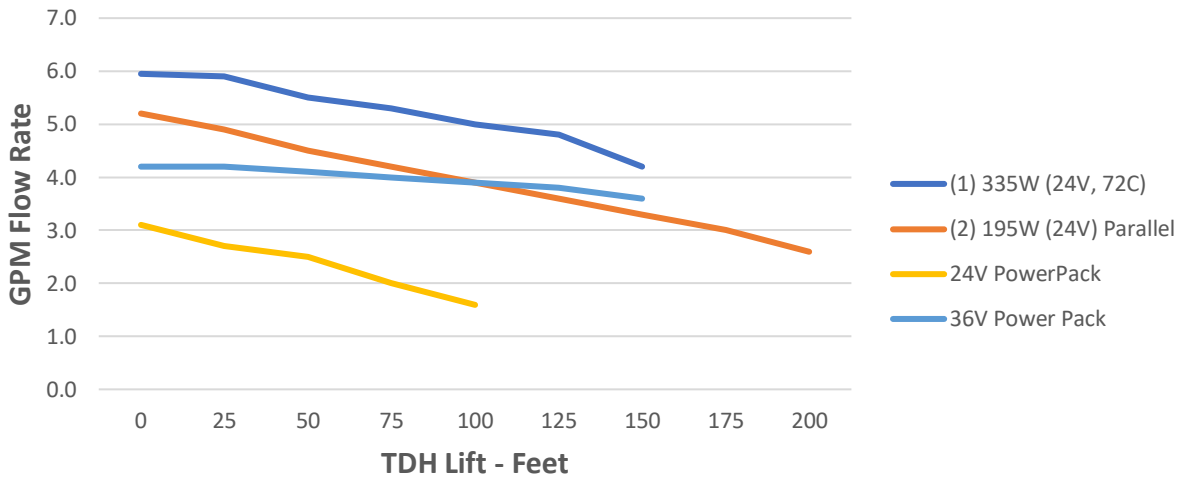
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5 Year Total Warranty for US/Canada Customers

- 2 years at full replacement cost
- 3 years of descending cost coverage (60%, 40%, 20% cost)

2 Year Warranty outside of US/Canada

Sunrotor SR-5 Helical Rotor Pump MRC-M50T DC Input Controller



Solar Panels	Solar Panel Size and Configuration	Total Array Wattage	Nominal Voltage to Controller	SunRotor Controller Model	TDH - Ft / Gallons per Minute									
					0	25	50	75	100	125	150	175	200	
1	(1) 335W (24V, 72C)	335	36 VDC	SRC-M50T	6.0	5.9	5.5	5.3	5.0	4.8	4.2			
2	(2) 195W (24V) Parallel	390	24 VDC	SRC-M50T	5.2	4.9	4.5	4.2	3.9	3.6	3.3	3.0	2.6	
0	24V PowerPack	N/A	24 VDC	SRC-M50T	3.1	2.7	2.5	2.0	1.6					
0	36V Power Pack	N/A	36 VDC	SRC-M50T	4.2	4.2	4.1	4.0	3.9	3.8	3.6			

Solar Panels	Solar Panel Size and Configuration	Total Array Wattage	Nominal Voltage to Controller	SunRotor Controller Model	Amperage									
					0	25	50	75	100	125	150	175	200	
1	(1) 335W (24V, 72C)	335	36 VDC	SRC-M50T	4.2	4.7	5.4	6.1	6.8	7.4	7.3			
2	(2) 195W (24V) Parallel	390	24 VDC	SRC-M50T	2.5	3.1	3.9	4.5	5.3	6.0	6.6	7.3	8.0	
0	24V PowerPack	N/A	24 VDC	SRC-M50T	2.8	3.5	4.2	5.1	6.0					
0	36V Power Pack	N/A	36 VDC	SRC-M50T	1.8	2.3	3.0	3.6	4.3	5.0	5.5			

Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

Pump not intended for continuous 24/7 use. Warranty on battery-only systems are reduced to 1 year full replacement and 18 months of descending cost coverage every 6 months



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SR-6

Helical Rotor Submersible Solar Pump



- Nominal 48 volt operation
 - Usable voltage range 24-48 volts
 - Power range 390 watts to 780 watts
 - Solar, battery or a combination
 - Maximum functional lift capability of 200 ft (61 m)
 - Max flow at 100 ft (30 m) is 6.7 gallons/min (25.36 liters/min) with 397 watts and 76.3 volts PV input
 - Highly reliable, single moving part progressive cavity technology
 - Readily repairable in the field
 - 3/4 inch FNPT output
- Designed for submersible operation up to 100 ft
 - 3 inch diameter (76 mm) fits 3.5 inch (89 mm) casing
 - Light weight - 12 pounds (5.4 kg)
 - Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
 - Brushless DC motor technology avoids conventional DC brush maintenance and replacement
 - All electronics are mounted above ground for longer life and easy access
 - Entire pump body is stainless steel to comply with all local code and pump installation requirements
 - CE certified
 - ISO 9001



SRC-M100T

DC Input Controller

- State of the art controller electronics contained in NEMA standard conduit connection box
- Clear cover allows visible inspection of connections and of LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input voltage tolerance of 100 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Wired for low water cutoff and for tank-full float cutoff switches
- Fully adjustable speed control is easily accessed through a hinged, snap hasp cover
- Housed in a highly durable metal box with cooling fins cast in the back
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The follow page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty.

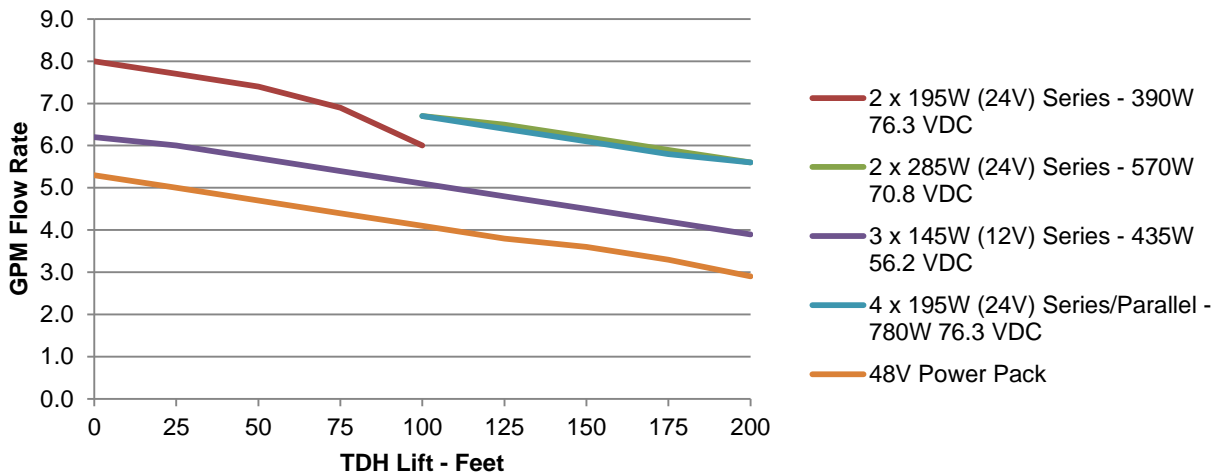


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2 Year Warranty Outside the U.S.
5 Year Total Warranty for Customers in the U.S./Canada

- 2 years at full replacement cost
- 3 years declining (60%, 40%, 20% of the original purchase price)

SunRotor® SR-6 (48V) Helical Rotor Pump
SRC-M100T DC Input Controller



		TDH Lift - Feet / GPM Flow Rate											
Panels	Configuration	Watts	Nominal Voltage	0	25	50	75	100	125	150	175	200	
2	195 W (24V) Series	390	76.3 VDC	8.0	7.7	7.4	6.9	6.0					
2	285 W (24V) Series	570	70.8 VDC					6.7	6.5	6.2	5.9	5.6	
3	145 W (12V) Series*	435	56.2 VDC	6.2	6.0	5.7	5.4	5.1	4.8	4.5	4.2	3.9	
4	195 W (24V) Series/Parallel	780	76.3 VDC					6.7	6.4	6.1	5.8	5.6	
0	48 V PowerPack**	N/A	48 VDC	5.3	5.0	4.7	4.4	4.1	3.8	3.6	3.3	2.9	

		Amperage											
Panels	Configuration	Watts	Nominal Voltage	0	25	50	75	100	125	150	175	200	
2	195 W (24V) Series	390	76.3 VDC	2.8	3.3	3.9	4.5	4.9					
2	285 W (24V) Series	570	70.8 VDC					4.8	5.3	5.9	6.5	7.0	
3	145 W (12V) Series	435	56.2 VDC	2.1	2.7	3.3	3.9	4.6	5.1	5.6	6.2	6.8	
4	195 W (24V) Series/Parallel	780	76.3 VDC					5.2	5.7	6.2	6.8	7.2	
0	48 V PowerPack	N/A	48 VDC	2.1	2.6	3.2	3.8	4.4	5.0	5.6	6.1	6.6	

10 gauge wire 8 gauge wire

* Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

**Not intended for continuous 24/7 use. Subsequently, our warranty on battery-only systems are as follows: 1 year full replacement, and 18 months declining every 6 months (60%, 40%, 20%)



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SR-7

Centrifugal Submersible Solar Pump



- Nominal 36 volt motor
- Usable voltage range of 24-36 volts
- Power range of 310 to 800 watts
- Solar, battery or dual-source
- Maximum functional lift capability of 150 ft (46 m)
- Max flow at 100 ft (30 m) is 12.3 gallons/min (46.2 liters/ min) with 800 watts and 90 volts PV input
- Silt and caustic resistant centrifugal chamber pump head
- Readily repairable in the field
- 1 inch FNPT output
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
- 24 inches in height (62 cm)
- 3 inch diameter (76 mm) fits 3.5 inch (89 mm) casing • Light weight - 14 pounds (6.3 kg)
- Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- All electronics are mounted above ground for longer life and easy access
- Entire pump body is stainless steel to comply with all local code and pump installation requirements
- CE certified
- ISO 9001



SRC-M50T

DC Input Controller

- State of the art controller electronics contained in a NEMA standard conduit connection box
- Clear cover allows visible inspection of connections and LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input Voc tolerance of 50 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Wired for low water cutoff and for tank full float cutoff switches
- Fully adjustable speed control is easily accessed through a hinged, snap hasp cover
- Housed in a highly durable metal box with cooling fins cast on the back
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The following page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty



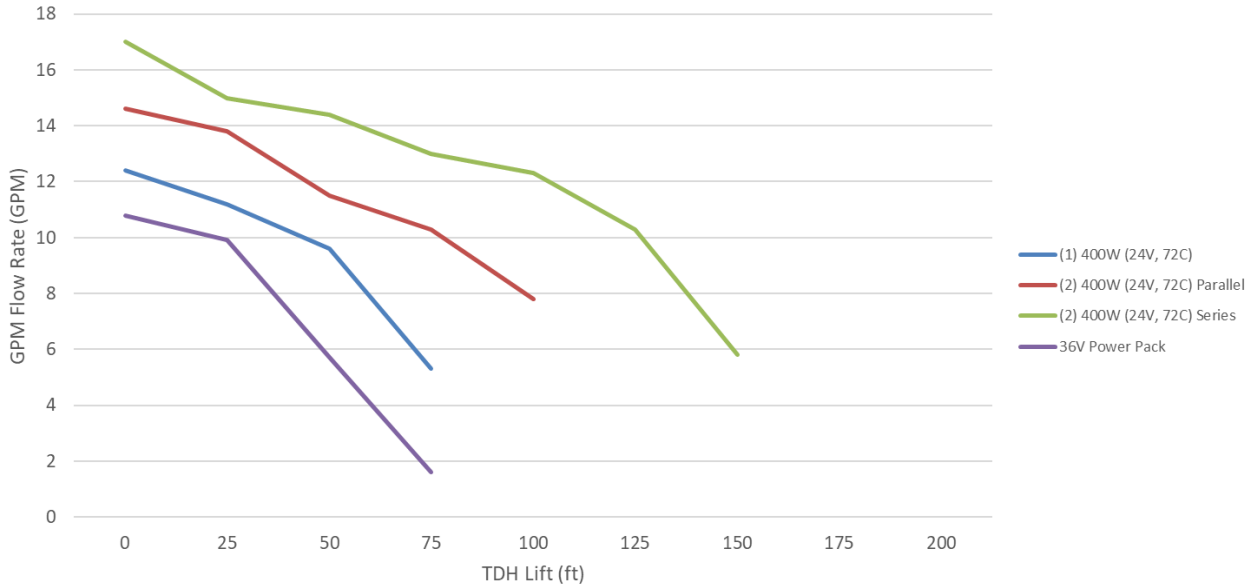
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5 Year Total Warranty for US/Canada Customers

- 2 years at full replacement cost
- 3 years of descending cost coverage (60%, 40%, 20% cost)

2 Year Warranty outside of US/Canada

Sunrotor SR-7 Centrifugal Pump



Solar Panels	Solar Panel Size and Configuration	Total Array Wattage	Nominal Voltage to Controller	SunRotor Controller Model	TDH Lift - Ft / Gallons per Minute									
					0	25	50	75	100	125	150	175	200	
1	(1) 400W (24V, 72C)	400	35 VDC	SCR-M50T	12.4	11.2	9.6	5.3						
2	(2) 400W (24V, 72C) Parallel	800	45 VDC	SCR-M50T	14.6	13.8	11.5	10.3	7.8					
2	(2) 400W (24V, 72C) Series	800	90 VDC	SCR-M100T	17	15	14.4	13	12.3	10.3	5.8			
0	36V Power Pack	N/A	36 VDC	SCR-M50T	10.8	9.9	5.7	1.6						

Solar Panels	Solar Panel Size and Configuration	Total Array Wattage	Nominal Voltage to Controller	SunRotor Controller Model	Amperage									
					0	25	50	75	100	125	150	175	200	
1	(1) 400W (24V, 72C)	400	35 VDC	SCR-M50T	9.5	9.5	9.5	9.5						
2	(2) 400W (24V, 72C) Parallel	800	45 VDC	SCR-M100T	11.5	11.5	11.5	11.1	11.4					
2	(2) 400W (24V, 72C) Series	800	90 VDC	SCR-M100T	8.4	8.4	8.5	8.5	8.5	8.4	8.4			
0	36V Power Pack	N/A	36 VDC	SCR-M50T	8.5	8.5	8.5	8.5						

Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

Pump not intended for continuous 24/7 use. Warranty on battery-only systems are reduced to 1 year full replacement and 18 months of descending cost coverage every 6 months



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SR-8

Centrifugal Submersible Solar Pump



- Nominal 48 volt motor
- Usable voltage range of 36-48 volts
- Power range of 310 to 800 watts
- Solar, battery or dual-source
- Maximum functional lift capability of 250 ft (76 m)
- Max flow at 100 ft (30 m) is 10.0 gallons/min (46.2 liters/min) with 800 watts and 90 volts PV input
- Silt and caustic resistant centrifugal chamber pump head
- Readily repairable in the field
- 1 inch FNPT output
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
- 39 inches in height (53.3 cm)
- 3 inch diameter (76 mm) fits 3.5 inch (89 mm) casing • 22 pounds (10 kg)
- Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- All electronics are mounted above ground for longer life and easy access
- Entire pump body is stainless steel to comply with all local code and pump installation requirements
- CE certified
- ISO 9001



SRC-M100T

DC Input Controller

- State of the art controller electronics contained in a NEMA standard conduit connection box
- Clear cover allows visible inspection of connections and LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input Voc tolerance of 100 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Wired for low water cutoff and for tank full float cutoff switches
- Fully adjustable speed control is easily accessed through a hinged, snap hasp cover
- Housed in a highly durable metal box with cooling fins cast on the back
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The following page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty



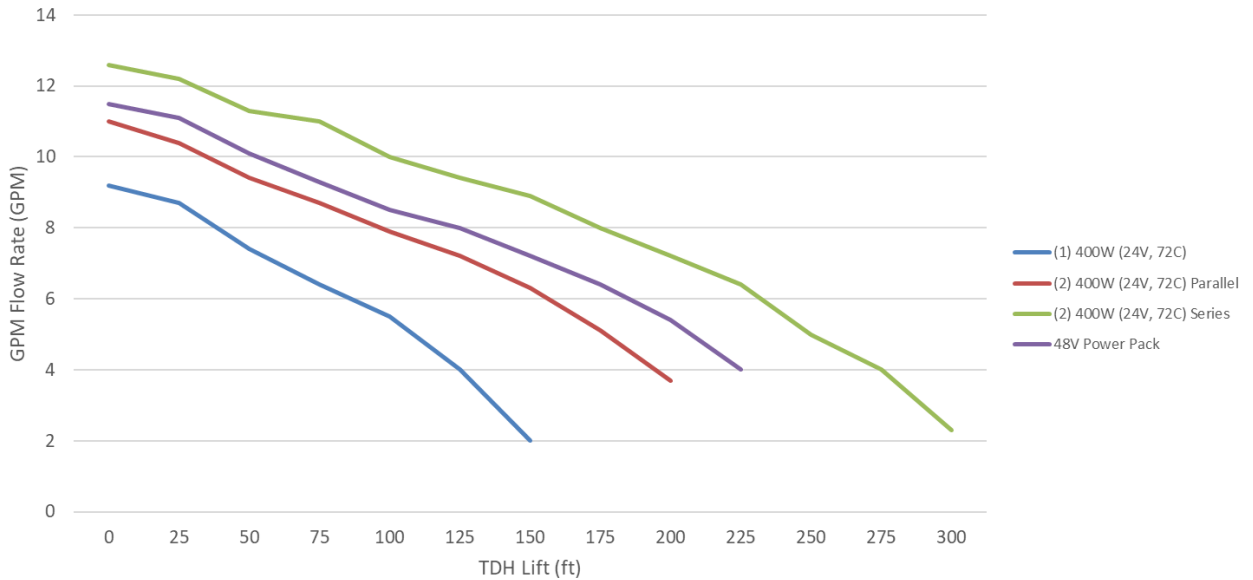
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5 Year Total Warranty for US/Canada Customers

- 2 years at full replacement cost
- 3 years of descending cost coverage (60%, 40%, 20% cost)

2 Year Warranty outside of US/Canada

Sunrotor SR-8 Centrifugal Pump



Solar Panels	Solar Panel Size and Configuration	Total Array Wattage	Nominal Voltage to Controller	SunRotor Controller Model	TDH Lift - Ft / Gallons per Minute															
					0	25	50	75	100	125	150	175	200	225	250	275	300			
1	(1) 400W (24V, 72C)	400	35 VDC	SCR-M100T	9.2	8.7	7.4	6.4	5.5	4	2									
2	(2) 400W (24V, 72C) Parallel	800	45 VDC	SCR-M100T	11	10.4	9.4	8.7	7.9	7.2	6.3	5.1	3.7							
2	(2) 400W (24V, 72C) Series	800	90 VDC	SCR-M100T	12.6	12.2	11.3	11	10	9.4	8.9	8	7.2	6.4	5	4	2.3			
0	48V Power Pack	N/A	48 VDC	SCR-M100T	11.5	11.1	10.1	9.3	8.5	8	7.2	6.4	5.4	4						

Solar Panels	Solar Panel Size and Configuration	Total Array Wattage	Nominal Voltage to Controller	SunRotor Controller Model	Amperage															
					0	25	50	75	100	125	150	175	200	225	250	275	300			
1	(1) 400W (24V, 72C)	400	35 VDC	SCR-M100T	9	9	9	9	9	9	9									
2	(2) 400W (24V, 72C) Parallel	800	45 VDC	SCR-M100T	11	11	11	11	11	11	11	11	11							
2	(2) 400W (24V, 72C) Series	800	90 VDC	SCR-M100T	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	
0	48V Power Pack	N/A	48 VDC	SCR-M100T	11.6	11.5	11.2	11.2	11.1	11	11.2	11.3	11.25	11.1						

Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

Pump not intended for continuous 24/7 use. Warranty on battery-only systems are reduced to 1 year full replacement and 18 months of descending cost coverage every 6 months



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SR-10

Helical Rotor Submersible Solar Pump



- Nominal 48 volt operation
 - Usable voltage range 48-110 volts
 - Power range 370 watts to 2320 watts
 - Solar, battery or a combination
 - Maximum functional lift capability of 300 ft (91 m)
 - Max flow at 100 ft (30 m) is 7.4 gallons/min (28 liters/ min) with 351 watts and 76.3 volts PV input
 - Highly reliable, single moving part progressive cavity technology
 - Readily repairable in the field
 - 1 inch FNPT output
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
 - 4" diameter (102 mm) fits 4.5" (114 mm) casing
 - Light weight - 23 pounds (10.4 kg)
 - Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
 - Brushless DC motor technology avoids conventional DC brush maintenance and replacement
 - All electronics are mounted above ground for longer life and easy access
 - Entire pump body is stainless steel to comply with all local code and pump installation requirements
 - CE certified
 - ISO 9001



SRC-M100T

DC Input Controller

- State of the art controller electronics contained in NEMA standard conduit connection box
- Clear cover allows visible inspection of connections and of LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input voltage tolerance of 100 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Wired for low water cutoff and for tank-full float cutoff switches
- Fully adjustable speed control is easily accessed through a hinged, snap hasp cover
- Housed in a highly durable metal box with cooling fins cast in the back
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The follow page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty.

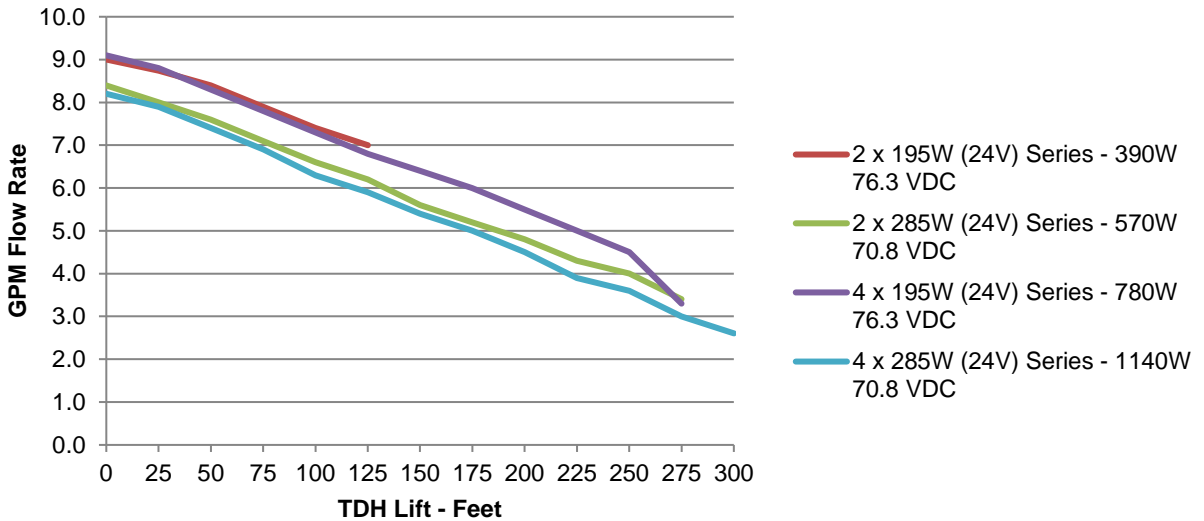


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2 Year Warranty Outside the U.S.
5 Year Total Warranty for
Customers in the U.S./Canada

- 2 years at full replacement cost
- 3 years declining (60%, 40%, 20% of the original purchase price)

SunRotor® SR-10 Solar Pump
SRC-M100T Controller



				TDH Lift - Feet / GPM Flow Rate															
Panels	Configuration	Watts	Nominal Voltage	0	25	50	75	100	125	150	175	200	225	250	275	300			
2	195 W (24V) Series	390	76.3 VDC	9.0	8.7	8.4	7.9	7.4	7.0										
2	285 W (24V) Series	570	70.8 VDC	8.4	8.0	7.6	7.1	6.6	6.2	5.6	5.2	4.8	4.3	4.0	3.4				
4	195 W (24V) Series/Parallel	780	76.3 VDC	9.1	8.8	8.3	7.8	7.3	6.8	6.4	6.0	5.5	5.0	4.5	3.3				
4	285 W (24V) Series/Parallel*	1140	70.8 VDC	8.2	7.9	7.4	6.9	6.3	5.9	5.4	5.0	4.5	3.9	3.6	3.0	2.6			

				Amperage															
Panels	Configuration	Watts	Nominal Voltage	0	25	50	75	100	125	150	175	200	225	250	275	300			
2	195 W (24V) Series	370	76.3 VDC	2.0	2.8	3.4	4.0	4.6	5.1										
2	285 W (24V) Series	580	70.8 VDC	1.8	2.4	3.0	3.6	4.2	4.8	5.4	5.9	6.5	7.1	7.5	7.9				
4	195 W (24V) Series/Parallel	740	76.3 VDC	1.8	2.2	2.9	3.7	4.3	4.9	5.4	6.0	6.6	7.2	7.2	7.2				
4	285 W (24V) Series/Parallel	1160	70.8 VDC	2.0	2.6	2.9	3.5	4.1	4.6	5.2	5.8	6.3	6.9	7.3	8.0	8.6			

10 gauge wire 8 gauge wire

* Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily



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SR-12

Helical Rotor Submersible Solar Pump



- Nominal 110 volt operation
 - Usable voltage range 72-110 volts
 - Power range 570 watts to 1740 watts
 - Solar, battery or a combination
 - Maximum functional lift capability of 350 ft (107 m)
 - Max flow at 100 ft (30 m) is 15.1 gallons/min (57.2 liters/min) with 793 watts and 141.6 volts PV input
 - Highly reliable, single moving part progressive cavity technology
 - Readily repairable in the field
 - 1 inch FNPT output
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
 - 4" diameter (102 mm) fits 4.5" (114 mm) casing
 - Light weight - 23 pounds (10.4 kg)
 - Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
 - Brushless DC motor technology avoids conventional DC brush maintenance and replacement
 - All electronics are mounted above ground for longer life and easy access
 - Entire pump body is stainless steel to comply with all local code and pump installation requirements
 - CE certified
 - ISO 9001



SRC-M200T

DC Input Controller

- State of the art controller electronics contained in a NEMA standard weather resistant enclosure
- Clear cover allows visible inspection of connections and LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input voltage tolerance of 200 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Features low water cutoff and tank-full float switch input wiring terminals
- Variable timer control on low-water circuit
- Adjustable speed control
- Hinged enclosure door for easy accessibility to wiring terminals and controls
- Dimensions: 12" (30.5 cm) x 8" (20.3 cm)

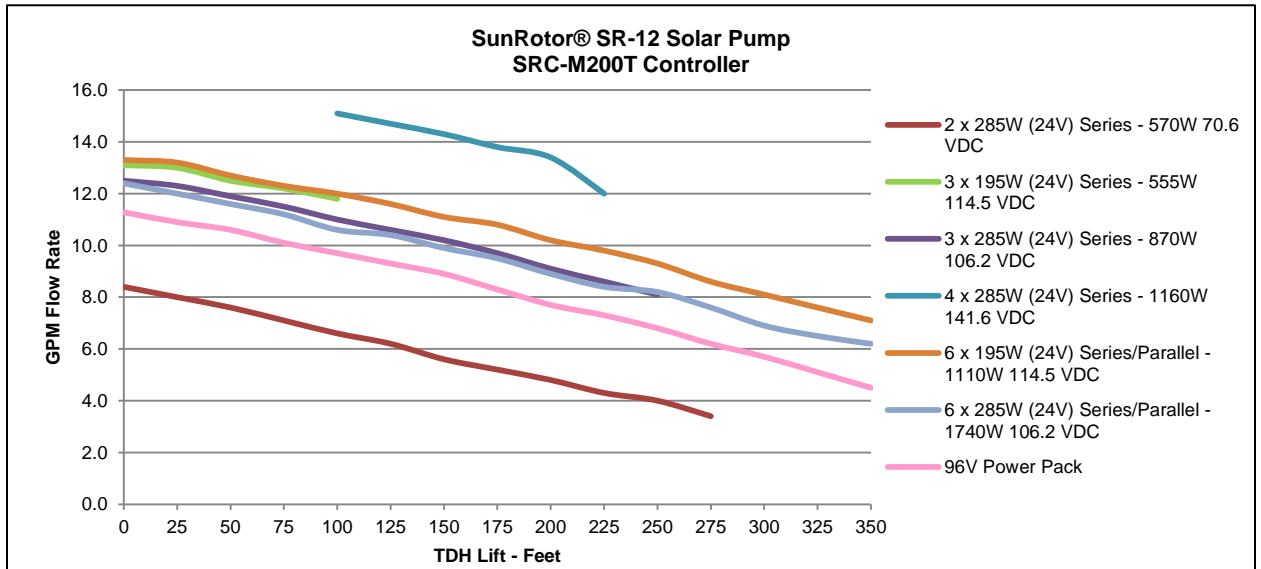
The follow page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty.



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2 Year Warranty Outside the U.S.
5 Year Total Warranty for
Customers in the U.S./Canada

- 2 years at full replacement cost
- 3 years declining (60%, 40%, 20% of the original purchase price)



Panels	Configuration	Watts	Nominal Voltage	TDH Lift - Feet / GPM Flow Rate															
				0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	
2	285 W (24V) Series	570	70.6 VDC	8.4	8.0	7.6	7.1	6.6	6.2	5.6	5.2	4.8	4.3	4.0	3.4				
3	195 W (24V) Series	555	114.5 VDC	13.1	13.0	12.5	12.2	11.8											
3	285 W (24V) Series	870	106.2 VDC	12.5	12.3	11.9	11.5	11.0	10.6	10.2	9.7	9.1	8.6	8.1					
4	285 W (24V) Series	1140	141.6 VDC					15.1	14.7	14.3	13.8	13.4	12.0						
6	195 W (24V) Series/Parallel	1110	114.5 VDC	13.3	13.2	12.7	12.3	12.0	11.6	11.1	10.8	10.2	9.8	9.3	8.6	8.1	7.6	7.1	
6	285 W (24V) Series/Parallel*	1740	106.2 VDC	12.4	12.0	11.6	11.2	10.6	10.4	9.9	9.5	8.9	8.4	8.2	7.6	6.9	6.5	6.2	
0	96V Power Pack*	N/A	96 VDC	11.3	10.9	10.6	10.1	9.7	9.3	8.9	8.3	7.7	7.3	6.8	6.2	5.7	5.1	4.5	

Panels	Configuration	Watts	Nominal Voltage	Amperage															
				0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	
2	285 W (24V) Series	570	70.6 VDC	1.8	2.4	3.0	3.6	4.2	4.8	5.4	5.9	6.5	7.1	7.5	7.9				
3	195 W (24V) Series	585	114.5 VDC	2.8	3.3	4.0	4.6	5.1											
3	285 W (24V) Series	855	106.2 VDC	2.5	3.0	3.6	4.2	4.8	5.3	5.8	6.4	7.0	7.5	8.0					
4	285 W (24V) Series	1140	141.6 VDC					5.6	6.1	6.7	7.3	7.9	8.1						
6	195 W (24V) Series/Parallel	1170	114.5 VDC	2.8	3.3	4.0	4.5	5.1	5.6	6.1	6.7	7.3	7.8	8.2	8.7	9.2	9.7	10.3	
6	285W (24V) Series/Parallel	1710	106.2 VDC	2.6	3.0	3.6	4.2	4.8	5.3	5.9	6.5	7.0	7.6	8.0	8.4	9.0	9.5	10.0	
0	96V PowerPack	N/A	96 VDC	2.3	2.8	3.4	4.0	4.6	5.1	5.7	6.2	6.8	7.3	7.7	8.3	8.9	9.5	10.1	

10 gauge wire 8 gauge wire

* Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

**Not intended for continuous 24/7 use. Subsequently, our warranty on battery-only systems are as follows: 1 year full replacement, and 18 months declining every 6 months (60%, 40%, 20%)



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SR-16

Centrifugal Solar Pump



- Nominal 110 volt operation
- 200 Voc maximum input voltage
- Power range 855 watts to 1560 watts
- Solar, battery or a combination
- Maximum functional lift capability of 425 ft (137.2 m)
- Max flow at 100 ft (30.5 m) is 16.2 gallons/min (61.32 liters/min) with 1560 watts and 152.6 volts PV input
- 3.75" diameter (95 mm) fits 4" (102 mm) casing
- Weight : 27 pounds (12.5 kg)
- Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
- All electronics are mounted above ground for longer life and easy access
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- Entire pump body is stainless steel to comply with all local code and pump installation requirements
- Multi-stage Impeller Pump
- 1.25" (32 mm) FNPT outlet
- 304 Stainless Steel pump body and impellers
- CE certified
- ISO 9001



SRC-M200T

DC Input Controller

- State of the art controller electronics contained in a NEMA standard weather resistant enclosure
- Clear cover allows visible inspection of connections and LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input voltage tolerance of 200 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Features low water cutoff and tank-full float switch input wiring terminals
- Variable timer control on low-water circuit
- Adjustable speed control
- Hinged enclosure door for easy accessibility to wiring terminals and controls
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The follow page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty.

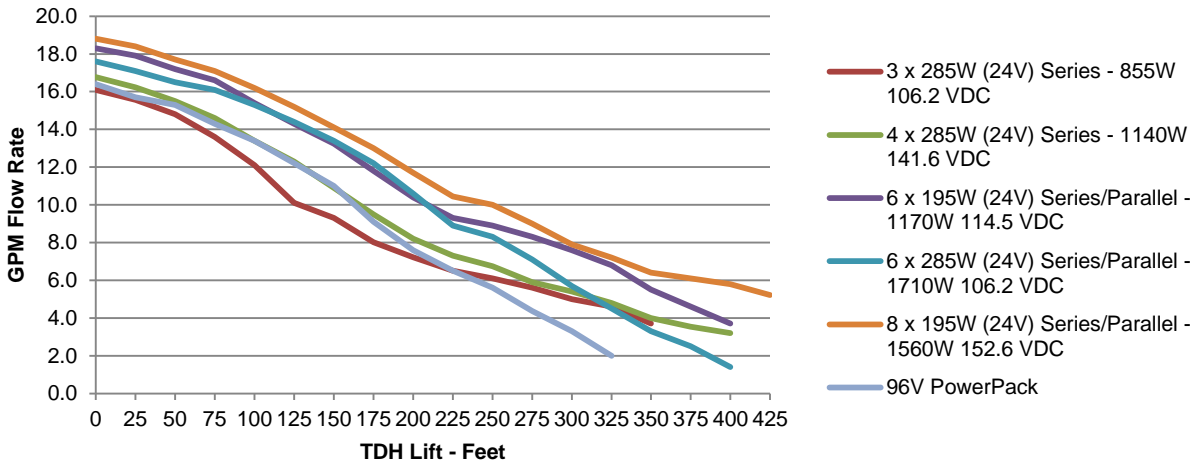


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2 Year Warranty Outside the U.S.
5 Year Total Warranty for
Customers in the U.S./Canada

- 2 years at full replacement cost
- 3 years declining (60%, 40%, 20% of the original purchase price)

SunRotor® SR-16 Centrifugal Pump
SRC-M200T DC Input Controller



		TDH Lift - Feet / GPM Flow Rate																				
Panels	Configuration	Watts	Nominal Voltage	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	
3	285 W (24V) Series	855	106.2 VDC	16.1	15.6	14.8	13.6	12.1	10.1	9.3	8.0	7.2	6.5	6.1	5.6	5.0	4.6	3.7				
4	285 W (24V) Series	1140	141.6 VDC	16.8	16.2	15.5	14.6	13.4	12.3	10.9	9.5	8.2	7.3	6.8	5.9	5.4	4.8	4.0	3.5	3.2		
6	195 W (24V) Series/Parallel	1170	114.5 VDC	18.3	17.9	17.2	16.6	15.4	14.3	13.2	11.8	10.4	9.3	8.9	8.3	7.6	6.8	5.5	4.6	3.7		
6	285 W (24V) Series/Parallel*	1710	106.2 VDC	17.6	17.1	16.5	16.1	15.3	14.4	13.4	12.2	10.6	8.9	8.3	7.1	5.7	4.5	3.3	2.5	1.4		
8	195 W (24V) Series/Parallel	1560	152.6 VDC	18.8	18.4	17.7	17.1	16.2	15.2	14.1	13.0	11.7	10.4	10.0	9.0	7.9	7.2	6.4	6.1	5.8	5.2	
0	96V PowerPack**	N/A	96 VDC	16.4	15.7	15.3	14.3	13.4	12.2	11.0	9.1	7.6	6.5	5.6	4.4	3.3	2.0					
		Amperage																				
Panels	Configuration	Watts	Nominal Voltage	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	
3	285 W (24V) Series	855	106.2 VDC	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1		
4	285 W (24V) Series	1140	141.6 VDC	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1		
6	195 W (24V) Series/Parallel	1170	114.5 VDC	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.1	9.5	9.0	8.4	
6	285 W (24V) Series/Parallel	1710	106.2 VDC	9.6	9.5	9.7	10.0	10.2	10.3	10.3	10.4	10.3	10.0	9.9	9.5	8.8	8.3	7.7	7.1	6.4		
8	195 W (24V) Series/Parallel	1560	152.6 VDC	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	
0	96V PowerPack	N/A	96 VDC	8.4	8.5	8.5	8.7	8.9	8.9	9.0	8.8	8.6	8.2	7.9	7.3	6.5	6.1					

10 gauge wire 8 gauge wire

* Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

**Not intended for continuous 24/7 use. Subsequently, our warranty on battery-only systems are as follows: 1 year full replacement, and 18 months declining every 6 months (60%, 40%, 20%)



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SR-26

Centrifugal Submersible Solar



- Nominal 48 volt operation
 - Usable voltage range 24-48 volts
 - Power range 285 watts to 1140 watts
 - Solar, battery, or a combination
 - Maximum functional lift capability of 100 ft (30.5 m)
 - Max flow at surface level is 32.6 GPM (123.4 LPM) with 556.4 watts and 70.8 volts PV nominal input
 - Durable stainless steel impellers
 - 6 impeller stages
 - 1.25 inch (32 mm) FNPT output port
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)
 - 21 inches in height (53.3 cm)
 - 4 inch diameter (102 mm) fits 4.5 inch (114 mm) casing
 - Weighs 19.5 pounds (8.85 kg)
 - Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
 - Brushless DC motor technology avoids conventional DC brush maintenance and replacement
 - All electronics are mounted above ground for longer life and easy access
 - Entire pump body is stainless steel to comply with all local code and pump installation requirements
 - CE certified
 - ISO 9001



SRC-M100T

DC Input Controller

- State of the art controller electronics contained in NEMA standard conduit connection box
- Clear cover allows visible inspection of connections and of LED status lights
- Linear current boosting feature converts excess voltage into amperage
- Wide operational range with max input voltage tolerance of 100 volts (DC)
- Battery or solar capabilities with low voltage cutoff for battery protection
- Wired for low water cutoff and for tank-full float cutoff switches
- Fully adjustable speed control is easily accessed through a hinged, snap hasp cover
- Housed in a highly durable metal box with cooling fins cast in the back
- Dimensions: 12" (30.5 cm) x 4.5" (11.4 cm) x 8" (20.3 cm)

The follow page lists the pump curves for each panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty.

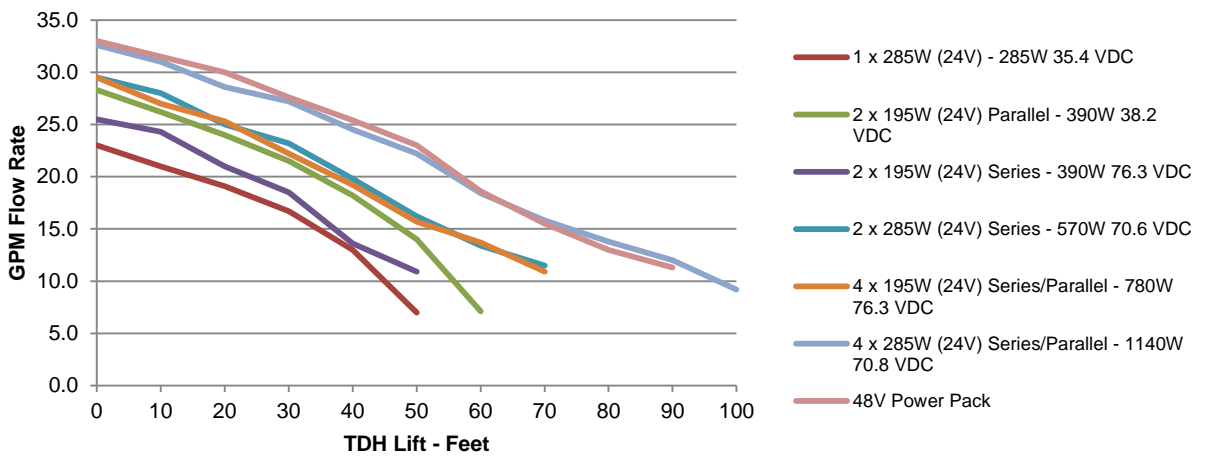


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2 Year Warranty Outside the U.S.
5 Year Total Warranty for
Customers in the U.S./Canada

- 2 years at full replacement cost
- 3 years declining (60%, 40%, 20% of the original purchase price)

**SunRotor® SR-26 Centrifugal Pump
 SRC-M100T DC Input Controller
 (2" Pipe)**



Panels	Configuration	Watts	Nominal Voltage	TDH Lift - Feet / GPM Flow Rate											
				0	10	20	30	40	50	60	70	80	90	100	
1	285 W (24V)	285	35.4 VDC	23.0	21.0	19.1	16.7	13.0	7.0						
2	195 W (24V) Parallel	390	38.2 VDC	28.3	26.2	24.0	21.5	18.2	14.0	7.1					
2	195 W (24V) Series	390	76.3 VDC	25.5	24.3	21.0	18.5	13.6	10.9						
2	285 W (24V) Series	570	70.8 VDC	29.5	28.0	25.0	23.2	19.8	16.2	13.4	11.5				
4	195 W (24V) Series/Parallel	780	76.3 VDC	29.5	27.0	25.3	22.2	19.2	15.7	13.7	10.9				
4	285 W (24V) Series/Parallel*	1140	70.8 VDC	32.6	31.0	28.6	27.2	24.5	22.2	18.4	15.8	13.8	12.0	9.2	
0	48V PowerPack**	N/A	48 VDC	33.0	31.5	30.0	27.6	25.4	23.0	18.6	15.5	13.0	11.3		
				Amperage											
Panels	Configuration	Watts	Nominal Voltage	0	10	20	30	40	50	60	70	80	90	100	
1	285 W (24V)	285	35.4 VDC	8.1	8.1	8.1	8.1	8.1	7.7						
2	195 W (24V) Parallel	390	38.2 VDC	9.4	9.4	9.7	9.8	9.8	9.3	8.5					
2	195 W (24V) Series	390	76.3 VDC	5.1	5.1	5.1	5.1	5.1	5.1						
2	285 W (24V) Series	570	70.8 VDC	5.9	5.9	5.9	5.9	5.9	6.0	6.0	5.9				
4	195 W (24V) Series/Parallel	780	76.3 VDC	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4				
4	285 W (24V) Series/Parallel	1140	70.8 VDC	8.0	8.0	8.0	7.9	8.0	8.0	8.0	8.0	7.8	8.0	8.0	
0	48V PowerPack	N/A	48 VDC	11.3	11.5	11.6	11.5	11.5	11.6	11.3	10.9	10.9	10.8		

10 gauge wire 8 gauge wire

* Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

**Not intended for continuous 24/7 use. Subsequently, our warranty on battery-only systems are as follows: 1 year full replacement, and 18 months declining every 6 months (60%, 40%, 20%)



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SRDI-36

Deep Well Dual Source with Integrated Controller



- Helical Rotor design
- 900 feet (275 meters) max depth produces 3 GPM (11.3 lpm)
- Integrated Controller housed within the pump body for maximum efficiency
- Usable input voltage range 60-370 volts DC or single phase AC
- Power range of 250 to 840 watts
- Highly reliable, single moving part progressive cavity technology
- Helical rotor replaceable in field
- Pump head and motor are repairable and rebuildable by Sunrotor
- 1 inch FNPT output must be used
- Integrated low water cutoff
- Submersion limit of 400 ft below static water level
- 51.25 inches in height (130.2 cm)
- 3.9 inch diameter (53 mm) fits 4 inch (57 mm) casing
- 29.5 lbs (13.4 kg)
- Submersible motor protected from ambient water by water filled jacket
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- Optional EZ Connect Generator and integrated float/pressure switch kits available



The following page lists the pump curve for the recommended panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty



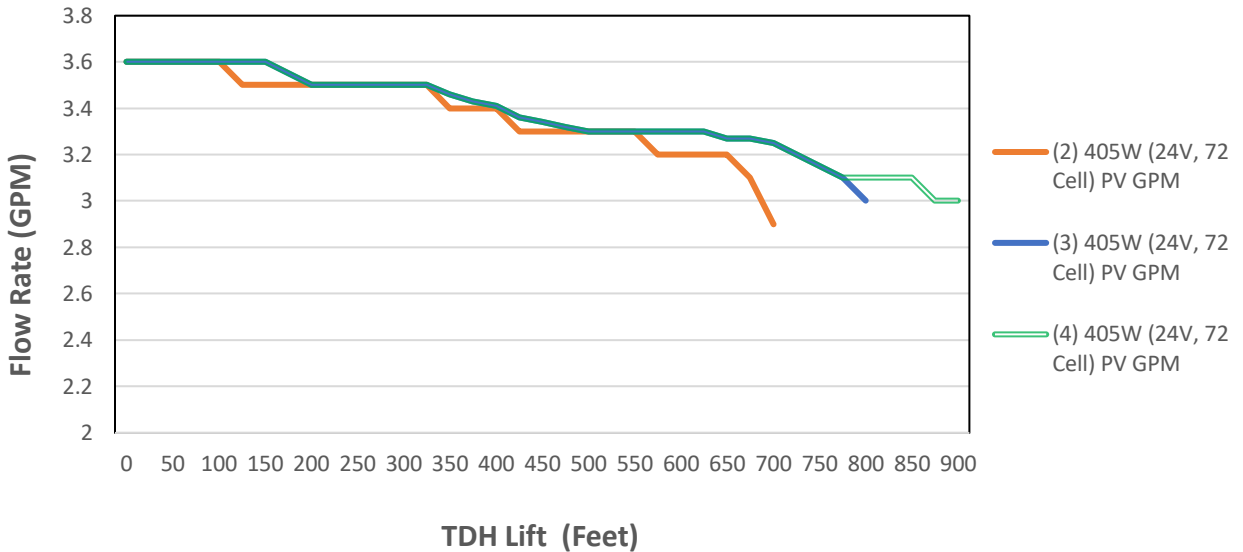


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5 Year Total Warranty

- 2 years at full replacement cost
- 3 years of descending cost coverage (60%, 40%, 20% cost)

SunRotor SRDI-36 Deep Well Helical Rotor Pump



TDH (feet)	0	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450
810W Draw (Amps)	2.9	3.0	3.3	3.5	3.7	3.9	4.2	4.4	4.6	4.8	5.1	5.3	5.5	5.8	6.0	6.3	6.6	6.8
810W Flow Rate (GPM)	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4	3.3
1215W Draw (Amps)	1.9	2.0	2.1	2.3	2.4	2.4	2.7	2.8	3.1	3.2	3.4	3.5	3.6	3.7	3.8	4.0	4.2	4.6
1215W Flow Rate (GPM)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4	3.3
1620W Draw (Amps)	1.4	1.4	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.1	3.2
1620W Flow Rate (GPM)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4

TDH (feet)	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900
810W Draw (Amps)	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.7	9.0	9.0							
810W Flow Rate (GPM)	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.1	2.9							
1215W Draw (Amps)	4.7	4.8	4.9	5.0	5.1	5.2	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.2				
1215W Flow Rate (GPM)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.1	3.0				
1620W Draw (Amps)	3.3	3.4	3.5	3.6	3.7	3.9	4.0	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.1	5.2	5.3
1620W Flow Rate (GPM)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.1	3.1	3.1	3.1	3.0

Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

Pump not intended for continuous 24/7 use. Warranty on battery-only systems are reduced to 1 year full replacement and 18 months of descending cost coverage every 6 months



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SRDI-66

Deep Well Dual Source with Integrated Controller



- Helical Rotor design
- 375 feet (125 meters) depth produces 4 GPM (15 lpm)
- Integrated Controller housed within the pump body for maximum efficiency
- Usable input voltage range 60-370 volts DC or single phase AC
- Power range of 250 to 840 watts
- Highly reliable, single moving part progressive cavity technology
- Helical rotor replaceable in field
- Pump head and motor are repairable and rebuildable by Sunrotor
- 1 ¼" inch FNPT output must be used
- Integrated low water cutoff
- Submersion limit of 400 ft below static water level
- 51.25 inches in height (130.2 cm)
- 3.9 inch diameter (53 mm) fits 4 inch (57 mm) casing
- 29.5 lbs (13.4 kg)
- Submersible motor protected from ambient water by water filled jacket
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- Optional EZ Connect Generator and integrated float/pressure switch kits available



The following page lists the pump curve for the recommended panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty



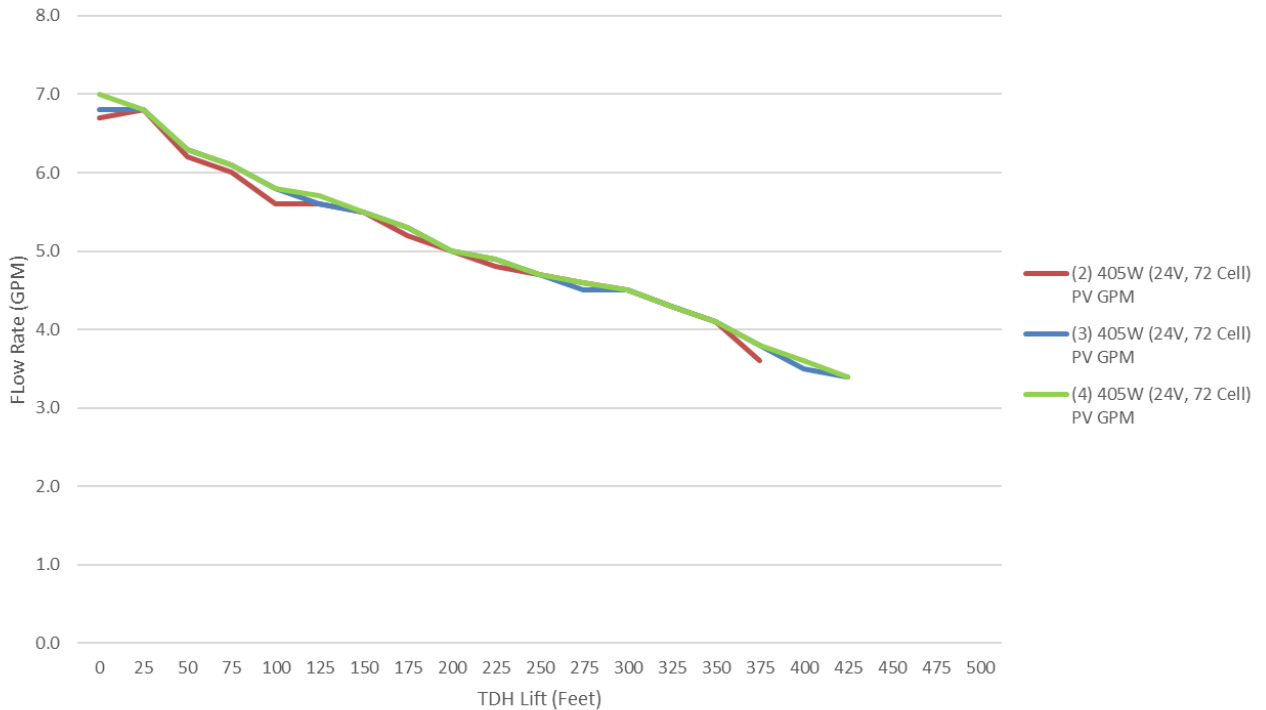


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5 Year Total Warranty

- 2 years at full replacement cost
- 3 years of descending cost coverage (60%, 40%, 20% cost)

SunRotor SRDI-66 Deep Well Helical Rotor Pump



TDH (feet)	0	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450
810W Flow Rate (GPM)	6.8	6.8	6.0	5.6	5.6	5.5	5.2	5.0	4.8	4.7	4.6	4.5	4.3	4.1	3.6			
810W Draw (Amps)	2.3	2.4	3.0	3.4	4.0	4.4	4.7	5.1	5.5	6.1	6.5	6.9	7.4	7.4	8.5			
1215W Flow Rate (GPM)	6.8	6.8	6.3	6.1	5.8	5.6	5.5	5.3	5.0	4.9	4.7	4.5	4.5	4.3	4.1	3.8	3.5	3.4
1215W Draw (Amps)	1.6	1.7	2.0	2.3	2.6	2.9	3.1	3.4	3.7	4.0	4.3	4.5	4.8	5.2	5.5	5.8	4.7	4.7
1620W Flow Rate (GPM)	7.0	6.8	6.3	6.1	5.8	5.7	5.5	5.3	5.0	4.9	4.7	4.6	4.5	4.3	4.1	3.8	3.6	3.4
1620W Draw (Amps)	1.0	1.1	1.3	1.5	1.7	2.0	2.2	2.4	2.7	3.0	3.3	3.6	3.9	4.0	4.3	4.7	4.7	4.7

Contact us to learn more about the advantages of our higher wattage panel configurations for those in areas that average less than 5 peak sun hours daily

Pump not intended for continuous 24/7 use. Warranty on battery-only systems are reduced to 1 year full replacement and 18 months of descending cost coverage every 6 months



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SRDI-128

Deep Well Dual Source with Integrated Controller



- Helical Rotor design
- 450 feet (137 meters) max depth produces 6.6 GPM (23 lpm)
- Integrated Controller housed within the pump body for maximum efficiency
- Usable input voltage range 60-370 volts DC or single phase AC
- Power range of 250 to 840 watts
- Highly reliable, single moving part progressive cavity technology
- Helical rotor replaceable in field
- Pump head and motor are repairable and rebuildable by Sunrotor
- 1 ¼" inch FNPT output must be used
- Integrated low water cutoff
- Submersion limit of 400 ft below static water level
- 51.25 inches in height (130.2 cm)
- 3.9 inch diameter (53 mm) fits 4 inch (57 mm) casing
- 29.5 lbs (13.4 kg)
- Submersible motor protected from ambient water by water filled jacket
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- Optional EZ Connect Generator and integrated float/pressure switch kits available



The following page lists the pump curve for the recommended panel configuration. Do not exceed the depth listed for each configuration, as it can damage the pump and void the warranty



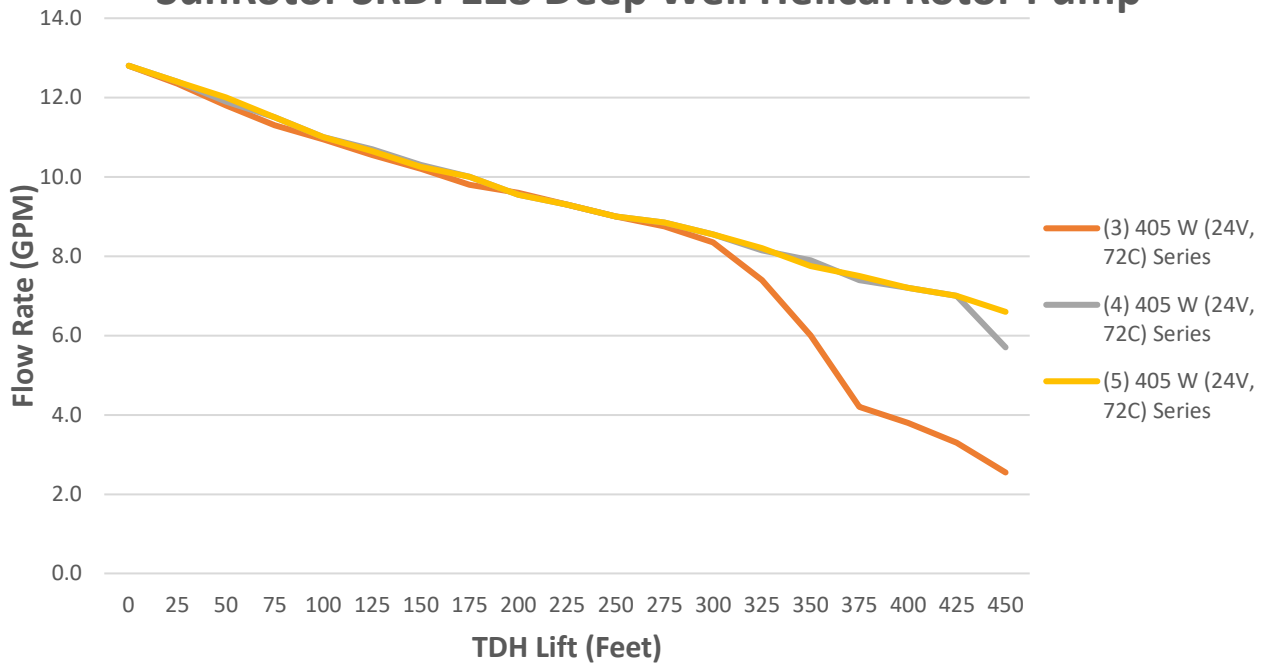


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5 Year Total Warranty

- 2 years at full replacement cost
- 3 years of descending cost coverage (60%, 40%, 20% cost)

SunRotor SRDI-128 Deep Well Helical Rotor Pump



	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	Lift (ft)
(3) 405 W (24V, 72C) Series	12.8	12.4	11.8	11.3	11.0	10.6	10.2	9.8	9.6	9.3	9.0	8.8	8.4	7.4	6.0	4.2	3.8	3.3	2.6	GPM
(4) 405 W (24V, 72C) Series	12.8	12.4	11.9	11.5	11.0	10.7	10.3	10.0	9.6	9.3	9.0	8.9	8.6	8.2	7.9	7.4	7.2	7.0	5.7	
(5) 405 W (24V, 72C) Series	12.8	12.4	12.0	11.5	11.0	10.7	10.3	10.0	9.6	9.3	9.0	8.9	8.6	8.2	7.8	7.5	7.2	7.0	6.6	

	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	Lift (ft)
(3) 405 W (24V, 72C) Series	2.2	2.5	3.1	3.7	4.1	4.7	5.3	6.0	6.5	7.0	7.6	8.3	8.8	8.9	9.0	9.0	9.0	9.0	9.0	AMPS
(4) 405 W (24V, 72C) Series	1.6	1.8	2.2	2.6	3.1	3.6	4.0	4.5	5.0	5.4	5.8	6.3	6.8	7.4	7.7	8.5	9.0	9.0	9.0	
(5) 405 W (24V, 72C) Series	1.2	1.3	1.7	2.0	2.4	2.7	3.1	3.5	3.9	4.1	4.4	4.9	5.3	5.6	6.1	6.6	7.1	7.4	7.7	

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Pump not intended for continuous 24/7 use. Warranty on battery-only systems are reduced to 1 year full replacement and 18 months of descending cost coverage every 6 months

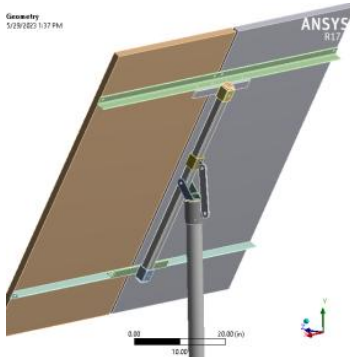


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TPM-1 & TPM-2 Solar Panel Racking

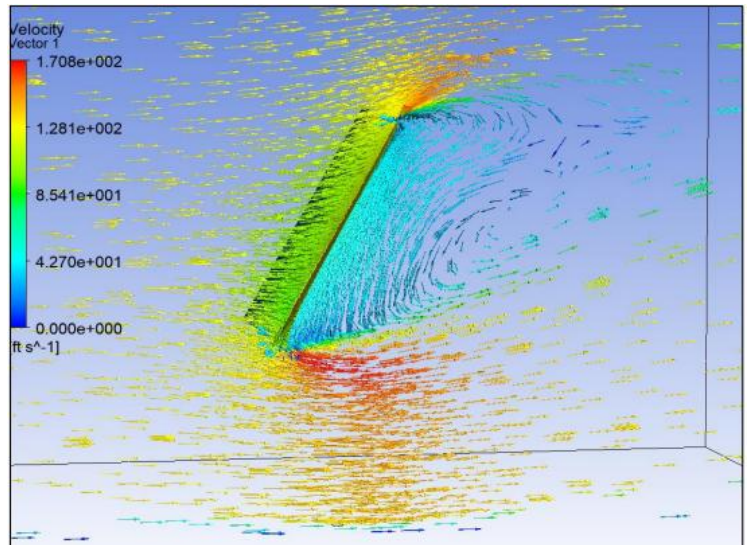


Top Pole Mount Single and Double PV Racks

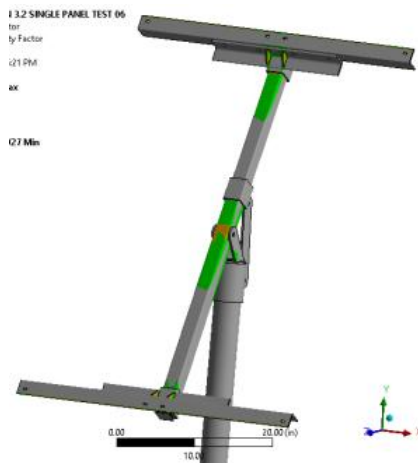


- Simulated and PE certified to exceed a minimum 2.0 safety factor while passing Goodman fatigue analysis without failure
- Designed and manufactured in-house ensuring tight and repeatable quality control with same-day shipment possible
- Modular for ease of shipment and installation using lightweight materials that break down small enough to meet standard ground shipping requirements

- Will withstand a sustained 90 mph wind, regardless of a low or high incidence angle, while completely covered in 1" of ice
- TPM-1 uses a 3" gimble mount with a 2 7/8" available insert
- TPM-2 uses a 4" gimble mount. For less harsh environments a TPM-2 with a 3" gimble is available
- Powder coated steel with aluminum mounting brackets. Stainless steel hardware included



Wind loading velocity illustration from simulation



Started in 2002, SunRotor Solar Products are designed and distributed from Oklahoma to a national network of dealers. We offer live Sales and Tech support via phone and text and an industry leading warranty on all products we manufacture. www.SunRotor.com

Jet pumps are used for a variety of applications involving the movement of water from a water source to a destination, including:

- Supplying potable and pressurized water to a house from a water well
- Supplying water to a sprinkler system or circulating water in loop systems
- De-watering operations – keep water out of an area by discharging a great distance.
- Other do-it-yourself projects around the house or farm

The nature of fast moving water causes considerable wear and tear of the wet components. This dirt-tolerant pump is built for long life and serviceability by allowing wear parts to be replaced using the available spare parts kits.

The Wright Morgan OFF GRID series pumps are designed to be solar direct or battery driven. Coupled with a basic charge controller this Jet Pump can run continuously from a 4 battery bank, or simply pump and build pressure when the sun is shining. The DC motor is optimized at 48V to generate maximum efficiency using today's standard commercial 72 cell solar panels over 400W.

Because Wright Morgan designs for reuse and rebuildability, this pump is easily disassembled for basic service without disturbing the piping. Wiring and motor access are also accessible for maintenance and inspection, and repair kits and replacement motors are available.

Never throw away another pump for natural failures - rebuild and reuse with Wright Morgan.



- 48V DC Solar Capable
- Max Head (ft): 130
- Max Flow (gpm): 13
- Outlet Size (in): 1
- Power (HP): $\frac{3}{4}$
- Aluminum motor housing mated to a cast iron pump body
- Brass impeller on a CNC balanced shaft
- Designed for easy disassembly for basic service without disturbing piping
- Two compartment motor for easy access to motor wiring and replaceable components
- Drain Plug for easy winterizing and maintenance
- Self-priming capability after initial startup and pump cycle
- CE Certified

Jet pumps are used for a variety of applications involving the movement of water from a water source to a destination, including:

- Supplying potable and pressurized water to a house from a water well
- Supplying water to a sprinkler system or circulating water in loop systems
- De-watering operations – keep water out of an area by discharging a great distance.
- Other do-it-yourself projects around the house or farm

The nature of fast moving water causes considerable wear and tear of the wet components. This dirt-tolerant pump is built for long life and serviceability by allowing wear parts to be replaced using the available spare parts kits.

Because Wright Morgan designs for reuse and rebuildability, this pump is easily disassembled for basic service without disturbing the piping. Wiring and motor access are also available for maintenance and inspection, and repair kits and replacement motors are also available.

Never throw away another pump for natural failures - rebuild and reuse with Wright Morgan.



- 110VAC, 60 HZ US plug on 9 ft cable
- Max Head (ft): 130
- Max Flow (gpm): 13
- Outlet Size (in): 1
- Power (HP): 1
- Aluminum motor housing mated to a cast iron pump body
- Brass impeller on a CNC balanced shaft
- Designed for easy disassembly for basic service without disturbing piping
- Two compartment motor for easy access to motor wiring and replaceable components
- Drain Plug for easy winterizing and maintenance
- Self-priming capability after initial startup and pump cycle
- CE Certified

Developed specifically to provide steady water pressure, the Wright Morgan WM-95873 may look like other products on the market, but the details and features set it above the rest.

Similar units use a 1.6HP motor but only reach an average of 140' of lift. The Wright Morgan achieves 130' of lift using only a 1 HP motor, greatly reducing electric draw and energy use for nearly the same output, but with much quieter operation.

An integrated pressure cutoff switch keeps the motor from dead heading the pump once target pressure is reached, improving the longevity of the unit.

Because these pumps can be exposed to the elements they are designed with an aluminum motor housing and cast iron pump body, rather than the plastic motor housing and pump body commonly found in the marketplace.

A brass impeller mounted on a CNC balanced shaft ensures precision in the moving parts to reduce wear and increase longevity between rebuilds.

Because Wright Morgan designs for reuse and rebuildability, this pump is easily disassembled for basic service without disturbing the piping. Wiring and motor access are also accessible for maintenance and inspection, and repair kits and replacement motors are available.



- 110VAC, 60 HZ US plug on 9 ft cable
- Max Head (ft): 130
- Max Flow (gpm): 13
- Outlet Size (in): 1
- Power (HP): 1
- 5 Gallon powder coated pressure tank
- Stainless steel braided connection lines
- Two compartment motor for easy access to motor wiring and replaceable components
- Drain Plug for easy winterizing and maintenance
- Self-priming capability after initial startup and pump cycle
- CE Certified

Wright Morgan OFF-GRID series pool pumps offer the best of both worlds – better reliability from a more advanced variable speed brushless motor at a lower total cost of ownership over the life of the pump.

It costs between \$3-5 USD per day to run a standard pool pump, depending on voltage and local utility rates. Using average pool usage of 8 months out of the year and a daily \$4 average cost to run a traditional grid tied pump, the Wright Morgan pool pump setup can return its investment in a little over two years, including the panel cost.

Coupled with the right Power Pack, this pump can also be driven at night from grid power or a bank of 4 batteries to generate the necessary 48V. Most pool installations, however, do not require nighttime circulation if the pool can be turned 2-3 times during daylight hours.

Because of Wright Morgan's commitment to sustainable design and service this pump is infinitely rebuildable. Never throw another pump away – rebuild and reuse with Wright Morgan.

Wright Morgan designs for reuse and rebuildability, so this pump is easily disassembled for basic service without disturbing the piping. Wiring and motor access are also accessible for maintenance and inspection, and repair kits and replacement motors are available.

Never throw away another pump for natural failures - rebuild and reuse with Wright Morgan.



- 48V DC permanent magnet brushless motor – variable speed
- Max Head (ft): 40
- Flow (gpm): 66
- Power (HP): $\frac{3}{4}$
- 2" inlet and outlet
- External controller manages solar direct operation or use with a power pack to allow for auto switching operation to GRID TIE at night
- Engineered plastic casing designed for inclement weather and long service life
- Low vibration and noise level motor design
- Tool-free cover design – easy filter maintenance
- German engineered IBC bearing enables 24/7 smooth operation without overheating concerns
- Corrosion resistant cast-aluminum motor cover dissipates heat quickly
- Silicon sealing rings in all wet chambers for added longevity
- CE Certified

Wright Morgan GRID TIE series single speed pool pumps offer a reliable solution with a lower total cost of ownership over the life of the pump.

Often, pool pumps are prone to slow degradation and eventual failure due to the nature of moving water at a high velocity. Offered at a highly competitive price point, the Wright Morgan WM-98529 is one of the only pool pumps on the market designed to be rebuilt by the user once the seals begin to wear.

Because Wright Morgan designs for reuse and rebuildability, this pump is easily disassembled for basic service without disturbing the piping. Wiring and motor access are also accessible for maintenance and inspection, and repair kits and replacement motors are available.

Never throw away another pump for natural failures - rebuild and reuse with Wright Morgan.



- 110V US outlet plug
- 6-10 ft of suction lift capable
- 2" inlet and outlet
- Engineered plastic casing designed for inclement weather and long service life
- Low vibration and noise level motor design
- Tool-free cover design – easy filter maintenance
- German engineered IBC bearing enables 24/7 smooth operation without overheating concerns
- Corrosion resistant cast-aluminum motor cover dissipates heat quickly
- Silicon sealing rings in all wet chambers for added longevity
- CE Certified

The Grid Tie Everyday Well pump is the solution for those needing a pump for their full time application and a well casing large enough for a 4” diameter pump.

Using a centrifugal impeller design pump head, this pump flows an impressive 16 gallons per minute on just 110V input voltage. The Everyday Well pump requires no additional circuitry or interface to start pumping water from as deep as 250 feet.

Wright Morgan recommends using a tank or pressure shutoff to allow the motor to stop spinning once water needs are met on the surface. This greatly extends the life of the unit and will ensure trouble free operation for years to come.

In keeping with the Wright Morgan philosophy around Reuse and Rebuild, the pump end can be removed and replaced by following our online guides using the available repair kit.

- 27 inches high (48.3 cm) by 3 inch diameter (76 mm) fits 3.5 inch (89 mm) casing
- 27 pounds (5.4 kg)
- Submersible motor protected in a water filled jacket allows for deep submersion below static water level
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- Entire pump body is stainless steel, including the impellers, to comply with all local code and pump installation requirements
- 110 volt
- Maximum functional lift capability of 250 ft (76 m)
- Max flow is 16 gallons/min (60.5 liters/ min)
- High output centrifugal pump end offers resistance to caustic water qualities
- Readily repairable in the field
- 1 1/4 inch FNPT output
- CE certified



The Grid Tie Weekend Well pump is the perfect solution for those with available grid power (110V) near their well but don't use the well full time throughout the year.

3" in diameter and built with an easily serviceable progressive cavity pump head, the Weekend Well Pump is designed so that you can leave it in the well unused for months at a time and when it's time to start again, simply replace the progressive cavity insert to be off and running for another season.

Producing 15 gallons/minute plugged directly into an outlet, the pump requires no additional circuitry or interface to start pumping water from as deep as 175 feet.

Wright Morgan recommends using a tank or pressure shutoff to allow the motor to stop spinning once water needs are met on the surface. This greatly extends the life of the unit and will ensure trouble free operation for years to come.

In keeping with the Wright Morgan philosophy around Reuse and Rebuild, this pump can be disassembled for basic service following our online guides using available repair kits.

- 34 inches high (48.3 cm) by 3 inch diameter (76 mm) fits 3.5 inch (89 mm) casing
- 19 pounds (5.4 kg)
- Submersible motor protected from ambient water by oil filled jacket (food grade oil protects potable water source if vessel is compromised)
- Brushless DC motor technology avoids conventional DC brush maintenance and replacement
- Entire pump body is stainless steel to comply with all local code and pump installation requirements
- CE certified
- 110 volt
- Maximum functional lift capability of 175 ft (58 m)
- Max flow is 15 gallons/min (56.5 liters/ min)
- Highly reliable, single moving part progressive cavity technology
- Readily repairable in the field
- 1 inch FNPT output
- Submersion limit of 100 ft below static water level (ex: 100 ft submersion + 50 ft static water level: 150 ft)

