



# FREQUENCY INVERTER

FOR INTERFERENCE-FREE, QUIET AND  
RELIABLE MOTOR CONTROL

NFO Sinus<sup>®</sup>  
G2

## INSTALLATION INSTRUCTIONS

for the interference-free NFO Sinus<sup>®</sup> inverter

### General

NFO Sinus<sup>®</sup> provides pure sine-wave voltage. The inverter therefore has many unique features that make it much easier to install than traditional PWM inverters.

### The EMC directive

NFO Sinus<sup>®</sup> complies with the EMC directive 2004/108/EG and is approved for use in residential, commercial and light industrial environments (EN 61000-6-3) and in industrial environments (EN 61000-6-2). It is also approved for use in hospitals, etc. (EMC section of the Medical directive EN 60601-1-2).

### Cables

Standard cabling may be used with NFO Sinus<sup>®</sup>. Shielded cabling is not necessary to attain interference-free voltage according to the EMC directive.

### Existing cabling

For buildings/facilities that already have motor cabling, NFO Sinus<sup>®</sup> is installed without the need to replace existing cabling.

### Running cables

Installation accessories like fittings, circuit breakers, etc. can be of standard type. They don't need to be EMC classed for installations with NFO Sinus<sup>®</sup>.

There are no restrictions for running cables in regards to distance to nearby cables or crossing cables, etc.

### Cable distance

The distance between the NFO Sinus<sup>®</sup> inverter and a motor (load) is unlimited and may be several hundred meters long. The

only variable of concern is the voltage drop that may occur due to cable resistance.

### Interference filter

EMC filters (net filters) are not needed on the supply side of the NFO Sinus<sup>®</sup> inverter.

Sinus filters are not needed on the motor side of the NFO Sinus<sup>®</sup> inverter.

### Bearing currents

NFO Sinus<sup>®</sup> does not emit any bearing current and therefore carries a 5 year guarantee against bearing damage from installation on newer motors.

### Earth fault breakers

Earth fault breakers for safety and fire prevention may be used together with NFO Sinus<sup>®</sup> since it does not emit any earth currents (max 2 mA).

Earth fault breakers for personal protection break at 30 mA. Higher amounts apply to fire protection - slightly different for different environments.

### Number of motors per inverter

If several motors are to be regulated with the same speed, they can all be controlled by the same NFO inverter. When this is suitable and how many motors can be controlled will vary from case to case. There are, however, examples where more than forty exhaust motors are all controlled by the same NFO inverter.

### More information

Please refer to our Quick Installation Guide and User and Installation Handbook for more detailed installation information.

### EASIER

- ★ No shielded cables
- ★ Existing cabling may be used
- ★ No complicated installation requirements
- ★ Unlimited cable distance

### QUIETER

- ★ No disturbing switching noise

### SAFER

- ★ No EMC interference
- ★ 5 year guarantee on motor bearings
- ★ Earth fault breakers may be used

NFO  
DRIVES

## CHECK LIST

### FOR NFO SINUS INVERTER MOTOR INSTALLATIONS

Manufacturer's recommendations regarding EMC etc

