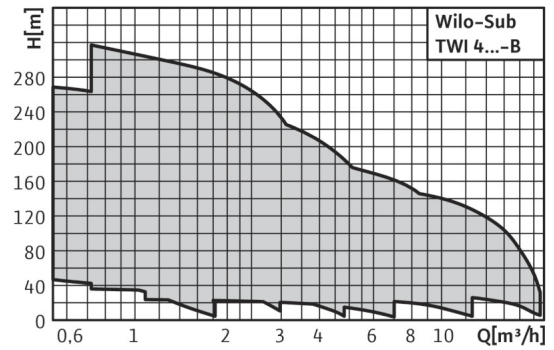


Series description: Wilo-Sub TWI 4...-B



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 radial impellers
- Integrated non-return valve
- NEMA coupling
- Single-phase or three-phase motor
- Hermetically cast motors

Materials

- Hydraulic housing: 1.4301 stainless steel
- Impellers: 1.4301 stainless steel
- Hydraulics shaft: 1.4057 stainless steel
- Motor housing: 1.4301 stainless steel
- Motor shaft: 1.4305 stainless steel

Description/design

Series description: Wilo-Sub TWI 4-...-B

e.g.	Wilo-Sub TWI 4.01-09-B
TWI	Submersible pump
4	Diameter of the hydraulic unit in inches ["]
01	Nominal volume flow [m ³ /h]
09	Number of hydraulic stages
B	Series generation

Special features/product advantages

- Easy maintenance due to rapid installation and dismantling
- Integrated non-return valve
- Vertical and horizontal installation possible

Technical data

- Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz
- Immersed operating mode: S1
- Fluid temperature: 3-30 °C
- Minimum motor flow: 0.1 m³/s
- Max. sand content: 50 g/m³
- Max. number of starts: 20/h
- Max. immersion depth: 350 m
- Protection class: IP 68
- Pressure connection: Rp 1½ Rp 2

Submersible-motor pump for vertical or horizontal installation.

Hydraulics

Multistage submersible-motor pump with 4" NEMA connection and radial or semi-axial 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 or three-phase AC motor for direct starting. Sealed and hermetically cast motor, resin-impregnated, with enamel-insulated winding, 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.

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

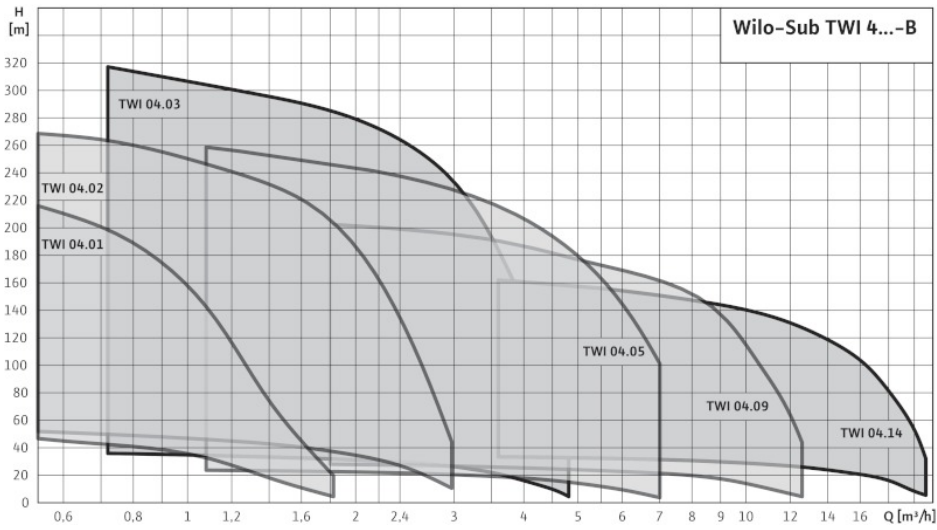
- Hydraulics + motor fully assembled
- 1.5/2.5 m connecting cable approved for potable water (cross-section: 4x1.5 mm²)
- Single-phase version including switchbox with capacitor, thermal motor protection and On/Off switch
- Installation and operating instructions

Options

- Hydraulics in 1.4401 stainless steel
- Three-phase AC motor in 1.4401 stainless steel
- 60 Hz version
- Single-phase motor without soft starter, with integrated lightning and overload protection up to 1.1 kW

Duty chart: Wilo-Sub TWI 4...-B

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 TWI 4-...-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	optional
Capacitor box for 1~230 V	•
Dry-running protection system	optional
Integrated lightning protection	–

Accessories

Bearing brackets for horizontal installation	–
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 4-..-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	$\varnothing /"$		P_2/kW	
TWI 4.01-09-B	1~230 V, 50 Hz	2	50	1	37	4	Rp 1¼	0.37	6043566
TWI 4.01-09-B	3~400 V, 50 Hz	2	50	1	37	4	Rp 1¼	0.37	6043546
TWI 4.01-14-B	1~230 V, 50 Hz	2	75	1	62	4	Rp 1¼	0.55	6043567
TWI 4.01-14-B	3~400 V, 50 Hz	2	75	1	62	4	Rp 1¼	0.55	6043547
TWI 4.01-18-B	1~230 V, 50 Hz	2	96	1	73	4	Rp 1¼	0.55	6043568
TWI 4.01-18-B	3~400 V, 50 Hz	2	96	1	73	4	Rp 1¼	0.55	6043548
TWI 4.01-21-B	1~230 V, 50 Hz	2	110	1	81	4	Rp 1¼	0.75	6043569
TWI 4.01-21-B	3~400 V, 50 Hz	2	110	1	81	4	Rp 1¼	0.75	6043549
TWI 4.01-28-B	1~230 V, 50 Hz	2	149	1	111	4	Rp 1¼	1.10	6043570
TWI 4.01-28-B	3~400 V, 50 Hz	2	149	1	111	4	Rp 1¼	1.10	6043550
TWI 4.01-36-B	1~230 V, 50 Hz	2	195	1	144	4	Rp 1¼	1.10	6043571
TWI 4.01-36-B	3~400 V, 50 Hz	2	195	1	144	4	Rp 1¼	1.10	6043551
TWI 4.01-42-B	1~230 V, 50 Hz	2	228	1	180	4	Rp 1¼	1.50	6043572
TWI 4.01-42-B	3~400 V, 50 Hz	2	228	1	180	4	Rp 1¼	1.50	6043552
TWI 4.02-09-B	1~230 V, 50 Hz	3	50	2	42	4	Rp 1¼	0.55	6042682
TWI 4.02-09-B	3~400 V, 50 Hz	3	50	1	42	4	Rp 1¼	0.55	6042944
TWI 4.02-13-B	1~230 V, 50 Hz	3	72	2	52	4	Rp 1¼	0.75	6042684
TWI 4.02-13-B	3~400 V, 50 Hz	3	72	2	52	4	Rp 1¼	0.75	6042945
TWI 4.02-18-B	1~230 V, 50 Hz	3	100	2	74	4	Rp 1¼	1.10	6042685
TWI 4.02-18-B	3~400 V, 50 Hz	3	100	2	74	4	Rp 1¼	1.10	6042946
TWI 4.02-23-B	1~230 V, 50 Hz	3	130	2	95	4	Rp 1¼	1.10	6042686
TWI 4.02-23-B	3~400 V, 50 Hz	3	130	2	95	4	Rp 1¼	1.10	6042947
TWI 4.02-28-B	1~230 V, 50 Hz	3	160	2	116	4	Rp 1¼	1.50	6042687
TWI 4.02-28-B	3~400 V, 50 Hz	3	160	2	116	4	Rp 1¼	1.50	6042948
TWI 4.02-33-B	1~230 V, 50 Hz	3	190	2	134	4	Rp 1¼	1.50	6042688
TWI 4.02-33-B	3~400 V, 50 Hz	3	190	2	134	4	Rp 1¼	1.50	6042949
TWI 4.02-40-B	1~230 V, 50 Hz	3	225	2	160	4	Rp 1¼	2.20	6042693
TWI 4.02-40-B	3~400 V, 50 Hz	3	225	2	160	4	Rp 1¼	2.20	6042950
TWI 4.02-48-B	1~230 V, 50 Hz	3	270	2	199	4	Rp 1¼	2.20	6042695

Product list: Wilo-Sub TWI 4-.-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	$\varnothing /"$		P_2/kW	
TWI 4.02-48-B	3~400 V, 50 Hz	3	270	2	199	4	Rp 1¼	2.20	6042951
TWI 4.03-06-B	1~230 V, 50 Hz	5	35	2	29	4	Rp 1¼	0.55	6042696
TWI 4.03-06-B	3~400 V, 50 Hz	5	35	2	29	4	Rp 1¼	0.55	6042952
TWI 4.03-09-B	1~230 V, 50 Hz	5	50	3	40	4	Rp 1¼	0.75	6042697
TWI 4.03-09-B	3~400 V, 50 Hz	5	50	3	40	4	Rp 1¼	0.75	6042953
TWI 4.03-12-B	1~230 V, 50 Hz	5	70	3	52	4	Rp 1¼	1.10	6042698
TWI 4.03-12-B	3~400 V, 50 Hz	5	70	3	52	4	Rp 1¼	1.10	6042954
TWI 4.03-15-B	1~230 V, 50 Hz	5	90	3	70	4	Rp 1¼	1.10	6042699
TWI 4.03-15-B	3~400 V, 50 Hz	5	90	3	70	4	Rp 1¼	1.10	6042955
TWI 4.03-18-B	1~230 V, 50 Hz	5	105	3	81	4	Rp 1¼	1.50	6042900
TWI 4.03-18-B	3~400 V, 50 Hz	5	105	3	81	4	Rp 1¼	1.50	6042956
TWI 4.03-22-B	1~230 V, 50 Hz	5	130	3	98	4	Rp 1¼	1.50	6042901
TWI 4.03-22-B	3~400 V, 50 Hz	5	130	3	98	4	Rp 1¼	1.50	6042957
TWI 4.03-25-B	1~230 V, 50 Hz	5	150	3	110	4	Rp 1¼	2.20	6042902
TWI 4.03-25-B	3~400 V, 50 Hz	5	150	3	110	4	Rp 1¼	2.20	6042958
TWI 4.03-29-B	1~230 V, 50 Hz	5	170	3	122	4	Rp 1¼	2.20	6042903
TWI 4.03-29-B	3~400 V, 50 Hz	5	170	3	122	4	Rp 1¼	2.20	6042959
TWI 4.03-33-B	1~230 V, 50 Hz	5	195	3	145	4	Rp 1¼	2.20	6042904
TWI 4.03-33-B	3~400 V, 50 Hz	5	195	3	145	4	Rp 1¼	2.20	6042960
TWI 4.03-39-B	3~400 V, 50 Hz	5	235	3	175	4	Rp 1¼	3	6042961
TWI 4.03-45-B	3~400 V, 50 Hz	5	270	3	199	4	Rp 1¼	3	6042962
TWI 4.03-52-B	3~400 V, 50 Hz	5	315	3	225	4	Rp 1¼	3.70	6042963
TWI 4.05-04-B	1~230 V, 50 Hz	7	23	4	18	4	Rp 1½	0.55	6042905
TWI 4.05-04-B	3~400 V, 50 Hz	7	23	4	18	4	Rp 1½	0.55	6042964
TWI 4.05-06-B	1~230 V, 50 Hz	7	33	4	26	4	Rp 1½	0.55	6043573
TWI 4.05-06-B	3~400 V, 50 Hz	7	33	4	26	4	Rp 1½	0.55	6043553
TWI 4.05-08-B	1~230 V, 50 Hz	7	48	5	33	4	Rp 1½	0.75	6042906
TWI 4.05-08-B	3~400 V, 50 Hz	7	48	5	33	4	Rp 1½	0.75	6042965
TWI 4.05-12-B	1~230 V, 50 Hz	7	70	5	49	4	Rp 1½	1.50	6043574

Product list: Wilo-Sub TWI 4-..-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	$\varnothing /"$		P_2/kW	
TWI 4.05-12-B	3~400 V, 50 Hz	7	70	5	49	4	Rp 1½	1.50	6043554
TWI 4.05-17-B	1~230 V, 50 Hz	7	98	5	68	4	Rp 1½	2.20	6042907
TWI 4.05-17-B	3~400 V, 50 Hz	7	98	5	68	4	Rp 1½	2.20	6042966
TWI 4.05-21-B	1~230 V, 50 Hz	7	122	5	77	4	Rp 1½	2.20	6042908
TWI 4.05-21-B	3~400 V, 50 Hz	7	122	5	77	4	Rp 1½	2.20	6042967
TWI 4.05-25-B	1~230 V, 50 Hz	7	142	5	91	4	Rp 1½	2.20	6042909
TWI 4.05-25-B	3~400 V, 50 Hz	7	142	5	91	4	Rp 1½	2.20	6042968
TWI 4.05-33-B	3~400 V, 50 Hz	7	190	5	125	4	Rp 1½	3	6042969
TWI 4.05-38-B	3~400 V, 50 Hz	7	220	6	139	4	Rp 1½	3.70	6042970
TWI 4.05-44-B	3~400 V, 50 Hz	7	253	6	161	4	Rp 1½	4	6042971
TWI 4.09-05-B	1~230 V, 50 Hz	12	28	8	20	4	Rp 2	1.10	6042910
TWI 4.09-05-B	3~400 V, 50 Hz	12	28	8	20	4	Rp 2	1.10	6042972
TWI 4.09-07-B	1~230 V, 50 Hz	12	40	8	29	4	Rp 2	1.10	6042911
TWI 4.09-07-B	3~400 V, 50 Hz	12	40	8	29	4	Rp 2	1.10	6042973
TWI 4.09-10-B	1~230 V, 50 Hz	12	52	8	39	4	Rp 2	1.50	6042912
TWI 4.09-10-B	3~400 V, 50 Hz	12	52	8	39	4	Rp 2	1.50	6042974
TWI 4.09-12-B	1~230 V, 50 Hz	12	65	8	46	4	Rp 2	2.20	6043575
TWI 4.09-12-B	3~400 V, 50 Hz	12	65	8	46	4	Rp 2	2.20	6043555
TWI 4.09-15-B	1~230 V, 50 Hz	12	81	8	57	4	Rp 2	2.20	6042913
TWI 4.09-15-B	3~400 V, 50 Hz	12	81	9	57	4	Rp 2	2.20	6042975
TWI 4.09-18-B	3~400 V, 50 Hz	12	98	9	70	4	Rp 2	3	6042976
TWI 4.09-21-B	3~400 V, 50 Hz	12	113	9	82	4	Rp 2	3.70	6042977
TWI 4.09-25-B	3~400 V, 50 Hz	12	132	8	96	4	Rp 2	3.70	6042978
TWI 4.09-30-B	3~400 V, 50 Hz	12	165	9	120	4	Rp 2	5.50	6042979
TWI 4.09-37-B	3~400 V, 50 Hz	12	202	9	142	4	Rp 2	5.50	6042980
TWI 4.14-05-B	1~230 V, 50 Hz	21	33	13	25	4	Rp 2	2.20	6042914
TWI 4.14-05-B	3~400 V, 50 Hz	21	33	13	25	4	Rp 2	2.20	6042981
TWI 4.14-07-B	1~230 V, 50 Hz	21	46	14	34	4	Rp 2	2.20	6042915
TWI 4.14-07-B	3~400 V, 50 Hz	21	46	14	34	4	Rp 2	2.20	6042982

Product list: Wilo-Sub TWI 4-..-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	$\varnothing /"$		P_2/kW	
TWI 4.14-10-B	3~400 V, 50 Hz	21	63	13	48	4	Rp 2	3	6042983
TWI 4.14-13-B	3~400 V, 50 Hz	21	81	14	61	4	Rp 2	4	6042984
TWI 4.14-18-B	3~400 V, 50 Hz	21	112	14	86	4	Rp 2	5.50	6042985
TWI 4.14-25-B	3~400 V, 50 Hz	21	159	14	119	4	Rp 2	7.50	6042986