

AFQm-3WF-400C-480

AFQm-3WF-400C-480, Active multifunctionfilter

Code: R7MF5F. **DESCATALOGADO**

> System: 3 wires, 230...480 V

> Phase current (A): 400

> Peak current (A): 800

> Mounting: Floor-mounted

Description

The floor 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 in the cabinet type active filters:

- Filtering capacity per module of 100 A (400 ... 480 Vac) and 70 A (550 ... 690 Vac), capacity per cabinet between 100 ... 400 A (400 ... 480 Vac) and 70 ... 280 A (550. .. 690 Vac).
- Cabinets expandable with small-sized rack modules.
- Range for installations with 3 wires (3W model to 690 Vac) or 4 wires (4W model to 550 Vac).
- 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, the system can be expanded using AFQm racks connected in parallel (all filters/racks must 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

Installation category	4 kV, CAT III Class 1
Consumption	8280 W
Frequency	50 / 60 Hz (± 5 %)
Nominal voltage	208 ... 480 V~ F-F (± 10 %)

Mechanical characteristics

Size (mm) width x height x depth	608 x 1890 x 812 (mm)
Envelope	Free-standing sheet steel cabinet, for installation indoors, without removable parts.
Connection type	Network: plate 40x10, Ground: Ring terminal 8 mm, Current: spring 2,5 mm2, Neutral: plate 100x10, Ethernet: RJ-45
Weight (kg)	360

Environmental characteristics

Protection class	IP 21 (IP 41 on demand) / IK10
Relative humidity (without condensation)	0 ... 95 %
Storage temperature	-20 ... +50 °C
Working temperature	-10 ... +45 °C

Electrical characteristics

Conditional short-circuit current (Icc)	40 kA
Rated peak current Ipk	84 kA
Current crest factor	2:1
Maximum phase current	400 A (RMS)
Rated diversity factor (RDF), simultaneity	1
Earthing system	TN, TT

Current measurement circuit

Transformation ratio	5 ... 5000 / 5A

Communication Network

Protocol	TCP/IP, Modbus TCP
Technology / Interface	Ethernet

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



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Display type	TFT color, 3.5" touchscreen

Measurement accuracy

Voltage harmonics (THD)	25 % (max)

Features / performance

Phase compensation	Selectable
Reactive power compensation (Kvar)	selectable
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	305200 VA

Serial communication

Protocol	Modbus/RTU
Technology / Type	RS-485

AFQm-C
Active multifunction filter

CODE	TYPE	System	Phase current (A)	Peak current (A)	Max.neutral current (A)
3 wires 480 V, Floor-mounted cabinet					
R7MF2P.	AFQm-3WP-100C-480	3 wires, 230...480 V	100	200	-
R7MF3P.	AFQm-3WP-200C-480	3 wires, 230...480 V	200	400	-
R7MF4P.	AFQm-3WP-300C-480	3 wires, 230...480 V	300	600	-
R7MF5P.	AFQm-3WP-400C-480	3 wires, 230...480 V	400	800	-
3 wires 690 V, Floor-mounted cabinet					
R7JF6P.	AFQm-3WP-070C-690	3 wires, 400...690 V	70	140	-
R7JF7P.	AFQm-3WP-140C-690	3 wires, 400...690 V	140	280	-
R7JF8P.	AFQm-3WP-210C-690	3 wires, 400...690 V	210	420	-
R7JF9F.	AFQm-3WF-280C-690	3 wires, 400...690 V	280	560	
R7JF9P.	AFQm-3WP-280C-690	3 wires, 400...690 V	280	560	-
4 wires 400 V, Floor-mounted cabinet					
R7RF2P.	AFQm-4WP-100C-400	4 wires, 230...400 V	100	200	300
R7RF3P.	AFQm-4WP-200C-400	4 wires, 230...400 V	200	400	600
R7RF4P.	AFQm-4WP-300C-400	4 wires, 230...400 V	300	600	900
R7RF5P.	AFQm-4WP-400C-400	4 wires, 230...400 V	400	800	1200
4 wires 550 V, Floor-mounted cabinet					



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CODE	TYPE	System	Phase current (A)	Peak current (A)	Max.neutral current (A)
R7NF6P.	AFQm-4WP-070C-550	4 wires, 400...550 V	70	140	210
R7NF7P.	AFQm-4WP-140C-550	4 wires, 400...550 V	140	280	420
R7NF8P.	AFQm-4WP-210C-550	4 wires, 400...550 V	210	420	630
R7NF9P.	AFQm-4WP-280C-550	4 wires, 400...550 V	280	560	840

Please contact our technical department for networks with high THD(V) levels.
All equipment has built-in EMI filters

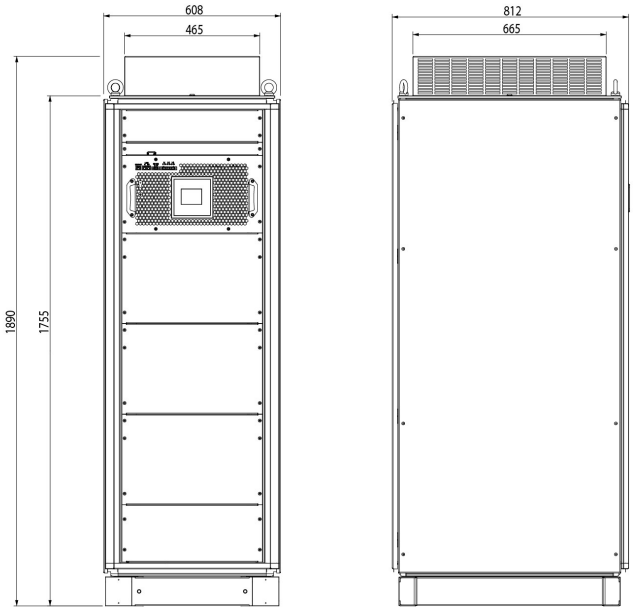
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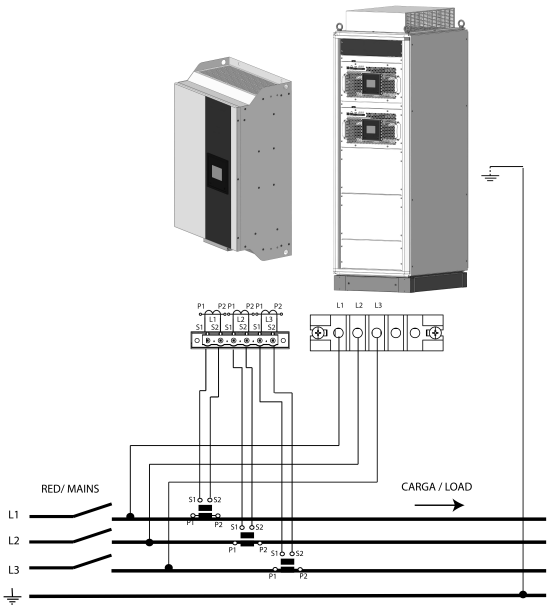
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Dimensions



Connections



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