

AC/DC SOLAR SURFACE 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:** brass impeller · aluminium body · iron outlet
- ▶ **Power:** Solar DC or 220 V AC (90–240 V, 50/60 Hz) / generator — external transfer switch
- ▶ **Material grades:** SUS304 standard · SUS316 optional for coastal / brackish water
- ▶ **Key components:** 100% copper motor windings · NSK-grade sealed ball bearings · SUS304 shaft + cast-iron / stainless hydraulics · Silicon-carbide / ceramic mechanical seal
- ▶ **Ingress:** Motor IP55 · Controller IP66 · Class F insulation · air cooling
- ▶ **Protection:** Dry-run · over/under-voltage · overload · over-current · reverse · over-temp · soft-start
- ▶ **Cable:** PV-to-controller & motor cable 2.5 mm² by model (copper, sized for a ~50 m run; step up one size per additional ~50 m of drop).
- ▶ **Warranty:** 2 years
- ▶ **Standards:** CE · RoHS · CB · TUV · SGS · ISO 9001 · ISO 14001 · IEC 62253


40 m

MAX HEAD

60 m³/h

MAX FLOW

600-2200 W

POWER

92%

EFFICIENCY

2 yr

WARRANTY

APPLICATIONS



Irrigation



Boosting

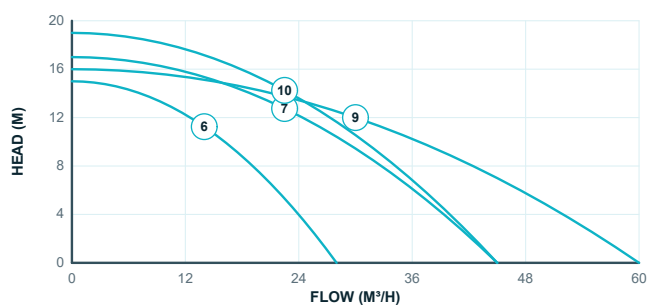
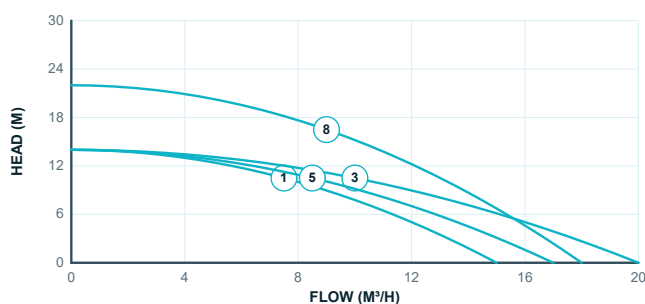
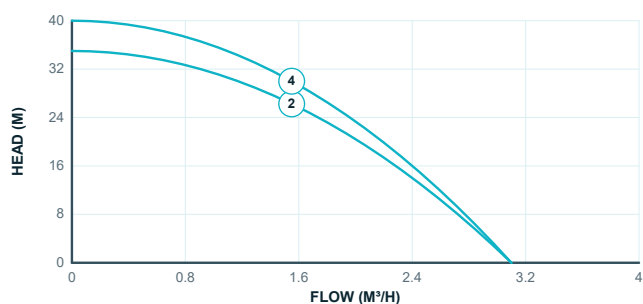


Rivers / tanks



Domestic

PERFORMANCE CURVES (Q-H)



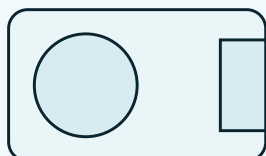
AC/DC SOLAR SURFACE PUMP - SPECIFICATIONS

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	PHF15-14-72-600-H	72	60~150	600	15	14	1.5"×1.5"	3 × 300 Wp
2	PSGJ3.1-35-72-600-H	72	60~150	600	3.1	35	1.0"×1.0"	3 × 300 Wp
3	PHF20-14-96-750-H	96	60~200	750	20	14	2.0"×2.0"	3 × 300 Wp
4	PSGJ3.1-40-96-750-H	96	60~200	750	3.1	40	1.0"×1.0"	3 × 300 Wp
5	PZSU17-14-144-1100-H	144	90~340	1100	17	14	2.0"×2.0"	6 × 300 Wp
6	PHF28-15-144-1100-H	144	90~340	1100	28	15	2.0"×2.0"	6 × 300 Wp
7	PHF45-17-192-1500-H	192	90~430	1500	45	17	3.0"×3.0"	8 × 300 Wp
8	PZSU18-22-192-1500-H	192	90~430	1500	18	22	2.0"×2.0"	8 × 300 Wp
9	PHF60-16-280-2200-H	280	100~490	2200	60	16	4.0"×4.0"	10 × 300 Wp
10	PZSU45-19-280-2200-H	280	100~490	2200	45	19	3.0"×3.0"	10 × 300 Wp

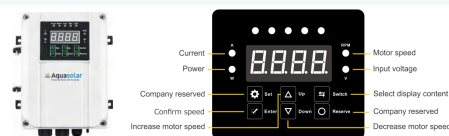
DIMENSIONS & WEIGHT

Overall length	375–520 mm
Net weight	9.9–20.3 kg
Controller size	360 × 260 × 140 mm
Controller wt.	7 kg



L 375–520 mm

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)

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	N/A
Duty	S1 (continuous)

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	Air cooling
Speed	Variable, MPPT-tracked

MATERIALS & CERTIFICATION

Standard	Cast-iron (HT200) body + SUS304 / brass impeller + SUS304 shaft
Option	SUS304 / SUS316 body & impeller

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

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



2-year warranty
Trusted in 70+ countries

AQUASOLAR · POWERING WATER WITH SUNSHINE · SINCE 2010

70+ countries · 600,000+ pumps / year · CE · RoHS · CB · TUV · SGS · ISO 9001 · ISO 14001