

AC/DC SOLAR SUBMERSIBLE PUMP (HIGH-FLOW)

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:** aluminium impeller · iron 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 & 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 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


14 m

MAX HEAD

56 m³/h

MAX FLOW

1100–2200 W

POWER

92%

EFFICIENCY

2 yr

WARRANTY

APPLICATIONS



Irrigation



Livestock



Village supply

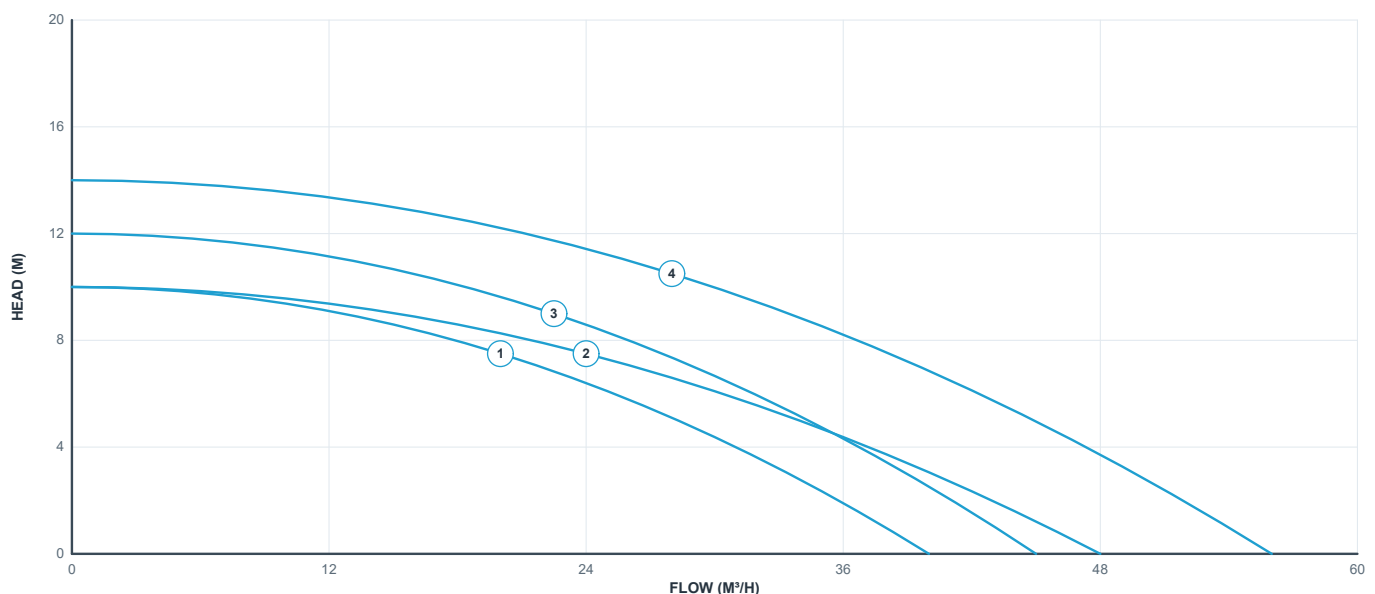


Off-grid



Industry

PERFORMANCE CURVES (Q–H)

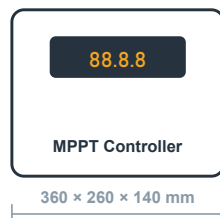


AC/DC SOLAR SUBMERSIBLE PUMP (HIGH-FLOW) - SPECIFICATIONS

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	PSG40-10-144-1100-H	144	90~340	1100	40	10	3"	6 × 300 Wp
2	PSG48-10-192-1500-H	192	90~430	1500	48	10	4"	8 × 300 Wp
3	PSG45-12-192-1500-H	192	90~430	1500	45	12	3"	8 × 300 Wp
4	PSG56-14-280-2200-H	280	100~490	2200	56	14	4"	10 × 300 Wp

DIMENSIONS & WEIGHT



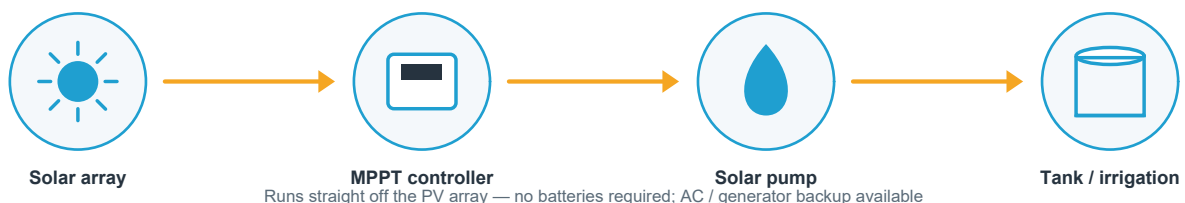
KEY DIMENSIONS

Overall length	760–870 mm
Net weight	20.6–27.2 kg
Controller size	360 × 260 × 140 mm
Controller weight	7 kg

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	20 m
Duty	S1 (continuous)

SYSTEM LAYOUT



WHY AQUASOLAR



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



IP68 · SUS304
 Submersible, corrosion-resistant build

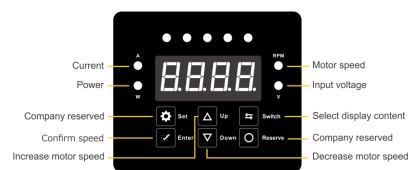


Dry-run protected
 8 protections + soft start



2-year warranty
 Trusted in 70+ countries

CONTROLLER



LED control panel — real-time monitoring & manual speed

CONTROLLER SPEC

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

MATERIALS & CERTIFICATION

Standard	Cast-iron (HT200) body + SUS304 impeller + SUS304 shaft
Option	SUS304 / bronze wetted parts

CE

RoHS

CB

TUV

SGS

ISO 9001

ISO 14001

IP68

IEC 62253