**Active mains filter for wall mounting 50 A**

suitable for active dynamic compensation of harmonic currents, inductive and capacitive reactive power and balancing of unbalanced loads. Low-feedback and low-loss operation due to 3 level topology and high clock frequency. Easy integration into existing low voltage networks by intelligent resonance detection (Intelligent FFT). Modular system for easy adaptation to changing network and load conditions, compensation of the neutral conductor current in the 4-wire connection and automatic network frequency detection. Degree of compensation of each harmonic freely adjustable, compensation strategy changeable during operation. Adjustable standby mode depending on voltage distortion (THD) and/or unbalance. Automatic restart after power failure.

Technology: SI technology

Connection: 3 wires with / without N

Filter rated current: 50 A (RMS)

Modular expandability: up to 8 modules with additional summation current transformer

Rated voltage: 380 to 415V (-40%+10%)

Mains frequency: 45 - 62 Hz

Compensation modes individually for each phase:

- Even and odd harmonic currents 1st to 50th harmonics.

- Inductive & capacitive reactive power

- Load balancing

Response time: <50 μs

Settling time: <5 ms

Switching frequency: dynamic adjustment 20 to 35 kHz

Parameterization & operation:

Graphical touch panel 4.3" with backlight, installation in the front of the housing

User interface features:

- Display of filter performance by displaying the mains and load side.

- Visualization of measured values, spectra and waveforms

- Operating times freely adjustable via weekly schedule

- Logbook for operating and alarm messages with time stamp

- Password protected configuration

- Data storage via external, optional universal measuring device

- Languages: German & English

- No additional software required

Communication interfaces:

1x RS485 Modbus RTU

1x emergency stop button (EPO)

1x connector for external display

Current transformer: 1.5 x In / 5 A

Accuracy class: 0.2 / 0.5

Input load: <0,5VA

Current transformer position: low voltage, medium voltage (parameterizable)

Current transformer and current transformer disconnector available separately.

Ambient temperature: -10 to +40°C

Derating:>45°C

Power dissipation at rated current: <3%

Humidity: 5% to 95%, non-condensing

Installation altitude: up to 1500 m above sea level without derating

Cooling: focussed air cooling

Cooling air requirement: 550 m³ depending on ambient temperature

Design: sheet steel housing for wall mounting

Cable connection: from top

degree of protection: IP 20

dimensions in mm (WxHxD): 440x610x190

Color scheme: RAL 9004 black

weight: 35 kg

Approvals:

- CE Conformity

- DNVGL

Optional available accessories:

Interfaces: Ethernet (TCP/IP), Modbus TCP

Potential free I/Os: via external module

Delivery includes:

Installation instructions, operating instructions in German language.

A qualified network analysis is recommended to determine the required filter rated current.

Manufacturer: Janitza electronics GmbH

Type: AHF-LCD W 400 V 50 A

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