

Features

- Modular power factor correction
- Mobile or stationary use
- Excellent performance
- Compact design, high efficiency
- Easy to integrate

Industrial Application

PFC4000 Series

4kW Modular Power Factor Front-end Unit



Module Features Table

Our active PFC's achieve excellent power factor values of more than 0.95. An additional on-board controller such as a buck-boost converter can load the intermediate output circuit to a voltage above or below the peak value of the mains voltage supply, typically 350 to 400V, in order to balance out spikes in the mains power supply as well as power factor correction. Extended features such as measurement and readout (via interface) on any input phase voltage and phase current as well as the DC output side (intermediate circuit) to supply the actual load can be realized. In mechanical terms, the solutions are available for 19" rack, open frame or chassis assembly and can be modified to customer specification, application or power range.

Module Features Table

Output	Input Voltage Range [VAC]	Output Voltage [VDC]	Nom. Output Current [A]	Output Voltage Accuracy [%]	Ripple and Noise [mV]	Output Power [kW]	Efficiency typ. [%]
A	230-480	+360	11	±5	20000	4	92
B	230-480	+5	5	±2	50	4	92



Input voltage

230 - 480VAC 3Phases

Input frequency

50/60Hz

Efficiency

92% typ.

Input protections

- Inrush current limitation
- RFI filter
- Fuses 20A
- Overvoltage pulse limitation
- Overtemperature protection

See table for

- Output voltage and current
- Ripple and noise
- Accuracy

Output protections

- Overvoltage protection
- Overcurrent protection

Output power

Peak 4kW

Output signals

- DI1 (Power ON)
- DO1 (AC OK)
- DO2 (Logic ON)
- DO3 (Power ON)
- AO1 (T°)
- AO2 (L1 - Current)
- AO3 (L2 - Current)
- AO4 (L3 - Current)
- AO5 (L1 - Voltage)
- AO6 (L2 - Voltage)
- AO7 (L3 - Voltage)
- AO8 (DC BUS - Current)
- AO9 (DC BUS - Voltage)

Operating temperature

-25°C to +50°C

Storage temperature

-25°C to +85°C

Temperature drift

0.01%/K typ.

Dielectric withstand voltage

- Comply to EN 62638-1

Isolation

- Input - P.E.: 2kVAC
- Input - Output B: 2kVAC
- Output B - P.E.: 500VAC

Comply with

- EN 61000-6-2
- EN 61000-6-4
- EN 62638-1
- CE

Connections

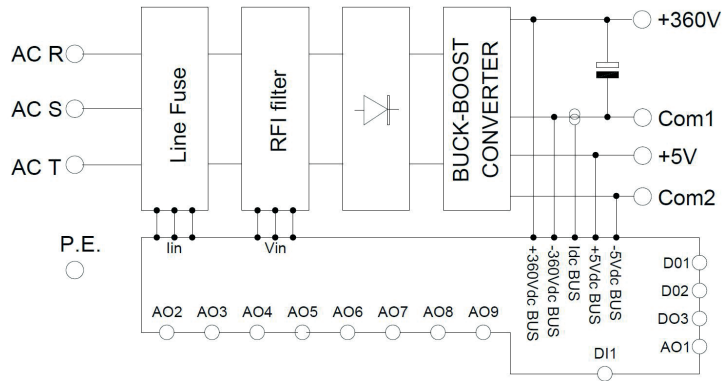
- T.B.D.

LED indicators

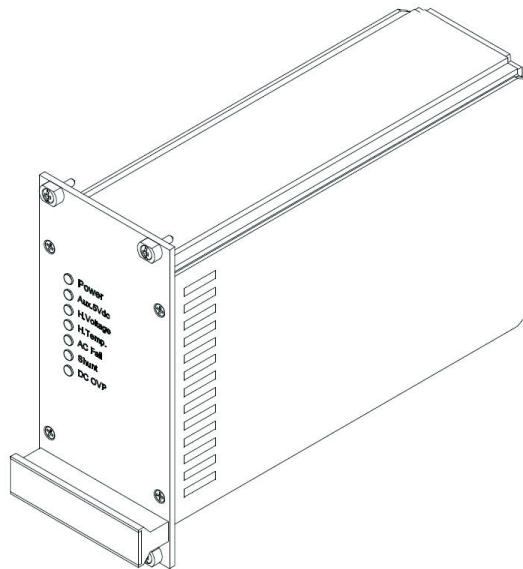
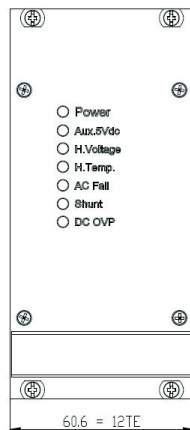
- Power on - GREEN
- Aux.5VDC - YELLOW
- High Voltage - YELLOW
- Temperature - RED
- AC Failure - RED
- Shunt on - RED
- DC Over Voltage - RED

Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

BLOCK DIAGRAM



DIMENSION AND PHYSICAL CHARACTERISTICS



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