

CRE, CRIE, CRNE

MGE motor update



Fig. 1 The new MGE motor

Product changes in relation to the new MGE motor

Improved overall energy efficiency

The new MGE represents a new way of thinking about speed-controlled motors when it comes to efficiency. The total efficiency of this new motor, including the frequency converter, is higher than the IE4 level defined by the IEC 60034-31, even though this standard only applies to the motor. This will make the MGE unique for its class when it comes to efficiency.

Lower $I_{1/1}$

The improved energy efficiency results in a decreased full-load current.

Improved performance

- Permissible ambient temperature increased to 50°C
- IP rating, now IP55 (optionally IP66)
- Lower acoustic noise level
- Advanced functional module integrated.

Wireless communication

The new MGE motor can communicate via infrared light and radio signals. It can thus be controlled and monitored by both the existing R100 remote control and the new Grundfos Go Remote.

Approvals

The same approvals as today will be available for the new version.

ETL and UL are equal safety approvals for the US market.

The CRE offers the ETL approval from launch. The UL approval is expected shortly after launch.

Supply voltages

The new MGE motors will be available for these supply voltages:

1 x 200-240 V, 0.37 to 1.1 kW (P2)

3 x 380-500 V, 0.75 to 2.2 kW (P2).

This supply voltage will be available with the existing MGE motors: 3 x 200-230 V.

Changes to product range

The existing E-pumps below will be fitted with the new MGE motor.

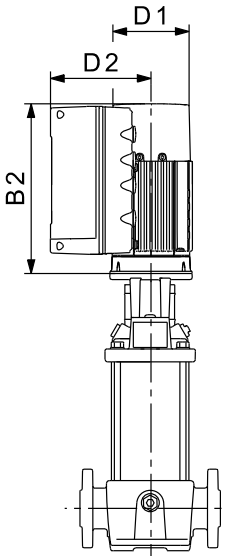
Pump type	P2 [kW]						
	0.37	0.55	0.75	1.1	1.5	2.2	
CRE, CRIE, CRNE	Flow rate	Stages					
	1	4	6	9	13	17	25
	3	2	4	5	8	11	17
	5		2		4	5	9
	10			1		2	3
	15					1	
	20						1
32						1-1	

Update of complete CRE range

In parallel with the new MGE introduction, the complete CRE range will be updated as follows:

- The two CRE ranges, 50 Hz and 60 Hz, will be reduced to one range covering both. Performance curves and dimensions will be equal to those of the present 60 Hz range running 3,450 rpm.
 - more compact products
 - easy product selection
 - optimised supply chain
 - easy service.
- Advanced functional modules will be included in all CRE MGE motors. The advanced functional modules also offer:
 - one analog sensor input
 - two digital inputs.

Technical specifications



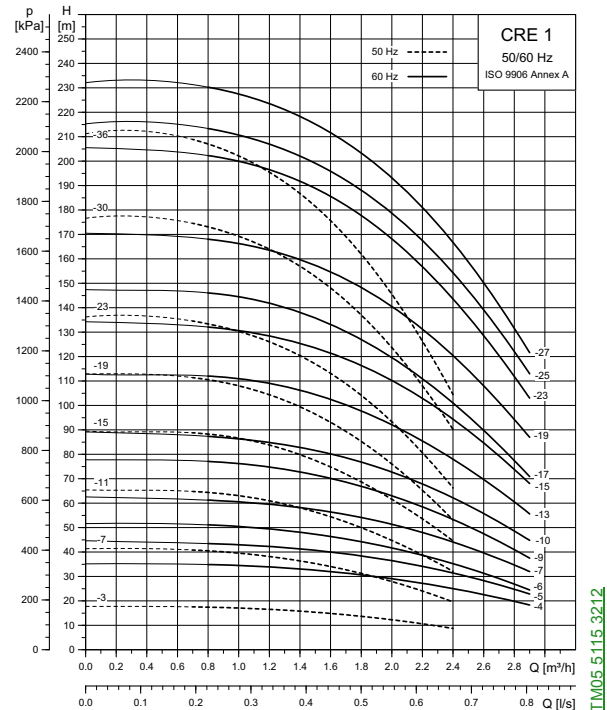
New MGE		Change in dimensions [mm]				Electrical data			
Single-phase 1 x 200-240 V									
P2 [kW]	Frame size	D1	D2	B2	Change in weight [kg]	I _{1/1} [A]	Cosφ	η [%]	
0.37	71	-19	18	23	-1	1.90-2.30	0.98	86.3	
0.55	71	-19	18	23	-1	2.80-3.30	0.99	86.7	
0.75	80	-19	18	-17	-1	3.80-4.50	0.99	85.8	
1.1	80	-19	18	-17	-1	5.40-6.50	0.99	87.2	
Three-phase 3 x 380-500 V									
P2 [kW]	Frame size	D1	D2	B2	Change in weight [kg]	I _{1/1} [A]	Cosφ	η [%]	
0.75	80	-56	-9	-27	-9.3	1.30-1.50	0.79-0.89	87.7	
1.1	80	-56	-9	-27	-9.3	1.80-2.10	0.82-0.91	89.5	
1.5	90	-56	-9	-27	-7.3	2.30-2.80	0.85-0.92	90.0	
2.2	90	-56	-9	-47	-11.3	3.30-4.00	0.88-0.93	90.7	

The change in dimensions/weight should be added to or subtracted from the current values to get the new dimensions/weight.

Performance curves

The curve example to the right shows a comparison between the performance of pumps fitted with an MGE 50 Hz motor and pumps fitted with an MGE 60 Hz motor. On request similar pump curves of the complete range can be supplied.

For further details, please contact Grundfos.



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ECM: 1099750

Subject to alterations.