

INTELLIGENT PUMP SOLUTIONS FROM GRUNDFOS

TOTAL CONTROL. TOTAL FREEDOM.

GRUNDFOS 
INDUSTRIAL SOLUTIONS™

WHY E-SOLUTIONS?

BECAUSE SPEED CONTROL IS AT THE HEART OF THE MATTER

At Grundfos, we continuously strive to develop pump solutions that work efficiently and minimize energy consumption for the benefit of our customers and the surrounding environment.

Our full line of E-solutions with variable-speed functionality is a good example of how we think about sustainability.

LESS SPEED, MORE SAVINGS

There are several good reasons for choosing a Grundfos E-solution with speed control over a conventional fixed-speed pump.

In most applications where output needs vary during the day or with the seasons, substantial energy savings can be gained by regulating the pump's speed according to the pump demand.

The frequency converter adjusts the speed to meet the pump demand so that energy is never wasted. The result is energy savings of up to 50% annually. Simple and quick installation and commissioning also contribute to reducing total life cycle costs.

INCREASED COMFORT

Grundfos E-solutions offer all the comfort you expect from a high-quality pump solution.

The E-solutions soft-start feature eliminates water hammer and flow noise from valves caused by excessively high pressure.

COMPLETE PROCESS CONTROL

E-solutions are renowned for their unique functionality. You have total control of your pump application and processes at all times.

The advanced pump functionality provides extensive possibilities for complete process control.





E-SOLUTIONS FEATURES AND FUNCTIONALITY

Grundfos E-solutions cover most pump types, applications, and power supplies. Whether you choose an integrated E-pump or a wall-mounted CUE solution, you get the special E-pump features and functionality:

- › Built-in PID controller for constant pressure, constant liquid level in a tank, constant flow, or constant temperature operation
- › Automatic stop function for water supply applications
- › Proportional pressure function for circulator pump applications
- › External control of setpoint is available
- › Bus communication with Grundfos GENiBus for remote control and monitoring

BENEFITS IN SHORT

- › Reduced life cycle costs
- › Substantial energy savings
- › Reduced CO₂ emissions
- › Easy installation and commissioning
- › Advanced features and functionality
- › Increased comfort
- › Remote control and monitoring
- › All components from one supplier





GRUNDFOS E-PUMPS

COOL AND CONVINCING

Grundfos E-pumps are your all-in-one solution: a pump and motor with an integrated frequency converter, controller and sensor.

Grundfos E-pumps offer all the advantages of a total system integration. They come with an integrated frequency converter, PID controller and, in some models, pressure or differential pressure sensor.

The pump, motor, frequency converter, PID controller and sensor are perfectly matched, tested and configured at the factory, which greatly facilitates the subsequent installation and commissioning.

An E-pump solution constitutes the ideal variable-speed solution for all types of industry and building applications.

GRUNDFOS E-PUMP FEATURES

- › Compact plug-and-pump solution
- › Factory configured and tested units
- › Limited on-site settings
- › Easy installation and commissioning
- › User-friendly interface
- › Advanced features and functionality
- › Remote control and monitoring via bus interface and R100 control

E-PUMP AVAILABILITY

E-Pumps
<ul style="list-style-type: none"> › Grundfos multi-stage pumps: CRE/CRNE/CRIE, MTRE, CHIE › Grundfos single-stage pumps: TPE, LPE, LME
Range
<ul style="list-style-type: none"> › 1-phase, 1x208-230V+/-10%, 60 Hz, 0.5-1.5 Hp for 2-pole motors and 0.33-1.0 Hp for 4-pole motors › 3-phase, 3x208-230V+/-10%, 60 Hz, 1.50-7.5 Hp for 2-pole motors › 3-phase, 3x460-480+/-10%, 60 Hz, 1.0-30 Hp for 2-pole motors
Enclosure Class
<ul style="list-style-type: none"> › TEFC, IP55

GRUNDFOS CUE

FLEXIBILITY AND FUNCTIONALITY

The Grundfos CUE is your ideal solution: a pump and motor with a wall-mounted frequency converter, which has E-pump functionality.

CUE solutions cover most pump types, application areas, and power ranges outside the E-pump range.

A CUE solution is a great fit in situations where an integrated solution is either undesirable or prohibited – such as submersible, water supply, sanitary and hazardous areas.

The CUE solution offers you a space-saving installation, the freedom of choice, and speed-control functionality with most new or existing Grundfos pumps.

GRUNDFOS CUE FEATURES

- › E-pump functionality
- › Start-up installation guide
- › Automatic setting of rotation direction during installation
- › Integrated display with an easy-to-use R100 style menu
- › Constant pressure or level control with stop function
- › Dedicated functions for groundwater applications
- › Remote control and monitoring via bus interface

CUE AVAILABILITY

Pumps

- › Applicable for most Grundfos fixed-speed pumps

Range

- › 1-phase, 1x200-240V+/-10%, 60 Hz, 1.5-10 Hp
- › 3-phase, 3x200-240V+/-10%, 60 Hz, 1.0-60 Hp
- › 3-phase, 3x380-500+/-10%, 60 Hz, 0.75 -300 Hp
- › 3-phase, 3x525-600+/-10%, 60 Hz, 1 -10 Hp
- › 3-phase, 3x525-690+/-10%, 60 Hz, 15 -300 Hp

Enclosure Class

- › NEMA 1 / NEMA 12



TOTAL CONTROL. TOTAL FREEDOM.

INTELLIGENT SOLUTIONS FROM GRUNDFOS

With a Grundfos E-solution, you have total control of your pump system.

You can rest assured that it is perfectly configured for your specific application - all system parameters and the integrated control and variable-speed options are either factory preset (E-pumps) or set via the easy-to-use start-up guide during commissioning (CUE).

Installation has never been easier, and during operation the system delivers optimum performance and energy saving functionality, which means greater freedom and peace of mind.

Grundfos E-solutions provide unsurpassed control, user-friendliness, and exceptional value.

THE SYSTEMS DESIGNER AND CONSULTING ENGINEER

- › One supplier facilitates specification, selection, and purchase
- › Easy selection with Grundfos WinCAPS/ WebCAPS software
- › Wide performance range and high flexibility
- › Reduced total system costs
- › Intelligent communication

THE INSTALLER AND COMMISSIONER






- › Easy to install and commission compared to a standard frequency converter
- › Plug-and-pump E-solutions
- › One supplier facilitates selection, purchase, and service

THE SITE OWNER AND END USER

- › Optimized product with low life cycle costs
- › Simple and easy operation
- › One supplier facilitates service and system upgrades

THE SERVICE AND MAINTENANCE PERSONNEL

- › One supplier facilitates service
- › E-solution designs provide easy serviceability

				
1991	1993	1994	1999	2001
UPE Series 2000 World's first circulator pump with integrated micro frequency converter.	MGE, UPE, JetSub Portfolio of electronic speed-controlled pumps and motors for a variety of applications.	First 1-phase E-pumps First E-pumps based on the MLE motor – a standard asynchronous motor with integrated frequency converter.	SQ/SQE Submersible SQ/SQE pumps with built-in frequency converter. Pump dimensions are reduced substantially as pump speed is increased to 10,000 rpm.	New 1-phase E-pumps World's first 1-phase E-pumps (0.5-1.5 Hp).

WHY GRUNDFOS?

PUTTING INNOVATIONS INTO ACTION

Our know-how, experience, and innovation shine through. For more than 25 years, we have designed and produced variable-speed pump solutions with automatic speed-control and energy-saving functionality.

Grundfos was the first pump manufacturer in the world to bring a pump solution with built-in frequency converter into the market.

By combining our innovative edge, extensive know-how and vast experience, we aim to maintain our position as a technological leader of electronically controlled pumps and pump systems.

With an E-solution, you are guaranteed the unique Grundfos quality. All of our E-solutions are designed and manufactured to ensure superior performance and compatibility between pump, motor and electronics.

UNIQUE PARTNERSHIP THINKING

When you choose a Grundfos E-solution, or any other Grundfos pump, you get more than just a technical pump solution with a service agreement.

At Grundfos, service goes beyond repair and maintenance. We strive to create value for your business by working for you and with you in a professional and proactive manner during the life of your Grundfos pump.





Basically, this means right from initial sizing and selection of the most suitable pump for the job at hand to comprehensive service programs for planned and unplanned maintenance.

GLOBAL SALES AND SERVICE SET-UP

Grundfos offers a close-knit sales and service network with sales companies and service organizations in over 40 countries, combined with more than 450 Grundfos Service Partners worldwide.

So whenever you need us for sales information, technical support or service, we will be there to assist you.

INTELLIGENT SOLUTIONS FROM GRUNDFOS
History of Grundfos E-pumps and other pumps with electronic control.

			
2004	2006	2007	2008
<p>New 3-phase E-pumps New generation of 3-phase E-pumps (1.0-10 Hp) with extended functionality and higher performance.</p>	<p>TPE Variable-speed circulator pumps with built-in VFD pressure sensors.</p>	<p>MAGNA Series 2000 Introduction of the MAGNA circulator pump. It comprises an electronically commutated motor (ECM) with permanent magnet rotor that ensures very high motor efficiency.</p>	<p>E-solutions New range of 3-phase E-pumps based on the MLE motor (1.5-30 Hp). Introduction of CUE – a wall-mounted frequency converter up to 300 Hp with E-pump functionality.</p>

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