

NEW  
HIGH  
EFFICIENCY  
MOTOR



# INTELLIGENT EFFICIENCY BY GRUNDFOS

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innovate

GRUNDFOS X

# EXPERIENCE EFFICIENCY FAR BEYOND REQUIREMENTS

The renowned CRE pump has been upgraded with the latest motor technology to offer impressive energy efficiency that exceeds the IE4 levels, even including the energy consumption of the variable frequency drive.

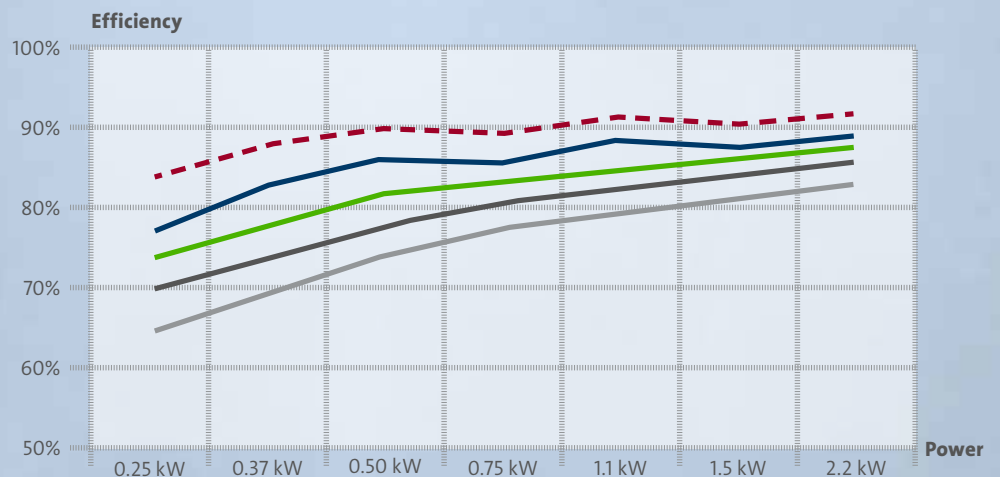
When you choose the optimised CRE pump, you will not only be rewarded with superior reliability and impeccable performance. As part of the Grundfos iSOLUTIONS programme, the pump also represents the ultimate in intelligent control and energy efficiency. The new MGE motor goes far beyond what regulations require in terms of energy efficiency just as the advanced built-in control system makes it possible to enable application-related functions to optimise system performance. Also, the CRE pump is now suitable for installation in more applications due to increased permissible ambient temperature and lower noise level.

## Exceeding IE4

- η MGE 3-phase motor
- η MGE 3-phase motor, total
- η IE4: 2-pole, 50 Hz motor
- η IE3: 2-pole, 50 Hz motor
- η IE2: 2-pole, 50 Hz motor (Mandatory in Europe)

*The CRE pump is equipped with the new MGE motor that offers impressive energy efficiency, easily exceeding even the IE4 requirements.*

*As an example, the chart shows a 3-phase MGE motor's efficiency compared to IE levels in IEC 60034-30-1 (CD).*



### NEW CRE FUNCTIONS

#### Run at power limit

Full load power output and optimal overload protection.

#### Advanced stop function

Prevents operation against closed valve or low flow operation damage and heat up.

#### Curve compensation

Stabilises unstable pump and load curves.



## Extended input and output options

The CRE pump offers a variety of configurable input and output options, including:

- Three analogue inputs (0-10 V; 0/4-20 mA; 0.5-3.5 V)
- One analogue output (0-10 V; 0/4-20 mA)
- Two dedicated digital inputs
- Two configurable digital inputs or open-collector outputs
- Two Pt100/1000 inputs for temperature measurement
- LiqTec sensor inputs – dry-running protection sensor
- Two signal relay outputs
- GENibus connection
- Interface for CIM field bus modules

## Extended specifications

<b>Ambient temperature</b>	Full load continuous 40°C, maximum allowed 60°C
<b>Enclosure class</b>	IP55 and IP66 NEMA 4 outdoor rating
<b>Maximum speed</b>	6000 rpm
<b>Wide supply voltage</b>	Single-phase: 200-240 V Three-phase: 380-480 V



## Extended communication

As part of the intelligent iSOLUTIONS programme the CRE pumps allow a variety of Communication Interface Modules (CIM) to be built into the pump to enable communication with and data transfer to SCADA and BMS systems.

### Industrial Ethernet

The CRE pump supports the industrial ethernet standards **Modbus TCP** and **PROFINET IO**. As a result, installation is easier and the initial cost lower because the pump can be integrated directly into BMS and SCADA systems.

### Industrial bus

The CRE pump supports the following industrial busses:

- Profibus
- Modbus
- BACnet
- Lon bus

### GENibus

The CRE pump is equipped with a Grundfos GENibus interface.

### GSM

The GSM module enables remote data transmission from Grundfos pumps or controllers – via mobile phones or SCADA systems.

### GRM

Grundfos Remote Management makes it possible to monitor and manage pump systems remotely to reduce the need for costly – and often unnecessary – on-site inspections.

### Grundfos GO

Grundfos GO is the industry's most advanced mobile pump control solution, designed to be totally compatible with all Grundfos E-pumps, including the CRE. The intuitive device allows you to become the commander of your entire pump fleet – all from the palm of your hand.

## FACTS ABOUT THE GRUNDFOS CRE PUMP

The CRE pump is based on a modular design, easily adapted within the well-proven CR basic pump concept. The compact in-line pump design enables installation in horizontal one-pipe systems.

The multipurpose pump is designed for a variety of applications including:

- Water supply
- Washing and cleaning
- Water treatment
- Boiler feed
- Chemical and Pharmaceutical industries
- Temperature control
- Mining
- Industrial cooling
- Irrigation

All variants in the CRE range are available in cast iron, stainless steel and titanium.

For more information, please go to [www.grundfos.com](http://www.grundfos.com)