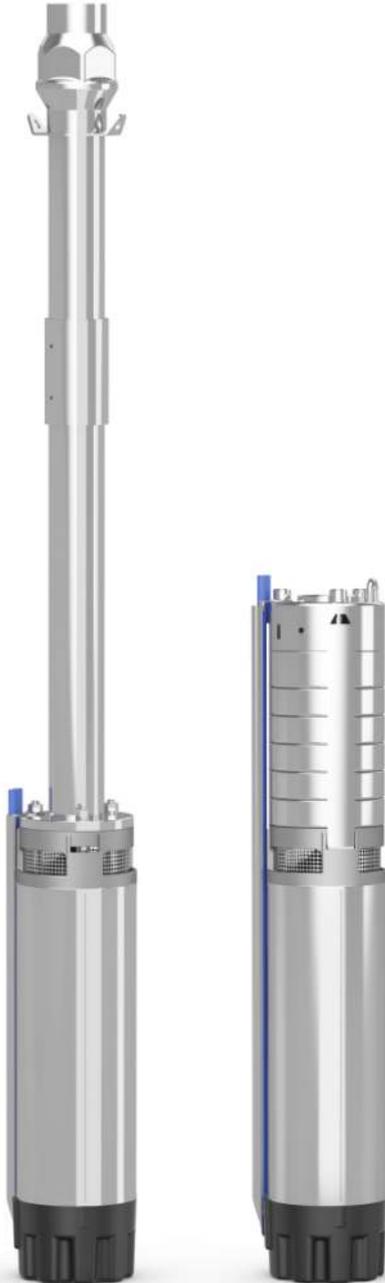
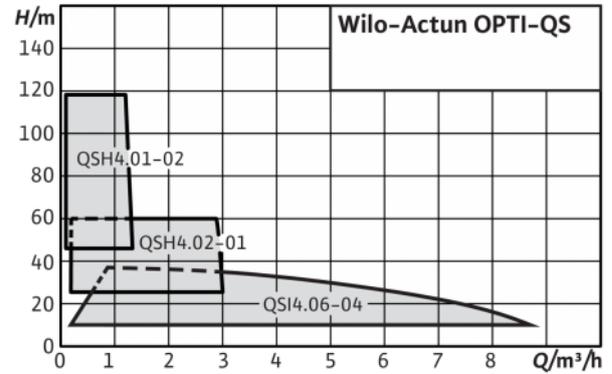


## Series description: Wilo-Actun OPTI-QS

Wilo-Actun OPTI-QS



Wilo-Actun OPTI-QS



Ensuring a reliable water supply in arid and remote regions not connected to the power grid is a challenge. The new solar-powered Wilo-Actun OPTI-MS, provides a solution which is independent of the mains power supply for an effective and reliable water supply.

### Design type

Multistage submersible pump in tie strap version (QSI) or as a progressive cavity pump (QSH) for vertical or horizontal installation

### Special features/product advantages

- Fully autonomous and cost-efficient water supply utilising solar power
- Easy electrical installation via integrated frequency converter and without the need for parametrisation
- Optimised water output thanks to high hydraulics and motor efficiencies and dynamic MPPT (Maximum Power Point Tracking – ensures the operation of the solar panel at maximum performance level)
- System-specific flexibility thanks to wide range of services
- Increased durability and reliability through high-quality materials and an encapsulated motor design
- Additional operational reliability by using integrated safety devices
- Straightforward remote access to the submersible pump's operating parameters and settings using the Solar Connect tool in the Wilo-Assistant app
- Notifications via push messages when the operating status changes

## Series description: Wilo-Actun OPTI-QS

### Application

- Specially designed for operation with photovoltaic modules
- For water supply and drinking water supply from boreholes and rainwater storage tanks
- Process water supply
- Sprinkling and irrigation
- Pressure boosting
- For pumping water without long-fibre and abrasive constituents

### Equipment/function

- Fully submersible, multistage submersible pump:
  - as centrifugal pump in sectional construction (QSI) or
  - as progressive cavity pump (QSH)
- with integrated non-return valve
- with corrosion-free, encapsulated permanent magnet motor with water-glycol filling
- Built-in frequency converter
- Integrated software algorithm MPPT ("Maximum Power Point Tracking") for applications with solar modules

### Scope of delivery

- Submersible pump with connection cable (2.5 m)
- Casting resin cable connector with integrated water level sensor
- Installation and operating instructions
- Hydraulics for self-assembly (QSH only), incl. installation instructions and installation accessories

### Type key

E.g.	Wilo-Actun OPTI-QSH4.01-02
Actun	Product family
OPTI	Series designation
QS	Type name
H	QS = Quick Solar Hydraulic version
	H = progressive cavity pump
4	I = multistage centrifugal pump
.01	Nominal diameter in inches
-02	Rated volume flow in m <sup>3</sup> /h Number of stages

### Technical data

- Operating voltage: 70 – 190 V DC
- Submerged operating mode: S1
- Max. fluid temperature: 35 °C
- Minimum flow rate at motor: 0.2 m/s
- Max. sand content: 50 g/m<sup>3</sup>
- Max. immersion depth: 150 m
- Protection class: IP68
- Pressure connection: Rp 1¼ – Rp 1½

### Materials

- Hydraulics housing: stainless steel 1.4301 (AISI 304)
- Impellers: stainless steel 1.4301 (AISI 304)
- Hydraulic shaft
  - QSH: Stainless steel 1.4401 (AISI 316)
  - QSI: stainless steel 1.4301 (AISI 304)
- Motor housing: stainless steel 1.4301 (AISI 304)
- Motor shaft: Stainless steel 1.4057 (AISI 431)

## Series description: Wilo-Actun OPTI-QS

### Description/construction

Submersible pump as centrifugal pump in sectional construction (QSI) or as progressive cavity pump (QSH) for vertical or horizontal installation.

### Hydraulics

Multistage submersible motor centrifugal pump (QSI) with radial impellers in sectional construction or progressive cavity pump (QSH) with helical rotor inside a twin-helix rubber stator. Integrated non-return valve. All parts that come in contact with the fluid are made of corrosion-free materials.

### Motor

Single-phase current permanent magnet motor. Sealed and hermetically cast motor, resin-impregnated, with enamel-insulated winding, self-lubricating bearing, with water-glycol filling.

### Frequency converter

Hermetically sealed frequency converter for direct operation using direct current sources. The integrated software algorithm MPPT ("Maximum Power Point Tracking") enables the available power to be matched in order to maximise the pumped volume flow (dynamic MPPT).

Safety functions:

- Overvoltage protection
- Excess current protection
- Dry-running protection (via integrated sensor)
- Temperature monitoring

### Cooling

The motor is cooled by the pumped fluid. The motor must always be immersed when operated. The limit values for maximum fluid temperature and minimum flow velocity must be adhered to. Vertical installation is possible with or without cooling jacket. Horizontal installation must be performed in conjunction with a cooling jacket.

## Product list: Wilo-Actun OPTI-QS

Product description	Motor diameter $\varnothing$	Rated power $P_2$	Gross weight, approx. $m$	Article number
Actun Opti QSI4.06-04	98 mm	0.48 kW	10.0 kg	6082885
Actun Opti QSH4.02-01	98 mm	0.48 kW	13.0 kg	6082886
Actun Opti QSH4.01-02	98 mm	0.48 kW	14.0 kg	6084593