FRQ Frequency converter

for energy-efficient control of motors

- Reliable control
- Plug & Play
- Energy efficient
- Integrated motor-protection with PTC/PTO
- Maximum output: 50Hz
- Type FRQ5: with integrated 5-step switch
- Type FRQ: with 0-10V input
- Type FRQ(5)S: with all-pole sine filter

Find more details in our online catalogue

Energy-efficient speed control

FRQ frequency inverters are one of the most energy-efficient ways of controlling motors.

Integrated pole sine filters

The FRQ**S**/FRQ5**S** frequency converters have integrated all pole sine filters as standard. Therefore there is no need for shielded cables for the installation. So they are suitable for retrofitting too.
They can also control motors which, due to their design, are not usually suitable for frequency inverters, f.g. external rotor motors.

Plug & Play

The Systemair FRQ series is pre-configured in the factory to ensure a quick and cost-efficient commissioning process. It also makes them suitable for retrofitting.

The frequency converters provide an easy and energy-efficient solution for controlling motors.
Motor protection is provided by connecting thermal-contacts or thermistors directly to the converter.
In operating with explosion-proof fans, the converters have to be placed outside the EX-zone.
FRQ5(S)
have a 5-step switch with a LED to indicate the operating status. Step 0 = 0Hz; Step 1 = 10Hz; Step 2 = 20Hz; Step 3 = 30Hz; Step 4 = 40Hz; Step 5 = 50Hz
FRQ
have an analogue 0-10V-input to control motor-speed nearly steady. Parallel operation of several motors are not allowed. Maximum cable length of external potentiometer is 100m. Maximum motor cable length is 10m (shielded). Connection with 10VDC for speed control with external potentiometer is integrated.
FRQS/FRQ5S
have an integrated all pole sine filters as standard. This means that there is no need to use shielded cables for the installation and so the unit is suitable for retrofitting existing systems too. The units are also able to reliably control motors which, due to their particular design, are not usually considered suitable for frequency inverter operations, such as external rotor motors.

All types have:

- External contact for enabling

- Potential-free operating signal contact
- Interference emission EN 61000-6-3
- Interference immunity EN 61000-6-2
- Protection IP54

Technical parameters

Nominal data		
Rated voltage	208 to 480	V
Frequency	50; 60	Hz
Phases	3~	
Maximum current	10	A

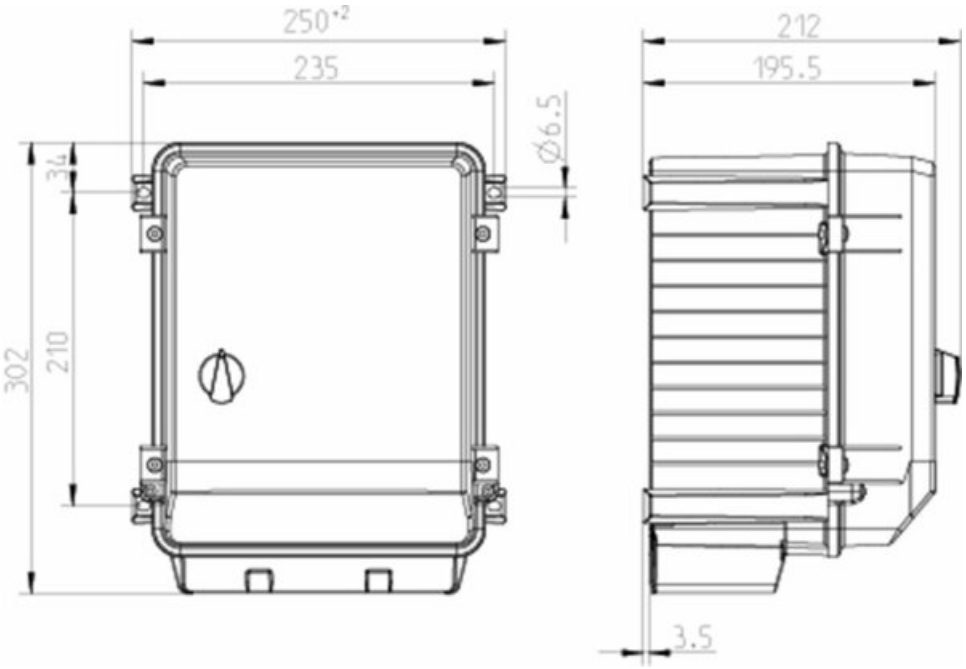
Protection/Classification		
Enclosure class	IP54	

Controller and Sensors		
Recommended fuse	16 A	

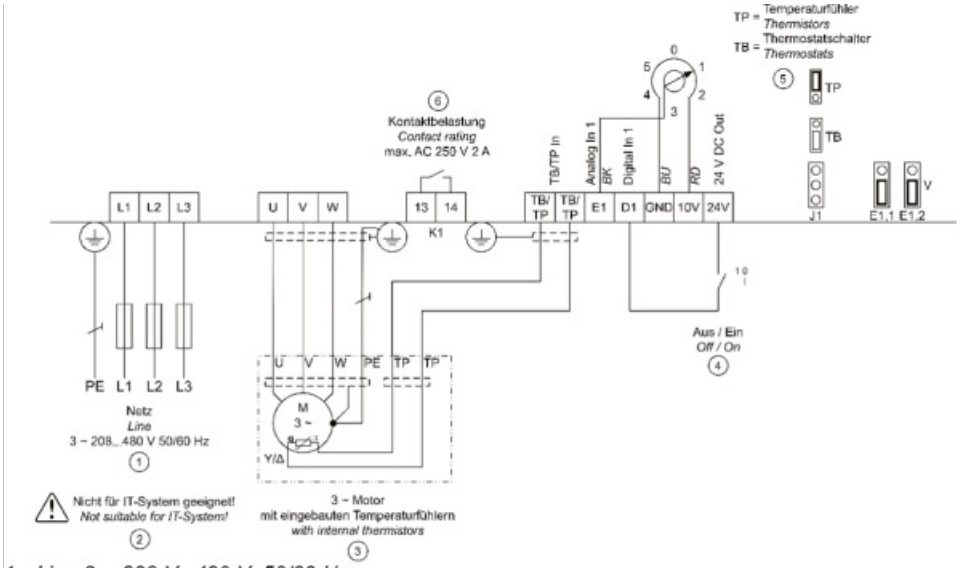
Ambient and duct temperature		
Permitted ambient temperature	max 40	°C

Dimensions and weights		
Weight	6.3	kg

Dimension



Wiring



1 *Line 3 ~ 208 V...480 V, 50/60 Hz*
2 *Not suitable for IT system!*
3 *3 ~ Motor with internal thermistors*
4 *Enable Device Off / On*
5 *TP = thermistors, TB = thermostats*
6 *Contact rating max. 2A / 250 V AC*

Documents

- IMO FRQ5S-4A_10A_16A V2_EN.PDF
- EU Declaration of conformity_004