

# Grundfos TPE, NBE, NKE, NBGE, NKGE All sizes available with IE5 motors



Single-stage solutions for  
applications in commercial  
buildings and industry

**GRUNDFOS** 

Possibility in every drop

# Ultra-premium efficiency with intelligent pumping solutions

Commercial buildings and industrial solutions cover a large range of applications – each with their own individual characteristics. Whether you are specifying a heating system for an office building or an industrial cooling system for a factory, our pumping solutions bring you a new level of energy efficiency, intelligence and reliability, and are designed to be a perfect fit for the entire system.

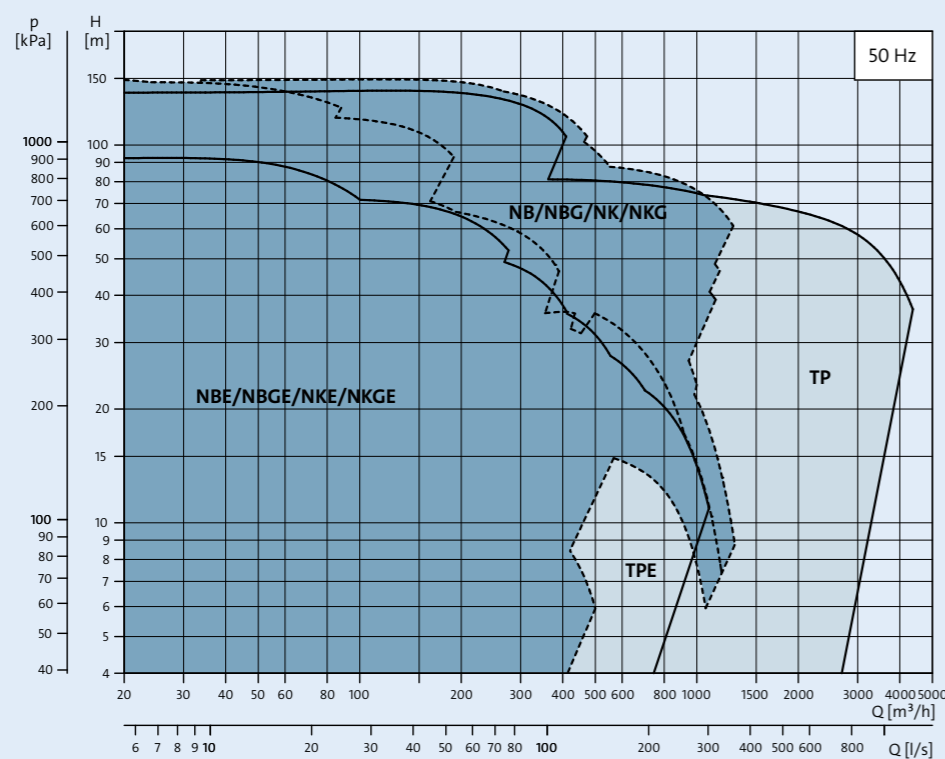
## TPE, NBE, NKE: Flagships in intelligent solutions

TPE, NBE, and NKE are pumps, motor, and frequency drive in one product. Together with various sensors, these products allow for dynamic and intelligent solutions to many industrial and commercial buildings applications.



### Application areas:

- District heating
- Heating systems
- District cooling
- Cooling and air conditioning
- Hot Water Circulation
- Cooling systems
- Washing and cleaning systems
- Other industrial systems



## The perfect motor is half the solution

Meet your energy and carbon emission reduction targets with our IE5-classified MGE with integrated CUE motors. We've pioneered these intelligent, ultra-premium efficiency IE5 motors with integrated VFD and rolled them out across our ranges to optimise your whole system, allowing for maximum energy savings and reduced carbon footprint.



### Ultimate flexibility and efficiency

The MGE motors can be operated to meet any individual needs for a specific solution. This makes them an excellent choice for a number of applications within heating, cooling, ventilation and industrial processes – each of which are characterized by varying demands, different control needs, and varying number of operating hours.

### Engineered for engineers

Grundfos Engineer Hub is our knowledge hub packed with news about the latest developments in the pumping industry and inspiration for fully integrated pump systems.

Visit Grundfos Engineer Hub to get access to the best we have to offer whether you are an engineer working within commercial building services, process industry applications or in hot water supply/treatment industries.

Find technical white papers, training, engineering tools, and webinars at [www.grundfos.com/solutions/support/select-and-configure](http://www.grundfos.com/solutions/support/select-and-configure)

## New functionalities for advanced solutions

### Real time clock

Allows for calendar function for e.g. automatic system stop during weekends.

### 3 Analogue inputs

Get  $\Delta p$  and  $\Delta T$ -control with two sensors.

### Manual speed operation mode

Even while under external signal control, you can switch to manual speed operation mode to test the pump's operation.

### Timer functions on digital inputs

For each digital input you can activate and set a delay time and a duration time.

### Adjustable proportional pressure control curve

You can select the shape and steepness of the control curve – choose between a linear or quadratic curve.

### 1 Analogue output

Get relevant parameter information in real time.

### PT100/1000 input

Get temperature and differential temperature control at a low cost.

### Predefined set-point

Get dynamic response to different operation profiles.

### Integrated Safe Torque Off

Promotes safety and improves uptime across the workplace.

### Bluetooth connectivity

The Grundfos GO app enables easy monitoring and control, and reduced installation & commissioning time.

### Built-in Modbus RTU and Ethernet

Seamless communication with compatible systems keeps you connected with your pump systems, simplifying data management and analysis through cloud-based services and data, and ultimately saving time and effort for improved monitoring and maintenance.

# The NBE/NKE/NBGE/NKGE range

Close-coupled (NBE, NBGE) and long-coupled (NKE, NKGE) pumps are the perfect choices when you need an end-suction pump with integrated frequency converter for your application. The pumps are all non-self-priming, single-stage, centrifugal volute pumps with axial suction port, radial discharge port and horizontal shaft. Known for their sturdiness and reliability, they are ideal for use in even the most demanding applications. Application areas include water supply, industrial pressure boosting, industrial liquid transfer, HVAC and irrigation.

### Sensor details

NBE, NKE pumps are available as 2-channel sensor version in the Series 2000 execution, and also in the no-sensor version with integrated IE5 E-motor, whereas the NBGE/NKGE range is only available in the no-sensor version for all E-motor versions.



### NBE/NBGE/NKE/NKGE facts

- End suction construction
- PN 10, 16 and 25 bar
- For temperatures up to 220 °C.
- Low NPSH values means great suction ability
- Plug and pump solution
- Low energy consumption
- Low noise levels
- Back pull-out design
- Compact design – small footprint
- Highly customizable (your choice of i.e. bearing design, material, shaft seal, impeller trimming, motor size, and much more)
- Robust design
- Universal BQQE shaft seal for both water and glycol based media
- Installation into vertical or horizontal position



## NBE, NKE Series 2000

Medium speed: 1.1-11 kW (IE5) | Low speed: 0.25-7.5 kW (IE5)

### Technical details

Flow rate	max. 210 m <sup>3</sup> /h
Head	max. 85 m
Liquid temperature	-25 to 140 °C
Operating pressure	max. 16 bar
Ambient temperature	-20 to 50 °C
Pump housing	Cast iron

### Motor details

NBE and NKE in the above mentioned power sizes are all fitted with IE5\* permanent magnet motors. Including display. See more functionality and feature details on page 10-11.

## NBE, NKE, NBGE, NKGE no-sensor version

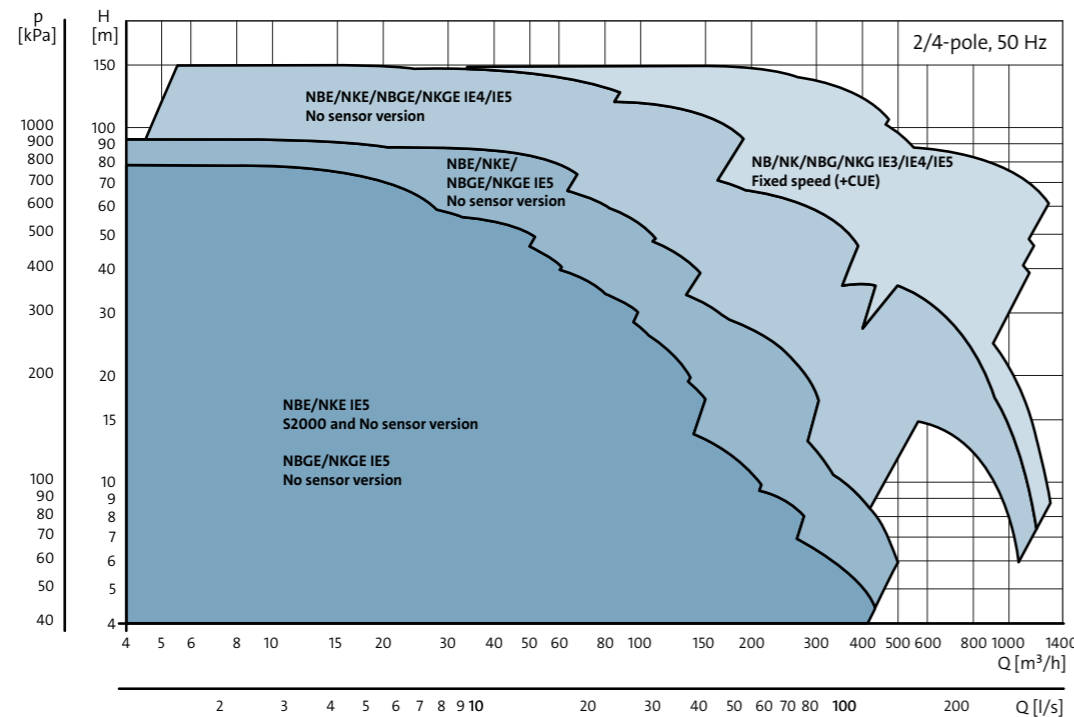
Medium speed: 1.1-22 kW (IE5) | Low speed: 0.75-22 kW (IE5)

### Technical details

Flow rate	max. 400 m <sup>3</sup> /h
Head	max. 85 m
Liquid temperature	-45 to 220 °C
Operating pressure	max. 25 bar
Ambient temperature	-20 to 50 °C
Pump housing	Cast iron, Stainless steel 1.4408, Duplex 1.4517

### Motor details

NBE, NBGE, NKE, NKGE in the above mentioned power sizes are all fitted with IE5\* permanent-magnet motors.



## NBE, NBGE, NKE, NKGE-no-sensor version

2-pole: 30-55 kW (IE4 and IE5) | 4-pole: 30-55 kW (IE4 and IE5)

### Technical details

Flow rate	max. 1,100 m <sup>3</sup> /h
Head	max. 95 m
Liquid temperature	-45 to 220 °C
Operating pressure	max. 25 bar
Ambient temperature	-20 to 40 °C
Pump housing	Cast iron, Stainless steel 1.4408, Duplex 1.4517



**Grundfos is committed to pioneering a sustainable world through energy optimisation and efficiency.**

When you replace existing solutions with highly efficient, energy-optimised systems, you'll not only enjoy the energy and cost savings that come with greener buildings, but also the improved reliability and increased indoor comfort.

Pave the way for a greener future. Scan the QR code to find out how energy optimisation means the world to us:

