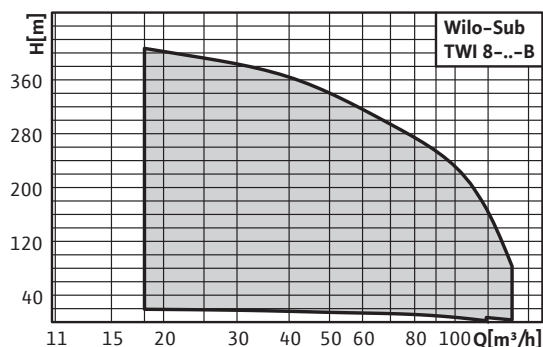


Series description: Wilo-Sub TWI 8-..-B



Design

Submersible pump, multistage

Application

- For water and potable water supply from boreholes and rainwater storage
- Process water supply
- For municipal water supply, sprinkling and irrigation
- Pressure boosting
- Lowering the water level
- For pumping water in industrial applications
- For pumping water without long-fibre and abrasive constituents

Type key

Materials

Standard version:

- Hydraulic housing: Stainless steel 1.4301
- Impellers: Stainless steel 1.4301
- Hydraulics shaft: Stainless steel 1.4057
- Motor housing: ENGJL or stainless steel 1.4301
- Motor shaft: Stainless steel 1.4021, 1.4301 or 1.4305

Special version:

- Hydraulic housing: Stainless steel 1.4401
- Impellers: Stainless steel 1.4571
- Hydraulics shaft: Stainless steel 1.4401
- Motor housing: G-CuSn10, stainless steel 1.4401, 1.4571 (depending on type)
- Motor shaft: Stainless steel 1.4542, 1.4462 (depending on type)

Series description: Wilo-Sub TWI 8-...-B

Type key, standard version

Example:

Wilo-Sub TWI 8.80-02BSDR

TWI

Submersible pump

8

Diameter of the hydraulic unit in inches ["]

80

Rated volume flow [m³/h]

02

Number of hydraulic stages

B

Series generation

SD

Starting mode

Without = direct starting

SD = star-delta starting

R

Motor rewindable, without = motor hermetically cast

Type key, configurable version

Example:

Wilo-Sub TWI 08.90-19-NB + NU 811-2/90

Hydraulics:

TWI 08.90-19-NB

TWI

Hydraulics

0

Configurable series

8

Diameter of the hydraulic unit in inches ["]

90

Rated volume flow [m³/h]

19

Number of hydraulic stages

N

Impeller diameter

N = standard

S = trimmed

B

Series generation

Description/design

Submersible-motor pump for vertical or horizontal installation.

Hydraulics

Multistage submersible-motor pump with 6" or 8" NEMA connection and semi-axial impellers with sectional construction. Integrated non-return valve. All parts in contact with the fluid are made of corrosion-free materials.

Motor

Three-phase motor for direct or star-delta starting. Sealed, hermetically cast motor, resin-impregnated, with enamel-insulated winding or rewindable motor with PVC-insulated winding, self-lubricating bearing, with water-glycol filling. NU 611, NU 8...-series motors can also be filled with potable water (T version).

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.

Pressure shroud

The pressure shroud is used for direct installation of the unit in the pipe system. Standard models are without mounted non-return valves. The maximum inlet pressure is 10 bar.

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 assembled
- 4/8/10 m connecting cable approved for potable water with standard version models (cross-section: 4x2.5 mm² or 4x4 mm² or single conductor)
- Cable cross-section and length per customer request for configured material
- Installation and operating instructions

Options

- Hydraulics in 1.4401 stainless steel
- Motor in stainless steel 1.4401, 1.4571 or G-CuSn10
- 60 Hz version
- Star/delta starting
- Rewindable motor
- Rewindable motor with potable water filling
- Configured units for special versions

Series description: Wilo-Sub TWI 8...-B

Motor:

NU 811-2/90

NU

Submersible motor

811

Size (5..., 6... = 6"; 7..., 8... = 8")

2

Number of poles

90

Package length

Special features/product advantages

- Easy maintenance due to rapid installation and dismantling
- Integrated non-return valve
- Vertical and horizontal (stage-dependent) installation possible
- Standard and configurable versions available
- Star/delta starting
- Cast and rewindable motors

Technical data

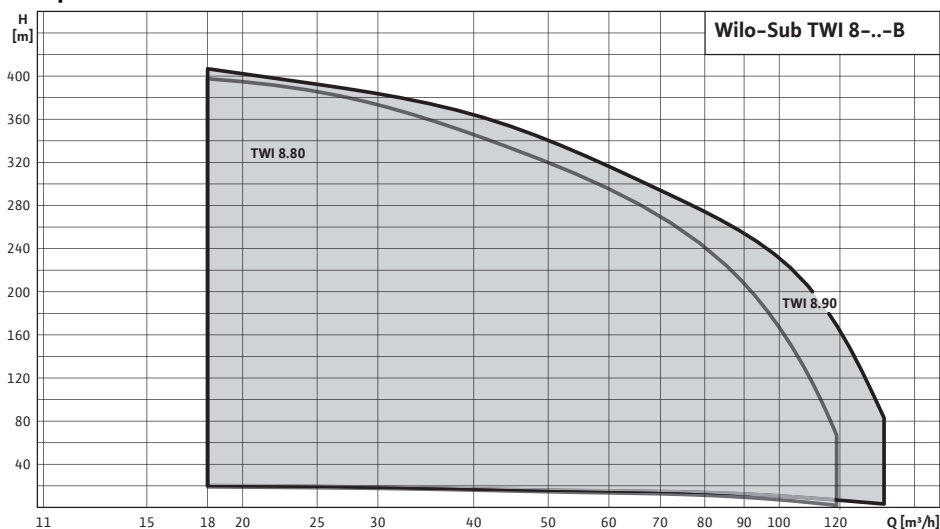
- Mains connection: 3~400 V, 50 Hz
- Submerged operating mode: S1
- Fluid temperature:
 - Hermetically cast motors: 3–20 °C or 3–30 °C (depending on type)
 - Rewindable motors (SD-R): 3–30 °C (depending on type)
- Minimum motor flow: 0.1–0.5 m/s (depending on type)
- Max. sand content: 50 g/m³
- Max. number of starts: 1020/h (depending on type)
- Max. immersion depth: 100 – 350 m (depending on type)
- Protection class: IP 68
- Pressure port: Rp 5

Equipment/function

- Multistage submersible-motor pump with semi-axial impellers
- Integrated non-return valve
- NEMA coupling
- Three-phase motor
- Hermetically cast motors
- Rewindable motors

Duty chart: Wilo-Sub TWI 8-..-B

Pump curves



3~400 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 TWI 8-...-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	optional
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	optional
Integrated lightning protection	–
Accessories	
Bearing brackets for horizontal installation	optional
Cooling jacket	optional
Non-return valve	–
Pressure shroud	optional
Materials	
Pump housing	1.4301
Pump housing (special version)	1.4404
Impeller	1.4301
Impeller (special version)	1.4404
Motor housing	1.4301
Motor housing (special version)	1.4401

• = available, – = not available