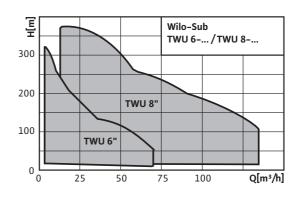


Series description: Wilo-Sub TWU 6-..-B





Design

Submersible pump, multistage

- 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
В	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/m²
- 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.

Three-phase motor for direct starting. Sealed and hermetically cast motor with enamel-insulated winding, resin-impregnated, self-lubricating bearing, with water-glycol filling.

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 deliveryHydraulics + 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



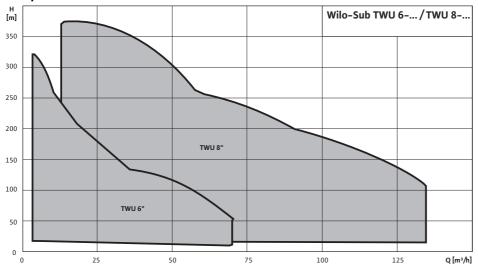
Series description: Wilo-Sub TWU 6-..-B

- 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



 $3\sim400$ V, 50 Hz, p=1 kg/dm3, v=1x10-6 m2/s, ISO 9906 Annex A, $\eta=$ pump efficiency



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

NEMA connection - Standarised connection - Integrated non-return valve - Without non-return valve - Single-phase AC motor - Direct activation - Star-delta activation - FC operation - Motor with cast stator - Rewindable motor - Oil motor filling - Water-glycol motor filling - Water-glycol motor filling - Water-glycol motor filling - Horizontal installation - Vertical installation - Capactior box for 1-230 V - Organicity box fo	Design	
Integrated non-return valve - - - - - - - - -		
Without non-return valve - Single-phase AC motor - Three-phase motor - Direct activation - Star-delta activation - Star-delta activation - FC operation - Motor with cast stator - Rewindable motor - Oil motor filling - Water-glycol motor filling - Potable water motor filling - Potable water motor filling - Potable water motor filling - Potrational installation - Vertical installation - Vertical installation - Vertical installation - Motor temperature monitoring, PT100 potional Motor temperature monitoring, PT100 potional Motor temperature monitoring, PTC - Capacitor box for 1-230 V - Dry-running protection system - Integrated lightning protection - Rearing brackets for horizontal installation -	Standardised connection	-
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 . Horizontal installation . Vertical installation . Motor temperature monitoring, PTI00 optional Motor temperature monitoring, PTIC . Capacitor box for 1-230 V . Dry-running protection system . Integrated lightning protection . Realing brackets for horizontal installation . Cooling jacket <td< td=""><td>Integrated non-return valve</td><td></td></td<>	Integrated non-return valve	
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Direct activation • Star-delta activation • FC operation • Motor with cast stator • Rewindable motor - Oil motor filling - Water-glycol motor filling - Potable water motor filling - Potable water motor filling - Hydraulics/motor preassembled - Application - Vertical installation • Vertical installation • Vertical installation • Vertical installation • Motor temperature monitoring, PT100 optional Motor temperature monitoring, PTC • Capacitor box for 1-230 V - Capacitor box for 1-230 V - Capacitor box for 1-230 V - Reserve - Integrated lightning protection - Reactor - Search - Cooling jacket optional Non-return valve - Pressure shroud - Material Cast iron	Single-phase AC motor	-
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 • Hydraulics/motor preassembled • Horizontal installation • Vertical installation • Vertical installation • Vertical installation • Motor temperature monitoring, PTLO optional Motor temperature monitoring, PTLO - 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 (special version) -	Three-phase motor	•
FC operation	Direct activation	•
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 - Vertical installation - Wotor temperature monitoring. PT100 optional 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 Boroze Hotor (housing)	Star-delta activation	•
Rewindable motor – Oil motor filling – Water-glycol motor filling – Potable water motor filling – Hydraulics/motor preassembled • Application – Horizontal installation • Vertical installation • Vertical installation optional Motor temperature monitoring, PT100 optional Motor temperature monitoring, PT10 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 – Pressure shroud – Pressure shroud – Pressure shroud – Pump housing (special version) Cast iron Pump housing (special version) – Impeller (special version) – Motor housing	FC operation	•
Oil motor filling – Water-glycol motor filling – Potable water motor filling – Hydraulics/motor preassembled – Application – Horizontal installation • Vertical installation • Vertical installation optional Motor temperature monitoring, PT100 optional Motor temperature monitoring, PT2C – Capacitor box for 1-230 V – Dry-running protection system – Integrated lightning protection – Accessories Bearing brackets for horizontal installation – Cooling jacket ptional Non-return valve – Pressure shroud – Non-return valve – Pressure shroud – <	Motor with cast stator	•
Water-glycol motor filling - Potable water motor filling - Hydraulics/motor preassembled - Application - Horizontal installation - Vertical installation - Vertical installation - Word temperature monitoring, PTI00 optional Motor temperature monitoring, PTI00 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 (special version) Cast iron Pump housing (special version) Bronze Impeller (special version) - Motor housing Stainless steel	Rewindable motor	-
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Vertical installation	Application	
Equipment/function Motor temperature monitoring, PT100 optional Motor temperature monitoring, PTC Capacitor box for 1~230 V - Capacitor box	Horizontal installation	•
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Dry-running protection system-Integrated lightning protection-Accessories-Bearing brackets for horizontal installation-Cooling jacketoptionalNon-return valve-Pressure shroud-MaterialsCast ironPump housing (special version)-ImpellerBronzeImpeller (special version)-Motor housingStainless steel	Motor temperature monitoring, PTC	
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Bearing brackets for horizontal installation–Cooling jacketoptionalNon-return valve–Pressure shroud–MaterialsPump housingCast ironPump housing (special version)–ImpellerBronzeImpeller (special version)–Motor housingStainless steel		
Cooling jacketoptionalNon-return valve-Pressure shroud-MaterialsPump housingCast ironPump housing (special version)-ImpellerBronzeImpeller (special version)-Motor housingStainless steel	Integrated lightning protection	-
Non-return valve - Pressure shroud - The strong support of the str	Integrated lightning protection	-
Pressure shroud – Materials Pump housing (special version) — Impeller (special version) — Motor housing — Stainless steel	Integrated lightning protection Accessories	
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Pump housingCast ironPump housing (special version)-ImpellerBronzeImpeller (special version)-Motor housingStainless steel	Integrated lightning protection Accessories Bearing brackets for horizontal installation Cooling jacket	-
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Impeller Bronze Impeller (special version) - Motor housing Stainless steel	Integrated lightning protection Accessories Bearing brackets for horizontal installation Cooling jacket Non-return valve Pressure shroud	– optional –
Impeller (special version) – Motor housing Stainless steel	Integrated lightning protection Accessories Bearing brackets for horizontal installation Cooling jacket Non-return valve Pressure shroud Materials Pump housing	– optional –
Motor housing Stainless steel	Integrated lightning protection Accessories Bearing brackets for horizontal installation Cooling jacket Non-return valve Pressure shroud Materials Pump housing Pump housing (special version)	– optional –
•	Integrated lightning protection Accessories Bearing brackets for horizontal installation Cooling jacket Non-return valve Pressure shroud Materials Pump housing Pump housing (special version) Impeller	cast iron
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^{• =} available, = not available