Pioneering for You



### **General Overview**

Our solutions for Heating, Air conditioning, Cooling, Water supply and Drainage and sewage.

### Move water. Move the future. Join the ecolution.

wilo



## CONTENT

4 – 5	Join the ecolution			
6 - 27	Our solutions for Hea			
28-51	Our solutions for Wat			
52 – 67	Our solutions for Drai			
68 – 73	Service and support			



More is more: in-depth digital content Our extra for you: wherever you see this logo you can call up additional information we prepared for you. Simply scan the area with your smartphone and find out more about selected topics.



Download the Wilo-Assistant app for free in the Google Play Store for Android or in the App Store for iOS.

ting, Air Conditioning and Cooling

ter supply

inage and sewage



Tap the AR logo to start the Wilo-Assistent app and scan the content with your smartphone.

For 150 years Wilo has moved water to move towards a better future. We know what it takes to tackle today's challenges and to drive tomorrow's trends. Our products, systems, solutions and services help you to:

- increase operational reliability,
- exceed environmental requirements,
- increase energy efficiency,
- simplify commissioning.

Experience our high-efficiency pumps for residential and commercial buildings. Learn more about intelligent product features like the setting assistant, Multi-Flow Adaptation or continuous temperature monitoring. And see for yourself how easy and convenient remote access is via the Wilo-Assistant app and various communication interfaces – even when you're on the move.



Enhance energy efficiency

Wilo-Stratos GIGA2.0-I

Wilo-Stratos MAXO

#### Optimise the efficiency of your pump system with the "Multi-Flow Adaptation" control mode and save up to 80% energy.





Series	Wilo-Yonos MAXO Wilo-Yonos MAXO-D	Stratos GIGA2.0-I Stratos GIGA2.0-D	Wilo-Stratos GIGA Wilo-Stratos GIGA-D	Serie	es	Wilo-Stratos GIGA B	Yonos GIGA2.0-I Yonos GIGA2.0-D
		Series extension				Series extension	
Design	Glandless circulator with screwed con- nection or flange connection, EC motor and automatic power adjustment	High-efficiency in-line pump (as single or twin-head pump) with EC motor, elec- tronically controlled, in glanded design with flange connection and mechanical seal	High-efficiency in-line pump (as single or twin-head pump) with EC motor, elec- tronically controlled, in glanded design with flange connection and mechanical seal	Desig	gn	High-efficiency monobloc pump with EC motor and electronic power adjustment in glanded pump design, with flange con- nection and mechanical seal	In-line pump with hi (as single or twin-he EC motor, electronic glanded design with and mechanical seal
Application	Hot-water heating systems of all kinds, air-conditioning systems, closed cooling circuits, industrial circulation systems	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems	Appli	lication	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems	Pumping of heating water-glycol mixture substances in hot wa ing systems
Duty chart	Wile-Yones MAXD, Wile-Yones MAXD-D	Wile-Strates GIGA2.8-1 Wile-Strates GIGA2.8-0 Wile-Strates GIGA2.8-0 30 30 30 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Wile-Strates GIGA Wile-Strates GIGA-D Wile-Strates GIGA-D	Duty	v chart	Wis-Strates CIGA 8 50/60 Hz	
Volume flow $Q_{max}$	56 m³/h	260 m³/h	680 m³/h	Volur	me flow Q <sub>max</sub>	520 m³/h	260 m³/h
Delivery head H <sub>max</sub>	16 m	37 m	65 m	Deliv	very head H <sub>max</sub>	92 m	20 m
Technical data	<ul> <li>→ Fluid temperature -20 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50/60 Hz</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20 (EEI ≤ 0.23 for twin-head pumps)</li> <li>→ Nominal diameter Rp 1 to DN 100</li> <li>→ Max. operating pressure 10 bar</li> </ul>	→ Fluid temperature -20 °C to +140 °C → Ambient temperature to +50 °CMains connection: $3\sim440 V \pm 10\%$ , $50/60 Hz$ , $3\sim400 V \pm 10\%$ , $50/60 Hz$ , $3\sim380 V$ -5% +10%, $50/60 Hz- Version M-: 1\sim220 V \dots 240 V\pm 10\%, 50/60 Hz→ Minimum efficiency index (MEI) \ge 0.7→ Nominal diameter DN 40 to DN 125→ Max. operating pressure 16 bar up to+120$ °C, 13 bar up to +140 °C	<ul> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~380 V - 3~440 V (±10 %), 50/60 Hz</li> <li>→ Minimum efficiency index (MEI): from 11 kW up to 22 kW: MEI ≥ 0.4</li> <li>→ Nominal diameter DN 40 to DN 200</li> <li>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C</li> </ul>	Tech	inical data	<ul> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~380 V -3~440 V (±10 %), 50/60 Hz</li> <li>→ Minimum efficiency index (MEI): up to 6.0 kW: MEI ≥ 0.7, from 11 kW: MEI ≥ 0.4</li> <li>→ Nominal diameter DN 32 to DN 150</li> <li>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C</li> </ul>	<ul> <li>→ Fluid temperature</li> <li>→ Ambient temperature</li> <li>→ Ambient temperature</li> <li>→ Connection 3~44</li> <li>3~400 V ±10 %,</li> <li>-5 % +10 %, 50/</li> <li>− Variant M-: 1~ ±10 %, 50/60</li> <li>→ Minimum energy</li> <li>→ Nominal diamete</li> <li>→ Max. operating pr +120 °C</li> </ul>
Special features	<ul> <li>LED display for indication of set delivery head and error codes</li> <li>Quick setting when replacing an uncontrolled standard pump with pre-set speed stages, e.g. TOP-S</li> <li>Electrical connection with Wilo plug</li> <li>Collective fault signal ensures system availability</li> <li>Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation</li> </ul>	<ul> <li>→ High-efficiency EC motor with efficiency class IE5 acc. IEC 60034-30-2</li> <li>→ Optimal control through application-guided setting assistant</li> <li>→ Innovative controlling functions such as Dynamic Adapt plus and Multi-Flow Adaption</li> <li>→ Remote access and multi-pump control via Wilo Net</li> <li>→ Highest operational data transparency for optimisation of the pump and overall system</li> </ul>	<ul> <li>→ Innovative high-efficiency pump for maximum overall efficiency</li> <li>→ High-efficiency EC motor with effi- ciency class IE5 acc. IEC 60034-30-2</li> <li>→ Optional IF module interfaces for bus communication with building automa- tion</li> </ul>	Speci	ial features	<ul> <li>Innovative high-efficiency pump for maximum total-system efficiency, with principal dimensions in accord- ance with EN 733</li> <li>High-efficiency EC motor (efficiency class IE5 acc. IEC 60034-30-2)</li> <li>Optional IF module interfaces for bus communication with building automation</li> </ul>	<ul> <li>→ High energy effic EC motor technol pump hydraulics</li> <li>→ Easy to use with a tion, colour displa Technology</li> <li>→ High reliability th drive technology hydraulics</li> <li>→ Ready for integra automation syste digital interface a</li> </ul>
Equipment/ function	<ul> <li>Control modes: Δp-c, Δp-v, 3 speed stages</li> <li>LED display for setting the required delivery head</li> <li>Quick electrical connection with Wilo plug</li> <li>Motor protection, fault signal light and contact for collective fault signal</li> <li>Combination flanges PN 6/PN 10 (for DN 32 to DN 65)</li> <li>Retrofitable interface module (Connection to building automation</li> </ul>	<ul> <li>Control modes: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT- const and Q-const</li> <li>Multi-Flow Adaptation</li> <li>Remote control via Bluetooth interface</li> <li>Selection of the field of application in the setting assistant</li> <li>Heating and cooling quantity meas- urement</li> <li>Dual pump management</li> <li>Retrofitable interface modules for communication</li> </ul>	<ul> <li>Control modes: Δp-c, Δp-v, PID control, n-const</li> <li>Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement</li> <li>External control functions: e.g. Overriding Off, external cyclical pump alteration (twin-head pump operation), analogue input 0-10 V /0-20 mA for constant speed (DDC)</li> <li>Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation</li> </ul>	Equip funct	pment/ tion	<ul> <li>Control modes: Δp-c, Δp-v, PID control, n=constant</li> <li>Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement</li> <li>External control functions: e.g. Overriding Off, external cyclical pump cycling, analogue input 0-10 V / 0-20 mA for constant speed (DDC)</li> <li>Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation</li> </ul>	<ul> <li>→ Control mode: Δp user-defined PID</li> <li>→ Dual pump manage</li> <li>→ Retrofittable inte communication</li> </ul>



→ Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation

Series	Wilo-CronoBloc-BL-E	Wilo-VeroLine-IPL Wilo-VeroTwin-DPL	Wilo-Atmos GIGA-I CronoTwin-DL	Series	Wilo-VeroLine-IPH-W Wilo-VeroLine-IPH-O	Wilo-Atmos GIGA-
	Series extension		NEW NEW		to be discontinued	
Design	Energy-saving pump in monobloc design in glanded construction. Version as single-stage low-pressure centrifugal pump with flange connection and me- chanical seal	Glanded pump/twin-head pump in in-line design with screwed connection or flange connection	Glanded pump (as single pump or twin- head pump) in in-line design with flange connection	Design	Glanded pump in in–line design with flange connection	Glanded pump in n flange connection
Application	Pumping of heating water, cold water and water–glycol mixtures without abrasive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water–glycol mixtures without abrasive substances in heating, cold water and cooling systems	Easy maintenance and user-friendly design with optional back pull-out design and cartridge mechanical seal for large pumps	Application	IPH–W: For hot water in closed industrial circulation systems, district heating, closed heating systems IPH–O: For heat transfer oil in closed industrial circulation systems	Pumping of heatin water-glycol mixtu substances in hot v ing systems
Duty chart		Wilo-VeroLine-IPL Wilo-VeroTwin-DPL	Atmos GGA-1 CronsTwin-DL	Duty chart	Wile-VeroLine-PH-Q-W	
Volume flow Q <sub>max</sub>	520 m³/h	245 m³/h	1,170 m³/h	Volume flow Q <sub>m</sub>	<sub>ax</sub> 80 m <sup>3</sup> /h	1010 m
Delivery head H <sub>max</sub>	92 m	52 m	110 m	Delivery head H	38 m	158 m
Technical data	<ul> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter DN 32 to DN 150</li> <li>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C</li> </ul>	<ul> <li>→ Fluid temperature -20 °C to +120 °C</li> <li>→ Mains connection 3-400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter Rp 1 to DN 100</li> <li>→ Max. operating pressure 10 bar (special version: 16 bar)</li> </ul>	<ul> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter DN 32 to DN 250</li> <li>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C (25 bar on request)</li> </ul>	Technical data	<ul> <li>→ Fluid temperature IPH-W: -10 °C to +210 °C (at max. 23 bar)</li> <li>→ Fluid temperature IPH-O: -10 °C to +350 °C (at max. 9 bar)</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Nominal diameter DN 20 to DN 80</li> </ul>	<ul> <li>Fluid temperatu</li> <li>Mains connectio</li> <li>Minimum efficie</li> <li>Nominal diamet</li> <li>Max. operating   +120 °C, 13 bar on request)</li> </ul>
Special features	<ul> <li>Optional interfaces for bus communication using plug-in IF modules</li> <li>Simple operation with Green Button Technology and display</li> <li>Integrated full motor protection with trip electronics</li> <li>Meets user requirements due to performance and main dimensions in accordance with EN 733</li> <li>Motors with efficiency class IE4</li> </ul>	<ul> <li>High standard of corrosion protection</li> <li>Standard condensate drainage holes in motor housings and lanterns</li> <li>Series design: motor with one-piece shaft</li> <li>Version N: Standard motor B5 or V1 with stainless steel plug shaft</li> <li>Bidirectional, force-flushed mechanical seal</li> <li>DPL: Main-/standby operation or peak-load operation (via additional external device)</li> </ul>	<ul> <li>Can be used flexibly in air-conditioning and cooling systems, with applica- tion benefits due to direct draining of condensate</li> <li>High standard of corrosion protection</li> <li>Worldwide availability of standard mo- tors (according to Wilo specifications) and standard mechanical seals</li> <li>Main/standby mode or peak-load op- eration (by means of external auxiliary device)</li> </ul>	Special features	<ul> <li>→ Self-cooled mechanical seal, independent of direction of rotation</li> <li>→ Great variety of applications due to a wide fluid temperature range without additional wearing parts</li> </ul>	<ul> <li>High corrosion p cataphoretic co-components</li> <li>Standard condet the motor housi</li> <li>High worldwide motors (accorditions) and stand</li> <li>Power and main ance with EN 73</li> </ul>
Equipment/ function	<ul> <li>Control modes: Δp-c, Δp-v, PID control, n-const</li> <li>Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement</li> <li>External control functions: e.g. Overriding Off, analogue input 0-10 V / 0-20 mA for constant speed (DDC)</li> <li>Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation</li> </ul>	<ul> <li>→ Single-stage, low-pressure centrifugal pump in in-line design with</li> <li>→ Mechanical seal</li> <li>→ Flange connection with pressure measuring connection R ½</li> <li>→ Motor with one-piece shaft</li> <li>→ DPL with switchover valve</li> <li>→ Motors with efficiency class IE3 for motors ≥ 0.75 kW</li> </ul>	<ul> <li>→ Single-stage, low-pressure centrifugal pump in in-line design with</li> <li>→ Mechanical seal</li> <li>→ Flange connection with pressure measuring connection R ¼</li> <li>→ Lantern</li> <li>→ Coupling</li> <li>→ IEC standard motor</li> <li>→ DL with switchover valve</li> <li>→ Motors with efficiency class IE3 for motors ≥ 0.75 kW</li> </ul>	Equipment/ function	<ul> <li>Single-stage, low-pressure centrifugal pump in in-line design with</li> <li>Mechanical seal</li> <li>Flange connection</li> <li>Lantern</li> <li>Motor with special shaft</li> </ul>	Single-stage low-p pump in monobloc tion port and radial port with → Mechanical seal → Flange connecti measuring conn → Lantern → Pump housing w → Coupling → IEC standard mo



with feet

otor

Series	Wilo-Yonos GIGA-N	Wilo–Atmos GIGA–N	Wilo-Atmos GIGA-NHT		Series	Wilo-CronoNorm-NLG Wilo-VeroNorm-NPG	Wilo-Atmos TER/
			NEW				
Design	Electronically controlled, single-stage low-pressure centrifugal pump with axial suction. Mounted on a baseplate with flange connection and automatic power adjustment.	Single-stage, low-pressure centrifugal pump with axial suction, mounted on a baseplate	Single-stage, low-pressure centrifugal pump with axial suction, mounted on a baseplate		Design	Single-stage low-pressure centrifugal pump with axial suction, according to ISO 5199, mounted on a baseplate	Axially spilt case base frame
Application	Pumping of heating water (in accordance with VDI 2035), cold water, water-glycol mixtures in heating, cold water and cooling systems. For irrigation, building services, general industry etc.	Pumping of heating water (in accordance with VDI 2035), cold water, water-glycol mixtures in heating, cold water and cool- ing systems	Pumping of water in hot-water heating systems, cooling and chilled water circula- tion systems, district heating loops and industrial water cycles up to 200 °C, and in industrial heat carrier oil circuit systems up to 350 °C		Application	Pumping of heating water, cold water, water-glycol mixtures in municipal water supply, general industry, power stations etc.	Raw water intake in water supply s process/ cooling Germany acc. VD mixtures; irrigatio
Duty chart					Duty chart	Wilo-VeroNorm-NPG Wilo-CrenoNorm-NPG Wilo-CrenoNorm-NLG MLG MLG MLG MLG MLG MLG MLG MLG MLG M	
Volume flow Q	520 m³∕h	1000 m³/h	400 m³/h		Volume flow Q	2,800 m³/h	4,675 m³/h
Delivery head H <sub>max</sub>	<sub>x</sub> 70 m	150 m	100 m	•	Delivery head H <sub>max</sub>	140 m	150 m
Technical data	<ul> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter DN 32 to DN 150</li> <li>→ Max. operating pressure 16 bar</li> </ul>	<ul> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Protection class IP55</li> <li>→ Nominal diameter DN 32 to DN 150</li> <li>→ Max. operating pressure 16 bar</li> </ul>	<ul> <li>→ Fluid temperature:         <ul> <li>20 °C +350 °C (heat carrier oil);</li> <li>0 °C +200 °C (water)</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Protection class IP55</li> <li>→ Nominal diameter DN 32 to DN 150</li> <li>→ Max. operating pressure 25 bar</li> </ul> </li> </ul>		Technical data	<ul> <li>→ Fluid temperature -20 °C to +120 °C (depending on type)</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Nominal diameters: DN 150 to DN 500 (depending on type)</li> <li>→ Operating pressure: depending on type and application – up to 16 bar</li> </ul>	<ul> <li>→ Fluid tempera</li> <li>→ Mains connec</li> <li>Nominal diam</li> <li>- Suction sid</li> <li>- Discharge signature</li> <li>→ Max. operatin</li> </ul>
Special features	<ul> <li>Efficient pump with IE4 motors</li> <li>Cataphoretic coating of all cast components for high corrosion resistance and long service life</li> <li>Standard dimensions in accordance with EN 733</li> <li>Easy adjustment and operation with Green Button Technology</li> <li>Easy maintenance thanks to userfriendly spacer coupling in back pullout design</li> <li>Optional interfaces for connection to building automation using insertable IF modules</li> </ul>	<ul> <li>Energy-saving thanks to increased overall efficiency through improved hydraulics and the use of IE3 motors</li> <li>Cataphoretic coating of all cast com- ponents for high corrosion resistance and long service life</li> <li>Universally usable thanks to stand- ardised dimensions, a range of motor options and impellers made of differ- ent materials</li> </ul>	<ul> <li>Self-cooled design, suitable for high temperature fluids</li> <li>Dry running risk minimized by clever sealing chamber design</li> <li>Reaching the MEI levels expected in EU markets</li> <li>PN 25 pressure rating following the standard EN733.</li> <li>Sleeve bearing close to the impeller minimizing the vibration level</li> <li>Additional protection of ball bearings by a lip seal</li> </ul>		Special features	<ul> <li>NLG:</li> <li>Reduced life cycle costs through optimised efficiency</li> <li>Mechanical seal independent of the direction of rotation</li> <li>Interchangeable casing wear ring</li> <li>Permanently lubricated, generously dimensioned roller bearings</li> <li>NPG:</li> <li>Suitable for temperatures up to 140 °C</li> <li>Back pull-out version</li> </ul>	<ul> <li>Reduced ener overall efficier</li> <li>Simplified alig ant coupling a device</li> <li>Increased ope to quiet-runn</li> <li>Reduced cavit optimised NPS</li> <li>Also available</li> </ul>
Equipment/ function	<ul> <li>→ Control modes: Δp-c, PID control, n=constant</li> <li>→ Manual functions: E.g. differential pressure setpoint setting, manual con- trol mode, error acknowledgement</li> <li>→ External control functions: E.g. Over- riding Off, analogue input 0-10 V/0- 20 mA for constant speed (DDC)</li> <li>→ Remote control via infrared interface (IR-Stick), plug-in position for IF modules for connection to building automation</li> </ul>	<ul> <li>→ Single-stage low-pressure centrifu- gal pump in monobloc design with coupling, coupling guard, motor and baseplate</li> <li>→ Motors with efficiency class IE3</li> </ul>	<ul> <li>Single-stage low-pressure centrifugal pump as baseplate pump with coupling, coupling guard, motor and baseplate</li> <li>Motors with efficiency class IE3</li> <li>Completed for low duties by a In-line range for space saving</li> </ul>		Equipment/ function	<ul> <li>Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings (NLG only) in back pull-out design</li> <li>Shaft sealing with mechanical seals in accordance with EN 12756 or stuffing box packing</li> <li>Spiral housing with cast pump bases</li> <li>Greased grooved ball bearings for bearing of pump shaft</li> <li>Motors with efficiency class IE3</li> </ul>	<ul> <li>Centrifugal ax available in sin</li> <li>Deliverable as out motor or of</li> <li>Shaft sealing stuffing box</li> <li>4- and 6-pole 1000 kW (IE4</li> <li>Welded steel to</li> </ul>

#### A-SCH

#### Wilo-SCP



pump mounted on a

Low-pressure centrifugal pump with axially split housing mounted on a baseplate

e; boosting/transport ystems; pumping of water, heating water (in l 2035), water-glycol on

Pumping of heating water (acc. VDI 2035), cold water, process water, water-glycol mixtures in heating, cold water and cooling systems.



ture -20 °C to +120 °C tion 3~400 V, 50 Hz eters

le: DN 150 to DN 500 side: DN 150 to DN 400 ng pressure: PN 16, PN 25

gy costs through high ncy

nment thanks to tolerind motor adjusting

rational reliability thanks ing hydraulics

ation tendency through

SH values

as drinking water version



3,400 m³/h

#### 245 m

- $\rightarrow$  Fluid temperature -8 °C to +120 °C
- → Mains connection 3~400 V, 50 Hz → Nominal diameters – Suction side: DN 65 to DN 500
- $\rightarrow$  Discharge side: DN 50 to DN 400
- $\rightarrow$  Max. operating pressure: 16 or 25 bar, depending on type
- $\rightarrow$  Higher volume flows up to 17,000 m<sup>3</sup>/h on request
- ightarrow Special motors and other materials on request

ially split case pump, ightarrow 1- or 2-stage, low-pressure centrifugal ngle-stage design pump in monobloc design complete unit or with- $\rightarrow$  Deliverable as complete unit or without only pump hydraulics motor or only pump hydraulics  $\rightarrow$  Shaft sealing with mechanical seal or with mechanical seal or stuffing box packing e motors; IE3 standard to  $\rightarrow$  4-pole and 6-pole motors

on request) frame .

- → Materials:
- $\rightarrow$  Pump housing: EN-GJL-250
- → Impeller: G-CuSn5 ZnPb
- → Shaft: X12Cr13

Series	Series NESD Series NESE	Series NFCH	Wilo-SiFlux	Series	Wilo-Sinum	Wilo-Tagus
Design	Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connec- tion mounted on a baseplate	Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connec- tion, mounted on a baseplate	Fully automatic, ready for connection multi-pump system for high volume flows in heating, cold water and cooling water systems. 3 to 4 electronically controlled in-line pumps switched in parallel	Design	Pressure-maintaining station with 1 or 2 pumps incl. diaphragm pressure vessel	Pressure step dega
Application	For heat transfer or circulating hot water in industrial processes, for power genera- tion or in building services	For pumping mineral or synthetic heat carrier fluids up to 350 °C, e.g.: in indus- trial processes or power generation	For pumping heating water, water-glycol mixtures and cooling and cold water with- out abrasive substances in heating, cold water and cooling water systems	Application	Automatic pressure maintenance, top- ping-up and degassing in closed heating and cooling circuits	Active degassing ar in closed heating ar for combination wit vessel or pressure-r Wilo-Sinum
Duty chart	Wilo-MESD /MESE	Wite-MICH	Wito-Siflex Siflex 21 Siflex 21 Siflex 31	Duty chart		
Volume flow Q <sub>max</sub>	600 m³/h	1,000 m³/h	490 m³/h	Volume flow Q <sub>max</sub>		
Delivery head H <sub>max</sub>	90 m	90 m	55 m	Delivery head H <sub>max</sub>		
Technical data	<ul> <li>→ Max. permitted fluid temperature</li> <li>→ NESD: 120 °C 207 °C; NESE: 0 °C 120 °C (40 bar), 120 °C 200 °C (35 bar), 200 °C 230 °C (32 bar)</li> <li>→ Discharge side-Ø: DN 32 - 125</li> <li>→ Max. operating pressure</li> <li>→ NESD: PN 25; NESE: PN 40</li> </ul>	<ul> <li>→ Permitted temperature range: 0 °C 120 °C (16 bar), 120 °C 300 °C (13 bar), 300 °C 350 °C (16 bar)</li> <li>→ Nominal diameter on discharge side DN 32 to DN 125</li> <li>→ Max. operating pressure PN 16</li> </ul>	<ul> <li>→ VeroLine-IP-E or CronoLine-IL-E</li> <li>→ 3~400 V, 50 Hz ±10 %</li> <li>→ Fluid temperature: 0 °C to +120 °C</li> <li>→ Pipe connections: DN 125 to DN 300</li> <li>→ Max. permissible operating pressure: 10 bar (IP-E), 16 bar (IL-E)</li> </ul>	Technical data	<ul> <li>→ Mains connection: 230V - 400V, 50Hz</li> <li>→ Max. system pressure: 6, 10 and 16 bar</li> <li>&gt; Operating temperature: min. 3 °C - max. 70 °C</li> <li>&gt; Ambient temperature: 3 °C - 45 °C</li> <li>&gt; Max. (feed) supply temperature in the system: 120°C</li> <li>&gt; Tank 100 - 1,000 litres: in accordance with EN 13831 / 1,200 - 10,000 litres: in accordance with AD 2000</li> <li>&gt; Noise emission: approx. 55 dB(a)</li> </ul>	<ul> <li>Mains connectio</li> <li>Operating tempe</li> <li>Max. (feed) supp system: 120°C</li> <li>Ambient temper</li> <li>Max. pressure (fe bar</li> <li>Noise emission:</li> </ul>
Special features	<ul> <li>→ Impeller diameter is adjusted to the desired duty point</li> <li>→ 60 Hz or ATEX version on request</li> <li>→ Special self-cooling design allows use of an uncooled shaft seal. Additional or external cooling devices are not required</li> </ul>	<ul> <li>→ Impeller diameter is adjusted to the desired duty point</li> <li>→ 60 Hz or ATEX version on request</li> <li>→ Self-cooling design with double temperature barrier allows the use of an uncooled shaft seal and reduces heat loss</li> </ul>	<ul> <li>Number of pumps: 2+1 or 3+1 (2 or 3 pumps in operation, 1 standby pump each)</li> <li>Quick and easy installation</li> <li>Energy-saving: Operation in partial load area according to current needs</li> <li>Reliable system thanks to optimally matched components</li> <li>Compact design, good accessibility to all components</li> </ul>	Special features	<ul> <li>&gt; Easy installation</li> <li>&gt; Pressure maintenance within narrow limits +/- 0.2 bar</li> <li>&gt; Different operating modes for con- tinuous degassing</li> <li>&gt; Low power consumption, long service life</li> <li>&gt; Modular design</li> <li>&gt; Automatic switching for twin-head pump systems</li> <li>&gt; Up to 50% glycol-based antifreeze</li> <li>&gt; Flexible connections and hoses</li> <li>&gt; Optionally: Integration into Building Management System</li> <li>&gt; Optionally: Diaphragm break detector</li> </ul>	<ul> <li>&gt; Up to 50% glycc</li> <li>&gt; Continuous degatrolled topping-</li> <li>&gt; Active degassing ring technology performance</li> <li>&gt; Individually adju performance thr degassing.</li> <li>&gt; Low installation</li> <li>&gt; Completely asse connection</li> <li>&gt; Compact and roll</li> <li>&gt; Version dependit</li> </ul>
Equipment/ function	<ul> <li>Dimensions and hydraulic output as per EN 22858</li> <li>Hydraulics in spheroidal cast iron EN-GS400 (MG version)</li> <li>Flange according to EN 1092-1</li> <li>With or without spacer coupling</li> <li>2 or 4-pole IEC standard motor</li> <li>Baseplate: steel or cast iron</li> <li>Supplied as complete unit with pump, coupling, coupling guard, motor and baseplate or without motor or pump only, with bare shaft end</li> </ul>	<ul> <li>Dimensions and hydraulic output as per EN 733</li> <li>Standard mechanical seal corresponding to the heat carrier fluid</li> <li>Version with or without spacer coupling</li> <li>2 or 4-pole IEC standard motor</li> <li>Supplied as a complete unit with pump, coupling, coupling guard, motor and baseplate or without motor or pump only, with bare shaft end</li> </ul>	<ul> <li>Automatic pump control via Wilo-SCe</li> <li>Parts that come in contact with the fluid are corrosion-resistant</li> <li>Base frame made of galvanised steel, with height-adjustable vibration absorbers for insulation against structure-borne noise</li> <li>Distributor steel, with corrosion-resistant coating</li> <li>Shut-off valves, non-return valve, pressure gauge and premounted seals</li> <li>Differential pressure sensor</li> </ul>	Equipment/ function	<ul> <li>→ 1 or 2 Wilo pumps per station</li> <li>→ Microprocessor control</li> <li>→ Diaphragm pressure vessel in different sizes</li> <li>→ Diaphragm pressure vessel with white epoxy powder coating</li> </ul>	<ul> <li>→ Integrated Wilo</li> <li>→ Clear operation v</li> <li>→ Assembled and r</li> </ul>



Series	Wilo-PlavisC	Wilo-SiClean	Wilo-SiClean Comfort	Series	Wilo-WEH	Wilo-WEV
Design	Automatic condensate lifting unit	Compact particle separator kit, consisting of mechanical and hydraulic components. Manual emptying of the system	Fully-automatic, compact particle separa- tor consisting of mechanical and hydraulic components. The system is drained automatically.	Design	Compact pressure-maintaining system ready for connection for easy installation and commissioning. System comprising mechanical and hydraulic components as well as CE + switchgears.	Compact pressure ready for connect and commissionir mechanical and h well as CE + switc
Application	For pumping condensate out of heat generators with condensing boiler technology, air-conditioning and cooling systems	Removes particles from heating systems using natural physical phenomena in commercial properties and for district heating	Removes particles from heating systems using natural physical phenomena in com- mercial properties and for district heating	Application	Pressure-maintaining system designed to ensure constant and stable pressure in heating and cooling closed loops. For installation in commercial properties (office buildings, hotels,).	Pressure-maintain to ensure constan heating and coolin For installation in (office buildings, l
Duty chart	Wilo-Plavis 011-C, 013-C, 015-C			Duty chart		
Volume flow Q <sub>max</sub>	330 l/h	4 m³/h	47 m³/h	Volume flow Q <sub>max</sub>	-	_
Delivery head H <sub>max</sub>	4 m	_	_	Delivery head H <sub>max</sub>	_	_
Technical data	<ul> <li>→ Mains connection 1~ 100-240 V, 50/60 Hz</li> <li>→ Max. fluid temperature 60 °C</li> <li>→ Protection class IPX4</li> <li>→ Inlet connections 18/40 mm</li> <li>→ Tank volume 0.7 I to 1.6 I</li> </ul>	<ul> <li>→ Fluid temperature: 0 °C to +95 °C</li> <li>→ Mains connection: 1~230 V, 50 Hz</li> </ul>	<ul> <li>→ Fluid temperature 0 °C to +95 °C</li> <li>→ Mains connection: 3~400 V, 50 Hz</li> </ul>	Technical data	<ul> <li>→ Fluid temperature: 0 °C to + 90 °C</li> <li>→ Mains connection: 1-230 V, 50 Hz</li> <li>→ Mains connection: 3-400 V, 50 Hz</li> <li>→ Max. operating pressure: 6 bar</li> </ul>	<ul> <li>→ Fluid temperat</li> <li>→ Mains connect</li> <li>→ Max. operating</li> </ul>
Special features	<ul> <li>Reliable level measurement via electrode level switching</li> <li>Easy installation thanks to Plug &amp; Pump with adjustable inlet</li> <li>Quick and easy maintenance thanks to removable service cap and integrated non-return ball valve</li> <li>Energy savings due to low electricity consumption (&lt; 20 W)</li> <li>Compact, modern construction and quiet operation (&lt; 40 dBA)</li> </ul>	<ul> <li>Removal of magnetic and non-magnetic particles from the fluid, venting of micro bubbles</li> <li>High cleaning efficiency due to physical effects (gravity, filtration)</li> <li>Easy to use due to ease of installation, maintenance, and simplified settings</li> <li>Corrosion-resistant thanks to stainless steel particle separator</li> </ul>	<ul> <li>High efficiency via combination of physical effects</li> <li>"Plug &amp; Play" design; fully automated operation</li> <li>Fully automated and adjustable disposal of collected particles in the desludging tank</li> <li>Highly functional thanks to removal of all magnetic and non-magnetic particles, free air and micro bubbles in the fluid, support for the degasification process</li> </ul>	Special features	<ul> <li>System ready to connect</li> <li>Open tanks range in PPH, light and corrosion proof.</li> <li>Easy-to-adjust switchgear including safety features.</li> <li>High corrosion resistance materials including 304 stainless steel collectors.</li> <li>MHIL pumps with IE2 motor and stainless steel hydraulics</li> <li>Possibility to order non-standard versions in MSO</li> </ul>	<ul> <li>System ready t</li> <li>Open tanks rar corrosion proof</li> <li>Easy-to-adjust safety features</li> <li>High corrosion cluding 304 sta</li> <li>MVIL pumps w less steel hydra</li> <li>Possibility to o sions in MSO</li> </ul>
Equipment/ function	<ul> <li>→ Electric connecting cable with plug (1.5 m)</li> <li>→ Detachable service cap; integrated non-return ball valve</li> <li>→ 013-C and 015-C: Pressure hose (5 m, Ø 8); Alarm cable (1.5 m); Alarm contact (NC/NO contact); Adjustable rubber guide, Ø 2 to Ø 32; Fixation material for wall mounting</li> <li>→ 015-C: granulate chamber including granulate for pH-neutralisation</li> </ul>	<ul> <li>Anti-corrosive, hydraulic components</li> <li>Pre-assembled fabric-reinforced connecting hoses</li> <li>Pre-assembled venting unit for expulsion of micro bubbles</li> <li>Movable magnetic rods for separation of iron oxide particles</li> <li>Volume flow limiter</li> <li>Manual purge valve for draining of collected particles</li> <li>Switchbox for monitoring the circulator</li> </ul>	<ul> <li>Corrosion-resistant, hydraulic components</li> <li>Fabric-reinforced hoses connected to inlet and outlet of the particle separator</li> <li>Pre-assembled flushing device including electronic drain valve and additional safety valve</li> <li>Automatic draining of the particle collection chamber</li> <li>SC switchgear</li> </ul>	Equipment/ function	<ul> <li>Fully-electronic central control unit with configurable parameters for pres- sure setting</li> <li>MHIL-series multistage pump</li> <li>Open composite vessels with excellent resistance to corrosion (to be ordered separately)</li> <li>Two pipeworks, one on the discharge side and one on the suction side</li> </ul>	<ul> <li>→ Fully-electroni with configura sure setting</li> <li>→ MVIL-series m</li> <li>→ Open composi resistance to c separately)</li> <li>→ Two pipeworks side and one of</li> </ul>

	Wilo-CC/CC-FC/CCe-HVAC system Wilo-SC/SC-FC/SCe-HVAC system
	0 1 1 1 1 1 1 1 1 1 1 1 1 1
-maintaining system ion for easy installation ig. System comprising ydraulic components as hgears.	
ning system designed it and stable pressure in ng closed loops. commercial properties hotels,).	Switchgear for controlling 1 to 6 pumps
ure: 0 °C to + 90 °C ion: 3-400 V, 50 Hz I pressure: 8 bar	
o connect ige in PPH, light and f. t switchgear including s. resistance materials in- ainless steel collectors. ith IE2 motor and stain- aulics rder non-standard ver-	→ Special versions on request
c central control unit ble parameters for pres- ultistage pump te vessels with excellent orrosion (to be ordered s, one on the discharge n the suction side	<ul> <li>CC-HVAC for 1 to 6 pumps with fixed speed</li> <li>CCe-HVAC for 1 to 6 pumps with integrated speed control or external frequency converter control</li> <li>SC-HVAC for 1 to 4 pumps</li> <li>SC and SC-FC for standard pumps with fixed speed</li> <li>SCe for electronically controlled pumps or pumps with integrated frequency converter</li> </ul>

Series	Wilo-EFC	1. Wilo-IR-Stick 2. Wilo-IF modules, Wilo-CIF modules	Wilo-Sub TWU 4GT	Series	S	Wilo-Star-Z NOVA	Wilo-Yonos PICO-
			Milo S				
Design	Frequency converter		Submersible pump, multistage	Desig	jn	Glandless circulator with screwed con- nection and blocking-current proof synchronous motor	Glandless circulato nection, EC motor adjustment
Application	Wall-mounted frequency converter for fixed-speed pumps equipped with asyn- chronous or permanent magnet motors	<ol> <li>Remote control with infrared interface for electronically controlled Wilo pumps</li> <li>Wilo-Control products for connecting pumps to building automation</li> </ol>	Water supply from boreholes, wells and rainwater storage for geothermal applica- tions	Applic	cation	Domestic hot water circulation systems in industry and building services	Domestic hot wate industry and in bui
Duty chart			Wite-Sab TWU 4GT	Duty o	chart	Wite-Star-Z MDWA	2000,5-0 20,35-0 0,5-0 15, 20, 25,05-0
Volume flow O	_	_	6 m³/h	Volun	ne flow Q	0.4 m³/h	4.4 m³/h
Delivery head H	_	_	33 m	Delive	ery head H	1.1 m	8 m
Technical data	<ul> <li>→ Max. ambient temperature: 55°C (50°C without derating) up to 90 kW, 50°C (45°C without derating) from 110 kW</li> <li>→ Environment protection class: IP55 up to 90 kW, IP54 from 110 kW</li> </ul>	_	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Fluid temperature: 3-30 °C</li> <li>→ Max. sand content: 50 g/m<sup>3</sup></li> <li>→ Max. immersion depth: 200 m</li> </ul>	Techn	nical data	<ul> <li>→ Fluid temperature: Drinking water, max. +95 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Screwed connection Rp ½</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul> <li>→ Fluid temperatu</li> <li>→ Mains connecti</li> <li>→ Protection class</li> <li>→ Screwed conne</li> <li>→ Max. operating</li> </ul>
Special features	<ul> <li>Flexible and safe application</li> <li>Compact design with energy-saving cooling concept to reduce temperature losses</li> <li>Integrated energy-efficient harmonic reduction</li> <li>Additional energy-saving function in the partial load range of the pump</li> <li>Versatile use in pump applications thanks to several connection options and different control modes</li> </ul>	_	<ul> <li>Performance-optimised motors for geothermal applications</li> <li>Parts in contact with the fluid are corrosion-resistant</li> <li>Integrated non-return valve</li> <li>Low wear due to floating impellers</li> </ul>	Specia	al features	<ul> <li>Hygienically safe thanks to proven technology</li> <li>Improved energy efficiency due to synchronous motor with power consumption of only 3-6 watts and thermal insulation shell as standard</li> <li>Quick, easy installation and replace- ment of common pump types thanks to flexible service motor and Wilo- Connector</li> </ul>	<ul> <li>Hygienic safety steel pump hou</li> <li>Energy-saving motor</li> <li>High ease of us Button Technol interface and fr functions</li> <li>Easy maintenar of operational r automatically a restart or pump</li> <li>Current parame power consump times via LED d</li> </ul>
Equipment/ function	<ul> <li>External communication with module (optional): Profibus, DeviceNet, Profi- Net, Ethernet, Modbus</li> <li>Additional accessories (optional): dU/ dt filter, sine filter</li> </ul>	<ul> <li>→ Wilo IR-Stick</li> <li>→ Remote control for electronically controlled Wilo pumps with infrared interface</li> <li>→ Wilo-IF module</li> <li>→ Plug-in modules for connecting to building automation: Stratos GIGA2.0-I/-D, Stratos GIGA/-D/-B, Yonos GIGA2.0-I/-D, IP-E/DP-E, IL-E/DL-E/BL-E, MHIE, MVIE, Helix VE.</li> <li>→ Wilo-CIF modules for: Stratos MAXO, Stratos GIGA2.0-I/-D, Yonos GIGA2.0-I/-D, Helix2.0 VE, Medana</li> <li>→ Plug-in modules for connecting to building automation of products compatible with CIF module</li> </ul>	<ul> <li>Multistage submersible pump with radial or semi-axial impellers</li> <li>Integrated non-return valve</li> <li>NEMA coupling</li> <li>Three-phase motor</li> <li>Hermetically sealed motors</li> </ul>	Equip functi	oment/ ion	<ul> <li>→ Wilo-Connector</li> <li>→ Ball shut-off valve on the suction side and backflow preventer on the discharge side (Star-Z NOVA A, T)</li> <li>→ Star-Z NOVA T incl. time switch, thermostat and thermal disinfection detection, LCD display with symbolic language</li> </ul>	<ul> <li>Control modes: pressure (Δp-c) fixed speed star (continuously a</li> <li>Automatic debil</li> <li>Manual restart function</li> <li>LED display for displaying curre flow</li> <li>Stainless steel p</li> <li>Thermal insulat</li> <li>Wilo-Connector</li> </ul>



Series	Wilo-Stratos MAXO-Z	Wilo-Yonos MAXO-Z	Wilo-Star-Z Wilo-Star-ZD	Series	Wilo-TOP-Z	Wilo-VeroLine-IP-Z
Design	Smart glandless circulator with screwed connection or flange connection, EC mo- tor with integrated power adjustment	Glandless circulator with screwed con- nection or flange connection, EC motor with automatic power adjustment	Glandless circulator with screwed con- nection	Design	Glandless circulator with screwed con- nection or flange connection	Glanded circulator in screwed connectior
Application	Domestic hot water circulation systems and similar systems in industry and in building services	Domestic hot water circulation systems in industry and in building services	Domestic hot water circulation systems in industry and in building services	Application	Domestic hot water circulation systems in industry and in building services	For pumping drinkir hot water without a in heating, cold wat systems
Duty chart	Wile-Strates MAXO-2		Wile-Star-Z Wile-Star-ZD 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Duty chart		
Volume flow Q <sub>max</sub>	46 m³/h	49 m³∕h	8.5 m³/h	Volume flow Q <sub>m</sub>	<sub>α</sub> 67 m³/h	5 m³/h
Delivery head H <sub>max</sub>	12 m	16 m	6.0 m	Delivery head H	<sub>ax</sub> 9 m	4.5 m
Technical data	<ul> <li>→ Fluid temperature: drinking water max. +80 °C</li> <li>→ Heating water -10 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50/60 Hz</li> <li>→ Nominal diameter Rp 1 to DN 65</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul> <li>→ Permissible temperature range drink- ing water up to a water hardness of 3.57 mmol/l (20 °dH) max. +80 °C</li> <li>→ Mains connection 1~230 V, 50/60 Hz</li> <li>→ Nominal diameter Rp 1 to DN 65</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul> <li>→ Fluid temperature: drinking water up to water hardness 3.2 mmol/l (18 °dH) max. +65 °C</li> <li>→ Mains connection 1~230 V, 50 Hz,</li> <li>→ Screwed connection Rp ½ (¾), Rp 1</li> <li>→ Max. operating pressure 10 bar</li> </ul>	Technical data	<ul> <li>→ Fluid temperature: drinking water max. +80 °C (+65°C for TOP-Z 20/4 and TOP-Z 25/6)</li> <li>→ Mains connection 1~230 V, 50 Hz; 3~400 V, 50 Hz</li> <li>→ Nominal diameter Rp 1 to DN 80</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul> <li>→ Fluid temperature to a water hardn °dH) max. +65 °C</li> <li>→ Heating water -{</li> <li>→ Mains connectio 3~230/400 V, 50</li> <li>→ Nominal diameter</li> <li>→ Max. operating p</li> </ul>
Special features	<ul> <li>Operation by guided application settings with the setting assistant</li> <li>Maximum drinking water hygiene and energy efficiency by the new control function T-const.</li> <li>Optimum hygiene support thanks to thermal disinfection.</li> <li>Installation comfort by the Wilo-Connector</li> <li>Corrosion-resistant pump housing in stainless steel</li> </ul>	<ul> <li>Indication of set delivery head and fault codes</li> <li>Quick setting when replacing an uncontrolled standard pump with pre-set speed stages, e.g. TOP-Z</li> <li>Electrical connection with Wilo plug</li> <li>Collective fault signal ensures system availability</li> <li>Corrosion-resistant pump housing in red brass for systems where oxygen entry is possible</li> <li>Variants of 16 m pumps with pump housing in stainless steel</li> </ul>	→ All plastic parts that come into contact with the fluid fulfil KTW recommenda- tions	Special features	<ul> <li>→ Thermal winding contact (WSK) as potential-free contact (depending on type)</li> <li>→ Rotation control lamp indicates the correct direction of rotation (only for 3~)</li> <li>→ Thermal insulation as standard</li> </ul>	<ul> <li>→ High resistance t to stainless steel impeller</li> <li>→ Wide range of ap suitability for wa 5 mmol/l (28 °dH</li> <li>→ All plastic parts t with the fluid ful tions</li> </ul>
Equipment/ function	<ul> <li>Control modes: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT- const and Q-const</li> <li>Multi-Flow Adaptation</li> <li>Remote control via Bluetooth interface</li> <li>Selection of application-based pre- settings in the setting assistant</li> <li>Heat measurement</li> <li>Disinfection detection</li> <li>Pump venting function</li> <li>Retrofittable interface modules for communication</li> </ul>	<ul> <li>Control modes: Δp-c, Δp-v, 3 speed stages</li> <li>LED display for setting the required delivery head</li> <li>Quick electrical connection with Wilo plug</li> <li>Motor protection, fault signal light and contact for collective fault signal</li> <li>Corrosion-resistant pump housing in red brass; for variants of 16 m pumps stainless steel</li> <li>Combination flanges PN 6/PN 10 (for DN 32 to DN 65)</li> <li>Retrofitable interface module (Connect module) for connection to building automation</li> </ul>	<ul> <li>→ Constant speed or 3 selectable speed stages (Star-Z3),</li> <li>→ Quick electrical connection with spring clips</li> <li>→ Star-ZD version as twin-head pump</li> </ul>	Equipment/ function	<ul> <li>Pre-selectable speed stages</li> <li>Thermal insulation as standard</li> <li>All plastic parts that come into contact with the fluid fulfil KTW recommendations</li> <li>Combination flange PN 6/PN 10 (DN 40 to DN 65)</li> </ul>	<ul> <li>→ Single-stage, lov pump in in-line c</li> <li>→ Mechanical seal</li> <li>→ Screwed connect</li> <li>→ Motor with one-</li> </ul>



in in-line design with

ting water, cold and abrasive substances, ater and cooling water



ure: drinking water up Iness of 4.99 mmol/l (28 -8 °C to +110 °C ion 1~230 V, 50 Hz, ) Hz ter Rp 1

, pressure 10 bar

e to corrosive fluids due el housing and Noryl

applications due to vater hardness up to

that come into contact ulfil KTW recommenda-

w-pressure centrifugal design with tion -piece shaft

### **Standard glandless** circulators for non-EU markets

#### Inside the EU\*

According to the ErP Directive (2009/125/EG) with ordinances (EG) 641/2009 and (EG) 622/2012, uncontrolled standard glandless circulators are no longer allowed to be sold in the EU from 1 January 2013 on.

Exceptions to this rule are products, like for example, glandless circulators which are integrated in heat generators. These exceptions apply until the Directive prescribes also the replacement of newly installed heat generators or solar stations from August 2015 on.

#### Outside the EU

Pumps of the following series are allowed to be further distributed outside the EU, however in compliance with the legislation in force in these countries.

#### Star-RS/RSD TOP-S/SD TOP-RL Star-STG



Note An energy efficiency evaluation and a CE conformity declaration (CE mark) do no longer exist for these products.

\*Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Great Britain

+ Croatia (EU member from 2013 on), + Turkey (candidate country), + Serbia (candidate country)

+ 4 countries of the EFTA (European Free Trade Association) Iceland, Norway, Liechtenstein, Switzerland



#### Wilo-TOP-RL

Carlies	Wile Stor STC
Series	
	0-0-0-
	wilo Ot
Design	Glandless circulator with screwed con-
	nection
Application	Circulation in solar thermal and geother-
	mal energy systems
Duty chart	Wile-Star-STG
	•
	20. 24
	3.8 m-/n
Technical data	$\rightarrow$ Eluid temperature _10 °C to ±110 °C in
lecinical data	short-term duty (2 h) +120 °C
	→ Mains connection $1 \sim 230$ V, 50 Hz → Screwed connection Rp ½, Rp 1
	$\rightarrow$ Max. operating pressure 10 bar
Special teatures	→ Special hydraulics for use in solar ther- mal and geothermal energy systems
	Pump housing with wrench attach- ment point
	$\rightarrow$ Pump housing with cataphoretic (KTL)
	coating protects against corrosion due to condensate formation
Equipment/	→ 3 manually selectable speed stages
TUNCTION	<ul> <li>wrench attachment point on pump housing</li> </ul>
	<ul> <li>Blocking-current proof motor, motor</li> </ul>
	$\rightarrow$ Cable inlet on both sides for simple
	installation

- → Quick electrical connection with spring clips → Pump housing with cataphoretic coating

Exceed environmental requirements

# Join the ecolution.

Ensure maximum hygiene via drinking water circulation with continuous temperature monitoring and regular water exchange. Save up to 90% drinking water.





Series	Wilo-RAIN1 Wilo-RAIN3	Wilo-RainSystem AF 150	Wilo-RainSystem AF 400	Se	eries	Wilo-Jet WJ Wilo-Jet HWJ	Wilo-HiMulti 3 (F Wilo-HiMulti 3 C
Product photo				Pr	roduct photo		
Design	Ready-to-plug rainwater utilisation system with 1 HiMulti3 P self-priming centrifugal pump	Automatic rainwater utilisation system with 2 MultiCargo MC self-priming cen- trifugal pumps	Automatic rainwater utilisation system with run-down tank and 2 MultiPress MP non-self-priming centrifugal pumps	De	esign	Self-priming single-stage centrifugal pumps	Self-priming (ve priming multista systems
Application	Rainwater utilisation for saving drinking water in conjunction with rainwater stor- age tanks or reservoirs	Rainwater utilisation in multi-family houses and small businesses for saving drinking water in conjunction with rain- water storage tanks or reservoirs	Hybrid system for commercial and indus- trial rainwater utilisation for saving drink- ing water in conjunction with rainwater storage tanks or reservoirs	Ap	pplication	For pumping water from wells for filling, pumping empty, transferring by pump- ing, irrigation and sprinkling. As emergency pump for overflows	For domestic dri sprinkling, irriga water utilisation
Duty chart	$H/m_{50}$ $40$ $30$ $20$ $10$ $0$ $1$ $2$ $3$ $4$ $5$ $6$ $2$ $2$ $3$ $4$ $3$ $3$ $3$ $3$ $3$ $3$ $3$ $3$ $3$ $3$	H/m 50 40 30 20 10 0 2 4 6 8 10 12 14 Q/m <sup>3</sup> /h	H/m 50 40 30 20 0 2 4 6 8 10 12 14 Q/m³/h	Du	uty chart	H/m 40 30 20 10 0 1 2 3 4 5Q/m <sup>3</sup> /h	H/m 50 40 30 20 10 0 0 1 2
Volume flow Q <sub>max</sub>	6 m³/h	16 m³/h	16 m³/h	Vo	olume flow Q <sub>max</sub>	5 m³/h	7 m³/h
Delivery head H <sub>max</sub>	55 m	55 m	55 m	De	elivery head H <sub>max</sub>	50 m	55 m
Technical data	<ul> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Suction head max. 8 m</li> <li>→ Fluid temperature +5 °C to +35 °C</li> <li>→ Max. operating pressure 8 bar</li> <li>→ Replenishment reservoir 111</li> <li>→ Protection class IPX4</li> </ul>	<ul> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Suction head max. 8 m</li> <li>→ Fluid temp. +5 °C to +35 °C</li> <li>→ Max. operating pressure 8 bar</li> <li>→ Replenishment reservoir 150 I</li> <li>→ Protection class IP41</li> </ul>	<ul> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Fluid temp. +5 °C to +35 °C</li> <li>→ Max. operating pressure 10 bar</li> <li>→ Replenishment reservoir 400 I</li> <li>→ Protection class IP54</li> </ul>	Te	echnical data	<ul> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Inlet pressure max. 1 bar</li> <li>→ Fluid temperature +5 °C to +35 °C</li> <li>→ Max. operating pressure 6 bar</li> <li>→ Protection class IP44</li> </ul>	<ul> <li>→ Mains connect</li> <li>→ Inlet pressure</li> <li>→ Fluid tempera</li> <li>°C for max. 10</li> <li>→ Operating pre</li> <li>→ Protection classical</li> </ul>
Special features	<ul> <li>Backflow prevention according to DIN 1989 and EN 1717</li> <li>Low noise, encapsulated multistage centrifugal pump</li> <li>Ready to plug with variety of hydraulic connections</li> <li>Compact modular construction</li> <li>Touch screen (RAIN3), user friendly designed interface</li> <li>Integrated features: dry-running protection, automatic water periodic refresh, adjustable starting pressure</li> </ul>	<ul> <li>Low-noise due to multistage pumps</li> <li>Components that come in contact with the fluid are corrosion-free</li> <li>Maximum operational reliability due to fully electronic controller (RCP)</li> <li>Demand-oriented fresh water replen- ishment</li> <li>High reliability due to flow-optimised and noise-optimised replenishment reservoir</li> </ul>	<ul> <li>Low-noise due to multistage pumps</li> <li>Components that come in contact with the fluid are corrosion-free</li> <li>Maximum operational reliability due to a fully electronic controller (RCH)</li> <li>Demand-oriented fresh water replen-ishment</li> <li>Automatic feeding pump control</li> <li>System/level control in the low-voltage range</li> </ul>	Sp	pecial features	<ul> <li>→ Ideal for portable outdoor applications (hobby, garden)</li> <li>→ HWJ version with diaphragm pressure vessel and pressure switch</li> <li>→ FWJ version with fluid control for system control</li> </ul>	<ul> <li>→ Easy: Electric off switch, er</li> <li>→ Efficient and ficient hydrau</li> <li>→ HiMulti 3 C (P tion and auto 360° for easie</li> <li>→ HiMulti 3 H (F hammer prote</li> </ul>
Equipment/ function	<ul> <li>Connection-ready module on vibration-insulated base frame</li> <li>Discharge-side pipework Rp 1</li> <li>1.5 m power supply cable and mains plug</li> <li>Menu-prompted operation and display</li> <li>Monitoring of rainwater storage levels</li> <li>Connection for external failure report- ing</li> <li>Integrated overflow warning sensor (RAIN3)</li> </ul>	<ul> <li>Connection-ready module on vibration-insulated tubular frame</li> <li>Discharge-side pipework R 1½, pres- sure vessel, shut-off device</li> <li>Pressure gauge 0-10 bar</li> <li>Central switchgear (RCP)</li> <li>Menu-prompted operation and display</li> <li>Pump cycling/test run</li> <li>Automatic fault-actuated switchover, peak-load operation, water exchange in replenishment reservoir</li> </ul>	<ul> <li>Connection-ready module on vibration-insulated baseplate</li> <li>Discharge-side pipework R 1½, pres- sure vessel, shut-off device</li> <li>Pressure gauge 0-10 bar</li> <li>Hybrid tank with all connections, calmed inlets and overflow with siphon</li> <li>Central switchgear (RCH)</li> <li>Pump cycling/test run</li> <li>Automatic fault-actuated switchover, peak-load operation, water exchange in replenishment reservoir</li> </ul>	Eq	quipment/ unction	<ul> <li>→ With or without carrying frame, depending on the version (WJ, FWJ)</li> <li>→ Connection cable with plug</li> <li>→ On/Off switch</li> <li>→ Thermal motor protection switch</li> </ul>	<ul> <li>→ Directly flang</li> <li>→ Thermal moto</li> <li>1~230 V vers</li> <li>→ HiMulti 3 C (P</li> <li>trol, low-wat</li> <li>→ HiMulti 3 H (P</li> <li>phragm press</li> </ul>



over- and undervoltage)

- sure vessel 50 l/100 l





- → EC IE5 motor
- → Integrated electronic control

Series	Wilo Helix VE	Wilo-Helix VE 2.0	Wilo Helix V	Series	Wilo-Helix FIRST V
Product photo	Series modification			Product photo	
Design	Non-self-priming multistage pump with integrated frequency converter	Highly efficient, non-self-priming high- pressure multistage centrifugal pump in vertical design and in-line connections, equipped with electronically controlled EC motor of energy efficiency class IE5 in accordance with IEC 60034-30-2.	Non-self-priming multistage pump	Design	Non-self-priming multistage pump
Application	Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation	Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, heating, washing systems, irrigation	Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation	Application	Water distribution and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation
Duty chart	H/m 240 200 160 120 80 40 0 10 20 30 40 50 60 70 Q/m³/h	H/m 240 200 160 120 80 40 0 10 20 30 40 50 60 70 Q/m³/h	H/m 280 240 200 160 120 80 40 0 10 20 30 40 50 60 70 Q/m³/h	Duty chart	H/m 240 240 240 200 160 10 20 30 40 0 10 20 30 40 50 60 70 Q/m <sup>3</sup> /h
Volume flow $Q_{max}$	80 m³/h	80 m³/h	80 m³/h	Volume flow Q <sub>max</sub>	80 m³/h
Delivery head H <sub>max</sub>	240 m	240 m	280 m	Delivery head H <sub>max</sub>	280 m
Technical data	<ul> <li>→ Fluid temperature -30 to +120 °C with EPDM (-10 to +90 °C with FKM)</li> <li>→ Max. operating pressure 16/25 bar</li> <li>→ Max. inlet pressure 10 bar</li> <li>→ Protection class IP55</li> <li>→ Minimum efficiency index MEI ≥0.7 (Helix VE 16: MEI ≥0.5)</li> </ul>	<ul> <li>→ Fluid temperature: -30 120 °C</li> <li>→ Motor power (IE5): 0.55 22 kW</li> <li>→ Max. operating pressure: 16/25 bar</li> <li>→ Protection class: IP55</li> <li>→ Minimum efficiency index MEI ≥0.7 (Helix2.0-VE 16: MEI ≥0.5)</li> <li>→ Max. ambient temperature: 50 °C</li> </ul>	<ul> <li>→ Fluid temperature -30 to +120 °C with EPDM (-10 to +90 °C with FKM)</li> <li>→ Max. operating pressure 16/25/30 bar</li> <li>→ Max. inlet pressure 10 bar</li> <li>→ Protection class IP55</li> <li>→ Minimum efficiency index MEI ≥0.7 (Helix V 16: MEI ≥0.5)</li> </ul>	Technical data	<ul> <li>→ Fluid temperature: -20 to +120 °C</li> <li>→ Max. operating pressure: 16/25/30 bar</li> <li>→ Protection class: IP55</li> <li>→ Minimum efficiency index MEI ≥0.7 (Helix FIRST V 16: MEI ≥0.5)</li> </ul>
Special features	<ul> <li>Multistage, speed-configurable stainless steel high-efficiency pump with 2D/3D hydraulics</li> <li>Optimised design for easy operation, transportation and installation with handles, lantern adjustment and rotatable free flanges</li> <li>User-friendly display with Green Button</li> <li>Technology and full text menu</li> <li>IF plug-in module for quick communication with the BMS</li> <li>Drinking water approval</li> </ul>	<ul> <li>High efficent and corrosion resistant 2D/3D laser welded hydraulics</li> <li>Easy connection to building automation via CIF modules</li> <li>Available in 1~, up to 2.2 kW</li> <li>WRAS-KIWA/UBA/ACS for drinking water approvals</li> </ul>	<ul> <li>Efficiency-optimised, laser-welded 2D/3D hydraulics, flow and degassing optimised</li> <li>Corrosion-resistant impellers, guide vanes and stage housings</li> <li>Maintenance-friendly design with particularly robust coupling guard</li> <li>Drinking water approval</li> </ul>	Special features	<ul> <li>Efficiency-optimised, laser-welded, optimised 2D/3D hydraulics</li> <li>Corrosion-resistant impellers, guide vanes and stage housings</li> <li>Flow and degassing-optimised hydraulic parts</li> <li>Reinforced pump housing, flow and NPSH-optimised</li> <li>Space-saving and easy maintenance thanks to compact design</li> </ul>
Equipment/ function	<ul> <li>Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)</li> <li>Helix VE 2 - 16, PN16 with oval flanges, PN25 with round flanges</li> <li>Helix VE 22 - 36, with round flanges</li> <li>Helix VE 22 - 36, with round flanges</li> <li>IEC standard motor</li> <li>EC motor (IE5) for types with 11 22 kW</li> <li>Integrated frequency converter</li> </ul>	<ul> <li>Orientable 2" coloured LCD display</li> <li>Wilo Green Button Technology and soft button with return function for menue navigation and manual pump setting</li> <li>Green LED indicates pump status</li> <li>Blue LED indicates pump is influenced externally via an interface</li> <li>Volume flow calculation by using dif- ferential pressure sensor</li> <li>Operating statistic data</li> <li>Pump kick function</li> </ul>	<ul> <li>Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)</li> <li>Helix V 2 - 16, PN16 with oval flanges, PN25 with round flanges</li> <li>Helix V 22 - 36, with round flanges</li> <li>IEC standard motor</li> </ul>	Equipment/ function	<ul> <li>Corrosion-resistant impellers, guide vanes and stage housings</li> <li>Helix FIRST V 2 - 16, PN16 with oval flanges, PN25 with round flanges</li> <li>Helix FIRST V 22 - 36, with round flanges</li> <li>IEC standard motor</li> </ul>



Wilo-Zeox FIRST H

connections

Firefighting

H/n

400

300 200

280 m³/h

system

495 m

eox FIRST

50



- $\rightarrow$  Flushing by-pass device to ensure a long service life
- → Packing gland on request, exchangeable without disassembling the pump
- housing made of cast iron
- $\rightarrow$  MVIE 70 ... to 95 ... PN16/25 with round flange
- $\rightarrow$  IEC standard motor
- $\rightarrow$  EC motor (IE5) for types with 11 ... 22 kW
- $\rightarrow$  Integrated frequency converter with Green Button Technology and LCD display for status indication

Series	Wilo-Multivert MVI 70, 95	Wilo-Medana CV1-L	RN, HS, IPB, PJ, STD PLURO, FG/FH	Series	Wilo-Multivert MVISE	Wilo-Multivert M
Product photo				Product photo		
Design	Non-self-priming multistage pump	Non-self-priming vertical multistage pump in in-line design	High-pressure multistage centrifugal pump in sectional construction, mounted on baseplate	Design	Non-self-priming multistage pump with glandless pump motor and integrated frequency converter	Non–self–priming glandless pump m
Application	Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation	Water supply and pressure boosting, industrial recirculation systems, process water, closed cooling circuits, fire- extinguishing systems, washing systems, irrigation, rainwater utilisation	Metal industry, mine dewatering, desali- nation plants, boiler supply, firefighting, high-pressure cleaning, water supply	Application	Water supply and pressure boosting	Water supply and
Duty chart	H/m 140 120 100 80 60 60 60 70 20 40 60 80 100 120 Q/m³/h	H/m 160 120 80 40 0 5 10 15 20 Q/m <sup>3</sup> /h		Duty chart	H/m 100 80 60 40 20 0 2 4 6 8 10 12 Q/m³/h	H/m 100 80 60 40 20 0 2 4
Volume flow <i>Q<sub>max</sub></i>	140 m³/h	24 m³/h	1,000 m³/h	Volume flow Q <sub>max</sub>	14 m³/h	14 m³/h
Delivery head H <sub>max</sub>	172 m	158 m	1800 m	Delivery head H <sub>m</sub>	", 110 m	110 m
Technical data	<ul> <li>→ Fluid temperature -15 to +120 °C</li> <li>→ Max. operating pressure 16/25 bar</li> <li>→ Max. inlet pressure 10 bar</li> <li>→ Protection class IP55</li> <li>→ Minimum efficiency index MEI ≥0.4</li> </ul>	<ul> <li>→ Fluid temperature of -20 to +120 °C with EPDM</li> <li>→ Ambient temperature of -15 to +50 °C</li> <li>→ Operating pressure max. 10 bar or max. 16 bar</li> <li>→ Max. inlet pressure 6 bar or max. 10 bar</li> <li>→ Protection class IP55</li> </ul>	<ul> <li>→ Permitted temperature range up to +80 °C, or up to +160 °C on request</li> <li>→ Max. operating pressure 180 bar</li> <li>→ Nominal diameter on discharge side DN32 to DN250</li> <li>→ 2- or 4-pole 50 Hz motors, 60 Hz on request</li> </ul>	Technical data	<ul> <li>→ Fluid temperature -15 to +50 °C</li> <li>→ Max. operating pressure 16 bar</li> <li>→ Max. inlet pressure 16 bar</li> <li>→ Protection class IP44</li> </ul>	<ul> <li>→ Fluid temperat</li> <li>→ Max. operating</li> <li>→ Max. inlet pres:</li> <li>→ Protection clas</li> </ul>
Special features	WVI 7095 in stainless steel with pump housing made of cataphoretic- coated cast iron	<ul> <li>Suitable for drinking water and for special applications due to stainless steel structure</li> <li>Space-saving, compact and robust pump design</li> <li>Suitable for use in ambient tempera- tures of up to 50 °C and expanded field of application especially for system integration</li> </ul>	<ul> <li>Modular design ensures pump versions in a variety of materials and versions which can be adapted to meet custom- er demands precisely</li> <li>Hydraulic pressure compensation relieves load on bearings and ensures a longer service life</li> <li>Multiple optional pressure connections allow different pressures to be supplied from a single pump</li> </ul>	Special features	<ul> <li>Glandless pump technology</li> <li>Virtually noiseless operation (up to 20 dB [A] quieter than conventional pumps)</li> <li>Space-saving, compact design</li> <li>Virtually maintenance-free thanks to a design which does not feature any mechanical seals</li> <li>Drinking water approval for all components that come in contact with the fluid (EPDM version)</li> </ul>	<ul> <li>Glandless pum</li> <li>Virtually noisel</li> <li>20 dB [A] quiet</li> <li>pumps)</li> <li>Space-saving,</li> <li>Virtually maint</li> <li>a design which</li> <li>mechanical sea</li> <li>Drinking water</li> <li>ponents that c</li> <li>fluid (EPDM vertice)</li> </ul>
Equipment/ function	<ul> <li>→ MVI 70 to 95 PN16/PN25 with round flange</li> <li>→ IEC standard motor, 2-pole</li> </ul>	<ul> <li>Pump in in-line design, with a continuous motor pump shaft</li> <li>Hydraulics and pump housing in 1.4301 (AISI 304)</li> <li>Oval flange connection</li> <li>Single-phase or three-phase AC motor</li> <li>Single-phase AC motor equipped with capacitor and built-in thermal motor protection (with automatic restart)</li> </ul>	<ul> <li>2 to 15-stage industrial version</li> <li>Screwed segments</li> <li>Hydraulic axial compensation</li> <li>Shaft sealing with mechanical seal or stuffing box packing</li> <li>Optionally with multiple pressure outlets for e.g. fire-extinguishing ap- plications</li> <li>Supplied as a complete unit: with pump, coupling, motor mounted on baseplate or without motor or as pump only, with bare shaft end</li> </ul>	Equipment/ function	<ul> <li>Multistage, non-self-priming, vertical high-pressure centrifugal pump in in-line design</li> <li>Glandless three-phase motor with integral water-cooled frequency converter</li> <li>Hydraulic connection with oval flanges PN16. Counter flanges made of stainless steel with female thread, screws and gaskets (scope of delivery)</li> </ul>	<ul> <li>→ Multistage, nor high-pressure in-line design</li> <li>→ Glandless three</li> <li>→ Hydraulic conn PN16, counter less steel with and gaskets (so</li> </ul>



Series	Wilo-Medana CH3-LE	Wilo-Medana CH1-L	Wilo-Medana CH1-LC	Series	Wilo-SiBoost Smart 1 Helix VE SiBoost Smart 1 MVISE	Wilo-Economy CO/T
Product photo				Product photo		
Design	Highly efficient, non-self-priming multistage centrifugal pump in horizontal design, equipped with electronically controlled EC motor of energy efficiency class IE5 in accordance with IEC 60034- 30-2	Non–self–priming Multistage horizontal centrifugal pumps	Non-self-priming Multistage horizontal centrifugal pumps	Design	Water-supply units with a non-self- priming, high-pressure multistage centrifugal pump with integrated speed control of the series Helix VE or MVISE	Water supply syster separation and a no pressure multistage the Helix V or VE set
Application	Water distribution and boosting, water treatment, professional irrigation/agricul– ture, cooling, air conditioning	Pumping of process water and drinking water for: irrigation, pressure boosting, industrial applications (e. g. cooling circuits, car wash)	Pumping of process water for: irrigation, pressure boosting, industrial applications (e.g. cooling circuits, car wash)	Application	Full automatic water supply from public water supply network or reservoir For pumping drinking/process water, cooling water, water for firefighting	Fully automatic wat public water supply For pumping drinkir cooling water, wate
Duty chart		H/m 80 60 40 20 0 5 10 15 20 25Q/m³/h	H/m 80 60 40 20 0 5 10 15 20 25Q/m <sup>3</sup> /h	Duty chart	H/m 140 120 100 80 60 40 20 0 10 20 30 40 50 60 70 Q/m³/h	H/m 100 80 60 40 20 0 2 4
Volume flow Q <sub>max</sub>	24 m³/h	24 m³/h	18 m³/h	Volume flow Q	90 m³/h	10 m³/h
Delivery head H	100 m	69 m	78 m	Delivery head	μ <sub>παν</sub> 142 m	120 m
Technical data	<ul> <li>→ Mains connection: 3~ 380 V440 V 50 Hz/60 Hz; TN,TT, IT</li> <li>→ Motor power: 0.55~4 kW</li> <li>→ Rated pressure: 10 bar</li> <li>→ Fluid temperature: -20 °C to 120 °C</li> <li>→ Ambient temperature: -15 °C to 50 °C</li> <li>→ Protection class: IP55</li> </ul>	<ul> <li>→ Mains connection: 1~230 V, 50/60 Hz</li> <li>- 3~380/400/460 V, 50/60 Hz</li> <li>→ Rated pressure: 10 bar</li> <li>→ Fluid temperature: -20 °C to 120 °C</li> <li>→ Ambient temperature: -15 °C to 50 °C</li> <li>→ Protection class: IP55</li> </ul>	<ul> <li>→ Mains connection: 1~230 V, 50/60 Hz - 3~380/440 V, 50/60 Hz TN, TT, IT</li> <li>→ Rated pressure: 10 bar</li> <li>→ Fluid temperature: -20 °C to 90 °C</li> <li>→ Ambient temperature: -15 °C to 50 °C</li> <li>→ Protection class: IP55</li> </ul>	Technical data	<ul> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Max. fluid temperature 50 °C</li> <li>→ Operating pressure 16 bar</li> <li>→ Inlet pressure 6/10 bar</li> <li>→ Protection class IP44/IP54</li> </ul>	<ul> <li>Mains connection 50 Hz (other vers</li> <li>Max. fluid tempe</li> <li>Operating pressu</li> <li>Inlet pressure 6 b</li> <li>Protection class 0 T=IP55</li> </ul>
Special features	<ul> <li>→ IE5 EC motor and optimized hydraulics</li> <li>→ Intelligent with various control modes (dp-v, dp-c, p-c, n-const, PID)</li> <li>→ Double pump management</li> <li>→ Connection options to BACnet, Mod- bus, CANopen, LON</li> <li>→ WRAS/KTW/ACS approval for hydraulic parts (EPDM version)</li> </ul>	<ul> <li>Captive nuts on connections (option)</li> <li>Cataphoretic-coated lantern</li> <li>Oblong hole for fixation</li> <li>Compact design</li> <li>ACS approval</li> </ul>	<ul> <li>→ Cataphoretic-coated lantern</li> <li>→ New closed hole fixation for vertical position</li> </ul>	Special feature	s → For systems with MVISE pump applies: Up to 20 dB(A) quieter than compara- ble systems → For systems with Helix VE pump → Optimised hydraulics → Cartridge mechanical seal → IE4 standard motor	<ul> <li>New innovative p control for Helix</li> <li>Compact system tion, for all applic system separatio</li> <li>High-efficiency p</li> <li>Helix V with IE3 s</li> <li>Helix VE with IE4</li> </ul>
Equipment/ function	<ul> <li>2" coloured LCD display with a clearly structured menu navigation</li> <li>LED indicates and operation buttons on panel</li> <li>Integrated DI/DO, AI interfaces on converter</li> <li>Various communication modules (CIF) as optional</li> <li>Stainless steel pump housing and hydraulics</li> </ul>	<ul> <li>→ Pump housing and impellers made of stainless steel</li> <li>→ AC motor: 3~ &gt; 0.75 AC IE3, 3~ &lt; 0.75 AC IE2</li> <li>→ AC motor: 1~ AC IE1/IE2</li> <li>→ Threaded connection</li> </ul>	<ul> <li>→ Pump housing made of cast iron and impellers made of stainless steel</li> <li>→ AC motor: 3~ &gt; 0.75 AC IE3, 3~ &lt; 0.75 AC IE2</li> <li>→ AC motor: 1~ AC IE1/IE2</li> </ul>	Equipment/ function	<ul> <li>New innovative pressure-variable control</li> <li>Components with fluid contact are corrosion-resistant</li> <li>Pipework made of stainless steel</li> <li>Shut-off device, on the discharge side</li> <li>Non-return valve, on the discharge side</li> <li>Diaphragm pressure vessel 8 I, PN16, on the discharge side</li> </ul>	<ul> <li>PE break tank, at lated (150 l)</li> <li>Components wit corrosion-resista</li> <li>Pipework stainle:</li> <li>Shut-off device,</li> <li>Non-return valve</li> <li>Break tank with f switch</li> <li>Diaphragm press on discharge side</li> </ul>



Series	Wilo-Comfort-CORHelix V(E)/CC(e)	Wilo-Comfort-Vario CORMHIE/ECe	Wilo-Isar MODH1 Wilo-Isar MODV1	Series	Comfort CO-/COR-MVI/CC	Wilo-Comfort-Var Wilo-Comfort-Var
Product photo				Product photo		
Design	Pressure-boosting system with speed control and 2 to 6 non-self-priming, stainless steel, high-pressure, multistage centrifugal pumps switched in cascade	Pressure-boosting system with 2 to 3 non-self-priming stainless steel high- pressure multistage centrifugal pumps switched in parallel with integrated frequency converter	Pressure-boosting system with 1, 2 or 3 non-self-priming stainless steel high- pressure multistage centrifugal pumps switched in parallel	Design	Pressure boosting system with 2 to 6 parallel-switched, non self-priming stainless steel high-pressure multistage centrifugal pumps	Pressure boosting connection with v self-priming high- centrifugal pumps
Application	Fully automatic water supply in residen- tial/office buildings & industrial systems. For pumping drinking/process water, cooling water, water for firefighting	Fully automatic water supply in residen- tial/office buildings & industrial systems. For pumping drinking/process water, cooling water or other industrial water	Fully automatic water supply from the public water supply network or from a tank. For pumping drinking water, process water, cooling water or other industrial water	Application	Fully automatic water supply and pres- sure boosting in residential, commercial and public buildings, and industrial systems. Pumping of drinking water and process water, cooling water, fire water	Fully automatic wa sure boosting in re and public building systems. Pumping of drinkin water, cooling wat
Duty chart	H/m 160 140 140 100 100 80 60 40 20 0 100 200 300 400 Q/m <sup>3</sup> /h	H/m 80 60 40 20 0 20 40 60 80 Q/m³/h	H/m 140 120 100 100 100 100 100 100 10	Duty chart	H/m 140 140 120 100 100 100 100 100 100 10	H/m 100 80 60 40 20 0 100 200
Volume flow $Q_{max}$	450 m³/h	102 m³/h	62 m³/h	Volume flow Q <sub>max</sub>	800	650
Delivery head H <sub>max</sub>	158 m	96 m	158 m	Delivery head H <sub>max</sub>	160	109
Technical data	<ul> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Max. fluid temperature 50 °C</li> <li>→ Operating pressure 10/16 bar</li> <li>→ Inlet pressure 6/10 bar</li> <li>→ Protection class IP54</li> </ul>	<ul> <li>→ Mains connection 3~380/400/440 (1~230) V, 50/60 Hz</li> <li>→ Max. fluid temperature 50 °C, optional 70 °C</li> <li>→ Max. ambient temperature 40 °C</li> <li>→ Operating pressure 10 bar</li> <li>→ Inlet pressure 6 bar</li> <li>→ Protection class IP 54</li> </ul>	<ul> <li>→ Mains connection 3~380/400/440 V, 50/60 Hz</li> <li>→ Max. fluid temperature 50 °C, option- ally 70 °C</li> <li>→ Max. ambient temperature 40 °C</li> <li>→ Operating pressure 10 bar</li> <li>→ Inlet pressure 6 bar</li> <li>→ Protection class IP54</li> </ul>	Technical data	<ul> <li>→ Mains connection 3~230 V/400 V ± 10%, 50 Hz</li> <li>→ Max. fluid temperature 50 °C, optional 70 °C</li> <li>→ Operating pressure 16 bar</li> <li>→ Inlet pressure 10 bar</li> <li>→ Protection class IP 54 (CC control device)</li> </ul>	<ul> <li>→ Mains connecti 3~380 V, 60 Hz</li> <li>→ Max. fluid temp 70 °C</li> <li>→ Operating pres</li> <li>→ Inlet pressure 1</li> <li>→ Protection clas</li> </ul>
Special features	<ul> <li>→ Compact system in accordance of DIN 1988 (EN 806)</li> <li>→ Series with Helix VE integrated fre- quency converter</li> <li>→ For systems with MVIS pumps: Up to 20 dB(A) quieter than comparable systems</li> </ul>	<ul> <li>Compact system due to MHIE pumps with air-cooled frequency converters</li> <li>Super proportionally large control range</li> <li>Integrated full motor protection with thermistor sensor (PTC)</li> <li>Integrated dry-running detection with automatic deactivation in the event of low water via the motor control electronics</li> <li>Drinking water approval (ACS, UBA)</li> </ul>	<ul> <li>High operational reliability with horizontal multistage pumps (Medana CH1-L or Medana CV1-L) with stain- less steel hydraulics</li> <li>Easy installation and maintenance thanks to flexibly adjustable connec- tions</li> <li>Easy commissioning and operation with the Easy Controller</li> <li>Drinking water approval (ACS and UBA)</li> </ul>	Special features	<ul> <li>Easy-to-operate system in accordance with DIN 1988</li> <li>2-6 vertical stainless steel high-pressure centrifugal pumps, switched in parallel, of the MVI series</li> <li>Easy-to-use "CC" control device, available with frequency converter for infinitely variable control of the base-load pump with COR systems</li> <li>Drinking water approval (ACS, UBA)</li> </ul>	<ul> <li>→ High energy system to IE4 motor and Disproportional converter contribute to a maximum of application</li> <li>→ High reliability tective features</li> <li>→ Easy setting and SCe switchgear</li> <li>→ Ready for build gration via Mode</li> </ul>
Equipment/ function	<ul> <li>Base-load pump continuous auto controlled via frequency converter in the CC controller</li> <li>Components with fluid contact are corrosion-resistant</li> <li>Pipework stainless steel 1.4571</li> <li>Shut-off device at each pump, on the suction and discharge sides</li> <li>Non-return valve, on the discharge side</li> <li>Diaphragm pressure vessel 8 l, PN16, on discharge side</li> <li>Pressure sensor, on the discharge side</li> </ul>	<ul> <li>2-3 MHIE pumps per system</li> <li>Infinitely variable control mode via ECe-control with microprocessor and pumps with integrated frequency converters</li> <li>Components with fluid contact are corrosion-resistant</li> <li>Shut-off valve at each pump, on the suction and discharge sides</li> <li>Non-return valve, pressure sensor, pressure gauge on discharge side</li> <li>Diaphragm pressure vessel 8 l, PN10, on the discharge side</li> </ul>	<ul> <li>→ 1, 2 or 3 pumps (CH1-L or CV1-L) per system</li> <li>→ Components with fluid contact are corrosion-resistant</li> <li>→ Galvanised base frame with vibration absorbers</li> <li>→ Stop valve on every pump on the suction and discharge sides</li> <li>→ Non-return valve, pressure sensor, pressure gauge on discharge side</li> <li>→ EC-control with microprocessor in IP54 plastic housing</li> </ul>	Equipment/ function	<ul> <li>2-6 pumps of the MVI series per system</li> <li>Components that come in contact with fluid are corrosion-resistant</li> <li>Base frame galvanised, with height-adjustable vibration absorbers</li> <li>Check valve at each pump, on the suction and pressure sides</li> <li>Non-return valve, Pressure sensor, Pressure gauge, Diaphragm pressure vessel pressure side</li> <li>Automatic pump control via CC Controller</li> </ul>	<ul> <li>Speed controlle frequency inver</li> <li>SCe control par booster sets.</li> <li>All components are corrosion re</li> <li>Shut-off valve side and suctio</li> <li>Non return valv</li> <li>Pressure gauge pressure side and</li> <li>Diaphragm pres pressure side</li> </ul>



- e and suction side
- pressure vessel 8l, PN 16,

Series	Wilo-FLA	Wilo-FLA Compact	Wilo–SiFire EN SiFire Easy	Series	Wilo-SiFire FIRST	Wilo-FireSet UL FM
Product photo				Product photo		
Design	Pressure-boosting system for firefighting applications with 1 to 2 autonomously operating, non-self-priming, stainless steel, high-pressure, multistage centrifu- gal pumps	Pressure-boosting system for firefight- ing, 1 to 2 autonomously operating, non-self-priming, stainless steel, high- pressure, multistage centrifugal pumps with break tank	Pressure-boosting system for firefighting, 1 or 2 pumps on horizontal base frame – EN 733 – spacer coupling, electro or diesel motor and multistage, electrical, vertical jockey pump	Design	Pressure-boosting system for firefighting in accordance with EN 12845	Pressure-boosting system for firefighting according to NPFA standards and with UL and FM certifications, consisting of 1 pump with electric or diesel motor and a switchgear on horizontal baseplate
Application	For supply of firefighting water from fire hose reels and exterior floor hydrants in accordance with DIN 14462	For supply of firefighting water from fire hose reels in accordance with DIN 14462	Fully automatic water supply of fire-ex- tinguishing systems with sprinkler system in accordance with EN 12845	Application	Fully automatic water supply for fire- extinguishing systems with sprinklers	Fully automatic water supply for fire- extinguishing systems with sprinklers in domestic, commercial and public build- ings, hotels, hospitals, shopping centres, office blocks and industrial buildings
Duty chart	H/m 140 120 100 80 60 40 20 0 10 20 30 40 50 60 70 80 90Q/m³/h	H/m 160 140 140 100 100 80 60 40 0 5 10 15 20 25 Q/m³/h	H/m 120 100 80 60 40 20 0 100 200 300 400 500 600 Q/m³/h	Duty chart	H/m 80 60 40 20 0 50 100 150 200 250 Q/m³/h	H/m 200 100 80 60 40 200 50 100 150 200 300 400 Q/m³/h
Volume flow $Q_{max}$	100 m³/h	30 m³/h	750 m³/h	Volume flow Q <sub>max</sub>	320 m³/h	681 m³/h
Delivery head H <sub>max</sub>	159 m	142 m	128 m	Delivery head H <sub>max</sub>	95 m	179 m
Technical data	<ul> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Max. fluid temperature 50 °C</li> <li>→ Max. operating pressure 16 bar</li> <li>→ Inlet pressure 6 bar</li> <li>→ Protection class IP54</li> </ul>	<ul> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Fluid temperature max. 50 °C</li> <li>→ Operating pressure up to 16 bar</li> <li>→ Inlet pressure from break tank &lt; 1 bar</li> <li>→ Protection class of operating device IP54</li> <li>→ Round break tank (540 I)</li> </ul>	<ul> <li>→ Mains connection 3~400 V, 50 Hz (1~230 V, 50 Hz switchgear diesel pump)</li> <li>→ Fluid temperature max. +25 °C</li> <li>→ Max. operating pressure 10/16 bar</li> <li>→ Max. inlet pressure 6 bar</li> <li>→ Protection class of the switchgear IP54</li> </ul>	Technical data	<ul> <li>→ Power supply 3~400 V, 50 Hz (1~230 V, 50 Hz for jockey pump and diesel pump switchgear)</li> <li>→ Fluid temperature max. +25 °C</li> <li>→ Flow from 10 to 320 m³/h</li> <li>→ Maximum head 95 m</li> <li>→ Protection class IP55</li> </ul>	<ul> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Fluid temperature max. +30 °C</li> <li>→ Ambient temperature max. +5/10 °C to +25 °C</li> <li>→ Operating pressure 16 to 25 bar</li> <li>→ Power 315 kW electric/336 kW diesel</li> <li>→ Protection class IP55 electric/IP54 switchgear</li> </ul>
Special features	<ul> <li>Compact system in accordance of DIN 14462</li> <li>Variants</li> <li>Single-pump system</li> <li>Double-pump system with redundant single-pump systems in a base frame</li> <li>Comes as standard with pump protec- tion by means of minimum volume discharge via bypass circuit without auxiliary energy</li> </ul>	<ul> <li>Compact system with break tank in accordance with DIN 14462</li> <li>Variants</li> <li>Single-pump system</li> <li>Double-pump system with two redundant single-pump systems on a base frame</li> <li>Comes as standard with pump protection by means of minimum volume discharge via bypass circuit without auxiliary energy</li> </ul>	<ul> <li>Compact system (just one base frame) in accordance with EN 12845</li> <li>Jockey pump for maintaining the required pressure in the system; with automatic start/stop function</li> <li>Sized diaphragm at the pump outlet for a minimum bypass line so that the pump is protected at a low volume flow</li> <li>The cables are hidden in the construc- tion and are thus protected from shocks or cuts</li> </ul>	Special features	<ul> <li>Modular norm pump system with electric or diesel motor for a wide field of applications and high flexibility in designing</li> <li>Long lifetime thanks to robust design</li> <li>Easy transport, installation and maintenance thanks to an universal baseplate</li> <li>Intuitive handling on specific firefight- ing switchgear</li> </ul>	<ul> <li>Certified according to NFPA standards for the highest level of design flex- ibility</li> <li>Robust pumps for a wide field of ap- plication and long service life</li> <li>Compact design for easy transport, installation and maintenance</li> <li>Power reserve for a high level of safety</li> <li>Modularity for an individual tailored configuration</li> </ul>
Equipment/ function	<ul> <li>Components that come in contact with fluid are corrosion-resistant</li> <li>Pipework made of stainless steel</li> <li>Shut-off device at each pump, on the suction and discharge sides</li> <li>Non-return valve, on the discharge side</li> <li>Diaphragm pressure vessel 8 l, PN16, on the discharge side</li> <li>Pressure switch, on the discharge side</li> </ul>	<ul> <li>Components with fluid contact are corrosion-resistant</li> <li>Pipework stainless steel</li> <li>Ball shut-off valve on discharge side</li> <li>Gate valve between pump and break tank with free outlet according to EN 13077, type AB according to DIN EN 1717</li> <li>Non-return valve, on discharge side</li> <li>Diaphragm pressure vessel 8 l, PN16, on discharge side</li> <li>Pressure switch, on discharge side</li> </ul>	<ul> <li>A circuit with double pressure switch, pressure gauge, non-return valve, valve for the main and standby pump for an automatic start</li> <li>Pipework in steel; painted with epoxy resin. Distributor with flanges</li> <li>Shutting gate with safety lock on the discharge side of the pump</li> <li>Non-return valve on the discharge side of every pump</li> <li>DN2" connection for the priming tank of the pumps</li> <li>Pressure measuring on discharge side</li> </ul>	Equipment/ function	<ul> <li>1 horizontal baseplate pump per system from 32-200 to 100-200 series, with IE3 equivalent standard motor or diesel motor</li> <li>Diaphragm, to avoid over heating at zero flow, directly installed on the main pump housing</li> <li>Jockey pump from MVIL-1 series</li> <li>One controller fixed on robust supports. Model E for electric motor and D for diesel engine, both equipped with a firefighing dedicated controller, plus additional control J for jockey pump, if present</li> </ul>	<ul> <li>Pump with split housing</li> <li>Flexible bolt coupling or universal joint</li> <li>Switchgear with a WiZiTouch controller by Tornatech</li> <li>Pressure transducer for automatic starting</li> <li>Air vent valve and pressure gauge</li> <li>Motor cooling, fuel tank, 2 or 4 batteries for diesel motor</li> </ul>

#### Wilo-GEP Fire

![](_page_21_Picture_6.jpeg)

![](_page_21_Figure_9.jpeg)

system for firefighting Pressure-boosting system for firefighting applications with 1 to 12 multistage centrifugal pumps with/without break tank, with/without housing

> Supply of firefighting water of fire hose reels and exterior floor hydrant systems, for high-rise buildings & large properties without valves for pressure reduction- as well as sprinkler/water spray systems

![](_page_21_Figure_18.jpeg)

Certified up to 1000 m<sup>3</sup>/h

250 m, up to 450 m on request

- → TÜV, DEKRA, DVGW, SVGW certified ightarrow Hygienic safety by free outlet (EN
- 1717) → Stainless steel run-down tank → Automatic function test up to redun-
- dancy stage 3 → Small installation surface min. 0.64 m<sup>2</sup>
- ightarrow Room air cooling, full fairing
- → Split version for installation/transport → Pressure-maintaining pump or pilot
- pump as an option
- $\rightarrow$  Combination with industrial water system
- → Real pressure method and VR controller for high-rise buildings and large properties
- $\rightarrow$  Monitoring of switchgear and ambient temperature
- → Drainage or pump emergency drainage (EN12056) for total volume flow → Installation possible below backflow level
- $\rightarrow$  No valves for reducing pressure in the main flow of the fire-extinguishing system
- ightarrow Effective maintenance management and permanent information on the operation via smartphone, tablet or PC

Series	Wilo-SiFresh	Wilo-Sub TWU 3 Wilo-Sub TWU 3HS	Wilo-Sub TWU 4,/QC,/GT	Series	Wilo-Sub TWU 3 Plug & Pump Wilo-Sub TWU 4 Plug & Pump	Wilo-Sub TWI 4/6
Product photo	- NEW		wilo 5	Product photo		
Design	Ready-to-connect cold water circulation system with integrated circulation pump as well as flushing device	Submersible multistage pump	Submersible multistage pump	Design	Water-supply unit with submersible pump, control and complete accessories	Submersible mul
Application	Cold water circulation for saving and providing hygienic drinking water in con- junction with flow-through cooling.	For water supply, sprinkling, irrigation with water without long-fibre or abrasive components from boreholes, wells, rain- water storage	Pumping of water from boreholes, wells, rainwater storage for water supply, sprinkling, irrigation, lowering ground water level	Application	For water supply, sprinkling, irrigation with water without long-fibre or abrasive components from boreholes, wells, rain- water storage	Pumping of (drin holes, wells, rain supply, sprinkling ground water lev
Duty chart	H/m 10 8 6 4 2 0 0 2 4 6 8 10 0 0 2 4 6 8 10 0 0 0 0 2 4 6 8 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	H/m 140 120 100 60 40 20 0 1 2 2 3 4 5 0/m <sup>2</sup> /h	H/m 280 240 240 200 160 1 2 3 4 5 10 9/m <sup>3</sup> /n	Duty chart	H/m 100 100 100 100 100 100 100 10	H/m 440 360 280 200 120 40 00 1
Volume flow Q <sub>max</sub>	11 m³/h	6.5 m <sup>3</sup> /h	22 m³/h	Volume flow Q <sub>max</sub>	6 m³/h	165 m³/h
Delivery head H <sub>max</sub>	12 m	130 m	322 m	Delivery head H <sub>max</sub>	88 m	500 m
Technical data	<ul> <li>→ Fluid temperature: drinking water +2 °C to +80 °C</li> <li>→ Mains connection: 1~230 V, 50/60 Hz</li> <li>→ Screwed connection: Rp 3/4"</li> <li>→ Max. operating pressure: 10 bar</li> </ul>	<ul> <li>→ Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Fluid temperature: 3-35 °C</li> <li>→ Max. sand content: 50 g/m<sup>3</sup></li> <li>→ Max. immersion depth: 150 m</li> </ul>	<ul> <li>→ Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Fluid temperature: 3-30 °C</li> <li>→ Max. sand content: 50 g/m<sup>3</sup></li> <li>→ Max. immersion depth: 200 m</li> </ul>	Technical data	<ul> <li>→ Mains connection: 1~230 V, 50 Hz</li> <li>→ Fluid temperature: 3-30 °C</li> <li>→ Max. sand content: 50 g/m<sup>3</sup></li> <li>→ Max. immersion depth TWU 3/TWU 4: 150/200 m</li> </ul>	<ul> <li>→ Mains: 1~230 or 3~400 V, 5</li> <li>→ Fluid tempera</li> <li>→ Max. sand cor</li> <li>→ Max. immersion</li> </ul>
Special features	<ul> <li>Continuous temperature monitoring, circulation and individually programmable time intervals for the water exchange ensure highest standard of drinking water hygiene</li> <li>Display of temperature data for the last 24 hours and quantities of water drawn for the last 7 days</li> <li>Optional: can be combined with a cooling system for more efficient temperature maintenance</li> <li>State-of-the-art interfaces that enable integration into the building automation</li> <li>Pre-assembled ball valve for shutting off the water circulation for maintenance tasks</li> </ul>	<ul> <li>Parts in contact with the fluid are corrosion-resistant</li> <li>Integrated non-return valve</li> <li>Supply security with constant pressure thanks to extended pump performance due to a higher speed of up to 8,400 rpm (TWU 3/HS)</li> <li>Frequency converter with integrated and menu-guided control</li> <li>(TWU 3/HS)</li> </ul>	<ul> <li>Parts in contact with the fluid are corrosion-resistant</li> <li>Integrated non-return valve</li> <li>Low wear due to floating impellers</li> <li>Maintenance-friendly motor</li> </ul>	Special features	<ul> <li>→ Easy installation thanks to pre- mounted and pre-wired components</li> <li>→ Parts in contact with the fluid are corrosion-resistant</li> <li>→ Integrated non-return valve</li> </ul>	<ul> <li>Corrosion-resserver steel version</li> <li>Flexible instal and horizonta</li> <li>Easy installation non-return va</li> <li>Large perform</li> <li>ACS approval plication</li> </ul>
Equipment/ function	<ul> <li>Ready-to-connect system with pre- assembled ball valves</li> <li>Menu-guided operation and display</li> <li>Setting of a max. drinking water temperature</li> <li>Setting of a timed flushing interval</li> <li>Integrated temperature sensors for continuous temperature monitoring</li> <li>Retrofittable interface modules for communication and integration into building automation system</li> </ul>	<ul> <li>Submersible multistage pump with radial impellers</li> <li>Integrated non-return valve</li> <li>NEMA coupling</li> <li>Single-phase or three-phase AC motor</li> <li>Thermal motor protection for single- phase motor</li> <li>HS variant including external or inter- nal frequency converter</li> </ul>	<ul> <li>Submersible multistage pump with radial or semi-axial impellers</li> <li>Integrated non-return valve</li> <li>NEMA coupling</li> <li>Single-phase or three-phase AC motor</li> <li>Integrated thermal motor protection for single-phase motor</li> <li>Hermetically sealed motors</li> </ul>	Equipment/ function	<ul> <li>Submersible multistage pump with radial impellers</li> <li>Integrated non-return valve</li> <li>NEMA coupling</li> <li>Single-phase AC motor</li> <li>Integrated thermal motor protection</li> <li>Dry-running protection (only for TWU 4P&amp;P with Wilo-Sub-I package)</li> </ul>	<ul> <li>→ Submersible r radial or semi-</li> <li>→ Integrated no</li> <li>→ NEMA couplir</li> <li>→ Single-phase</li> </ul>

![](_page_22_Figure_5.jpeg)

multistage pump with i-axial impellers on-return valve

or three-phase AC motor

Series	Wilo-EMU 14" 24"	Wilo-EMU sprinkler pumps	Wilo-EMU polder pumps	Series	Series VMF, CNE, VAF	Wilo-Yonos GIGA-N
Product photo				Product pho	oto	
Design	Submersible pump with sectional con- struction	Submersible pump with sectional con- struction	Polder pump	Design	Vertical turbine pumps for dry well insta lation with submerged axial or semi-axi hydraulics	<ul> <li>Electronically contr al low-pressure centr suction. Mounted o flange connection a adjustment</li> </ul>
pplication	<ul> <li>Municipal Drinking water and water supply from boreholes and rainwater storage tanks</li> <li>Sprinkling and irrigation</li> <li>Pumping water in industrial applica- tions and for water control</li> <li>Utilisation in geothermal and offshore areas</li> </ul>	Supply of sprinkler systems	Drinking/process water from boreholes, rainwater tanks; sprinkling, irrigation, groundwater lowering; municipal, indus- trial, geothermal, offshore use	Application	Industrial or municipal water supply Irrigation, firefighting Cooling water supply Dewatering, flood control	Pumping of heating with VDI 2035), col mixtures in heating cooling systems. Fo services, general in
uty chart	H/m 560 480 400 320 240 160 0 0 20 30 50 100 200 300 Q/s	H/m 140 120 100 80 60 40 20 30 50 70 100 200 300 Q/m³/h	H/m 140 120 100 80 60 40 20 10 20 30 40 50 100 100 100 100 100 100 100	Duty chart		H/m 70 60 50 40 30 20 0 0 100 200
/olume flow $Q_{max}$	2,400 m³/h	580 m³/h	1,200 m³/h	Volume flow	w Q <sub>max</sub> 40,000 m³/h	520 m³/h
elivery head H <sub>max</sub>	460 m	140 m	160 m	Delivery he	ad H <sub>max</sub> 450 m	70 m
echnical data	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Max. fluid temperature: 20 30 °C</li> <li>→ Max. sand content: 35 g/m<sup>3</sup></li> <li>→ Max. immersion depth: 100/300/350 m</li> </ul>	<ul> <li>→ Mains connection: 3~400 V/50 Hz</li> <li>→ Max. fluid temperature: 25 °C or on request</li> <li>→ Max. sand content: 35 g/m<sup>3</sup></li> <li>→ Max. immersion depth: 100 m or 300 m</li> </ul>	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Max. fluid temperature: 20 °C</li> <li>→ Minimum flow across outside shroud: not necessary</li> <li>→ Max. sand content: 35 g/m<sup>3</sup></li> <li>→ Max. immersion depth: 300 m</li> </ul>	Technical d	<ul> <li>→ Permitted temperature range up to 80 °C, or up to 105 °C on request</li> <li>→ Nominal diameter on discharge side DN 100 to DN 2000</li> </ul>	<ul> <li>→ Fluid temperatu</li> <li>→ Mains connectio 50/60 Hz, 3~400</li> <li>3~380 V - 5 %/4</li> <li>→ Minimum efficie</li> <li>→ Nominal diametu</li> <li>→ Max. operating p</li> </ul>
ecial features	<ul> <li>Pressure shroud in corrosion-resistant and hygienic stainless steel version</li> <li>Maintenance-friendly, rewindable motors</li> <li>Optionally with Ceram CT coating for increasing the efficiency</li> <li>Optionally with ACS approval for drinking water application</li> </ul>	<ul> <li>VdS certification</li> <li>Sturdy version in cast iron or bronze</li> <li>Pressure shroud in corrosion-resistant and hygienic stainless steel version with rubber bearing for minimising noise and vibrations</li> <li>VdS certified non-return valve is avail- able as an accessory</li> </ul>	<ul> <li>Deep water lowering thanks to self-cooling motors</li> <li>Sturdy version in cast iron or bronze</li> <li>Compact construction</li> <li>Maintenance-friendly, rewindable motors</li> <li>Optionally with Ceram CT coating for increasing the efficiency</li> </ul>	Special feat	tures	<ul> <li>Efficient pump v</li> <li>Cataphoretic co: ponents for high and long service</li> <li>Standard dimens with EN 733</li> <li>Easy adjustment Green Button Te</li> <li>Easy maintenand friendly spacer co out design</li> <li>Optional interfaor building automa IF modules</li> </ul>
juipment/ inction	<ul> <li>Submersible multistage pump</li> <li>Radial or semi-axial impellers</li> <li>Hydraulics and motor freely configur- able according to power requirements</li> <li>Integrated non-return valve</li> <li>(depending on type)</li> <li>NEMA coupling or standardised con- nection</li> <li>Three-phase motor for direct or star- delta start</li> </ul>	<ul> <li>→ Submersible multistage pump</li> <li>→ Radial or semi-axial impellers</li> <li>→ NEMA coupling (depending on type)</li> <li>→ Three-phase motor for direct or star- delta start</li> <li>→ Rewindable motors</li> </ul>	<ul> <li>Submersible multistage pump</li> <li>Semi-axial impellers</li> <li>Hydraulics and motor freely configur- able according to power requirements</li> <li>Three-phase motor for direct or star- delta start</li> <li>Motors rewindable as standard</li> </ul>	Equipment/ function	<ul> <li>For types of installation with pressure port, for concealed floor, floor-mounted or twin-ceiling installation</li> <li>Design: As removable or permanent installation</li> <li>With axial or semi-axial, single or multistage hydraulics</li> <li>Open shaft for bearing lubrication with the fluid, or with shaft trim for separate bearing lubrication</li> </ul>	<ul> <li>Control modes: <i>i</i> n=constant</li> <li>Manual function pressure setpoin trol mode, error</li> <li>External control riding Off, analo 20 mA for const</li> <li>Remote control (IR-Stick) hua-</li> </ul>

→ Drive options: Electric motor, diesel , motor or steam turbine

#### Wilo-Atmos GIGA-N

![](_page_23_Picture_8.jpeg)

rolled, single-stage on a baseplate with and automatic power

Single-stage, low-pressure centrifugal rifugal pump with axial pump with axial suction, mounted on a . baseplate

old water, water-glycol q, cold water and or irrigation, building ndustry etc.

g water (in accordance Pumping of heating water (in accordance with VDI 2035), cold water, water-glycol mixtures in heating, cold water and cooling systems

![](_page_23_Figure_14.jpeg)

automation

Series	Wilo-Atmos GIGA-NF	Wilo-CronoNorm-NLG Wilo-VeroNorm-NPG	Wilo-Atmos TERA-SCH	Series	Wilo-SCP	NOLH
Product photo	wile Series extension			Product photo		
Design	Single-stage, low-pressure centrifugal pump with axial suction in accordance to EN 733 and VdS 2100-7 for installation on a base frame	Single-stage low-pressure centrifugal pump with axial suction, according to ISO 5199, mounted on a baseplate	Axially spilt case pump mounted on a base frame.	Design	Low-pressure centrifugal pump with axi- ally split housing mounted on a baseplate	Single-stage low- pump with axial su radial, upwards-fa tion, mounted on
Application	Pumping of firefighting water	Pumping of heating water, cold water, water-glycol mixtures in municipal water supply, general industry, power stations etc.	Raw water intake, pressure boosting/ water transport in water-supply units, pumping of process/cooling water, heat- ing water (in Germany acc. VDI 235), water-glycol mixtures, irrigation	Application	Pumping of heating water (acc. VDI 2035), cold water, process water, water-glycol mixtures in heating, cold water and cooling systems	For supplying clea fluids without soli industrial processe industry, water cir industry, heating, water systems, or
Duty chart	H/m 140 120 100 80 60 40 20 0 50 100 150 200 250 Q/m³/h	H/m 140 120 100 80 0 500 1000 1500 2000 Q/m <sup>3</sup> /h	H/m 100 50 30 20 100 100 200 300 500 1000 2000 Q/m³/h	Duty chart	H/m 200 100 50 100 40 50 100 500 1000 Q/m³/h	H/m 150 50 20 10 50 20 10 5 2 2 5 10 5 2 5 10 5 2 5 10 5 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 10 10 10 10 10 10 10 10 10
Volume flow $Q_{max}$	295 m³/h	2,800 m³/h	4,675 m³/h	Volume flow Q <sub>max</sub>	3,400 m³/h	1,800 m³/h
Delivery head H <sub>max</sub>	<sub>x</sub> 115 m	140 m	150 m	Delivery head H <sub>max</sub>	245 m	140 m
Technical data	<ul> <li>→ Fluid temperature 20 °C 25 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Protection class IP55</li> <li>→ Nominal diameter DN 32 to DN 125</li> <li>→ Max. operating pressure 16 bar</li> </ul>	<ul> <li>→ Fluid temperature -20 °C to +120 °C (depending on type)</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Nominal diameters: DN 150 to DN 500 (depending on type)</li> <li>→ Operating pressure: depending on type and application – up to 16 bar</li> </ul>	<ul> <li>→ Fluid temperature -20 °C to +120 °C</li> <li>→ Mains connection 3~400 V, 50 HzNominal diameters</li> <li>- Suction side: DN 150 to DN 500</li> <li>- Discharge side: DN 150 to DN 400</li> <li>→ Max. operating pressure: PN 16, PN 25</li> </ul>	Technical data	<ul> <li>→ Fluid temperature -8 °C to +120 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Nominal diameters - Suction side: DN 65 to DN 500</li> <li>→ Dlscharge side: DN 50 to DN 400</li> <li>→ Max. operating pressure: 16 or 25 bar, depending on type</li> </ul>	<ul> <li>→ Permitted temp to +120 °C</li> <li>→ Mains connecti</li> <li>→ Nominal diame DN 32 to DN 12</li> <li>→ Max. operating</li> </ul>
Special features	<ul> <li>Reliable, durable, corrosion resistant thanks to cataphoretic coating of all cast components, bronze impeller and stainless steel slip rings</li> <li>User-friendly "back pull-out" design for easy maintenance</li> <li>Different drives depending on indi- vidual requirements</li> </ul>	<ul> <li>NLG:</li> <li>→ Reduced life cycle costs through optimised efficiency</li> <li>→ Mechanical seal independent of the direction of rotation</li> <li>→ Interchangeable casing wear ring</li> <li>→ Permanently lubricated, generously dimensioned roller bearings</li> <li>NPG:</li> <li>→ Suitable for temperatures up to 140 °C</li> <li>→ Back pull-out version</li> </ul>	<ul> <li>Reduced energy costs through high overall efficiency</li> <li>Simplified alignment thanks to tolerant coupling and motor adjusting device</li> <li>Increased operational reliability thanks to quiet-running hydraulics</li> <li>Reduced cavitation tendency through optimised NPSH values</li> <li>Also available as drinking water version</li> </ul>	Special features	<ul> <li>→ Higher volume flows up to 17,000 m<sup>3</sup>/h on request</li> <li>→ Special motors and other materials on request</li> </ul>	<ul> <li>→ Impeller diamet desired duty pc</li> <li>→ Many version o</li> <li>→ 60 Hz or ATEX v</li> <li>→ Pumping of cle fluids without s</li> </ul>
Equipment/ function	<ul> <li>→ Single-stage low-pressure centrifugal pump base plate pump with standard motor (IE3) or diesel engine.</li> <li>→ Base frame made of steel profiles with epoxy paint.</li> </ul>	<ul> <li>Single-stage horizontal spiral hous- ing pump with bearing bracket and exchangeable casing wear rings (NLG only) in process design</li> <li>Shaft sealing with mechanical seals in accordance with EN 12756 or stuffing box packing</li> <li>Spiral housing with cast pump bases</li> <li>Greased grooved ball bearings for bearing of pump shaft</li> <li>Motors with efficiency class IE3</li> </ul>	<ul> <li>Centrifugal axially split case pump, available in single-stage design.</li> <li>Deliverable as complete unit or without motor or only pump hydraulics</li> <li>Shaft sealing with mechanical seal or stuffing box</li> <li>4- and 6-pole motors; IE3 standard to 1000 kW (IE4 on request)</li> <li>Welded steel frame</li> </ul>	Equipment/ function	<ul> <li>1- or 2-stage, low-pressure centrifugal pump in monobloc design</li> <li>Deliverable as complete unit or without motor or only pump hydraulics</li> <li>Shaft sealing with mechanical seal or stuffing box packing</li> <li>4-pole and 6-pole motors</li> <li>Materials:</li> <li>Pump housing: EN-GJL-250</li> <li>Impeller: G-CuSn5 ZnPb</li> <li>Shaft: X12Cr13</li> </ul>	<ul> <li>→ Dimensions and per EN 733</li> <li>→ Hydraulics:cast steel (MX) depe</li> <li>→ Sealed by unco</li> <li>→ With or withou</li> <li>→ 2 or 4-pole IEC</li> <li>→ Baseplate: stee</li> <li>→ Supplied as cor coupling, coupling, coupling, coupling, coupling, coupling, coupling, with bare</li> </ul>

![](_page_24_Figure_5.jpeg)

nd hydraulic output as

ightarrow Self-priming

st iron (ML) or stainless bending on version cooled mechanical seal ut spacer coupling C standard motor eel or cast iron omplete unit with pump, pling guard, motor and without motor **or** pump e shaft end

![](_page_25_Figure_1.jpeg)

Equipment/	ightarrow Heavy-duty version made of cast iron
function	

![](_page_26_Picture_0.jpeg)

## Enhance operational reliability

Rely on maximum operational safety for your house drainage with the smallest sewage lifting unit with built-in macerator.

Wilo-DrainLift SANI CUT-S

# Join the ecolution.

![](_page_26_Picture_5.jpeg)

54 Drainage and sewage

![](_page_27_Figure_1.jpeg)

 $\rightarrow$  "C" version with sheath flow cooling

![](_page_28_Figure_1.jpeg)

![](_page_28_Figure_5.jpeg)

 $\rightarrow$  Material version "B" for aggressive fluids, e.g. lake/sea water, condensate,

 $\rightarrow$  "C" version with sheath flow cooling

distilled water

Wilo-Rexa MINI3

Pumping of

23 m³/h

hvdraulics

sealing

13 m

Wilo-Rexa PRO-S

→ Wastewater

![](_page_29_Figure_1.jpeg)

integrated pump control in multiple

execution

![](_page_30_Figure_1.jpeg)

Series	Wilo-DrainLift Box E Wilo-DrainLift Box D Wilo-DrainLift Box DS	Wilo-HiDrainlift 3	
Product photo			
Design	Compact and fully-automatic sewage lifting unit for above-ground and con- cealed floor installation within buildings.	Sewage lifting unit	
Application	For collection and pumping of the follow- ing in domestic areas: → Sewage not containing faeces	Pumping of sewage w	
Duty chart	H/m 10 8 6 4 2 0 2 4 6 8 10	H/m 7 6 5 4 3 2 1 0 0 1 2 3	
Volume flow <i>Q<sub>max</sub></i>	18 m³/h	6 m³/h	
Delivery head H <sub>max</sub>	10.5 m	8 m	
Technical data	<ul> <li>Mains connection: 1~230 V, 50 Hz</li> <li>Discharge connection: 40 mm</li> <li>Inlet connection: 110 mm (DN 100)</li> <li>Ventilation connection: 110 mm (DN 100)</li> <li>Tank volume: 113 I</li> <li>Switching volume: 22 30 I</li> <li>Switchgear protection class (for DS version): IP54</li> </ul>	<ul> <li>→ Mains connection:</li> <li>→ Operation mode: S</li> <li>→ Fluid temperature: periods (5 min) up</li> <li>→ Pressure port: Ø32</li> <li>→ Tank volume: 3.9</li> <li>→ Switching volume:</li> </ul>	
Special features	<ul> <li>→ Easy to install due to integrated pump and non-return valve</li> <li>→ The large tank volume ensures a low number of switching processes</li> <li>→ Easy maintenance</li> <li>→ Stainless steel tile frame with trap (only concealed floor model)</li> </ul>	<ul> <li>Compact design fointo a wet cell or un</li> <li>Low-noise operatinative carbon filter comfort</li> <li>Reliable performan consumption for an water disposal</li> <li>Easy installation wition possibilities</li> <li>Ready for connectinative consumption for connectinative consumption for an water disposal</li> </ul>	
Equipment/ function	<ul> <li>Single and double-pump system</li> <li>Lifting unit with ready-mounted pump (with thermal motor monitoring), level control, pressure pipe and integrated non-return valve</li> <li>Ready-to-plug system (single-pump system "E" model, double-pump system "D" model)</li> <li>DS model: Double-pump system with micro-processor controlled switchgear</li> </ul>	<ul> <li>→ Ready-to-plug</li> <li>→ Thermal motor mo</li> <li>→ Level control with µ transducer</li> <li>→ Integrated non-ret</li> <li>→ Active carbon filter</li> </ul>	

![](_page_30_Figure_6.jpeg)

Wilo-HiSewlift 3

 $\rightarrow$  Integrated non-return valves  $\rightarrow$  Active carbon filter

#### 62 Drainage and sewage

Series	Wilo-DrainLift SANI-S	Wilo-DrainLift SANI-M	Wilo-DrainLift SANI-L	Series	Wilo-DrainLift SANI-XL	Wilo-DrainLift SA
Product photo				Product photo		
Design	Compact, ready for connection and fully submersible single pump lifting unit	Ready for connection and fully submers- ible single pump lifting unit	Compact, ready for connection and fully submersible double-pump lifting unit	Design	Ready for connection and fully submers- ible double-pump lifting unit	Compact, ready f submersible sing macerator hydrai
Application	Pumping of sewage containing faeces	Pumping of sewage containing faeces	Pumping of sewage containing faeces	Application	Pumping of sewage containing faeces	Pumping of sewa
Duty chart	H/m 12 10 8 6 4 2 0 0 4 8 12 10 10 12 10 10 10 10 10 12 10 10 10 10 10 10 10 10 10 10	H/m 24 20 16 12 8 4 0 10 20 30 40 50 60 70 Q/m <sup>3</sup> /h	H/m 24 20 16 12 8 4 0 10 20 30 40 50 60 70 Q/m³/h	Duty chart	H/m 24 20 16 12 8 4 0 10 20 30 40 50 60 70 <b>Q</b> /m <sup>3</sup> /h	H/m 40 30 20 10 0 0 4 8
Volume flow Q <sub>max</sub>	29 m³/h	77 m³/h	77 m³/h	Volume flow Q <sub>max</sub>	77 m³/h	20 m³/h
Delivery head H <sub>max</sub>	11 m	20 m	20 m	Delivery head H <sub>max</sub>	20 m	41 m
Technical data	<ul> <li>→ Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Operating mode: S3 10%</li> <li>→ Fluid temperature: 3 40 °C, max. 65 °C for 5 min</li> <li>→ Tank volume: 47 I</li> <li>→ Max. usable volume: 32 I</li> <li>→ Pressure connection: DN 80</li> </ul>	<ul> <li>→ Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Operating mode: S3 10% or S1</li> <li>→ Fluid temperature: 3 40 °C, max. 65 °C for 5 min</li> <li>→ Tank volume: 99 I</li> <li>→ Max. usable volume: 74 I</li> <li>→ Pressure connection: DN 80</li> </ul>	<ul> <li>→ Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Operating mode: S3 10% or S1</li> <li>→ Fluid temperature: 3 40 °C, max. 65 °C for 5 min</li> <li>→ Tank volume: 122 I</li> <li>→ Max. usable volume: 91 I</li> <li>→ Pressure connection: DN 80</li> </ul>	Technical data	<ul> <li>→ Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Operating mode: S3 10% or S1</li> <li>→ Fluid temperature: 3 40 °C, max. 65 °C for 5 min</li> <li>→ Tank volume: 358 I</li> <li>→ Max. usable volume: 286 I</li> <li>→ Pressure connection: DN 80</li> </ul>	<ul> <li>Mains connec 3~400 V, 50 H</li> <li>Operating mo</li> <li>Fluid tempera °C for 5 min</li> <li>Tank volume:</li> <li>Max. usable vo</li> <li>Pressure connection</li> </ul>
Special features	<ul> <li>Very easy to install and transport due to space-saving compact construction and very light weight</li> <li>Operational reliability provided by the large switching volume, thermal motor protection and mains-independent alarm</li> <li>Transparent tank cover and clean- ing opening in the non-return valve ensure easy maintenance</li> </ul>	<ul> <li>Very easy to install and transport due to compact construction and light weight</li> <li>Operational reliability provided by the large switching volume, thermal motor protection and mains-independent alarm</li> <li>Universal use thanks to several vari- ants (continuous/intermittent duty, version for aggressive fluids)</li> <li>Transparent tank cover and clean- ing opening in the non-return valve ensure easy maintenance</li> </ul>	<ul> <li>Easy installation and transport due to compact construction and light weight</li> <li>High operational reliability thanks to the double-pump system, high switching volume, thermal motor protection and mains-independent alarm</li> <li>Universal use thanks to several variants (continuous/intermittent duty, version for aggressive fluids)</li> <li>Transparent tank cover and cleaning opening in the non-return valve ensure easy maintenance</li> </ul>	Special features	<ul> <li>Easy installation and transport thanks to light weight</li> <li>High operational reliability thanks to double-pump system, a very large switching volume, thermal motor pro- tection and mains-independent alarm</li> <li>Universal use thanks to several vari- ants (continuous/intermittent duty, version for aggressive fluids)</li> <li>Transparent reservoir cover and clean- ing opening in the non-return valve ensure easy maintenance</li> </ul>	<ul> <li>Very easy to in wall installation due to lightway compact conserved operational re- large switchin radial macerativith mains-in &gt; Low overall in the use of sm.</li> <li>Corrosion-free neering plasting guarantee's h</li> </ul>
Equipment/ function	<ul> <li>Switchgear with mains-independent alarm and collective fault signal</li> <li>Ready-to-plug</li> <li>Tank with inspection opening and transparent cover</li> <li>Analogue level measurement (4 20 mA)</li> <li>Non-return valve with inspection opening</li> <li>Thermal motor monitoring with bime- tallic strip</li> </ul>	<ul> <li>Switchgear with mains-independent alarm and collective fault signal</li> <li>Ready-to-plug</li> <li>Tank with inspection opening and transparent cover</li> <li>Analogue level measurement (4 20 mA)</li> <li>Non-return valve with inspection opening</li> <li>Thermal motor monitoring with bime- tallic strip</li> </ul>	<ul> <li>Switchgear with mains-independent alarm and collective fault signal</li> <li>Ready-to-plug</li> <li>Tank with inspection opening and transparent cover</li> <li>Analogue level measurement (4 20 mA)</li> <li>Non-return valve with inspection opening</li> <li>Thermal motor monitoring with bime- tallic strip</li> </ul>	Equipment/ function	<ul> <li>Switchgear with mains-independent alarm and collective fault signal</li> <li>Ready-to-plug</li> <li>Tank with inspection opening and transparent cover</li> <li>Analogue level measurement (4 20 mA)</li> <li>Non-return valve with inspection opening</li> <li>Thermal motor monitoring with bime- tallic strip</li> </ul>	<ul> <li>Switchgear wi alarm and coll</li> <li>Ready-to-plu</li> <li>Tank with insp transparent co</li> <li>Analogue leve</li> <li>Non-return vz</li> <li>Thermal moto tallic sensor</li> </ul>

![](_page_31_Figure_5.jpeg)

tallic sensor

#### 64 Drainage and sewage

Series	Wilo-DrainLift SANI CUT-L	Wilo-DrainLift XXL	Wilo-EMUport CORE	Series	5	Wilo-DrainLift WS 40/50	Wilo-Port 600 Wilo-Port 800
Product photo	NEW			Produc	ict photo		
Design	Compact, ready for connection, and fully submersible double pump lifting unit with macerator hydraulics.	Sewage lifting unit Double-pump system	Sewage lifting unit with solids separa- tion for floor-mounted and underground installation (in a chamber)	Desigr	n	Pump chamber as concealed pumping station or floor-mounted lifting unit	Pump chamber with single or double-pu
Application	Pumping of sewage containing faeces	Pumping of sewage containing faeces	Pumping of sewage containing faeces	Applic	cation	Pumping of sewage containing faeces that cannot be returned to the sewer system using natural falls	Pumping of sewage that cannot be retur system using natura
Duty chart	H/m 40 30 20 10 0 4 8 12 16 Q/m <sup>2</sup> /h	H/m 20 16 12 8 4 0 0 20 40 60 80 100 120 Q/m³/h	H/m 50 40 30 20 10 0 10 20 30 40 50 60 70 Q/m³/h	Duty c	chart		
Volume flow Q <sub>max</sub>	20 m³/h	140 m³/h	80 m³/h	Volum	ne flow Q <sub>max</sub>		
Delivery head H <sub>max</sub>	41 m	21 m	55 m	Delive	ery head H <sub>max</sub>		
Technical data	<ul> <li>Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>Operating mode: S3 10%</li> <li>Fluid temperature: 3 40 °C, max. 65 °C for 5 min</li> <li>Tank volume: 64 I</li> <li>Max. usable volume: 29 I</li> <li>Pressure connection: DN 32</li> </ul>	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Operating mode: S1</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Pressure port: DN 80, DN 100</li> <li>→ Gross volume: 400/800 I</li> <li>→ Switching volume: 305 630 I</li> </ul>	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Operation mode: S1</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Pressure port: DN 80, DN 100</li> <li>→ Gross volume: 440 I, 1200 I</li> <li>→ Switching volume: 295 I, 900 I</li> </ul>	Techn	iical data	<ul> <li>→ Pressure port:         <ul> <li>DrainLift WS 40/50 Basic: G 2,</li></ul></li></ul>	<ul> <li>→ Pressure port: R1</li> <li>→ Inlet connection: DN 200</li> <li>→ Discharge conner R1½</li> <li>→ Gross volume: 34</li> </ul>
Special features	<ul> <li>Very easy to install and to transport due to lightweight and space-saving compact construction</li> <li>Operational reliability provided by the large switching volume, pump with radial macerator and a switch gear with mains-independent alarm</li> <li>Low overall installation costs thanks to the use of smallest possible piping</li> <li>Corrosion-free design with engi- neering plastics and stainless-steel guarantee's high reliability</li> </ul>	<ul> <li>→ Flexible use thanks to one or two tanks</li> <li>→ Optimum tank drainage with deep suction function</li> <li>→ Operationally reliable thanks to large performance range and a reliable level detection</li> <li>→ Continuous duty thanks to the use of self-cooling motors</li> </ul>	<ul> <li>Maximum operational safety with separation of solids from the sew- age: Large solids do not have to pass through the pump - no clogging</li> <li>Durable and corrosion-free due to the use of PE and PUR material</li> <li>Easy maintenance, even during opera- tion - thanks to hygienic dry well in- stallation and easy access from outside and individual blocking</li> <li>Future-proof even with increasing solid content in sewage</li> </ul>	Specia	al features	<ul> <li>Pressure-tight pump chamber for floor-mounted or concealed floor installation</li> <li>Flexible thanks to freely selectable inlets</li> <li>Large tank volume</li> <li>WS Basic: including pipework, level control, switchgear and pump(s)</li> </ul>	<ul> <li>Universal use that extension up to 2</li> <li>Max. operational ant without weig levels up to the s</li> <li>Covers up to load</li> <li>Easy maintenance coupling</li> <li>Long service life made of corrosio</li> </ul>
Equipment/ function	<ul> <li>Switchgear with mains-independent alarm and collective fault signal</li> <li>Ready-to-plug</li> <li>Tank with inspection opening and transparent cover</li> <li>Analogue level measurement (4 20 mA)</li> <li>Non-return valve</li> <li>Thermal motor monitoring with bime- tallic sensor</li> </ul>	<ul> <li>Thermal motor monitoring and leak-age detection</li> <li>Level control with level sensor</li> <li>Menu-guided switchgear with potential-free contact</li> <li>Hose connection for venting diaphragm hand pump</li> <li>Kit for pressure pipe connection</li> <li>Installation material</li> </ul>	<ul> <li>Sewage lifting unit with solids separation system</li> <li>Collection reservoir</li> <li>2x solids separation reservoirs</li> <li>2x sewage pumps</li> <li>Complete pipework including inlet and pressure connection and non-return valve</li> </ul>	Equipr functi	ment/ ion	Wilo sewage pumps which can be used: → DrainLift WS 40: Rexa FIT-S → DrainLift WS 50: Rexa UNI Wilo sewage pumps which are included: → DrainLift WS 40 Basic: Rexa MINI3 → DrainLift WS 50 Basic: Rexa MINI3/UNI	Wilo sewage pumps → Drain TMW 32 → Padus MINI3 → Rexa MINI3 → Rexa FIT-S → Rexa PRO-S

![](_page_32_Figure_5.jpeg)

→ Rexa FIT-S → Rexa PRO-S

Series	Wilo-Flumen OPTI-TR 22-1 40-1 Wilo-Flumen EXCEL-TRE 20 40	Wilo-Flumen OPTI-TR 50-3 120-1 Wilo-Flumen EXCEL-TRE 50-3 90-2	Wilo-EMU TR/TRE 216 326-3	Series	Wilo–Flumen OPTI–RZP 20 40 Wilo–Flumen EXCEL–RZPE 20 40	Wilo-EMU RZP 50-2 80-2
Product photo			<b>G</b> ree	Product photo		Series modification
Design	Directly driven submersible mixer	Submersible mixer with single-stage planetary gear	Submersible mixer with two-stage plan- etary gear	Design	Direct driven submersible mixers with housing unit	Submersible mixers with single-stage planetary gear and housing unit
Application	Swirling of deposits and solids; destruc- tion of floating sludge layers	Flow generation, suspension of solids, homogenisation and prevention of float- ing sludge layers	Energetically optimised mixing and circu- lation of activated sludge; generation of flow rates	Application	<ul> <li>→ Pumping of large volume flows of wastewater and sewage</li> <li>→ Flow generation in water channels</li> </ul>	<ul> <li>→ Pumping of large volume flows of wastewater and sewage</li> <li>→ Flow generation in water channels</li> </ul>
Duty chart				Duty chart	H/m 4,4 3,6 3,2 2,4 4,0 3,6 2,4 4,0 3,6 2,4 4,0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	H/m 2 1 0.5 0.2 0.1 50 100 200 500 1000 Q/Vs
Volume flow Q <sub>max</sub>	Max. thrust: 105 – 950 N	Max. thrust: 160 - 6620 N	Max. thrust: 380 - 4250 N	Volume flow Q <sub>max</sub>	1,130 m³/h	2,221 – 6,926 m³/h
Delivery head H <sub>max</sub>				Delivery head H <sub>max</sub>	4.9 m	2.6 m
Technical data	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Immersed operating mode: S1</li> <li>→ Max. immersion depth: 20 m</li> <li>→ Fluid temperature: max. 40 °C</li> </ul>	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Immersed operating mode: S1</li> <li>→ Max. immersion depth: 20 m</li> <li>→ Fluid temperature: max. 40 °C</li> </ul>	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Immersed operating mode: S1</li> <li>→ Max. immersion depth: 20 m</li> <li>→ Fluid temperature: max. 40 °C</li> </ul>	Technical data	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Immersed operating mode: S1</li> <li>→ Max. immersion depth: 20 m</li> <li>→ Fluid temperature: max. 40 °C</li> </ul>	<ul> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Immersed operating mode: S1</li> <li>→ Max. immersion depth: 20 m</li> <li>→ Fluid temperature: max. 40 °C</li> </ul>
Special features	<ul> <li>Low clogging rate and reliable operation thanks to optimised hydraulics</li> <li>Low-wearing, due to the use of stainless steel precision-cast propellers with the lowest cavitation tendency</li> <li>A wide range of possible uses in diverse applications, even at high-interval running times</li> <li>Reduction of the energy and operating costs due to the standard use of IE3 motors (EXCEL-TRE) for the best possible thrust coefficient</li> </ul>	<ul> <li>Reliable continuous operation thanks to propellers that are non-susceptible to clogging and largely dimensioned gear bearings</li> <li>High operational reliability by using stainless steel investment-cast pro- pellers (TR/TRE 50-3, 60-3, 80-3)</li> <li>Reduction of energy costs due to best thrust to power ratio possible thanks to optimised hydraulics with minimum cavitation tendency and standard- equipped IE3 motor (EXCEL-TRE)</li> <li>Simple adaptation to the load cases due to operation with a frequency converter</li> </ul>	<ul> <li>Efficient energy usage. The innovative blade geometry and energy-efficient IE3/IE4 motors ensure the best possible specific thrust coefficient.</li> <li>Consistently reliable. The low-wearing GFK/PA6 propeller is durable and scores with its self-cleaning effect.</li> <li>Smooth running thanks to the balanced propeller load, even in high thrust ranges and when incoming flow conditions are unfavourable.</li> </ul>	Special features	<ul> <li>Reliable continuous operation due to low clogging propellers and flow hous- ing that is pump in non-clog design.</li> <li>High operational reliability by us- ing stainless steel investment-cast propellers</li> <li>Reduction of energy costs thanks to high pump efficiency and standard IE3 motor (EXCEL-RZPE)</li> <li>Simple adaptation to the system parameters through operation with a frequency converter</li> </ul>	<ul> <li>→ Vertical or in-line installation possible</li> <li>→ Self-cleaning propeller to avoid clog- ging</li> <li>→ Propeller in steel or PUR</li> </ul>
Equipment/ function	<ul> <li>→ Stationary installation on wall and floor</li> <li>→ Flexible installation through the use of lowering device or special pipe attachment</li> <li>→ Can be swivelled vertically and horizontally when installed with a lowering device</li> </ul>	<ul> <li>→ Stationary installation on walls</li> <li>→ Flexible installation via lowering device</li> <li>→ Can be swivelled horizontally when installed with a lowering device</li> <li>→ Installation with stand allows free placement in basin</li> </ul>	<ul> <li>→ Installation with stand allows free placement in basin</li> <li>→ Flexible installation</li> </ul>	Equipment/ function	<ul> <li>→ Stationary installation directly on the pipework</li> <li>→ Flexible installation via lowering device</li> </ul>	<ul> <li>→ Stationary installation directly on the pipework</li> <li>→ Flexible installation via lowering device</li> <li>→ Vertical or in-line installation possible</li> </ul>

![](_page_33_Figure_5.jpeg)

- → Ex rating
   → Integrated frequency converter

![](_page_34_Picture_0.jpeg)

Increase energyefficiency

-

Trust in WiloCare. Our experts always have an overview of the operating status of your Wilo pumps via remote access. We help you to continuously optimise your system and thus save energy.

![](_page_34_Picture_3.jpeg)

Wilo-SiBoost Smart Helix EXCEL

## **The Wilo-Service** A partnership you can rely on

![](_page_35_Picture_2.jpeg)

#### WHATEVER YOUR PATH LOOKS LIKE: WE'RE GOING WITH YOU.

Wilo has a long tradition of working in partnership with professional installers, system manufacturers and operators. Our Wilo service is an essential component of this partnership: we work with you to develop a service concept tailored to your individual needs. With our expertise and personal consultation we ensure that the operation of your systems is as energy-efficient, reliable and economical as possible. Our professional Wilo service technicians are ready to assist you with fast, reliable and on-time support.

In other words, with Wilo as your partner, you can be sure of not only choosing high-quality product solutions, but also benefiting from a comprehensive portfolio of well thought-out services. This means reliable support from Wilo at every step of your project - starting from design and configuration right through to commissioning and maintenance.

We call it: Pioneering for You.

#### The Wilo Service offer:

Versatile and individually accessible.

#### Wilo-Energy Solutions

Benefit from enormous savings potential by having your pumps checked and optimised in terms of efficiency, energy consumption and performance by a Wilo expert. Optimising or replacing existing systems with new, highly efficient solutions (products, services, know-how) primarily has a positive impact on your operating costs and operational reliability. In addition to the potential energy savings, we also take responsibility in the fight against climate change for future generations as well by being able to directly reduce CO, emissions through the application of our high-efficiency products.

#### Wilo Commissioning

Entrust the Wilo commissioning service with ensuring a smooth process when implementing new systems in your installations. We will happily accompany you throughout the commissioning process of our products and support you step-by-step. You will benefit directly from the advantages of our products and their performance in operation. Our gualified service technicians will familiarise you with all strengths to guarantee a safe and optimal start.

#### Wilo Maintenance

We offer you a wide range of options for regularly checking the smooth operation of our products and ensure longterm reliability. Choose the scope of services you need from our contract models and match your individual needs to our products.

![](_page_35_Picture_15.jpeg)

- → Commissioning → Individual and reliable maintenance concepts

#### WiloCare

With WiloCare, we bundle all our maintenance services into a comprehensive package supplemented by remote maintenance of your system. We can take care of error messages, troubleshooting and optimisation thanks to the data transmitted by your pump or system. This way, we can always ensure optimum operation of the system – quickly, reliably and without complications.

#### Wilo-Live Assistant

We prevent downtime and ensure operational reliability of your pumps and systems! Whether it's questions, errors or breakdowns, you can rely on rapid support from a Wilo expert. To provide interactive support, we have introduced facilities for live video chatting with our customers on site. This way, we can help you solve your problems as quickly as possible.

#### Our services at a glance:

- → Supervision
- → Installation
- → Optimisation and replacement
- $\rightarrow$  Competent repair service
- $\rightarrow$  Fast spare parts supply
- → Extended warranty
- → Service packages

## **Our tools and trainings: Comprehensive and** practice-orientated.

![](_page_36_Picture_2.jpeg)

We are there for you worldwide, 365 days a year. With over 2,500 technicians, our teams assist you in over 60 countries not just to meet your needs and requirements but to exceed them whenever possible. A phone call is all it takes and we'll initiate all the necessary steps – quickly, professionally and in direct coordination with you. Our service pledge holds for the entire life cycle of your Wilo products. Because you can always rely on Wilo.

#### **DESIGN AND SELECTION**

We want you to find the perfect solution for your requirements. That's why we provide personal consulting before your purchase to help you find the best and most economical product solution.

#### Our services at a glance:

- $\rightarrow$  On-site support
- → Wilo-Select pump selection software
- → Installation drawings
- → Convenient integration of our product data into the BIM model for optimal consulting support
- → Efficiency checks to determine the economic efficiency of existing pumps and suitable replacement pumps

#### TRAININGS AND SEMINARS

We want you to be able to use innovative technologies and products from Wilo optimally and integrate them perfectly into your working process. With this goal in mind, we offer expert-led seminars designed for the specific needs and applications of your industry. Expand your knowledge and put our expertise to work for you. Our seminars also give you the opportunity to exchange ideas with industry colleagues. We also develop company seminars for your particular requirements.

#### Our services at a glance:

- → Practically orientated product and system seminars
- → Instructors with long-term practical experience
- $\rightarrow$  Ideal space for meeting colleagues and exchanging ideas
- → Dialogue-based training concepts for active learning
- → Wilo-Brain qualification
- → System consulting

## **Pioneering for You**

#### Our promise to you.

The Wilo Group is one of the world's leading premium providers of pumps and pump systems for the building services, water management and industrial sectors. In the past decade, we have developed from a hidden champion into a visible and connected champion. Today, Wilo has around 8,200 employees worldwide.

Our innovative solutions, smart products and individual services move water in an intelligent, efficient and climate-friendly manner. We are also making an important contribution to climate protection with our sustainability strategy and in conjunction with our partners. We are systematically pressing ahead with the digital transformation of the Group. We are already the digital pioneer in the industry with our products and solutions, processes and business models.

7		5
F		
L	-	

![](_page_36_Picture_26.jpeg)

![](_page_36_Picture_27.jpeg)

#### Sustainably better.

One of the most important tasks in times of limited natural resources is the responsible consumption of water, a resource that is becoming increasingly scarce. Efficiency, connectivity and safety will become ever more important in the future. We aspire to offer you sustainable, user-friendly and high-performance solutions for building services and water management that are ahead of their time. We work closely with our customers to create innovative products and systems that perfectly match their requirements and are rounded off with convenient services. The result is integrated solutions you can rely on at all times.

![](_page_36_Picture_30.jpeg)

#### **Discover our** Wilo-World here

www.wilo.com/en/Wilo-World

## wilo

WILO MIDDLE EAST FZE Jebel Ali Free Zone South PO Box 262720 Dubai United Arab Emirates T +971 4 823 9500 info.ae@wilo.com

more information at www.wilo.ae