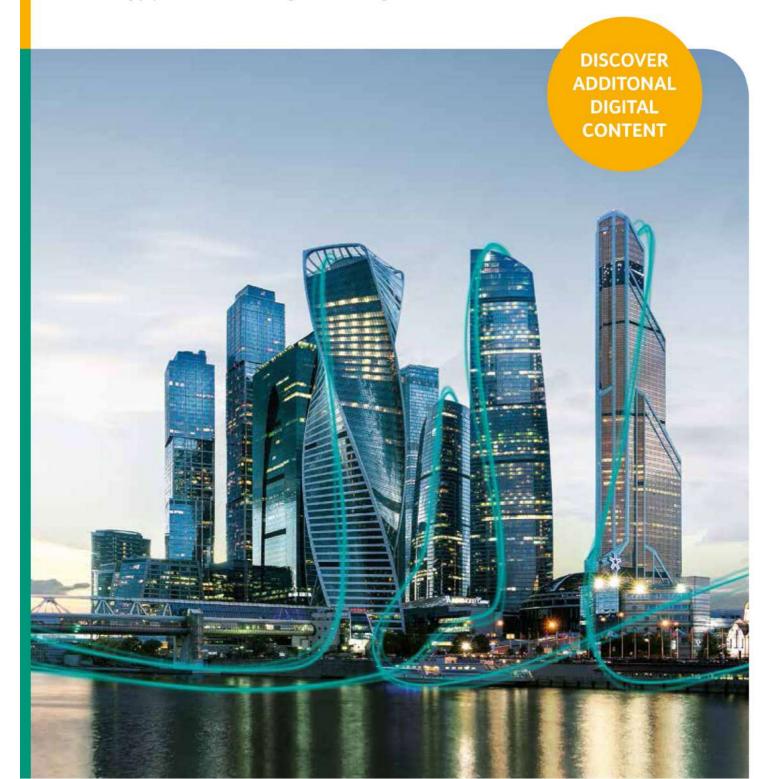




Efficient solutions - 50 Hz

Highly Efficient Pumping Solutions for Building Services

Our product and system solutions for Heating, Air conditioning, Cooling, Fire fighting Water supply as well as Drainage and Sewage.



WILO BRINGS THE FUTURE.

Wilo develops networked systems and solutions that build on sustainable concepts and smart technology. With its pioneering spirit, Wilo creates products and service solutions that provide today's market with answers to the complex tasks of tomorrow's building services. As an innovation leader, Wilo sets the bar and offers customers around the globe tailored products with high system efficiency and maximum energy conservation.





Pioneering for You.

Our promise to you.

WILO SE is one of the world's leading premium suppliers of pumps and pump systems for building services, water management, and the industrial sector. With over 7800 employees in more than 60 subsidiaries around the world, we develop smart solutions that connect people, products and services to effectively support you in your daily work. "Pioneering for You" is our lasting commitment to clear customer focus, unrelenting pursuit of quality and our special passion for technology.

As the digital pioneer of the pumps industry, we understand the challenges that will shape the future. As an innovation and technology leader, we provide holistic solutions to address them. We know that these issues play a major role in your daily work and, in turn, ours too.

Sustainably better.

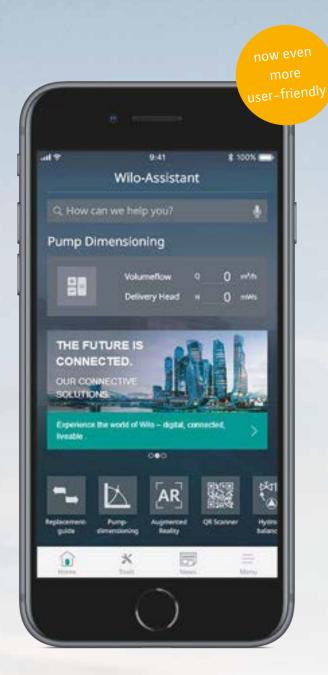
One of the most pressing tasks in times of limited natural resources is the responsible consumption of water, a resource that is becoming increasingly scarce. Efficiency, connectivity and safety will become increasingly important in the future. We aspire to offer you sustainable, user-friendly and high-performance 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.



THE FUTURE IS CONNECTED.

"The future is connected" – Along with network-compatible products, such as the Wilo-Stratos MAXO and modules which can be retrofitted to other Wilo pumps, the Wilo-Assistant App is Wilo's connectivity centrepiece. Wilo pumps are delivered equipped with a suitable digital interface, or can alternatively be upgraded using an IF module. The Wilo-Assistant App acts as a central starting point and is now optimised to provide customer guidance. The app makes the whole digital world of Wilo products and services available to customers. Tutorials make it easy to get started, and the comprehensive search function helps users find information on any topic across the whole app. The Smart Connect function can be used both to install products and to call up data on their operating status. In addition to this, there are functions such as the basic device configuration and direct communication with the product – to document its maintenance, fault and settings history, for example. Furthermore, the Solar Connect function in the app enables the Wilo-Actun OPTI-MS to be controlled using remote access.

The customer also has access to Wilo's expanded range of services through Care Connect. The data for these processes is only available in the Wilo Cloud and cannot be accessed externally. For the highest levels of data security.







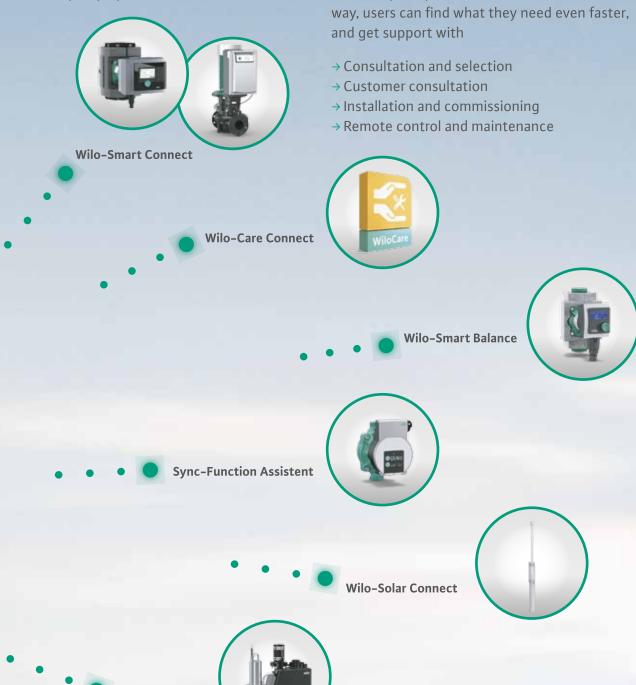
The new Wilo-Assistant.

Available for free download now.

The new Wilo-Assistant The app for everyone.

The redesigned Wilo-Assistant app makes the entire world of high-efficiency pump technology available on smartphones and tablets for HVAC installers, technical building equipment consultants and pump operators.

The new design and the intuitive user experience provide even better support for your dayto-day work. New functions and connective solutions add to the range of features already offered by the previous Wilo-Assistant. That way, users can find what they need even faster, and get support with







WILO PUMPS FOR EUROPE'S HIGHEST BUILDING.

ONE THOUSAND PUMPS OPERATE IN MOSCOW'S FEDERATION TOWER.

Rising into the sky like two gigantic mirrors: the crystalline skyscrapers on the north bank of Moskva River. The commercial district Moscow City forms a new silhouette and an impressive contrast to the historic bulbous spires of St. Basil's Cathedral. The twelve-billion-dollar project "Moscow International Business Center" is to become the

new flagship of the megacity. Among the skyscrapers, that form the city's new skyline is the Federation Tower. Currently the tallest building in Europe. The symbol of a new era, the modern Moscow. About one thousand Wilo pumps ensure a smooth supply of heating, air conditioning, ventilation and water.





Modern state-of-the-art skyscrapers line up about five kilometres beeline from the Kreml: over the past decade, a completely new district was built on a former harbour area. A financial district that is growing steadily. "Moscow City" is the first project of its kind in the Russian capital – it combines trade, apartments as well as leisure facilities. Offices, shops and hotels emerge on four million square meters – space for more than 300,000 people. Fifty kilometres away from Domodedowo airport, the district can be reached easily via three underground stations or a fast line. For tourists, Moscow has become a more and more popular destination: The observation decks of some of Europe's tallest buildings, such as the Mercury City Tower or the Federation Tower, offer breath taking views over the city.

FEDERATION TOWER

Completed in 2017, Federation Tower, "Baschnja Federazija" as it is called in Russian, is the tallest building in Europe with a height of 374 meters replacing "The Shard" in London (306 meters). The monumental complex consists of two towers with different sizes: the more than 370-meter tower with almost 100 floors is called "Vostok" (East-Tower), Orient, whereas the smaller one with over 60 floors and a height of 243 meters is called "Zapad" (West-Tower), Occident. Beneath the surface, the glass giants share a ten-story foundation. Wilo-Stratos pumps provided by Wilo Russia, ensure efficient and reliable heating, air conditioning and cooling at the same time. Consistently designed for high efficiency, it was the origin of the energy label for pumps with up to 80 per cent energy savings.

HIGH-EFFICIENCY FOR THE HEART OF MOSCOW'S BUSINESS CENTER

As part of a pilot project to test the pumps in operation, Wilo Russia installed 367 models during the construction phase of the West–Tower. Due to its high performance and efficiency, the order for the West–Tower followed in





2007. One year later, the pump expert supplied nearly 600 different product types for all existing building systems: heating, water supply, pressure boosting, sewage, air-conditioning, cooling. The pumps are issued on a total of five different technical floors with an area of 15 000 square meters each. The entire control of the pumps and pump systems is purely electronically controlled via an internal centre — in case of a possible malfunction, a message is sent directly to the smart phone or computer of the building's Facilities Manager.

Vertical, Multistage Centrifugal Pumps

Series Wilo-Helix EXCEL Wilo-Helix VE Wilo-Helix FIRST V* Wilo-Helix V* Field of application Pressure boosting Pressure boosting Pressure boosting Water Supply Water Supply Water Supply Irrigation Irrigation Irrigation Duty chart H/c Wilo-Helix £XCEL Wile-Helix VE Wile-Helix FIRST V 24 200 200 160 16 16 120 12 80 8 40 70 Q/m¹/h 40 50 Construction Non self-priming, highly efficient, fully Non self-priming multistage pump with Non self-priming multistage pump stainless steel high-pressure multistage integrated frequency converter centrifugal pump with EC motor and integrated high-efficiency drive Application Water supply and pressure boosting, Water supply and pressure boosting, Water distribution and pressure boosting, Industrial circulation systems, Process Industrial circulation systems, Process Industrial circulation systems, Process water, Closed cooling circuits, Washing water, Closed cooling circuits, Washing water, Closed cooling circuits, Washing systems, Irrigation systems, Irrigation systems, Irrigation Volume flow Q 80 m³/h 80 m3/h 80 m³/h Delivery head H_{max} 240 m 240 m 280 m Special features → High-efficiency EC motor (energy → Multistage, speed-configurable → Efficiency-optimised, laser-welded, efficiency class IE5 acc. to IEC 60034stainless steel high-efficiency pump optimised 2D/3D hydraulics 30-2) with 2D/3D hydraulics → Corrosion-resistant impellers, guide → Integrated electronic control "High-→ Optimised design for easy operavanes and stage housings Efficiency Drive' tion, transportation and installation → Flow and degassing-optimised hy-→ Easy operation thanks to proven with handles, lantern adjustment and draulic parts Green Button Technology and clear rotatable free flanges → Reinforced pump housing, flow and → User-friendly display with Green Butdisplay NPSH-optimised → User-friendly cartridge mechanical ton Technology and full text menu → Space-saving and easy maintenance seal "X-Seal" and spacer coupling → IF plug-in module for quick commuthanks to compact design (from 5.5 kW) nication with the BMS → Drinking water approval → Drinking water approval Technical data → Fluid temperature -30 to +120 °C with → Fluid temperature -30 to +120 °C → Fluid temperature: -20 to +120 °C EPDM (-10 to +90 °C with FKM) → Max. operating pressure: 16/25/30 bar with EPDM (-10 to +90 °C with FKM) → Max. operating pressure 16/25 bar → Max. operating pressure 16/25 bar → Protection class: IP55 → Protection class IP55 → Max. inlet pressure 10 bar → Minimum efficiency index MEI ≥0.7 → Minimum efficiency index MEI ≥0.7 → Protection class IP55 (Helix FIRST V 16: MEI ≥0.5) (Helix EXCEL 16: MEI ≥0.5) → Minimum efficiency index MEI ≥0.7 (Helix VE 16: MEI ≥0.5) Equipment/function → Impellers, stage chambers and pump → Impellers, stage chambers and pump → Corrosion-resistant impellers, quide housing made of stainless steel housing made of stainless steel vanes and stage housings 1.4301/1.4404 (AISI 304L/AISI 316L) 1.4301/1.4404 (AISI 304L/AISI 316L) → Helix FIRST V 2 – 16, PN 16 with oval → Helix EXCEL 2 - 16, PN 16 with oval → Helix VE 2 – 16, PN 16 with oval flanges, PN25 with round flanges flanges, PN25 with round flanges flanges, PN25 with round flanges → Helix FIRST V 22 - 36, with round → Helix EXCEL 22 – 36, with round → Helix VE 22 – 36, with round flanges flanges flanges → IEC standard motor → IEC standard motor → EC IE5 motor → Integrated frequency converter → Pump material code: → Integrated electronic control ** Pump housing SS 1.4301 (AISI 304) Hydraulics SS 1.4307 (AISI 304) ** Pump housing SS 1.4404 (AISI 316L) Hydraulics SS 1.4404 (AISI 316L) * Pump housing Cast Iron EN-GJL-250 (standard coating) Hydraulics SS 1.4307 (AISI 304)

Vertical, Multistage Centrifugal Pumps

Vertical, Multistage Centrifugal Pumps

Wilo-Multivert MVI 70, 95

Wilo-Medana CH1-L

Wilo-Medana CH1-LC







Series

Field of application

Duty chart	H/m Wilo-Multivert MVI 160 140 120 0 0 20 40 60 80 100 120 Q/m³/h	Wilo-Medana CH1-L Wilo-Medana CH1-LC 0 5 10 15 20 25Q/m³/h	Wilo-Medana CH1-L Wilo-Medana CH1-L Wilo-Medana CH1-LC 60 40 20 0 5 10 15 20 25Q/m³/h
Construction	Non-self-priming multistage pump	Non-self-priming Multistage horizontal centrifugal pumps	Non-self-priming Multistage horizontal centrifugal pumps
Application	Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation	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)
Volume flow Q _{max}	140 m ³ /h	24 m³/h	18 m³/h
Delivery head H _{max}	172 m	69 m	78 m
Special features	→ MVI 7095 in stainless steel with pump housing made of cataphoretic- coated cast iron	 → Captive nuts on connections (option) → Cataphoretic-coated lantern → Oblong hole for fixation → Compact design → ACS approval 	 → Cataphoretic-coated lantern → New closed hole fixation for vertical position

Tec	hnical	data

- ightarrow Fluid temperature -15 to +120 $^{\circ}\mathrm{C}$
- \rightarrow Max. operating pressure 16/25 bar
- → Max. inlet pressure 10 bar
- → Protection class IP55
- → Minimum efficiency index MEI ≥0.4
- \rightarrow Mains connection: 1~230 V, 50/60 Hz
- 3~380/400/460 V, 50/60 Hz
- → Rated pressure: 10 bar
- → Fluid temperature: -20 °C to 120 °C
- \rightarrow Ambient temperature: -15 °C to 50 °C
- → Protection class: IP55
- → Mains connection: 1~230 V, 50/60 Hz -3~380/440 V, 50/60 Hz TN, TT, IT
- → Rated pressure: 10 bar
- \rightarrow Fluid temperature: -20 °C to 90 °C
- \rightarrow Ambient temperature: -15 °C to 50 °C
- → Protection class: IP55

Equipment/function

- → MVI 70 ... to 95 ... PN16/PN25 with round flange
- → IEC standard motor, 2-pole
- → Pump housing and impellers made of stainless steel
- → AC motor: 3~ > 0.75 AC IE3, 3~ < 0.75 AC IE2
- → AC motor: 1~ AC IE1/IE2
- → Threaded connection
- → Pump housing made of cast iron and impellers made of stainless steel
- \rightarrow AC motor: 3~ > 0.75 AC IE3, 3~ < 0.75 AC IE2
- → AC motor: 1~ AC IE1/IE2

Series

Multi-pump Pressure Boosting Systems Multi-pump Pressure Boosting Systems Multi-pump Pressure Boosting Systems With Speed-controlled Pumps With Speed-controlled Pumps IE5 Wilo-SiBoost Smart MVISE Wilo - CO MHI/MHIL BC/EC Wilo-Comfort-(N)-COR..MVI(S)../CC Wilo - CO Helix First/MVI BC/EC SiBoost Smart (FC) Helix V, ..VE, ..EXCEL Comfort-COR..Helix V(E)../CC(e) *WMP Boost - Helix Excel/VE PC MV *WMP Boost Helix First V/MVI PC SV/MV *WMP Boost Helix First MHI/MHIL/MVI PC C Field of application Pressure boosting Water supply and pressure boosting Water supply and pressure boosting Duty chart 100 50 100 30 60 150 200 250 400 500 500 10 20 Q/m3/ Construction Non self-priming multistage pump Highly efficient system with 2 to 4 Pressure boosting system with speed stainless steel, non self-priming, highcontrol and 2 to 6 non self-priming, pressure multistage centrifugal pumps stainless steel, high-pressure, multistage (Helix V. VE. EXCEL, MVISE) switched in centrifugal pumps switched in cascade cascade or synchronous motor speed Application Full automatic water supply in residen Full automatic water supply in residen-Water supply and pressure boosting tial/office buildings & industrial systems tial/office buildings & industrial systems Commerce and industry For pumping drinking/process water, For pumping drinking/process water, Cooling water circulation systems cooling water, water for firefighting Washing and sprinkling systems cooling water. *Available with Pilot/Jockey pump *Available with Pilot/Jockey pump Volume flow Q_{max} 800 m³/h 360 m³/h 25 m³/h Delivery head H_{max} 158 m 160 m 70 m Special features → High-efficiency pump hydraulics → Compact system in accordance of → All parts that come in contact with → Helix VE with IE4, Helix EXCEL with DIN 1988 (EN 806) the fluid are made of stainless steel High-efficiency EC motor (IE5 acc. to → Series with Helix VE integrated fre-→ Compact design IEC 60034-30-2) quency converter and IE-4 motors → WRAS/KTW/ACS approval for all parts → Hydraulics of entire system are that come in contact with the fluid Helix V with IE-3 standard motors pressure-loss optimised (EPDM version) → Series with external single/multiple Integrated dry-running detection and frequency converter low water cut-out switch → Mains connection 3~415 V, Technical data → Mains connection → Fluid temperature –15 to +110 °C Helix V: 3~415 V. 50 Hz 50 Hz → Max. operating pressure 10 bar Helix VE and EXCEL: 3~415 V, → Max. fluid temperature 70 °C → Inlet pressure max. 6 bar → Operating pressure 10/16 bar → Protection class IP54 → Max. fluid temperature 70 °C → Inlet pressure 6/10 bar → Operating pressure 16/25 bar → Protection class IP54 → Inlet pressure 10 bar → Protection class IP54 Equipment/function → Automatic pump control via Smart → Base-load pump continuous auto → Stainless steel pump in monobloc Controller SC/MV controlled via frequency converter in design → Innovative pressure-variable control the CC/PC SV/MV controller Threaded connection

→ Components with fluid contact are

→ Shut-off device at each pump, on the

→ Diaphragm pressure vessel on pressure

→ Pressure sensor, on the discharge side

→ Pipework in GI (Optional in SS)

suction and pressure sides

→ Non-return valve, on the pressure

corrosion-resistant

side

side

→ Single-phase or three-phase AC

ed thermal motor protection

→ Single-phase AC motor with integrat

motor

for Helix VE. EXCEL. MVISE

sure sides of each pump

corrosion-resistant

side

EXCEL. MVISE

→ Components with fluid contact are

→ Shut-off device on suction and pres-

diaphragm pressure vessel on pressure

→ Non-return valve, pressure sensor,

→ Low-water sensor standard for VE,

Multistage SS Impeller Pressure Booster Monoblock Pumpset **Horizontal Open Well Submersible** System **Pumpset** Series Wilo - HMHIL / FMHIL Wilo - MPM Wilo - MPO Field of application Water transfer Water transfer Water transfer Duty chart H/m H/m Wilo-MPM Wilo-MPO 80 70 80 70 60 60 50 50 30 40 40 30 30 20 20 10 10 Q/m³/ 60 90 120 Q/m³/h 60 90 120 Q/m³/h Construction Single Pump booster Non Self priming End Suction monoblock Horizontal Open well Submersible pumpset Application Residential Booster System, Water supply Water supply Firefighting Sprinkler Irrigation Cooling tower Agriculture HVAC Irrigation Volume flow Q_{max} 138 m3/hr 8 m3/hr 135 m3/hr Delivery head H_{max} 78 m 78 m Special features → Wetted parts made up of stainless steel → Dynamically balanced rotating parts → No need of foundation and foot wall as → High efficient motor suitable for wide to ensure min. vibration, noise free → installed under water voltage fluctuations operation & long bearing life → SS shaft for long and trouble free life → Designed for wide Voltage → Silent in operation → Motor designed to operate in wide → Factory assembled system fluctuations voltage range → Motor filled with anti corrosive liquid to increase life of internal parts → Strong carbon v/s stainless steel thrust bearing for longer life Technical data → Mains connection: 1~230V/3~415 → Mains connection: 3~415 V, 50 Hz → Mains connection: 3~415 V, 50 Hz V.50 Hz → Pump housing : Cast Iron → Pump housing : Cast Iron → Protection class IP54 → Impeller: Cast Iron → Impeller: Cast Iron → Sealing : Gland Packed / Mechanical → Protection class IP68 *5HP & 7.5HP available in 5 star rating Equipment/function → New innovative pressure-variable Optional features: control → IP55/IP56 protection → Components with fluid contact are corrosion-resistant → Shut-off device, on the pressure side → Non-return valve, on the pressure → Diaphragm pressure vessel 8 l, 24l, PN 10

14

→ Thermal motor protection for EM ver

sion (1~230 V)



Using digital technologies efficiently

The consistent use of the latest digital technologies and the comprehensive networking of the supply and disposal systems are the key to greater sustainability and efficiency. At the same time, the challenges facing our water systems are increasing: Pumping stations that are in daily use are subject to high loads. High solids content, abrasive or fibrous materials in the water can cause clogging. The intelligent networking of pumps and pump systems is becoming ever more relevant.

More efficiency and reliability through Nexos Intelligence

This is also highlighted by the small community of Tczów in Poland. Wilo installed a pressure drainage system here ten years ago. Only once it was in use did it become obvious that one pipe was particularly susceptible to the build-up of deposits or even clogging due to irregular flow rates - which the operator had to rectify at high cost. For this reason, Tczów became the first community to test the pressure drainage system with Nexos Intelligence. Using a piece of software, 185 of the 750 local pumping stations have been digitally connected in an intelligent network. The use of this new control system facilitates a distribution of the peak inflows on days when the system is under heavy load, such as on public holidays. At times when the system is not subject to such heavy loading, the pressure drainage system with Nexos Intelligence ensures that the minimum flow rate of 0.7 m/s is also achieved in the collector pipes to avoid the risk of clogging due to the build-up of deposits. Faults that occur can be detected automatically using the fault patterns and thus the reason for the problem can be identified. This process reduces the response time of the community's maintenance personnel and, as a result, lowers maintenance costs. Smart networking also delivers benefits such as an energy saving of up to 30 % and means that the system can provide daily, monthly or annual statistics for the whole system.

Submersible Pumpset Submersible Sewage Pumps Submersible Pumpset Wilo - CIFAC-With Alloy Tip Cutter Series Wilo - FAS/FAC Wilo-Rexa CUT GI Wilo-Rexa CUT GE Field of application Dewatering /Wastewater collection and Wastewater collection and transport Dewatering /Wastewater/Sewage collection and transport transport Duty chart H/m Wilo - CIFAC Wilo - FAS/FAC CUT GUGE 45 30 40 25 35 20 30 15 25 10 20 10 500 **Q/m³/h** Construction Submersible drainage pump Submersible sewage pump with macera-Submersible drainage/sewage pump Application Pumping of Pumping of Pumping of Rainwater → Sewage containing faeces Sewage containing faeces → Wastewater Wastewater Wastewater **Untreated Sewage** 21 m³/h 700 m3/hr Volume flow Q_{max} 102 m3/hr Delivery head H_{max} 30 M 48 m Special features → High operational reliability → Low-weight version with stainless → IE3 motor self-cooling motors for use in → Integrated pump support foot for steel motor wet well. easy installation → Sturdy version in cast iron → Protection class IP68 ightarrow Single phase pumps with Float switch → Sealing with two mechanical seals → Reliable semi-open single-vane with (A-model) → Longitudinal watertight cable inlet alloy cutter at impeller tip. → Motor body with IP 68 → Protection class IP68 → Integrated pump support foot for protection easy installation → Thermal protection → Motor overload protection and leakage → Motor body in SS upto 2.2kW; in oil chamber protection CI body above 2.2kW → Large free ball passage upto 100 mm Technical data → Mains connection: 1~230V/3~400 V, → Mains connection: 1~230 V, 50 Hz or → Mains connection: 3~415 V, 50 Hz → Pump housing : Cast Iron 50 Hz 3~400 V. 50 Hz → Pump housing : Cast Iron → Immersed operating mode: S1 → Impeller: Cast Iron / Stainless steel → Impeller: Cast Iron → Non-immersed operating mode: S3 → Max. immersion depth: 7 m (CUT GI) or 20 m (CUT GE) → Fluid temperature: max. 40 °C Equipment/function → Optional features → Internal or external macerator Optional features: → Stationary wet sump installation → Unimpeded flow to the impeller → H class insulation → Auto-coupler (Suspension device) → Maceration of substances being → Stationary wet sump installation → Auto-coupler (Suspension device) conveved → Sealing chamber with optional external monitoring

→ ATEX approval (Rexa CUT GE)

Submersible Pumpset Submersible Sewage Pumps Submersible Sewage Pumps Series Wilo-Rexa FIT Wilo-Rexa SOLID Wilo - STS Wilo-Rexa PRO Field of application Dewatering and flood control / Waste-Dewatering and flood control / Waste-Dewatering /Wastewater/Sewage water collection and transport / Wastewater collection and transport / Wastecollection and transport water treatment water treatment / Industrial Process **Duty chart** H/m Willo-Rexa FIT / PRO H/eWilo-Rexa SOLID Wilo - STS 30 40 25 32 20 24 15 80 100 120 140 160Q/m³/ 100Q/l/s Construction Submersible sewage pump Submersible sewage pump Submersible drainage/sewage pump Application Pumping of Pumping of Pumping of > Sewage containing faeces → Untreated sewage -Sewage containing faeces → Wastewater -Wastewater Sewage containing faeces → Wastewater -Untreated Sewage → Process water Volume flow Q 186 m³/h 426 m³/h 54 m3/hr Delivery head H_{max} 20 M Special features → Low-weight version with stainless → Highest operational reliability and → High operational reliability steel motor or sturdy version in cast reduced service costs, especially for → Integrated pump support foot for easy installation pumping untreated sewage thanks to iron → Also with IE3 motor technology (acthe self-cleaning characteristics → Single phase pumps with Float switch cording to IEC 60034-30) → Enhanced corrosion protection with (A-model) Motors with S1 operation mode for the optional Ceram coating for a → Stainless steel motor body with IP 68 dry installation available longer lifetime protection → Optional Digital Data Interface (DDI) → Thermal protection → Protection class IP68 ightarrow Free ball passage upto 35 mm with integrated vibration monitor, data logger and web server for convenient system monitoring → Integration of Nexos Intelligence → Protection class IP68 Technical data → Mains connection: 1~230 V. 50 Hz or → Mains connection: 3~400 V, 50 Hz → Mains connection: 1~230V/3~400 V, → Immersed operating mode: S1 3~400 V. 50 Hz 50 Hz Immersed operating mode: S1 → Non-immersed operating mode: → Pump housing : Cast Iron → Non-immersed operating mode: S3 S1 with self-cooling motor → Impeller: Cast Iron → Max. immersion depth: 7 m (FIT) or S2 with surface-cooled motor 20 m (PRO) → Max. immersion depth: 20 m → Fluid temperature: max. 40 °C → Fluid temperature: max. 40 °C Equipment/function → Thermal motor monitoring Optional Nexos Intelligence: Optional features for → Motor chamber monitoring (Rexa Reduced downtime and service call-→ Stationary wet sump installation outs thanks to automatic detection → Auto-coupler (Suspension device) → Sealing chamber with optional exterand removal of clogging nal monitoring → Lower energy costs due to the → ATEX approval (Rexa PRO) integrated automatic control for the optimal operating mode of the specific system Convenient control and connectiv – ity with the local network via the integrated web server and Ethernet interface with established protocols in the pump → Increased operational reliability in the event of a failure thanks to the integrated pump control in multiple

execution

Submersible Sewage Pumps Twin Pump Control Panel Drain Systems Sewage Lifting Unit Series Wilo-EMU FA 08 to FA 15 Wilo - Drain Control Panel Wilo-DrainLift Box... D Wilo-DrainLift Box... DS (standard pumps) Field of application Dewatering and flood control / Waste-Plumbing Wastewater collection and transport water collection and transport / Wastewater treatment Duty chart H/c Wile-EMU FA Wilo-OvainLift Box 08... - 15... (SVA) Q/m³/ Construction Submersible sewage pump Sewage lifting unit for concealed floor installation Application Pumping of Drain controller for Pumping of sewage without faeces that → Sewage containing faeces Dewatering (Rainwater and flood) cannot be piped to the sewer system → Wastewater through the use of natural falls. Sewage 380 m³/h 18 m³/h Volume flow Q_{max} Delivery head H_{max} 51 m 10.5 m Special features → Operationally reliable thanks to → Alteration & cascading features → Easy to install due to integrated pump Vortex hydraulics and single-channel → Microprocosser based pump controller and non-return valve hydraulics with large, free ball paswith auto-manual operation facility → Large tank volume sage → Protection from single phase,phase → Easy maintenance → Process reliability thanks to optional reversal, overload etc → Pumps with pressure pipe removable monitoring for the sealing chamber → Electronic display of current and voltage → Stainless steel tile frame with trap → Protection class IP68 Potetinal free contacts for status monetring (ON/OFF/Trip) → IP 44 enclosure. Technical data → Mains connection: 3~400 V, 50 Hz → Mains connection: 1~230 V, 50 Hz → Operation mode: S3 → Immersed operating mode: S1 → Non-immersed operating mode: S2 → Fluid temperature: max. 35/40 °C → Max. immersion depth: 20 m → Pressure port: Ø40 mm → Fluid temperature: max. 40 °C → Gross volume: 113 l → Switching volume: 22...31 l Equipment/function → Optional external sealing chamber → Optional IP55 enclosures → Single and double-pump system monitoring → Lifting unit with ready-mounted pump, level control, pressure pipe and integrated non-return valve → Ready-to-plug system (single-phase version) → Thermal motor monitoring → DS version: Double pump system with micro-processor controlled switchgear

Wilo-EMUport CORE **Sewage Lifting Unit Sewage Lifting Unit** Series Wilo-HiSewlift 3 Wilo-DrainLift XL Field of application Pumping of sewage containing faeces Wastewater collection and transport Wastewater collection and transport **Duty chart** H/ H/m Wilo-EMUport CORE Willo-HiSewlift 3 Willo-DyainLift XI 20 40 16 30 20 40 50 60 70 Q/m³/h 30 5 Q/m3/h 20 30 35 O/m3/ Construction Sewage lifting unit Sewage lifting unit Sewage lifting unit with solids separa-Double-pump system tion for floor-mounted and underground installation (in a chamber) Application Pumping of sewage containing faeces Pumping of sewage containing faeces Pumping of sewage containing faeces that cannot be piped to the sewer systhat cannot be returned to the sewer tem through the use of natural falls. system using natural falls. Volume flow Q____ 80 m³/h 5 m³/h 40 m³/h Delivery head H_{max} 22 m Special features → Maximum operational safety with → Particularly narrow design for an easy → Flexible thanks to height-adjustable front-wall installation and swivel-mounted inlet connection separation of solids from the sew → Easy operation due to menu-guided → Low-noise operation and integrated age: Large solids do not have to pass active carbon filter for a high user through the pump - no clogging switchgear comfort → Durable and corrosion-free due to the → Integrated non-return valve → Reliable performance and low power → Operationally reliable due to high use of PE and PUR material → Easy maintenance, even during opera consumption for an efficient sewage switching volume and reliable level disposal detection tion - thanks to hygienic dry well in → Continuous duty thanks to the use of stallation and easy access from outside → Easy installation with flexible connection possibilities self-cooling motors and individual blocking → Future-proof even with increasing solid → Ready for connection content in sewage Technical data → Mains connection: 3~400 V, 50 Hz → Mains connection: 1~230 V. 50 Hz → Mains connection: 3~400 V. 50 Hz → Operation mode: S1 → Operating mode: S1 → Operation mode: S3 → Fluid temperature: max. 40 °C → Fluid temperature: max. 35 °C → Fluid temperature: max. 40 °C → Pressure port: DN 80, DN 100 → Pressure port: Ø32 mm → Pressure connection: DN 80 → Gross volume: 440 l, 1200 l → Gross volume: 14.4 l; 17.4 l → Gross volume: 380 l → Switching volume: 295 l, 900 l → Switching Volume: 1 l → Switching volume: 260 l Equipment/function → Ready-to-plug Thermal motor monitoring → Sewage lifting unit with solids separa → Thermal motor monitoring → Level control with level sensor tion system → Level control with pneumatic pres-→ Menu-guided switchgear with → Collection reservoir potential-free contact sure transducer → 2x solids separation reservoirs → Integrated non-return valves → Inlet seal DN 150 → 2x sewage pumps → Active carbon filter → Keyhole saw for inlet seal → Complete pipework including inlet and → Non-return valve pressure connection and non-return → Hose connection for venting and valve diaphragm hand pump → Kit for pressure pipe connection → Installation material

End Suction Pumps as per

ISO 2858

	130 2050		Centinugai Punips
			-
Series	Wilo - MISO	Wilo-SCP	Wilo - RN,IPB,HS,PJ,PLURO,FG/FH
Field of application	Fire fighting, performance as per NFPA 20	Fire fighting, performance as per NFPA 20	Fire fighting, performance as per NFPA 20
Duty chart	Wilo-MISO Wilo-MISO Application of the second of the sec	H/m 200 100 50 10 4 20 50 100 500 1000 Q/m/h	H/m 100 10 1 1 10 100 1000 Q/m³/h
Construction	Single-stage low-pressure centrifugal pump with axial suction, according to ISO 2858, mounted on a baseplate	Low-pressure centrifugal pump with axially split housing mounted on a baseplate	Multistage high-pressure multistage centrifugal pump in sectional construction, mounted on baseplate
Application	Motor/Engine driven pumps suitable for : → Hydrant → Sprinkler → Jockey → Water curtain → Terrace booster	Motor/Engine driven pumps suitable for : → Hydrant → Sprinkler → Jockey → Water curtain	Motor/Engine driven pumps suitable for : → Hydrant → Sprinkler → Jockey
Volume flow Q _{max}	750 m3/hr	3,400 m³/h	1000 m3/hr
Delivery head H _{max}	170 m	245 m	1500 m
Special features	 → Reduced life cycle costs through optimised efficiency → Mechanical seal independent of the direction of rotation → Interchangeable casing wear ring → Greased grooved ball bearings for bearing of pump shaft → Suitable for temperatures up to 120 °C → Back pull-out version → Avaialble in vertical execution 	 → Higher volume flows up to 17,000 m3/h on request → Special motors and other materials on request 	 Modular design ensures pump versions which can be adapted to meet customer demands precisely. Hydraulic pressure compensation relieves load on bearings and ensures a longer service life. Multiple optional pressure connections allow different pressures to be supplied from a single pump. Available in vertical execution. Design facilitates multiple duty points/outlets in singe pump
Technical data	 → Fluid temperature: Upto +120 °C → Prime mover: Motor/Engine → Nominal diameters: DN 32 to DN 200 → Operating pressure: 16 bar 	 → Fluid temperature -8 °C to +120 °C → Mains connection 3~415 V, 50 Hz → Nominal diameters - Suction side: DN 65 to DN 500 → Pressure side: DN 50 to DN 400 → Max. operating pressure: 16 or 25 bar, depending on type 	 → Fluid temperature: Upto 120 °C → Prime mover: Motor/Engine → Nominal diameters: DN 32 to DN 250 → Operating pressure: 150 bar
Equipment/function	 → Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings in process design. → Optional Features for Engine set: Can be supplied with RC/HE cooling options. Lose supply - Battery, battery cable, Auto Engine (ADEP), Residential silencer 	 1- or 2-stage, low-pressure centrifu gal pump in monobloc design Deliverable as complete unit or with out motor or only pump hydraulics Shaft sealing with mechanical seal or stuffing box packing 4-pole and 6-pole motors Materials: Pump housing: Cast Iron Impeller: Bronze Shaft: Stainless steel Optional Features for Engine set: 	 → Hydraulic axial compensation. → Shaft sealing with mechanical seal or stuffing box packing → Optionally with multiple pressure outlets for e.g. fire extinguishing applications. → Supplied as a complete unit: with → pump, coupling, motor mounted on baseplate or without motor or as pump only, with free shaft end. → Optional Features for Engine set: → Optional Features for Engine set:

→ Optional Features for Engine set :

 Can be supplied with RC/HE

silencer

cooling options.

-Lose supply - Battery, battery cable,
Auto Engine (ADEP), Residential

→ Optional Features for Engine set :

 Can be supplied with RC/HE

cooling options.

—Lose supply – Battery, battery cable,
Auto Engine (ADEP), Residential

Axially Split Case Pumps

Vertical and Horizontal, Multistage

Centrifugal Pumps

Vertical Turbine Pumps Monoblock Pumpset Vertical, Multistage Centrifugal Pumps Series Wilo VMF, CNE Wilo - MPM Wilo-Helix FIRST V Field of application Fire fighting, performance as per Fire fighting Fire fighting NFPA 20 H/m **Duty chart** Wilo-MPM H/m 200 80 70 100 60 50 50 16 40 30 20 10 600 Q/m³/h 60 120 **Q/m³/**ł Construction Vertical turbine pumps for dry well Non Self priming End Suction monoblock Non self-priming multistage pump installation with submerged axial or semi-axial hydraulics Application Motor/Engine driven pumps Water supply Water distribution and pressure boosting, suitable for: Firefighting (Terrace Booster) Industrial circulation systems, Process water, Closed cooling circuits, Washing Hydrant Sprinkler systems, Irrigation Jockey Volume flow Q_{max} 40000 m3/hr 80 m ³/h 138 m3/hr Delivery head н_{max} 450 m 78 m 280 m Special features → Minimum surface area needed → Dynamically balanced rotating parts → Efficiency-optimised, laser-welded, → High hydraulic efficiency to ensure min. vibration, noise free optimised 2D/3D hydraulics operation & long bearing life → Corrosion-resistant impellers, guide → Submerged pump hydraulics → Design to order as per customer → Designed for wide Voltage vanes and stage housings specifications fluctuations → Flow and degassing-optimised hydraulic parts → Reinforced pump housing, flow and NPSH-optimised → Space–saving and easy maintenance thanks to compact design Technical data → Permitted temperature range up to → Mains connection: 3~415 V. 50 Hz → Fluid temperature: -20 to +120 °C → Max. operating pressure: 16/25/30 bar 80 °C, or up to 105 °C on request. → Pump housing : Cast Iron → Nominal diameter on pressure side → Impeller: Cast Iron → Protection class: IP55 DN 100 to DN 2000. → Sealing: Gland Packed / → Minimum efficiency index MEI ≥0.7 (Helix FIRST V 16: MÉI ≥0.5) → Prime mover : Motor/Engine Mechanical Seal Equipment/function → For types of installation with pressure → Optional features : → Corrosion-resistant impellers, guide port, for concealed floor, floormounted or IP55/IP56 protection vanes and stage housings twin-ceiling installation → Helix FIRST V 2 – 16, PN 16 with oval Design: As removable or permanent flanges, PN25 with round flanges installation → Helix FIRST V 22 – 36, with round With axial or semi-axial, single or flanges multistage hydraulics → IEC standard motor → Open shaft for bearing lubrication with the fluid, or with shaft trim for separate bearing lubrication → Drive options: Electric motor, diesel motor or steam turbine → Optional Features for Engine set : → Can be supplied with RC/HE cooling options. → Lose supply – Battery,battery cable, Auto Engine (ADEP), Residential silencer

Efficient pumping solutions for BSC Edition 2020 - 50 Hz - Subject to change without prior notice.

Wilo - Atmos ISOFF

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UL/FM Certified Pumps

Main Control Center for Fire Fighting

silencer

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/RSI 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

Standard Glanded Pumps

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End Suction Pumps As Per

ISO 2858 Wilo-SCP

Axially split case pumps

→ Shaft: Stainless steel

	Glanded High-Efficiency Pumps in In-Line Design	Glanded Energy–saving Pumps In In–line Design	Glanded Standard Pumps In In-line Design
	Series extension	IE4	IE3
Series	Wilo-Stratos GIGA Wilo-Stratos GIGA-D	Wilo-CronoLine-IL-E Wilo-CronoTwin-DL-E	Wilo-CronoLine-IL Wilo-CronoTwin-DL
Field of application	Heating / Air conditioning / Industrial Process	Heating / Air conditioning / Industrial Process	Heating / Air conditioning / Industrial Process
Duty chart	H/m 70 Wilo-Stratos G/GA Wilo-Stratos G/GA Wilo-Stratos G/GA D S0 S0 S0 S0 S0 Q/m²/r	Wile-CrossLine-IL-II Wile-CrossLine-IL-II Wile-CrossLine-IL-II Wile-CrossLine-IL-II O 100 200 300 400 500 600 Q/m³/r	#/m Wilo-CrossLine-II. Wil
Construction	High–efficiency in–line pump (as single or double pump) with EC motor, electroni– cally controlled, in glanded design with flange connection and mechanical seal	Energy–saving in–line pump/in–line double pump in glanded construction. Version as single–stage low–pressure centrifugal pump with flange connection and mechanical seal	Glanded pump/double pump in in-line design with flange connection
Application	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water–glycol mixtures without abra- sive substances in heating, cold water and cooling systems
Volume flow Q _{max}	380 m ³ /h	800 m³/h	1,170 m³/h
Delivery head H _{max}	65 m	65 m	108 m
Special features	 → Innovative high-efficiency pump for maximum overall efficiency → High-efficiency EC motor with efficiency class IE5 acc. IEC 60034-30-2 → Optional IF module interfaces for bus communication with building automation 	 Optional interfaces for bus communication using plug-in IF modules Simple operation with Green Button Technology and display Integrated dual pump management Integrated full motor protection with trip electronics Motors with efficiency class IE4 	→ Can be used flexibly in air-conditioning and cooling systems, with application benefits due to direct draining of condensate → High standard of corrosion protection → Worldwide availability of standard motors (according to Wilo specifications) and standard mechanical seals → Main/standby mode or peak-load operation (by means of external auxiliary device) → Motors with efficiency class IE3 for motors ≥ 0.75 kW
Technical data	 → Fluid temperature -20 °C to +140 °C → Mains connection: 3~380 V -3~480 V (±10 %), 50/60 Hz → Minimum efficiency index (MEI): up to 6,0 kW MEI ≥ 0,7, from 11 kW MEI ≥ 0,4 → Nominal diameter DN 40 up to DN 100 → Max. operating pressure 16 bar 	 → Fluid temperature -20 °C to +140 °C → Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 40 to DN 80 → Max. operating pressure 16 bar 	 → Fluid temperature -20 °C to +140 °C → Mains connection 3~400 V, 50 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 32 to DN 250 → Max. operating pressure 16 bar (25 bar on request)
Equipment/function	 → Control modes: Δp-c, Δp-v, PID control, n=constant → Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement → External control functions: E.g Overriding Off, external pump cycling (double pump operation), analogue input 0-10 V/0-20 mA for constant speed (DDC) → Remote control via infrared interface (IR-Stick/IR-Monitor), plug-in position for IF modules for connection to building automation 	 Control modes: Δp-c, Δp-v, PID control, n=constant Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement External control functions: E.g. Overriding Off, external pump cycling (double pump operation), analogue input 0-10 v/0-20 mA for constant speed (DDC) Remote control via infrared interface (IR-Stick/IR-Monitor), plug-in position for IF modules for connection to building automation 	→ Single-stage, low-pressure centrifu- gal pump in in-line design with → Mechanical seal → Flange connection with pressure measuring connection R 1/8 → Lantern → Coupling → IEC standard motor → DL with switchover valve

Glanded Monobloc Pumps

Series Wilo-CronoBloc-BL Wilo-Stratos MAXO Wilo - CCS/CCP HVAC System Wilo-Stratos MAXO-D Field of application Heating / Air conditioning / Industrial Heating / Air conditioning Variable speed Pump Control unit for **HVAC System** Process Duty chart -Stration MAXO -Strates MAXO-D 12 10 8 60 N. MANO 20 Construction Glanded pump in monobloc design with Smart glandless circulator with screwed flange connection connection or flange connection, EC motor with integrated power adjustment Application Pumping of heating water, cold water Hot-water heating systems of all kinds, CCS (Comfort controller secondary) and water-glycol mixtures without abraair-conditioning systems, closed cooling suitable for secondary varaible chilled sive substances in heating, cold water circuits, industrial circulation systems water systems and cooling systems CCP (Comfort controller primary) suitable for primary varaible chilled water systems Volume flow Q 767 m³/h 110 m³/h Delivery head H_{max} 150 m 16 m Special features → High corrosion protection through → Intuitive operation by guided applica-→ Suitable upto 8 Pumps with single/ cataphoresis coating of the cast iron tion settings with the Setup Guide multiple DPTs. → Energy-saving functions such as → Microprocessor based logic controller components → Standard condensate drainage holes No-Flow Stop with builtin PID,auto/manual operation in the motor housings → Innovative controlling functions such facility. → High worldwide availability of as Dynamic Adapt plus and Multi-→ Embedded logic to prevent pump standard motors (according to Wilo Flow Adaption hunting, pump flow surges and motor → Direct pump networking for multiple overheating. specifications) and mechanical seals → Performance and main dimensions in → Multi color, wide screen (5.6"), High pump control via Wilo Net → Installation comfort by the optimised accordance with EN 733 resolution HMI with 24VDC power supply. Wilo-Connector → Multi level user password security. → Alpha Numerical Alarm and Fault data login. → End of curve protection (flow meter Technical data → Fluid temperature -20 °C to +140 °C → Fluid temperature -10 °C to +110 °C required). → Mains connection 3~400 V, 50 Hz → Mains connection: 1~230 V, 50 Hz → Set value v/s process value graph. → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter Rp 1 to DN 100 → BMS control Via Modbus RTU Protocol → Nominal diameter DN 32 to DN 150 → Max. operating pressure 10 bar (spewith Communication port RS 485/ → Max. operating pressure 16 bar cial version: 16 bar) RS 232/USB (25 bar on request) → Each VFD data read out on screen. Equipment/function → Single-stage low-pressure centrifugal → Optional Fetures → Control mode: Dynamic Adapt plus, pump in monobloc design, with axial Δp -c, Δp -v, n-const, T-const, ΔT -→ IP55 enclousre suction port and radially arranged const and Q-const → Top cable entry panel → Multi-Flow Adaptation pressure port with → With bypass starter → Mechanical seal → Remote control via Bluetooth → Other communication protocol like → Flange connection with pressure interface BACNET, Ethernet TCP/IP measuring connection R 1/8 → Selection of application range with → Lantern Setup Guide → Heat and cold metering Coupling → Motors with efficiency class IE3 for → Dual pump management → Retrofitable interface modules for motors ≥ 0.75 kW communication

Glandless Premium Smart Pumps

Variable Speed Pump Control Unit for

HVAC System

THE FUTURE IS CONNECTED.





Address:

SAPPHIRE FLUID SYSTEMS No.143/144, Ground Floor, Kempegowda Layout, Outer Ring Road, Laggere, Bangalore – 560 058 T +91 99000 87727

Website:

www.sapphirefluidsystems.in sapphire@fluidsystems.co.in