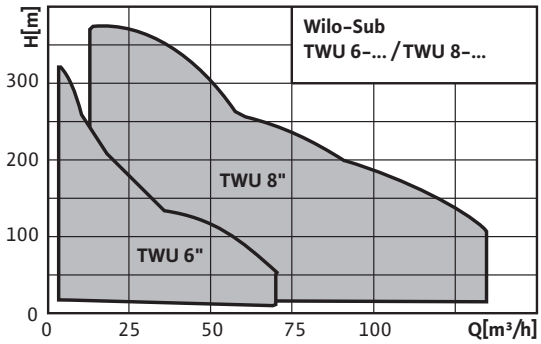
Series description: Wilo-Sub TWU 6-..-B



Design
Submersible pump, multistage

Application
- For water supply from boreholes and rainwater storage tanks
- For sprinkling and irrigation
- For lowering the water level
- For pumping water without long-fibre and abrasive constituents

Type key

e.g.	Wilo-Sub TWU 6-4208-B-SD
TWU	Submersible pump
6	Diameter of the hydraulic unit in inches ["]
42	Nominal volume flow [m³/h]
08	Number of hydraulic stages
B	Series generation
SD	Starting type Without = Direct starting SD = star/delta starting

Special features/product advantages
- Impellers made of bronze
- Integrated non-return valve
- Immersion depth up to 350 m
- Vertical and horizontal installation possible

Technical data
- Mains connection: 3~400 V, 50 Hz
- Immersed operating mode: S1
- Fluid temperature: 3-30 °C
- Minimum flow rate at motor: 0.08-0.16 m/s
- Max. sand content: 50 g/m^3
- Max. number of starts: 20/h
- Max. immersion depth: TWU 6... = 250 m; TWU 8... = 350 m
- Protection class: IP 68
- Pressure connection: Rp 2 - Rp 5

Equipment/function
- Multistage submersible pump with radial or semi-axial impellers
- Integrated non-return valve
- NEMA coupling
- Three-phase motor
- Hermetically cast motors

Materials
- Hydraulic housing: ENGJL200
- Impellers: Bronze
- Hydraulics shaft: Steel 1.4006
- Motor housing: Stainless steel 1.4301
- Motor shaft: 1.4305 stainless steel

Description/design
Submersible pump for vertical or horizontal installation.
Hydraulics
Multistage submersible pump with radial or semi-axial impellers.
Integrated non-return valve.
Motor
Three-phase motor for direct starting. Sealed and hermetically cast motor with enamel-insulated winding, resin-impregnated, self-lubricating bearing, with water-glycol filling.
Cooling
The motor is cooled by the fluid. The motor must always be operated in submerged state. The limit values for the max. fluid temperature and the minimum flow rate must not be exceeded. Vertical installation is possible optionally 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 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
- Hydraulics + motor fully mounted
- 2.5/4/8 m connecting cable approved for potable water
- Installation and operating instructions

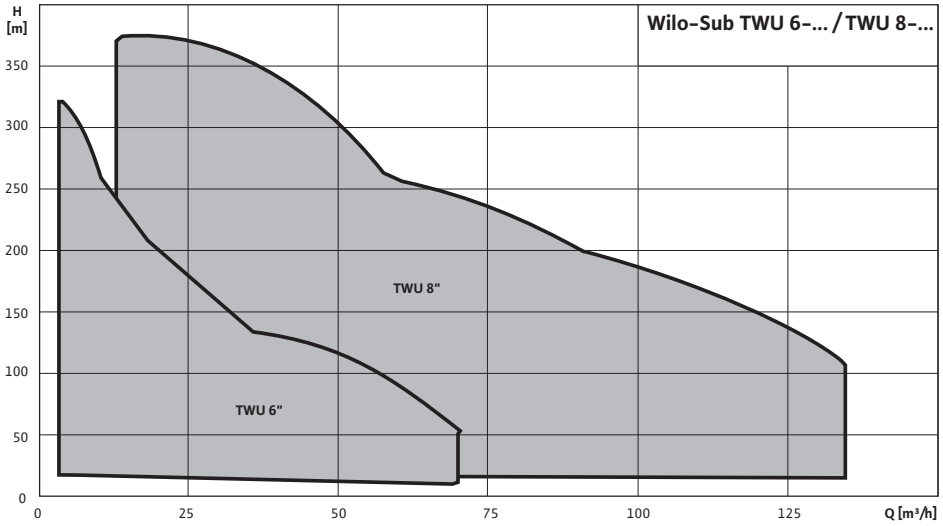
Options
- Rewindable motor
- Star/delta starting
- PT100 sensor for thermal motor monitoring
- Motor housing made of 1.4571 material

Series description: Wilo-Sub TWU 6-..-B

- Motor shaft made of 1.4460 material
- Motor versions for special voltages 3~230 V, 50 Hz; 3~500 V, 50 Hz, 3~230 V, 60 Hz; 3~380 V, 60 Hz; 3~460 V, 60 Hz

Duty chart: Wilo-Sub TWU 6-..-B

Pump curves



3~400 V, 50 Hz, p = 1 kg/dm3, v = 1x10-6 m2/s, ISO 9906 Annex A, η = pump efficiency

Equipment/function: Wilo-Sub TWU 6-..-B

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	optional
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	Cast iron
Pump housing (special version)	–
Impeller	Bronze
Impeller (special version)	–
Motor housing	Stainless steel
Motor housing (special version)	–

• = available, = not available