

4"-6" DC BRUSHLESS STAINLESS STEEL IMPELLER SOLAR PUMP

MATERIAL & FEATURES

- ▶ **Motor:** Permanent-magnet synchronous (PMSM) — up to 92% efficiency, 20–30% more energy-saving
- ▶ **Drive / MPPT:** Sensorless FOC sine-wave drive · MPPT >99% · LED display (V/A/W/RPM/error)
- ▶ **Wetted parts:** 304 stainless steel impeller · stainless steel body · 304 stainless steel outlet
- ▶ **Material grades:** SUS304 standard · SUS316 optional for coastal / brackish water
- ▶ **Key components:** 100% copper motor windings · NSK-grade sealed ball bearings · SUS304 shaft & impellers (SUS316 optional) · Silicon-carbide (SiC) mechanical seal
- ▶ **Ingress:** Motor IP68 (submersible motor) · Controller IP66 · Class F insulation · oil cooling
- ▶ **Protection:** Dry-run · over/under-voltage · overload · over-current · reverse · over-temp · soft-start
- ▶ **Cable:** PV-to-controller & motor cable 2.5–4 mm² by model (copper, sized for a ~50 m run; step up one size per additional ~50 m of drop).
- ▶ **Warranty:** 3 years
- ▶ **Standards:** CE · RoHS · CB · TUV · SGS · ISO 9001 · ISO 14001 · IEC 62253


260 m

MAX HEAD

40 m³/h

MAX FLOW

300–3000 W

POWER

92%

EFFICIENCY

3 yr

WARRANTY

APPLICATIONS



Irrigation



Livestock



Village supply

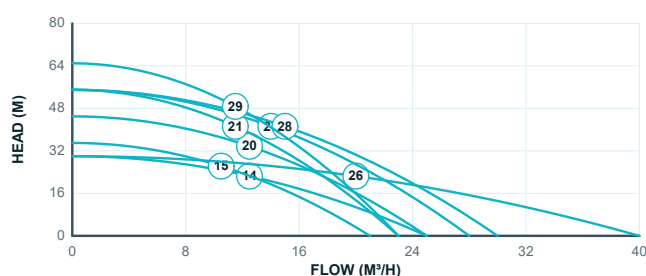
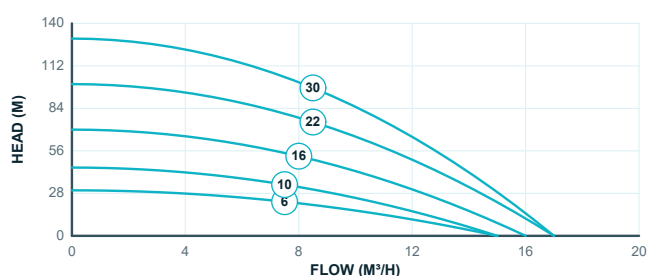
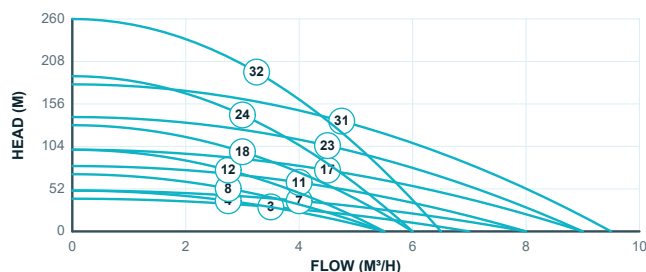
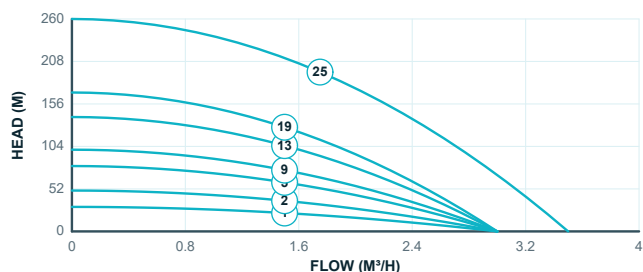


Off-grid



Industry

PERFORMANCE CURVES (Q-H)



4"-6" DC BRUSHLESS STAINLESS STEEL IMPELLER SOLAR PUMP - SPECIFICATIONS

Model no.: size (") · type · max flow (m³/h) – max head (m) – system voltage (V) – power (W)

NO.	MODEL	VOLT. (V)	INPUT Voc (V)	POWER (W)	MAX FLOW (M³/H)	MAX HEAD (M)	OUTLET (inch)	REC. PV
1	4PPSS3.0-30-24-300	24	11~55	300	3	30	2"	1 × 400 Wp
2	4PPSS3.0-50-48-400	48	45~150	400	3	50	2"	2 × 300 Wp
3	4PPSS7.0-40-72-600	72	60~150	600	7	40	2"	3 × 300 Wp
4	4PPSS5.5-50-72-600	72	60~150	600	5.5	50	2"	3 × 300 Wp
5	4PPSS3.0-80-72-600	72	60~150	600	3	80	2"	3 × 300 Wp
6	4PPSS15.0-30-96-750	96	60~200	750	15	30	2"	3 × 300 Wp
7	4PPSS8.0-50-96-750	96	60~200	750	8	50	2"	3 × 300 Wp
8	4PPSS5.5-70-96-750	96	60~200	750	5.5	70	2"	3 × 300 Wp
9	4PPSS3.0-100-96-750	96	60~200	750	3	100	2"	3 × 300 Wp
10	4PPSS15.0-45-144-1100	144	90~340	1100	15	45	2"	6 × 300 Wp
11	4PPSS8.0-80-144-1100	144	90~340	1100	8	80	2"	6 × 300 Wp
12	4PPSS5.5-100-144-1100	144	90~340	1100	5.5	100	2"	6 × 300 Wp
13	4PPSS3.0-140-144-1100	144	90~340	1100	3	140	2"	6 × 300 Wp
14	6PPSS25.0-30-192-1500	192	90~430	1500	25	30	3"	8 × 300 Wp
15	4PPSS21.0-35-192-1500	192	90~430	1500	21	35	2"	8 × 300 Wp
16	4PPSS16.0-70-192-1500	192	90~430	1500	16	70	2"	8 × 300 Wp
17	4PPSS9.0-100-192-1500	192	90~430	1500	9	100	2"	8 × 300 Wp
18	4PPSS6.0-130-192-1500	192	90~430	1500	6	130	2"	8 × 300 Wp
19	4PPSS3.0-170-192-1500	192	90~430	1500	3	170	2"	8 × 300 Wp
20	6PPSS25.0-45-280-2200	280	100~490	2200	25	45	3"	10 × 300 Wp
21	4PPSS23.0-55-280-2200	280	100~490	2200	23	55	2"	10 × 300 Wp
22	4PPSS17.0-100-280-2200	280	100~490	2200	17	100	2"	10 × 300 Wp
23	4PPSS9.0-140-280-2200	280	100~490	2200	9	140	2"	10 × 300 Wp
24	4PPSS6.0-190-280-2200	280	100~490	2200	6	190	2"	10 × 300 Wp
25	4PPSS3.5-260-280-2200	280	100~490	2200	3.5	260	2"	10 × 300 Wp
26	6PPSS40.0-30-385-3000	385	280~780	3000	40	30	3"	13 × 300 Wp
27	4PPSS28.0-55-385-3000	385	280~780	3000	28	55	2"	13 × 300 Wp
28	6PPSS30.0-55-385-3000	385	280~780	3000	30	55	3"	13 × 300 Wp
29	4PPSS23.0-65-385-3000	385	280~780	3000	23	65	2"	13 × 300 Wp
30	4PPSS17.0-130-385-3000	385	280~780	3000	17	130	2"	13 × 300 Wp
31	4PPSS9.5-180-385-3000	385	280~780	3000	9.5	180	2"	13 × 300 Wp
32	4PPSS6.5-260-385-3000	385	280~780	3000	6.5	260	2"	13 × 300 Wp

OPERATING CONDITIONS

Liquid temp	0–40 °C
Max. sand	≤ 0.05 % (≤ 500 g/m³)
pH value	5–9
Ambient	-15 to 70 °C
Max. immersion	150 m
Duty	S1 (continuous)

DIMENSIONS & WEIGHT

Pump outer Ø	98/144 mm
Min. borehole	100/150 mm
Net weight	8.9–42.1 kg
Overall length	770–1440 mm
Controller	360 × 260 × 140 mm
Controller wt.	7 kg

MATERIALS & CERTIFICATION

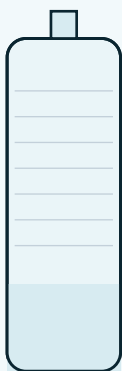
Standard	SUS304 impeller, diffuser, sleeve & shaft
Option	SUS316 wetted parts

CE	RoHS	CB	TUV	SGS	ISO 9001
ISO 14001	IP68	IEC 62253			

4"-6" DC BRUSHLESS STAINLESS STEEL IMPELLER SOLAR PUMP - DIMENSIONS & CONTROLLER

DIMENSIONS & WEIGHT

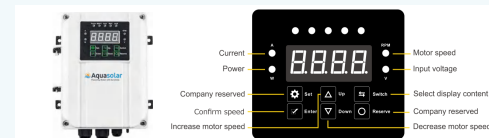
Ø 98/144 mm



L 770-1440 mm

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Min. borehole	100/150 mm
Overall length	770-1440 mm
Net weight	8.9-42.1 kg
Controller size	360 × 260 × 140 mm
Controller wt.	7 kg

CONTROLLER



Drive	Sensorless FOC, pure sine-wave output
MPPT efficiency	>99%
Enclosure	IP66
Mount	Both
Display	V / A / W / RPM / error
Remote monitor	Optional 4G / Wi-Fi (add-on)

MOTOR & DRIVE

Motor	PM brushless (PMSM)
Efficiency	up to 92%
Drive	Sensorless FOC sine-wave
MPPT	>99%
Insulation	F (155 °C)
Duty	S1 (continuous)
Cooling	Oil cooling
Speed	Variable, MPPT-tracked

SOLAR ARRAY CONNECTION

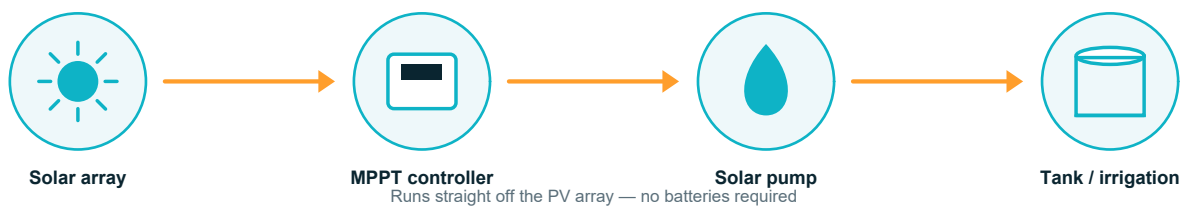
SYSTEM	Voc (V)	POWER	ARRAY
24 V	11~55	300 W	1 × 400 Wp
48 V	45~150	400 W	2 × 300 Wp
72 V	60~150	600 W	3 × 300 Wp
96 V	60~200	750 W	3 × 300 Wp
144 V	90~340	1100 W	6 × 300 Wp
192 V	90~430	1500 W	8 × 300 Wp

Array 1.3-1.5 × pump power · Voc within MPPT window.

CABLE & INSTALLATION

Run ≤ 50 m	2.5-4 mm² (per model)
Run 50-100 m	one size up
Run > 100 m	two sizes up
Cable type	3-core copper + earth
▶ Waterproof splice kit on the drop cable	
▶ Stainless safety rope; ≥1 m above well bottom	

SYSTEM LAYOUT



WHY AQUASOLAR



FOC + MPPT >99%
Pure sine-wave drive — max water per day



IP68 · SUS304
Submersible, corrosion-resistant build



Dry-run protected
8 protections + soft start



3-year warranty
Trusted in 70+ countries

ABOUT AQUASOLAR

POWERING WATER WITH SUNSHINE

Aquasolar is a professional solar water pump manufacturer since 2010, offering a full range of DC and AC/DC solar pumps for agricultural irrigation, livestock, off-grid homes and community water supply. Reliable products, complete solutions and dedicated service — trusted in 70+ countries worldwide.

2010
SINCE

70+
COUNTRIES

600,000+
ANNUAL OUTPUT

2 yr
WARRANTY

24/7
SERVICE