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SOLAR WATER PUMP

Deep-Well Submersible Pump

Brushless DC submersible pump for deep wells & boreholes — high head, MPPT, dry-run protected

150 m MAX HEAD LIFT

14.5 m³/h MAX FLOW

- **Brushless DC** — 4" submersible
- **High head** — deep wells / boreholes
- **MPPT** — external or in-built
- **Dry-run protected** — auto-stop & restart

Built for deep wells

- 4" stainless-steel submersible for wells, boreholes & high-lift jobs (up to 150 m head)
- High-efficiency permanent-magnet brushless DC motor, oil-cooled
- Engineered-polymer impeller stages for clean-water lift

Maximum water per day

- Built-in MPPT tracks the array and runs the pump at the optimum point all day
- Soft start protects the motor and the array
- External controller box or in-built controller option

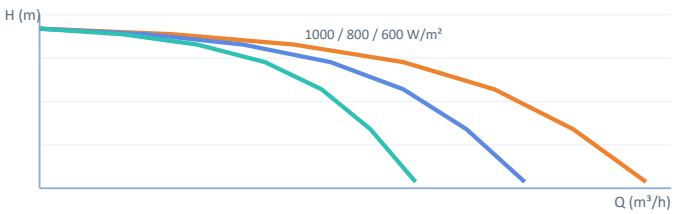
Protected & long-life

- Dry-run / water-shortage auto-stop with auto-restart
- Over/under-voltage, overload, reverse-polarity & over-temperature protection
- IP68 motor, SS304 wetted parts, 2-year warranty

Key specifications

Pump type	**Brushless DC, 4" submersible**
Power range	**250 – 2200 W**
Max head (lift)	**up to 150 m**
Max flow	**up to 14.5 m³/h**
System voltage	**24 – 280 V**
Controller	**MPPT (ext. / in-built)**
Material	**Stainless steel 304**
Warranty	**2 years**

PERFORMANCE CURVE



WHY COTECH

Tested to rated head & flow
Each pump performance- & insulation-tested

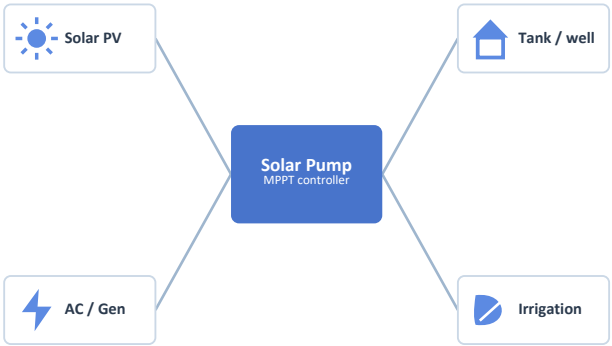
IDEAL FOR

- Deep wells / boreholes
- Farm irrigation
- Livestock watering
- Village water supply
- Drip / sprinkler
- Home & garden

APPLICATIONS

Irrigation · Village water · Livestock · Industry

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE · TÜV · RoHS · ISO 9001 · IP68 · SGS

Max. flow at minimum head and max. head at minimum flow; see Q-H curve. Subject to change.

Deep-Well Submersible Pump — specifications

Model	CS-250	CS-600	CS-1100	CS-2200
Pump				
Pump type		Brushless DC submersible (4")		
Motor		Permanent-magnet brushless DC, oil-cooled		
Pump body / impeller		Stainless steel / engineered polymer		
Peak efficiency		> 90% (brushless motor + MPPT)		
Performance				
Rated power	**250 W**	**600 W**	**1100 W**	**2200 W**
System voltage	**24 V**	**72 V**	**72 V**	**280 V**
Max. flow	**2.5 m³/h**	**3.5 m³/h**	**6.5 m³/h**	**14.5 m³/h**
Max. head (lift)	**20 m**	**65 m**	**75 m**	**95 m**
Outlet	**1"**	**1"**	**2"**	**2"**
Controller & protection				
MPPT tracking		Yes — optimises pump speed to available PV		
Dry-run protection		Yes (water-shortage auto-stop & restart)		
Protections		Over/under-voltage · overload · reverse-polarity · over-temp		
Soft start		Yes		
AC / generator backup		Optional (grid / generator)		
General				
Wetted materials		Stainless steel 304		
Motor ingress		IP68 submersible		
Cable		2 m (customisable)		
Warranty		2 years		

MECHANICAL & SYSTEM

Mechanical	Data
Motor	**Permanent-magnet brushless DC**
Wetted materials	**Stainless steel 304**
Motor ingress	**IP68 submersible**
Controller	**MPPT — external or in-built**
Protection	**Dry-run · over/under-V · overload · reverse-polarity**
Warranty	**2 years**

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IDEAL FOR

- Deep wells / boreholes
- Farm irrigation
- Livestock watering
- Village water supply
- Drip / sprinkler
- Home & garden

Pump water anywhere the sun shines.

Brushless solar pumps with built-in MPPT & dry-run protection — no grid, no fuel, no hassle.

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MPPT — more water/day
tracks the sun automatically

Dry-run protected
over/under-V · overload · reverse

Brushless & efficient
long life, low maintenance

Solar / AC / generator
pump day & night

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SOLAR WATER PUMP

AC/DC Hybrid Pump

Large-flow brushless submersible — runs on solar (90–460 Vdc) OR grid/generator (90–240 Vac)

56 m³/h — MAX FLOW

2200 W — UP TO POWER

- **AC / DC hybrid** — solar or grid power
- **Large flow** — drainage & irrigation
- **MPPT** — built-in tracking
- **Dry-run protected** — full protection

Solar by day, grid by night

- Runs on DC solar 90–460 V or AC mains / generator 90–240 V, 50/60 Hz
- Seamless source switching — pump around the clock, sun or no sun
- Brushless DC motor for high efficiency & long life

Large flow, low head

- Moves large volumes (up to 56 m³/h) at low-to-medium head
- Ideal for flood / furrow irrigation, ponds, drainage & transfer
- Built-in MPPT maximises solar water yield

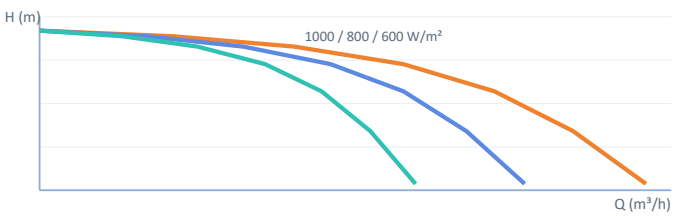
Protected & durable

- Dry-run auto-stop, over/under-voltage, overload & reverse-polarity protection
- IP68 submersible motor, robust cast body
- 2-year warranty

Key specifications

Pump type	**AC/DC brushless submersible**
Power range	**1100 – 2200 W**
Max flow	**up to 56 m³/h**
Max head	**up to 14 m**
DC / AC input	**90–460 Vdc / 90–240 Vac**
Controller	**Built-in MPPT**
Material	**Cast iron · SS shaft**
Warranty	**2 years**

PERFORMANCE CURVE



WHY COTECH

Tested to rated head & flow
Each pump performance- & insulation-tested

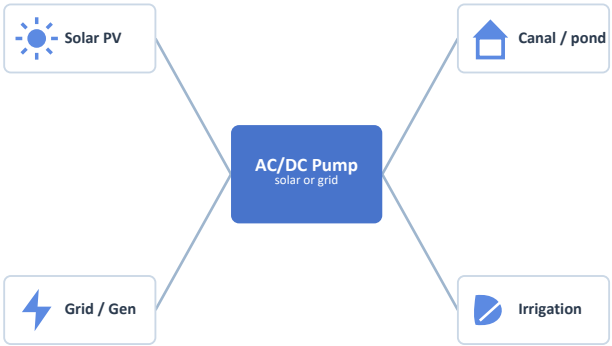
IDEAL FOR

- Flood irrigation
- Drainage / transfer
- Ponds & fish farms
- Village water
- Industry
- Agriculture

APPLICATIONS

Irrigation · Village water · Livestock · Industry

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE · TÜV · RoHS · ISO 9001 · IP68 · SGS

Max. flow at minimum head and max. head at minimum flow; see Q-H curve. Subject to change.

AC/DC Hybrid Pump — specifications

Model	CSG-40	CSG-45	CSG-48	CSG-56
Pump				
Pump type	Brushless DC submersible, AC/DC			
Motor	Permanent-magnet brushless DC			
Pump body / impeller	Cast iron / aluminium			
Peak efficiency	> 90% (brushless motor + MPPT)			
Performance				
Rated power	**1100 W**	**1500 W**	**1500 W**	**2200 W**
System voltage	**144 V**	**192 V**	**192 V**	**280 V**
Max. flow	**40 m³/h**	**45 m³/h**	**48 m³/h**	**56 m³/h**
Max. head (lift)	**10 m**	**12 m**	**10 m**	**14 m**
Tube diameter	**3″**	**3″**	**4″**	**4″**
Controller & protection				
MPPT tracking	Yes — optimises pump speed to available PV			
Dry-run protection	Yes (water-shortage auto-stop & restart)			
Protections	Over/under-voltage · overload · reverse-polarity · over-temp			
Soft start	Yes			
AC / generator backup	Built-in (90–240 Vac, 50/60 Hz)			
General				
Wetted materials	Stainless steel 304			
Motor ingress	IP68 submersible			
Cable	2 m (customisable)			
Warranty	2 years			

MECHANICAL & SYSTEM

Mechanical	Data
Motor	**Permanent-magnet brushless DC**
Wetted materials	**Stainless steel 304**
Motor ingress	**IP68 submersible**
Controller	**MPPT — external or in-built**
Protection	**Dry-run · over/under-V · overload · reverse-polarity**
Warranty	**2 years**

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IDEAL FOR

- Flood irrigation
- Drainage / transfer
- Ponds & fish farms
- Village water
- Industry
- Agriculture

Pump water anywhere the sun shines.

Brushless solar pumps with built-in MPPT & dry-run protection — no grid, no fuel, no hassle.

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- **Dry-run protected** — over/under-V · overload · reverse
- **Brushless & efficient** — long life, low maintenance
- **Solar / AC / generator** — pump day & night

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SOLAR WATER PUMP

Brushed Solar Pump

Affordable DC brushed submersible — medium flow & head for home & small farm

22 m MAX HEAD

15 m³/h MAX FLOW

- **Budget-friendly** — best value solar pump
- **Medium flow & head** — home & small farm
- **Solar + battery** — 12 V / 24 V system
- **Easy to use** — plug & pump

Affordable solar pumping

- DC brushed submersible — the value choice for home & small-farm water
- Medium flow (up to 15 m³/h) and head (up to 22 m)
- Runs from a solar panel with battery buffer

Simple & rugged

- Cast-iron body with aluminium impeller for clean water
- Long 10 m cable for flexible installation
- Easy to install and operate

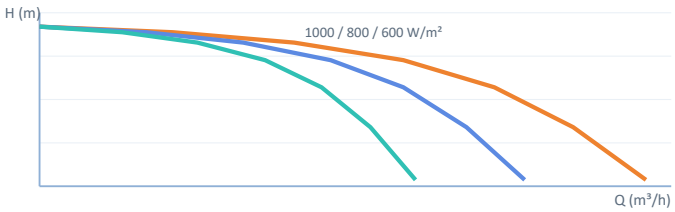
Quality assured

- Performance- & insulation-tested every unit
- IP68 submersible motor
- 2-year warranty

Key specifications

Pump type	**DC brushed submersible**
Power range	**750 – 1100 W**
Max flow	**up to 15 m³/h**
Max head	**up to 22 m**
System voltage	**96 – 110 V**
Power source	**Solar + battery**
Material	**Cast iron · aluminium**
Warranty	**2 years**

PERFORMANCE CURVE



WHY COTECH

Tested to rated head & flow
Each pump performance- & insulation-tested

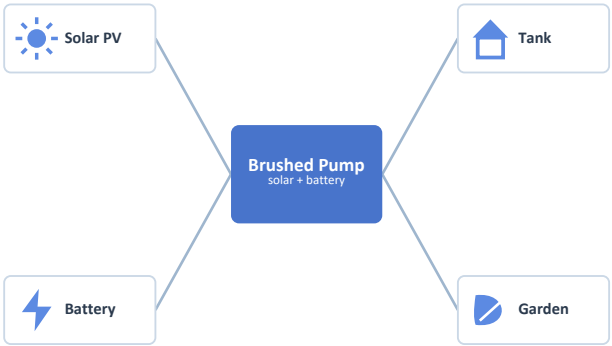
IDEAL FOR

- Home water
- Small farm
- Garden irrigation
- Pond transfer
- Livestock
- Drainage

APPLICATIONS

Irrigation · Village water · Livestock · Industry

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE · TÜV · RoHS · ISO 9001 · IP68 · SGS

Max. flow at minimum head and max. head at minimum flow; see Q-H curve. Subject to change.

Brushed Solar Pump — specifications

Model	CSGP-750	CSGP-1100
Pump		
Pump type	DC brushed submersible	
Motor	DC brushed, permanent-magnet	
Pump body / impeller	Cast iron / aluminium	
Cable	10 m	
Performance		
Rated power	**750 W**	**1100 W**
System voltage	**96 V**	**110 V**
Max. flow	**14 m³/h**	**15 m³/h**
Max. head (lift)	**18 m**	**22 m**
Outlet	**2″**	**2″**
Protection		
Power source	Solar panel + battery (12 V / 24 V)	
Protections	Overload · over-temperature	
Motor ingress	IP68 submersible	
General		
Wetted materials	Cast iron · aluminium impeller	
Application	Clean water — home & small farm	
Warranty	2 years	

MECHANICAL & SYSTEM

Mechanical	Data
Motor	**Permanent-magnet brushless DC**
Wetted materials	**Stainless steel 304**
Motor ingress	**IP68 submersible**
Controller	**MPPT — external or in-built**
Protection	**Dry-run · over/under-V · overload · reverse-polarity**
Warranty	**2 years**

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20 GW shipped · **120+** countries · **CE · TÜV** certified

IDEAL FOR

- Home water
- Small farm
- Garden irrigation
- Pond transfer
- Livestock
- Drainage

Pump water anywhere the sun shines.

Brushless solar pumps with built-in MPPT & dry-run protection — no grid, no fuel, no hassle.

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- **MPPT — more water/day** — tracks the sun automatically
- **Dry-run protected** — over/under-V · overload · reverse
- **Brushless & efficient** — long life, low maintenance
- **Solar / AC / generator** — pump day & night

150 m max head · **MPPT** built-in · **IP68** submersible · **2 yr** warranty

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SOLAR WATER PUMP

Solar Pool Pump

Brushless solar circulation pump for swimming pools, spas & ponds — chlorine-safe, whisper-quiet

36 m³/h MAX FLOW

18 m MAX HEAD

- **Brushless DC** — MPPT sine-wave drive
- **Chlorine-safe** — engineering-plastic wet end
- **Runs on sunshine** — zero running cost
- **AC/DC hybrid option** — filter day & night

Free pool filtration

- Circulates & filters all sunny day on solar alone — no grid bill for the pool pump
- Permanent-magnet brushless motor with MPPT: 20 – 30% more efficient than AC pumps
- Whisper-quiet surface pump with large strainer basket

Built for pool water

- Chlorine- & salt-tolerant engineering-plastic pump head, strainer & impeller
- Aluminium motor body, IP55 — install poolside or in the plant room
- 2″ unions fit standard pool plumbing

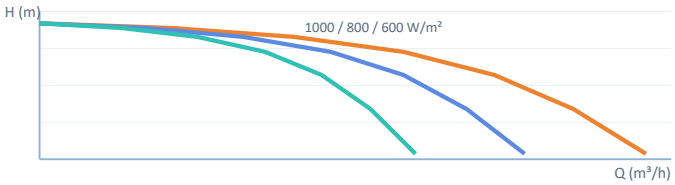
Protected & flexible

- Dry-run, over/under-voltage, overload & reverse-polarity protection
- AC/DC hybrid (-H) versions auto-switch to grid for night filtration
- Sized 200 W (spas / ponds) to 2200 W (large pools)

Key specifications

Pump type	**Brushless DC surface pump**
Power range	**200 – 2200 W**
Max flow	**up to 36 m³/h**
Max head	**up to 18 m**
Wet end	**Engineering plastic (Cl-safe)**
Connection	**2″ unions**
Ingress	**IP55**
Warranty	**2 years**

PERFORMANCE CURVE



WHY COTECH

Tested to rated head & flow
Each pump performance- & insulation-tested

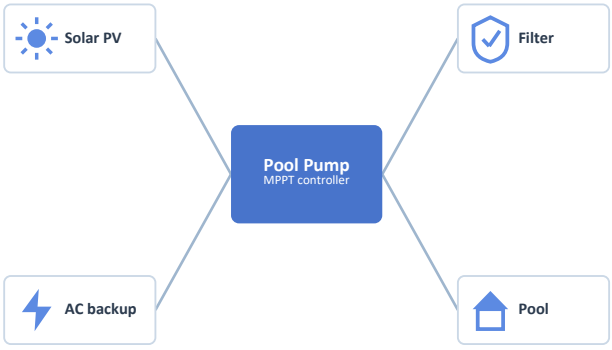
IDEAL FOR

- Swimming pools
- Salt-water pools
- Spas & hot tubs
- Ponds & fountains
- Water features
- Aquaculture

APPLICATIONS

Irrigation · Village water · Livestock · Industry

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE · TÜV · RoHS · ISO 9001 · IP68 · SGS

Max. flow at minimum head and max. head at minimum flow; see Q-H curve. Subject to change.

Solar Pool Pump — specifications

Model	CSPP-200	CSPP-370	CSPP-600	CSPP-1100	CSPP-1500	CSPP-2200
Pump						
Pump type	Brushless DC surface pump with strainer					
Motor	Permanent-magnet brushless, FOC sine-wave drive					
Wet end / impeller	Engineering plastic — chlorine & salt tolerant					
Peak efficiency	> 90% (brushless motor + MPPT)					
Performance						
Rated power	**200 W**	**370 W**	**600 W**	**1100 W**	**1500 W**	**2200 W**
System voltage	**24 V**	**24 V**	**72 V**	**144 V**	**192 V**	**280 V**
Max. flow	**6 m³/h**	**10 m³/h**	**14 m³/h**	**22 m³/h**	**25 m³/h**	**36 m³/h**
Max. head	**9 m**	**10 m**	**13 m**	**13 m**	**14 m**	**18 m**
Recommended PV	**300 Wp**	**500 Wp**	**900 Wp**	**1800 Wp**	**2400 Wp**	**3000 Wp**
Outlet	2″ union					
Pump length	**340 mm**	**355 mm**	**375 mm**	**420 mm**	**455 mm**	**520 mm**
Weight	**5.8 kg**	**6.5 kg**	**7.4 kg**	**9.4 kg**	**11.0 kg**	**13.8 kg**
AC/DC hybrid version	—	—	**-H**	**-H**	**-H**	**-H**
Controller & protection						
MPPT tracking	Yes — optimises pump speed to available PV					
Dry-run protection	Yes (water-shortage auto-stop & restart)					
Protections	Over/under-voltage · overload · reverse-polarity · over-temp					
Soft start	Yes					
AC / generator backup	Standard on -H hybrid models (auto-switch)					
General						
Motor body	Aluminium, IP55					
Liquid temperature	0 – 40 °C · pH 5 – 9					
Cable	1.2 m (customisable)					
Warranty	2 years					

MECHANICAL & SYSTEM

Mechanical	Data
Motor	**Permanent-magnet brushless DC**
Wetted materials	**Stainless steel 304**
Motor ingress	**IP68 submersible**
Controller	**MPPT — external or in-built**
Protection	**Dry-run · over/under-V · overload · reverse-polarity**
Warranty	**2 years**

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