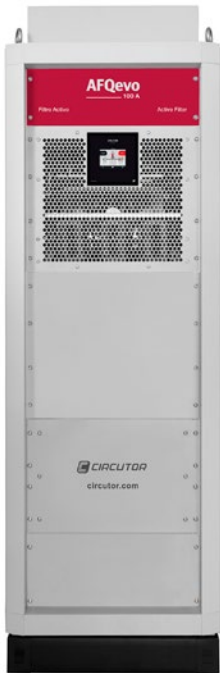
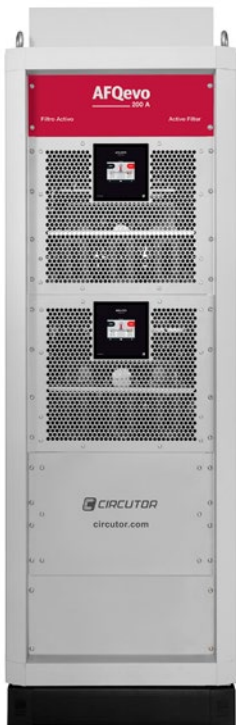


AFQevo

100 / 200



AFQevo 100



AFQevo 200

Active Parallel Multi-Function Filter

Description

The AFQevo cabinet series parallel multifunction active filter is the most complete solution for solving Quality problems related to industrial, commercial or services installations with presence of harmonics, consumption of reactive power (usually capacitive) and also phase unbalance. This AFQevo is meant rack mounting into market standard cabinets, designed to facilitate its installation.

The implemented features and functions are:

- Filtering capacity from 100 to 200 A for each cabinet.
- Reduced rack dimensions to be installed easily in standard cabinets.
- Range of filters for installations with 3 wires (3W model) or 4 wires (4W model).
- Multirange, dual frequency (50/60 Hz)
- Reduction of harmonic currents up to the 50th harmonic (2500 Hz).
- Selection of harmonic frequencies to be filtered so to reach the filter's highest effectiveness.
- Power factor correction. Both inductive and capacitive currents.
- Phase current balancing. In the 4W model, it also helps to reduce consumption in neutral.

If higher capacities are required, the system can be expanded with AFQevo racks in parallel (all the filters/racks must be the same model, 3 or 4 wires).

Application

Ideal solution for installations with large amounts of single-phase and three-phase loads that generate harmonics, such as computers, UPSs, lights' units, air-conditioning systems with phase shifters, etc.

Also for installations that requires high power Quality to increase the production efficiency or reduce supply continuity of the system.

Technical features

Electrical features	Rated voltage	4-wire (4W) 3P+N: 230...400 V phase-phase $\pm 10\%$ 3-wire (3W) 3P: 230...480 V phase-phase $\pm 10\%$
	Frequency	50/60Hz $\pm 5\%$
	Maximum THDv	25%
Power	Maximum power consumption	4000 W (100 A) - 8000 W (200 A)
	Maximum power	69000 VA (100 A) - 138000 VA (200 A)
	Maximum current (phase)	Depending model, 100-200 Arms
	Maximum current (neutral) 4W	Depending model, 300-600 Arms
	Crest factor	2:1
Current measurement	Type	4W: 3P+N: 3x current transformer .../5A 3W: 3P: 3 or 2x current transformer .../5A
		Class 1 or better (0.5 – 0.2- 0.2S)
		Frequency response, up to 2500Hz
Features	Consumption	1.5 VA each current transformer
	Current harmonics range	From the 2nd to the 50th harmonic, selectable transient response <1 ms
	Phase compensation	Selectable
	Power factor correction function	Selectable from 0.8 inductive to 0.8 capacitive
	Programmation priority	Selection of harmonics to be filtered, enabling the balancing function amps/or the power factor correction function.

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Active Parallel Multi-Function Filter

Features	Parallel installation	<ul style="list-style-type: none"> Up to 100 devices / racks (AFQe 100A) Up to 50 devices / racks (AFQe 200A) Connecting CT's to the master unit. Advanced processing algorithm: <ul style="list-style-type: none"> Maximize the life of the device (alternating operation of different devices). Maximizing operating efficiency (only the necessary filters are enabled). Allow redundancy (system operation in case of failure of equipment).
	Noise level	≤ 65 dBA
	Crest factor	2
	User interface	TCT touch colour screen 3.5" Web server and datalogger (2 Gb)
	RS-485	Modbus RTU, 9600, Stop 0,1,2 Parity No, Even, Odd
	Ethernet	TCP/IP (Modbus TCP)
	Installation	Installation category
Pollution degree		2
Working temperature		-10...45°C
Storage temperature		-20...55°C
Relative humidity		0...95% non-condensation
Altitude		2,000 m
Protection Degree		IP20 (other protection degrees under demand)
Dimensions		Depending model. See table
Weight		Depending model. See table
Connection	Mains	M10 Ring terminal Maximum ring width 12 mm. Coupling Torque 0.5-0.6 Nm
	CT's	6-pole connector Maximum conductor cross section 2.5 mm ² Coupling Torque 0.5-0.6 Nm
	RS485	3-pole connector Maximum conductor cross section 1.5 mm ² Coupling Torque 0.22-0.25 Nm
	Ethernet	RJ45
Standards	IEC 62477-1:2012, IEC 55011:2011, IEC 61000-6-2, IEC 61000-6-4:2007	

References

Active filters for 3 wires (3W) and 4 wires (4W)

Phase current	Neutral current	Crest current	EMI Filter	Type	Code
100 A	-	200 A	•	AFQe-3WF-100C-480	R7LF75
200 A	-	400 A	•	AFQe-3WF-200C-480	R7LF77
100 A	300 A	200 A	•	AFQe-4WF-100C-400	R7QF05
200 A	600 A	400 A	•	AFQe-4WF-200C-400	R7QF07

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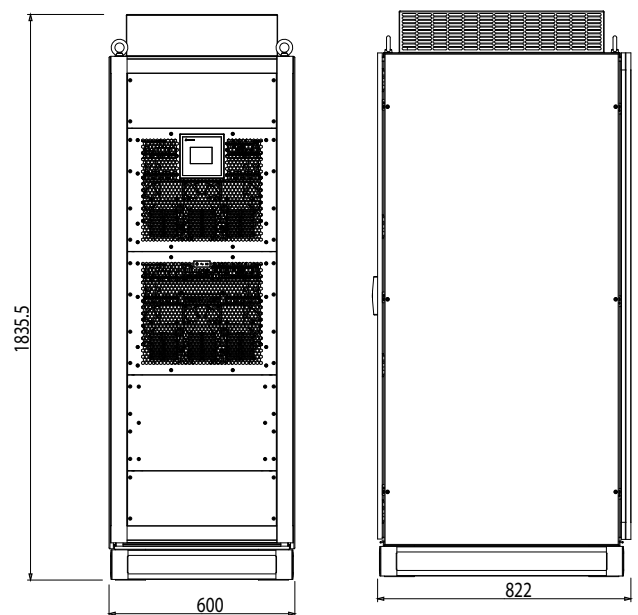
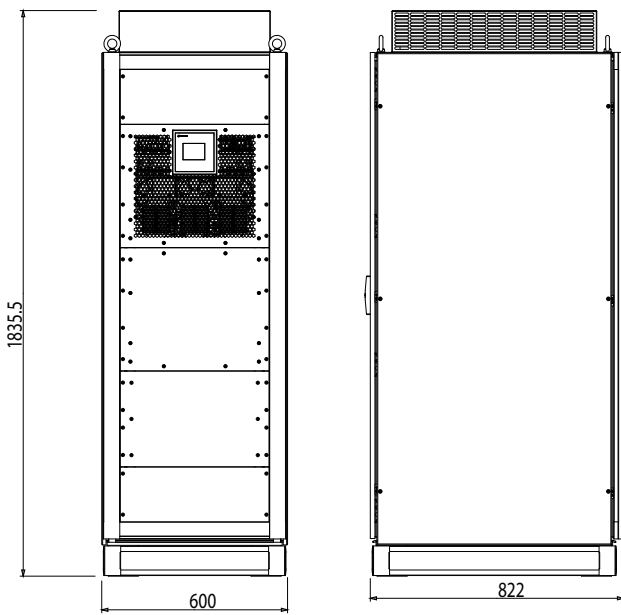
Active Parallel Multi-Function Filter

Dimensions

Type	Dimensions (Width x Height x Depth)	Weight (kg)
AFQe-3WF-100C-480	600 x 1835.5 x 822 mm	206
AFQe-3WF-200C-480	600 x 1835.5 x 822 mm	276
AFQe-4WF-100C-400	600 x 1835.5 x 822 mm	206
AFQe-4WF-200C-400	600 x 1835.5 x 822 mm	276

AFQevo 100

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Connections

