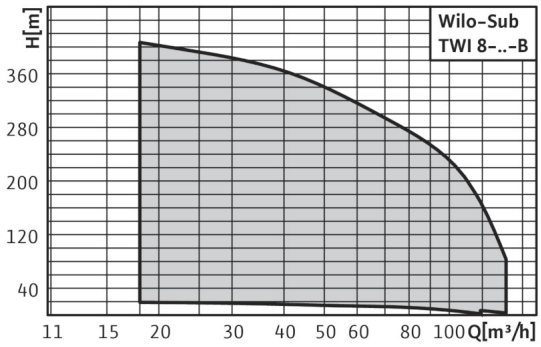
Series description: Wilo-Sub TWI 8-..-B



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

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

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

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

Type key, standard version:

e.g.

Wilo-Sub TWI 8.80-02BSDR

TWI

Submersible pump

8

Diameter of the hydraulic unit in inches ["]

80

Nominal volume flow [m^3/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, hydraulics:

e.g.

Wilo-Sub TWI 08.90-19-NB

TWI

Hydraulics

0

Configurable series

8

Diameter of the hydraulic unit in inches ["]

90

Nominal volume flow [m^3/h]

19

Number of hydraulic stages

N

Impeller diameter
= Standard
S = trimmed

B

Series generation

- 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)

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.

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 mm^2 or 4x4 mm^2 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

Example, motor:

e.g.

Wilo-EMU 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

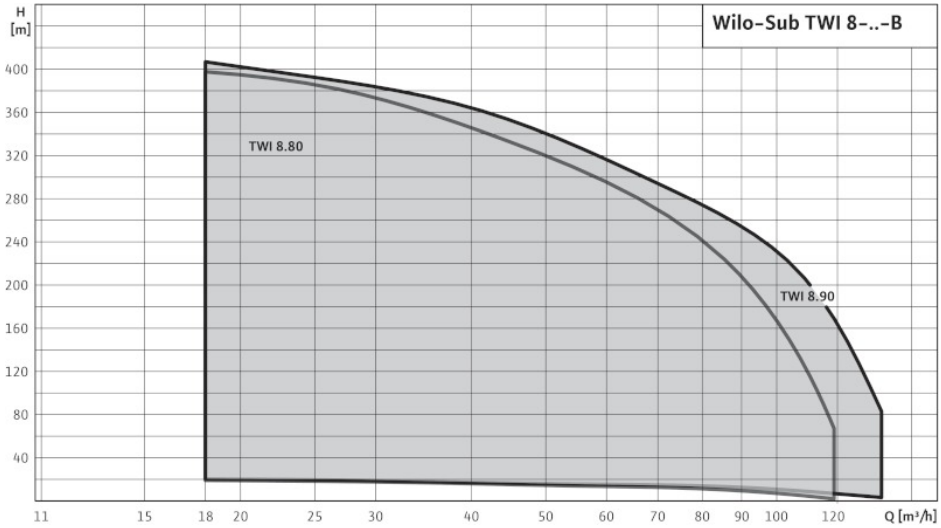
- Easy maintenance due to rapid installation and dismantling
- Integrated non-return valve
- Vertical and horizontal (stage-dependent) installation possible
- Standard and configurable versions available
- Star/delta starting
- Cast and rewindable motors

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/m^3
- 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

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

Product list: Wilo-Sub TWI 8-..-B

Pump type	Mains connection	Max. volume flow	Max. delivery head	Optimum volume flow	Optimal delivery head	Motor diameter	Pressure connection	Nominal motor power	Art no.
		Q_{max} / m^3/h	H_{max} / m	Q_{opt} / m^3/h	H_{opt} / m	Ø / "		P_2 / kW	
TWI 8.80-01-B	3~400 V, 50 Hz	100	21	61	14	6	Rp 5	4	6047736
TWI 8.80-01-B-SD-R	3~400 V, 50 Hz	100	21	61	14	6	Rp 5	5.50	6047796
TWI 8.80-02-B-SD-R	3~400 V, 50 Hz	100	40	71	25	6	Rp 5	7.50	6047797
TWI 8.80-02-B-SD	3~400 V, 50 Hz	100	40	71	25	6	Rp 5	7.50	6047737
TWI 08.80-02-SB	3~400 V, 50 Hz	100	33	65	20	6	Rp 5	5.50	
TWI 08.80-02-SB	3~400 V, 50 Hz	100	33	65	20	6	Rp 5	5.50	
TWI 8.80-03-B-SD-R	3~400 V, 50 Hz	100	60	72	37	6	Rp 5	11	6047798
TWI 8.80-03-B-SD	3~400 V, 50 Hz	100	60	72	37	6	Rp 5	11	6047738
TWI 08.80-03-SB	3~400 V, 50 Hz	100	53	65	35	6	Rp 5	9.20	
TWI 08.80-03-SB	3~400 V, 50 Hz	100	53	65	35	6	Rp 5	9.30	
TWI 8.80-04-B-SD-R	3~400 V, 50 Hz	100	80	69	51	6	Rp 5	15	6047799
TWI 8.80-04-B-SD	3~400 V, 50 Hz	100	80	69	51	6	Rp 5	15	6047739
TWI 08.80-04-SB	3~400 V, 50 Hz	100	73	69	46	6	Rp 5	13	
TWI 08.80-04-SB	3~400 V, 50 Hz	100	73	69	46	6	Rp 5	15	
TWI 8.80-05-B-SD-R	3~400 V, 50 Hz	100	100	68	64	6	Rp 5	18.50	6047800
TWI 8.80-05-B-SD	3~400 V, 50 Hz	100	100	68	64	6	Rp 5	18.50	6047740
TWI 08.80-06-NB	3~400 V, 50 Hz	100	120	69	76	6	Rp 5	22	
TWI 08.80-06-NB	3~400 V, 50 Hz	100	120	69	76	6	Rp 5	22	
TWI 08.80-06-NB	3~400 V, 50 Hz	100	120	69	76	6	Rp 5	22	6048881
TWI 08.80-06-NB	3~400 V, 50 Hz	100	120	69	76	6	Rp 5	22	6048882
TWI 8.80-07-B-SD-R	3~400 V, 50 Hz	100	140	67	93	6	Rp 5	26	6047801
TWI 8.80-07-B-SD	3~400 V, 50 Hz	100	140	67	93	6	Rp 5	30	6047741
TWI 8.80-08-B-SD-R	3~400 V, 50 Hz	100	160	70	101	6	Rp 5	30	6047802
TWI 8.80-08-B-SD	3~400 V, 50 Hz	100	160	70	101	6	Rp 5	30	6047742
TWI 08.80-08-SB	3~400 V, 50 Hz	100	150	70	96	6	Rp 5	30	
TWI 08.80-08-SB	3~400 V, 50 Hz	100	150	70	96	6	Rp 5	30	
TWI 8.80-09-B-SD-R	3~400 V, 50 Hz	100	175	69	112	6	Rp 5	30	6047803
TWI 8.80-09-B-SD	3~400 V, 50 Hz	100	175	69	112	6	Rp 5	30	6047743
TWI 8.80-10-B-SD-R	3~400 V, 50 Hz	100	195	79	114	6	Rp 5	34	6047804

Product list: Wilo-Sub TWI 8-..-B

Pump type	Mains connection	Max. volume flow	Max. delivery head	Optimum volume flow	Optimal delivery head	Motor diameter	Pressure connection	Nominal motor power	Art no.
		Q_{max} / m^3/h	H_{max} / m	Q_{opt} / m^3/h	H_{opt} / m	Ø / "		P_2 / kW	
TWI 8.80-10-B-SD	3~400 V, 50 Hz	100	195	79	114	6	Rp 5	37	6047744
TWI 8.80-11-B-SD	3~400 V, 50 Hz	100	220	67	143	6	Rp 5	45	6047745
TWI 08.80-11-NB	3~400 V, 50 Hz	100	220	69	143	8	Rp 5	47.50	
TWI 8.80-12-B-SD	3~400 V, 50 Hz	100	245	82	147	8	Rp 5	55	6047746
TWI 08.80-12-NB	3~400 V, 50 Hz	100	245	82	147	8	Rp 5	47.50	
TWI 08.80-13-NB	3~400 V, 50 Hz	100	270	83	155	8	Rp 5	53	
TWI 08.80-13-NB	3~400 V, 50 Hz	100	270	83	155	8	Rp 5	55	
TWI 8.80-15-B-SD	3~400 V, 50 Hz	100	310	71	203	8	Rp 5	75	6047747
TWI 08.80-15-NB	3~400 V, 50 Hz	100	310	71	203	8	Rp 5	59	
TWI 8.80-16-B-SD	3~400 V, 50 Hz	100	330	83	191	8	Rp 5	75	6047748
TWI 08.80-16-NB	3~400 V, 50 Hz	100	330	83	191	8	Rp 5	65	
TWI 8.80-18-B-SD	3~400 V, 50 Hz	100	380	72	244	8	Rp 5	75	6047749
TWI 08.80-18-NB	3~400 V, 50 Hz	100	380	72	244	8	Rp 5	75	
TWI 8.80-20-B-SD	3~400 V, 50 Hz	100	420	71	271	8	Rp 5	75	6047750
TWI 08.80-20-NB	3~400 V, 50 Hz	100	420	71	271	8	Rp 5	75	
TWI 8.90-01-B-SD-R	3~400 V, 50 Hz	120	22	89	12	6	Rp 5	5.50	6047805
TWI 8.90-01-B-SD	3~400 V, 50 Hz	120	22	89	12	6	Rp 5	5.50	6047751
TWI 8.90-02-B-SD-R	3~400 V, 50 Hz	120	42	86	26	6	Rp 5	9.20	6047806
TWI 8.90-02-B-SD	3~400 V, 50 Hz	120	42	86	26	6	Rp 5	9.30	6047752
TWI 08.90-02-SB	3~400 V, 50 Hz	120	36	81	22	6	Rp 5	7.50	
TWI 08.90-02-SB	3~400 V, 50 Hz	120	36	81	22	6	Rp 5	7.50	
TWI 8.90-03-B-SD-R	3~400 V, 50 Hz	120	64	88	38	6	Rp 5	15	6047807
TWI 8.90-03-B-SD	3~400 V, 50 Hz	120	64	88	38	6	Rp 5	15	6047753
TWI 08.90-03-SB	3~400 V, 50 Hz	120	56	83	33	6	Rp 5	13	
TWI 08.90-03-SB	3~400 V, 50 Hz	120	56	83	33	6	Rp 5	15	
TWI 8.90-04-B-SD-R	3~400 V, 50 Hz	120	83	92	48	6	Rp 5	18.50	6047808
TWI 8.90-04-B-SD	3~400 V, 50 Hz	120	83	92	48	6	Rp 5	18.50	6047754
TWI 08.90-04-SB	3~400 V, 50 Hz	120	76	82	47	6	Rp 5	18.50	
TWI 08.90-04-SB	3~400 V, 50 Hz	120	76	82	47	6	Rp 5	18.50	

Product list: Wilo-Sub TWI 8-..-B

Pump type	Mains connection	Max. volume flow	Max. delivery head	Optimum volume flow	Optimal delivery head	Motor diameter	Pressure connection	Nominal motor power	Art no.
		Q_{max} / m^3/h	H_{max} / m	Q_{opt} / m^3/h	H_{opt} / m	Ø / "		P_2 / kW	
TWI 8.90-05-B-SD-R	3~400 V, 50 Hz	120	105	84	66	6	Rp 5	22	6047809
TWI 8.90-05-B-SD	3~400 V, 50 Hz	120	105	84	66	6	Rp 5	22	6047755
TWI 08.90-05-SB	3~400 V, 50 Hz	120	93	78	58	6	Rp 5	18.50	
TWI 08.90-05-SB	3~400 V, 50 Hz	120	93	78	58	6	Rp 5	22	
TWI 8.90-06-B-SD-R	3~400 V, 50 Hz	120	127	89	78	6	Rp 5	30	6047810
TWI 8.90-06-B-SD	3~400 V, 50 Hz	120	127	88	78	6	Rp 5	30	6047756
TWI 8.90-07-B-SD-R	3~400 V, 50 Hz	120	145	80	95	6	Rp 5	34	6047811
TWI 8.90-07-B-SD	3~400 V, 50 Hz	120	145	85	95	6	Rp 5	37	6047757
TWI 8.90-08-B-SD-R	3~400 V, 50 Hz	120	168	85	107	6	Rp 5	37	6047812
TWI 8.90-08-B-SD	3~400 V, 50 Hz	120	168	85	107	6	Rp 5	37	6047758
TWI 8.90-09-B-SD	3~400 V, 50 Hz	120	192	87	114	6	Rp 5	45	6047759
TWI 08.90-09-NB	3~400 V, 50 Hz	120	192	87	114	8	Rp 5	47.50	
TWI 8.90-10-B-SD	3~400 V, 50 Hz	120	218	92	128	8	Rp 5	55	6047760
TWI 08.90-10-NB	3~400 V, 50 Hz	120	218	92	128	8	Rp 5	47.50	
TWI 8.90-11-B-SD	3~400 V, 50 Hz	120	240	90	143	8	Rp 5	55	6047761
TWI 08.90-11-NB	3~400 V, 50 Hz	120	240	90	143	8	Rp 5	53	
TWI 8.90-12-B-SD	3~400 V, 50 Hz	120	265	91	154	8	Rp 5	55	6047762
TWI 08.90-12-NB	3~400 V, 50 Hz	120	265	91	154	8	Rp 5	59	
TWI 8.90-13-B-SD	3~400 V, 50 Hz	120	288	91	167	8	Rp 5	75	6047763
TWI 08.90-13-NB	3~400 V, 50 Hz	120	288	91	167	8	Rp 5	65	
TWI 8.90-14-B-SD	3~400 V, 50 Hz	120	310	90	186	8	Rp 5	75	6047764
TWI 08.90-14-NB	3~400 V, 50 Hz	120	310	90	186	8	Rp 5	75	
TWI 8.90-15-B-SD	3~400 V, 50 Hz	120	335	93	199	8	Rp 5	75	6047765
TWI 08.90-15-NB	3~400 V, 50 Hz	120	335	93	199	8	Rp 5	75	
TWI 8.90-17-B-SD	3~400 V, 50 Hz	120	375	91	222	8	Rp 5	93	6047766
TWI 08.90-17-NB	3~400 V, 50 Hz	120	375	91	222	8	Rp 5	90	
TWI 8.90-18-B-SD	3~400 V, 50 Hz	120	390	92	236	8	Rp 5	93	6047767
TWI 08.90-18-NB	3~400 V, 50 Hz	120	390	92	236	8	Rp 5	90	
TWI 8.90-20-B-SD	3~400 V, 50 Hz	120	420	90	259	8	Rp 5	93	6047768

Product list: Wilo-Sub TWI 8-..-B

Pump type	Mains connection	Max. volume flow	Max. delivery head	Optimum volume flow	Optimal delivery head	Motor diameter	Pressure connection	Nominal motor power	Art no.
		Q_{max} / m^3/h	H_{max} / m	Q_{opt} / m^3/h	H_{opt} / m	Ø / "		P_2 / kW	
TWI 08.90-20-NB	3~400 V, 50 Hz	120	420	90	259	8	Rp 5	90	