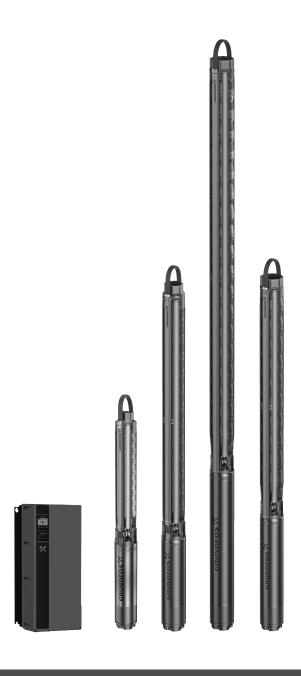
# **MS6000P, SPE**

Correction sheet





#### Correction sheet/addendum

Correction sheet/addendum for SP I&O 98074911 04.2022 and MS, MMS I&O 98599768 01.2021. This only affects MS6000P and SPE.

#### MS6000P

The MS6000P synchronous permanent magnet motor has been improved with upgraded insulation. As a result, sine-wave filter is not necessary if all requirements in the table below are fulfilled.

### SPE

The SPE pump systems\* supplied by Grundfos meet the VFD and motor input requirements in the table below. When application and grid requirements are fulfilled, a sine-wave filter is not required.

## Requirements

# Requirements for the MS6000P to operate without sine-wave filter

	Value	Unit	Grundfos SPE systems
Application requirements			
Max. media temperature	60/140	[°C/°F]	Must be met
Max. cable length	300/1000	[m/ft]	Must be met
Grid requirements	i		
Max. line-line voltage	460	[V RMS]	Must be met
Phases	3	[-]	Must be met
VFD requirements			
Max. DC voltage	620	[V <sub>DC</sub> ]	✓
Max. peak voltage at inverter terminals	650	[V <sub>LL</sub> ]	<b>√</b>
Min. rise time at VFD terminals (10-90 % V <sub>DC</sub> )	100	[ns]	<b>√</b>
Max. dU/dt at VFD terminals	5	[V/ns]	✓
Max. switching frequency	4	[kHz]	✓
Grid voltage rectification	Passive rectifier bridge		✓
Motor input requir	ements		
Max. peak voltage at terminals	1500	[V <sub>LL</sub> ]	<b>✓</b>
Max. dU/dt at motor terminals	6	[V/ns]	✓

 Local and national requirements regarding safety, EMI etc., must always be followed and can demand filtering due to, for instance noise suppression.



- Cables and other system components must be properly rated for VFD use.
- If the cables are longer than 300 m/1000 ft and/or the grid voltage is higher than 460 V, a sine-wave filter must still be used

<sup>\*</sup> SP pump + MS6000P + CUE

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