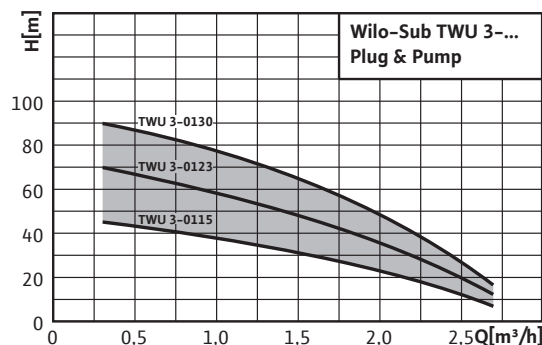


Series description: Wilo-Sub TWU 3 Plug & Pump



Design

Water-supply unit with submersible-motor pump, control and complete accessories.

Application

Water-supply unit for

- Water supply from boreholes, wells and rainwater storage
- Domestic water supply, sprinkling and irrigation
- For pumping water without long-fibre and abrasive constituents

Type key

e.g.	Wilo-Sub TWU 3-0115P&P/FC
TWU	Submersible pump
3	Diameter of the hydraulic unit in inches ["]
01	Nominal volume flow [m³/h]
15	Number of hydraulic stages
P&P	Plug & Pump pump system
FC	Version
	FC = Sub I package with Fluidcontrol
	DS = Sub II package with pressure switching

Special features/product advantages

- Electrical system components already prewired
- Easy installation and operation
- Integrated non-return valve

Technical data

- Mains connection: 1~230 V, 50 Hz
- Immersed operating mode: S1
- Fluid temperature: 3-35 °C

Materials

- Hydraulic housing: 1.4301 stainless steel
- Impellers: polycarbonate
- Hydraulics shaft: 1.4104 stainless steel
- Motor housing: 1.4301 stainless steel
- Motor shaft: 1.4305 stainless steel

Description/design

Submersible-motor pump for vertical or horizontal installation.

Hydraulics

Multistage submersible-motor pump with radial impellers with sectional construction. Integrated non-return valve. All parts in contact with the fluid are made of corrosion-free materials.

Motor

Corrosion-free single-phase motor for direct starting, rewindable, oil-filled, self-lubricating bearings.

Cooling

The motor is cooled by the 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. Cooling jacket is required for horizontal installation.

General notes - ErP (ecological design-) directive

- The benchmark for most efficient water pumps is MEI ≥ 0.70
- The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.
- The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use

Series description: Wilo-Sub TWU 3 Plug & Pump

- Minimum flow rate at motor: 0.08 m/s
- Max. sand content: 50 g/m³
- Max. number of starts: 30 /h
- Max. immersion depth: 150 m
- Protection class: IP 58
- Pressure connection: Rp 1

Equipment/function

- Multistage submersible-motor pump with radial impellers
- Integrated non-return valve
- NEMA coupling
- Single-phase motor
- Thermal motor protection

of a variable speed drive that matches the pump duty to the system.

- Information on benchmark efficiency is available at www.europump.org/efficiencycharts

Configuration

- No suction mode is possible with these units!
- The unit must be fully immersed in water during operation.

Scope of delivery

Wilo-Plug & Pump SubI package for garden irrigation of private greenery in the domestic sector:

- Fully mounted
- 30 m connecting cable approved for potable water (cross-section: 4x1.5 mm²)
- Switchbox with capacitor, thermal motor protection and On/Off switch
- Wilo-FluidControl (FC); automatic flow monitor and pressure controller with built-in dry-running protection
- 30 m retaining cable
- Installation and operating instructions

Wilo-Plug & Pump SubII package for self-sufficient water supply in single-family and multi-family houses:

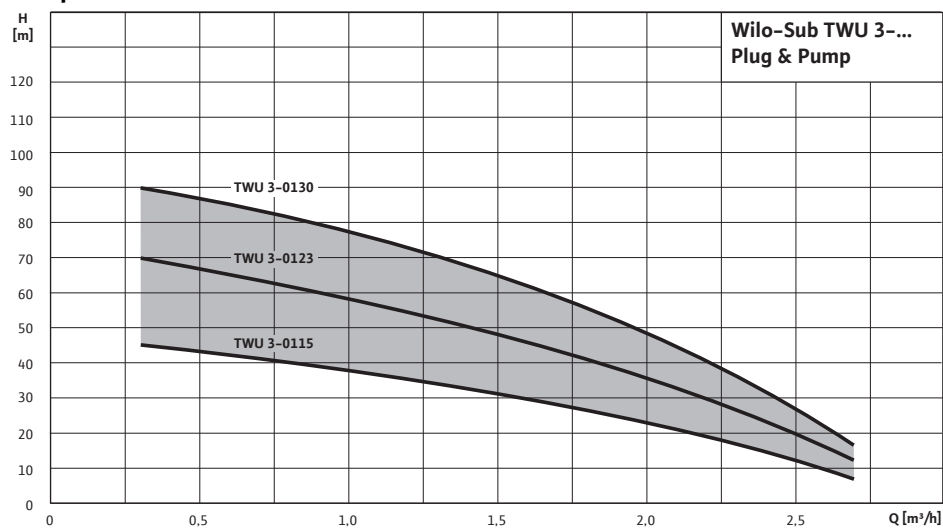
- Fully mounted
- 30 m connecting cable approved for potable water (cross-section: 4x1.5 mm²)
- Switchbox with capacitor, thermal motor protection and On/Off switch
- Wilo pressure switching 0 – 10 bar, including 18 l diaphragm expansion tank, pressure gauge, check valve and pressure switch
- 30 m retaining cable
- Installation and operating instructions

Options

- Motor versions for 3~230 V, 50 Hz; 1~230 V, 60 Hz; 3~380 V, 60 Hz

Duty chart: Wilo-Sub TWU 3 Plug & Pump

Pump curves



1~230 V, 50 Hz, $\rho = 1 \text{ kg/dm}^3$, $\nu = 1 \times 10^{-6} \text{ m}^2/\text{s}$,
 ISO 9906 Annex A, η = pump efficiency

Equipment/function: Wilo-Sub TWU 3 Plug & Pump

Design	
NEMA connection	•
Standardised connection	–
Integrated non-return valve	•
Without non-return valve	–
Single-phase AC motor	•
Three-phase motor	–
Direct activation	•
Star-delta activation	–
FC operation	•
Motor with cast stator	–
Rewindable motor	•
Oil motor filling	•
Water-glycol motor filling	–
Potable water motor filling	–
Hydraulics/motor preassembled	•
Application	
Horizontal installation	•
Vertical installation	•
Equipment/function	
Motor temperature monitoring, PT100	–
Motor temperature monitoring, PTC	–
Capacitor box for 1~230 V	•
Dry-running protection system	–
Integrated lightning protection	–
Accessories	
Bearing brackets for horizontal installation	–
Cooling jacket	optional
Non-return valve	–
Pressure shroud	–
Materials	
Pump housing	Stainless steel
Pump housing (special version)	–
Impeller	Plastic
Impeller (special version)	–
Motor housing	Stainless steel
Motor housing (special version)	–

• = available, – = not available