

Frequency converter EAC-F-1 1 Phase



Frequency converter
EAC-F-1 1-phase 5kVA
19" 8U 460 mm deep IP20

Frequency converter 0,5kVA to 5,0kVA 1-phase

Technical Data:

Input voltage	115V, 200V, 230V, 380V 1-phasig
Input frequency	50Hz, 60Hz, 400Hz (Other values on request)
Efficiency	84 to 93% depending on power
Operating temperature	-5°C to +45°C (Standard)
Output voltage	115V, 200V, 230V, 400V, 460V, 600V (Other values on request)
Tolerance static	+/- 1,5 (0,5% possible) in the entire power range
Tolerance dynamic	-/+ 5% Load jump 10%-100%-10%
Settling time	2-3ms
Frequency	50Hz, 60Hz, 400Hz, to 800Hz controllable or fixed sine (other frequencies possible)
Tolerance	+/-0,01%
Power	0,5kVA to 5,0kVA 1-phase or output 3-phase up to 6,0kVA
Load range	100% Nominal load time 120% Nominal load for 2- 3 minutes
Short circuit	1,5 - 2,5x I nominal current for 20-30ms
Power factor	cos. phi 0,5-1,0 ind. kap. depending on power
Distortion factor	<3% in the entire power range (ohmic load)
Crest factor	2,0-2,5 (SMPS)
Sound level	42dBA to 48dBA
Galvanic isolation	>3,0kV AC AC input/AC output
Interference suppression	EN 50091-2 / EN 55022
Security	EN 50091-1 (BGV A2)

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Unit design:

Analogue / digital control and monitoring system with grid monitoring, Inrush current limiter, PFC module for sine-wave grid current consumption $\cos \phi$ 0.99, AC filter, internal DC filter, power full bridge (IGBT or MOS-FET) output transfer, AC output filter. System with effective value control. Depending on the version, with controller control.

Systems also with 3-phase output in star connection with single-phase control.

Visual messages /LED

- Operation ok.
- Fault
- Input undervoltage
- Input overvoltage
- Overtemperature
- Output undervoltage
- Output overvoltage
- Output overload (optional for 3-phase output))

- Potential-free signalling contact (collective fault)
- On/off switch and signalling LED in the front. (Housing version)
- Short circuit proof
- High short circuit currents
- Supply also of critical consumer loads with $\cos \phi$ 0.5-1.0 and high starting currents

The system can be further expanded with the following modules.

- AC input with PFC module (for 1-phase input)
- AC monitoring module undervoltage / overvoltage
- AC overload / load current detection
- AC-ISO guard
- Regulation of the output voltage via poti e.g. 20-100%.
- Control of the output frequency via poti e.g. 45Hz-65Hz or 45Hz to 400Hz according to your specifications
- External setpoint input analogue (0-10V) and/or digital
- Actual value feedback analogue (0-10V) and/or digital for voltage / frequency / current
- Possible interface RS232, RS485 or LAN(Ethernet)
- Sensor cable L-sens/N-sens to compensate for line losses (for 1-/3-phase output)

3.5 digit LCD instruments

- AC voltmeter
- AC ammeter
- AC frequency meter
- 1-phase output with plain text display



Standard operating front
EAC-F-1 1-phase with
output 1-phase controllable

Mechanical design depending on power

Construction as mounting plate version IP00, table-top housing e.g. Schroff COMPACT, 19" full plug-in IP20, wall-mounted housing, stand-alone housing / floor-standing cabinet IP20 e.g. Rittal "TS", Schneider Electric "SF", other protection classes e.g. IP40 on request

- Internal thermostatically controlled fan (ball bearing)
- Internal AC fuses and inrush current limiters
- Galvanic isolation between AC input and AC output
- AC clamps (screw clamp)
- Remote on/off

The system can be optimised for your specific applications such as

- Mobile system with wheels (for use indoors)
- Increase of overload capacity (motors / high consumer inrush currents, etc.)
- Extended temperature range -20 to +55°C (vehicle use, military applications, etc.)
- Protection classes up to IP54 depending on output (e.g. for outdoor installation)