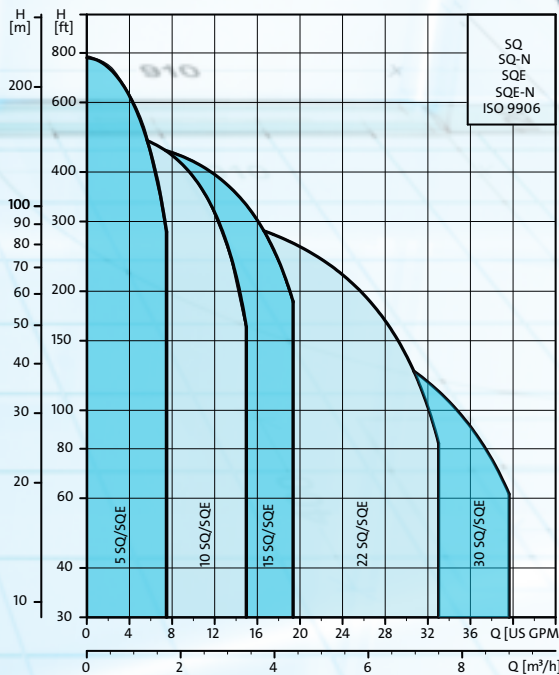
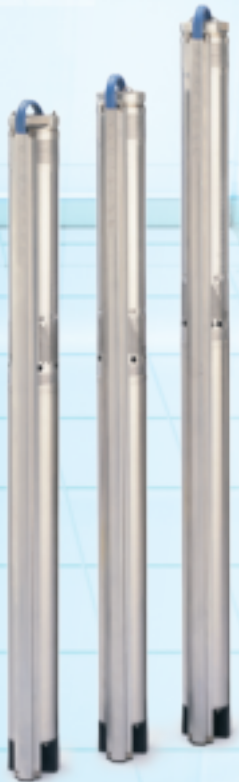


**SQ RANGE**

# SUBMERSIBLE PUMPS

## MOTOR PROTECTION AND WEAR-REDUCING BENEFITS

At only 3" in diameter, the Grundfos SQ submersible pump is extremely compact and ideal for small or restricted boreholes. In addition to the features and benefits shared with the renowned SP submersible pump, the SQ offers a number of motor protection and wear-reducing features that makes it the obvious choice for groundwater extraction at domestic or small waterworks, for irrigation systems, or for groundwater lowering.



be  
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innovate

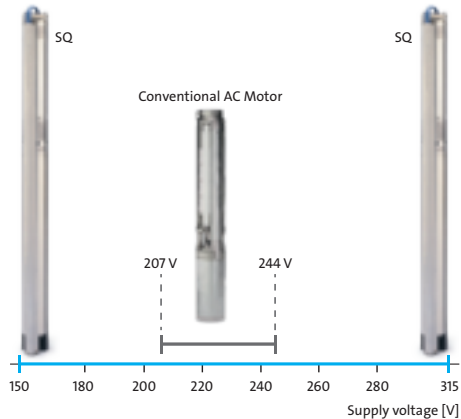
**GRUNDFOS**

# HOW THE SQ PROTECTS AND REDUCES WEAR

The SQ pump provides several features that simplify your installation and add reliability to the system.

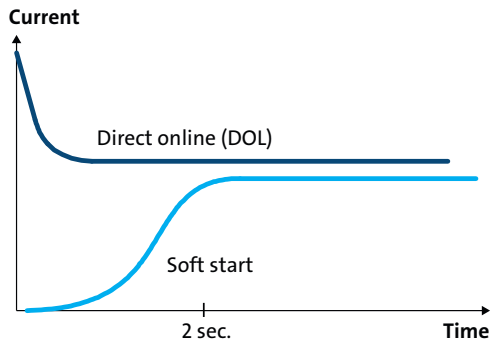
## VOLTAGE HANDLING

Increased winding temperature caused by undervoltage often results in reduced lifetime. The SQ motor is protected against over and undervoltage, and voltage fluctuation generally.



## SOFT START

Soft start ensures a low starting current with a smooth and steady acceleration. This offers excellent starting reliability at low voltage, prevents overload of the mains power, reduces water hammer in the pipe, and reduces pump wear. Low current draw and soft start allows use of smaller gauge wire compared to traditional 4" motors. This can reduce the overall cost of installation.



## POWER SUPPLY

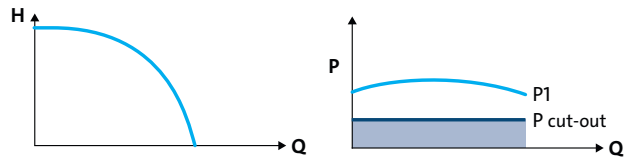
Low ampere usage makes it possible to connect more appliances to the same fuse group or reduce the size of the power line. Small generators can be used with SQ.



Grundfos recommends to use a generator with a capacity 50% higher than rated pump power consumption.

## DRY RUNNING PROTECTION

The SQ pump is factory pre-set based on minimum power consumption, and dry-running protection is activated 40 seconds after power is connected to allow priming of the pump. When there is no water in the hydraulics, power consumption is reduced. The SQ stops automatically when below the dry run power limit and restarts automatically within 5 minutes after cut-out.



## ADDED FEATURES THAT PROTECT YOUR SQ PUMP

Compared with a conventional 4" pump and motor, the added features of voltage handling and soft start, power supply, and dry running protection offer simplicity and reliability for your installation.

Properties & features	SQ	Conventional AC motor
Overvoltage/undervoltage protection	Yes	No
Integrated dry running protection	Yes	No
Over temperature protection	Yes	No
Overload protection	Yes	No
Start function with high torque and without starter box	Yes	No

## TECHNICAL DATA

- Flow up to 36 gpm (8.2 m<sup>3</sup>/h)
- Head up to 780 ft (180 m)
- Nominal power supply: 1x200-240 V – 50/60 Hz
- Max. acceptable media temp: 86°F (40°C) when flow past motor
- Pump diameter: 2.9 in. (74 mm) Min. well diameter: 3 in. (76 mm)
- Weight (min./max.): 10.4-14.1 lbs (4.7-6.4 kg)
- Thread connections: RP 1¼" / RP 1½"
- Materials (Stainless steel): DIN W.-Nr. 1.4301/1.4401, AISI 304/316
- The SQ pump can be installed vertically or horizontally
- Built-in electronics
- Permanent magnet motors
- Torque exceeds that of traditional motors
- Higher efficiency than traditional motors



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