

AFQm -4WF-060M-400, Active multifunctionfilter, 4 wires

Code: R7RM1F. DESCATALOGADO

- > System: 4 wires, 230...400 V
- > Phase current (A): 60
- > Peak current (A): 120
- > Max.neutral current (A): 180
- > Mounting: Wall-mounted

Description

The wall-mounted **AFQm** multilevel active filters are the most complete solution for solving power quality problems in three-phase industrial, commercial or service installations caused by the presence of harmonics and the consumption of reactive power. These following characteristics and functions have been implemented:

- $\circ~$ Filtering capacity of 30 A, 75 A and 100 A
- o Small wall-mounted cabinet easy to install thanks to its small dimensions
- Range for installations with 3 wires (3W model) or 4 wires (4W model)
- \circ Multi-range voltage and dual frequency (50/60 Hz)
- Reduction of harmonic currents up to the fiftieth harmonic (2,500 Hz)
- Selection of harmonic frequencies to be filtered for maximum filter effectiveness
- Power factor correction both inductive and capacitive
- Phase current balancing, improvement of consumption in neutral (4W model)

If higher filtering capabilities are required, up to 100 filters can be connected in parallel (the filters must all be of the same 3 or 4-wire model).

Application

They are an ideal solution for installations with a large amount of single-phase and three-phase loads generating harmonics, such as computers, UPS units, lights, lifting equipment, air-conditioning systems with variable speed drives, etc.

They can also be used in installations that require a good power quality for the purpose of increasing production efficiency and improve supply continuity in the system.

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Specifications

| AC power supply | |
|------------------------------------------|------------------------------------------------------------------------------------------------------|
| Consumption | 1300 W |
| Frequency | 50 / 60 Hz (± 5 %) |
| Nominal voltage | 208 400 V~ F-F (± 10 %) |
| Mechanical characteristics | |
| Size (mm) width x height x depth | 430 x 530 x 348 (mm) |
| Envelope | Galvanized steel 1,5 mm |
| Connection type | Network / Ground: M6 terminals, Current: 6-pole connector, RS-485: 3-pole connector, Ethernet: RJ-45 |
| Weight (kg) | 39 |
| Environmental characteristics | |
| Protection class | IP 20 |
| Relative humidity (without condensation) | 0 95 % |
| Storage temperature | -20 +50 °C |
| Working temperature | -10 +45 °C |
| Electrical characteristics | |
| Current crest factor | 2:1 |
| Maximum phase current | 60 A (RMS) |
| Maximum neutral current | 180 A (RMS) |
| Earthing system | TN, TT |
| Current measurement circuit | |
| Transformation ratio | 5 5000 / 5A |
| Standards | |
| Electrical safety, Maximum height (m) | 3000 (2000 m without performance degradation) |
| Standards | IEC 62477-1:2012, IEC 55011:2011, IEC 61000-6-2, IEC 61000-6-4:2007,IEC 61439-1:2011 |
| User interface | |
| Display type | TFT color, 3.5" touchscreen |
| Measurement accuracy | |
| Voltage harmonics (THD) | 25 % (max) |
| Features / performance | |
| Phase compensation | Selectable |
| Reactive power compensation (Kvar) | selectable |





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| Filtering / Response time | 2° 50° harmonic (selectable) / <100 μs |
|--------------------------------|----------------------------------------------------------------------------------------|
| Parallel assembly/installation | Up to 100 units, with different gauges. Transformer connection only to the Master unit |
| Priority scheduling | selectable |
| Power supply output | |
| Power | 41400 VA |

AFQm

Active multifunction filter, 50 / 60 Hz

| CODE | ТҮРЕ | System | Phase current (A) | Peak current (A) | Max.neutral current (A) |
|-------------|--------------------------|-------------------|----------------------|---------------------|----------------------------|
| 3 wires 480 | V, Wall-mounted cabinet | | | | |
| R7MMAF. | AFQm-3WF-075M-480 | 3 wires, 230480 V | 75 | 150 | |
| R7MM2F. | AFQm-3WF-100M-480 | 3 wires, 230480 V | 100 | 200 | |
| 4 wires 400 | V, Wall-mounted cabinet | | | | |
| R7RM0F. | AFQm -4WF-030M-400 | 4 wires, 230400 V | 30 | 60 | 90 |
| R7RMAF. | AFQm -4WF-075M-400 | 4 wires, 230400 V | 75 | 150 | 225 |
| R7RM2F. | AFQm-4WF-100M-400 | 4 wires, 230400 V | 100 | 200 | 300 |
| 3 wires 480 | V, Floor-mounted cabinet | | | | |
| R7MF2F. | AFQm-3WF-100C-480 | 3 wires, 230480 V | 100 | 200 | |
| R7MF3F. | AFQm-3WF-200C-480 | 3 wires, 230480 V | 200 | 400 | |
| R7MF4F. | AFQm-3WF-300C-480 | 3 wires, 230480 V | 300 | 600 | |
| R7MF5F. | AFQm-3WF-400C-480 | 3 wires, 230480 V | 400 | 800 | |
| 3 wires 690 | V, Floor-mounted cabinet | | | | |
| R7JF6F. | AFQm-3WF-070C-690 | 3 wires, 400690 V | 70 | 140 | |
| R7JF7F. | AFQm-3WF-140C-690 | 3 wires, 400690 V | 140 | 280 | |
| R7JF8F. | AFQm-3WF-210C-690 | 3 wires, 400690 V | 210 | 420 | |
| R7JF9F. | AFQm-3WF-280C-690 | 3 wires, 400690 V | 280 | 560 | |
| 4 wires 400 | V, Floor-mounted cabinet | | | | |
| R7RF2F. | AFQm-4WF-100C-400 | 4 wires, 230400 V | 100 | 200 | 300 |
| R7RF3F. | AFQm-4WF-200C-400 | 4 wires, 230400 V | 200 | 400 | 600 |
| R7RF4F. | AFQm-4WF-300C-400 | 4 wires, 230400 V | 300 | 600 | 900 |
| R7RF5F. | AFQm-4WF-400C-400 | 4 wires, 230400 V | 400 | 800 | 1200 |
| 4 wires 550 | V, Floor-mounted cabinet | | | | |
| R7NF6F. | AFQm-4WF-070C-550 | 4 wires, 400550 V | 70 | 140 | 210 |
| R7NF7F. | AFQm-4WF-140C-550 | 4 wires, 400550 V | 140 | 280 | 420 |
| R7NF8F. | AFQm-4WF-210C-550 | 4 wires, 400550 V | 210 | 420 | 630 |
| R7NF9F. | AFQm-4WF-280C-550 | 4 wires, 400550 V | 280 | 560 | 840 |
| Rack module | | | | | |
| R7JR6F. | AFQm-3WF-070R-690 | 3 wires, 400690 V | 70 | 140 | |

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| CODE | TYPE | System | Phase current (A) | Peak current (A) | Max.neutral current (A) |
|---------|-------------------|-------------------|----------------------|---------------------|----------------------------|
| R7NR6F. | AFQm-4WF-070R-550 | 4 wires, 400550 V | 70 | 140 | 210 |
| R7MR2F. | AFQm-3WF-100R-480 | 3 wires, 230480 V | 100 | 200 | |
| R7RR2F. | AFQm-4WF-100R-400 | 4 wires, 230400 V | 100 | 200 | 300 |

Please contact our technical department for networks with high THD(V) levels.

All equipment has built-in EMI filters





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Dimensions

Connections

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