

FREQUENCY CONVERTER

EAC

ElectroAir EAC series frequency converter is intended for the ground servicing of all aircraft types with a frequency of 400 Hz up to 90 kVA and voltage 115/200 V.

They assist with the fast, reliable and safe launch of aircraft engines and provide an uninterrupted power supply when the aircraft is on the ground, reducing the amount of exhaust fumes and noise level within the airport area.

EAC provides stable output with any load at constant frequency. It is not sensitive to sudden load changes. What is more, it is highly customizable providing vast possibilities for input, output and installation method variation. Furthermore, the components used in the frequency converter are standard, which significantly lowers the ownership costs.



MAIN TECHNICAL PARAMETERS

EAC series frequency converter

General

- ✚ Climatic execution: -40 to +55°C
- ✚ Humidity: 10 – 100%
- ✚ Noise level: < 65dB(A)@ 1m
- ✚ Warranty: 24 months
- ✚ Execution: solid state, mobile, on-wall, PBB
- ✚ Protection class: IP 55
- ✚ Dimensions: depend on execution
- ✚ Country of origin: Estonia

Input parameters

- ✚ Input voltage, V: $3 \times 400 \pm 10\%$, N, PE
- ✚ Input frequency, Hz: 50/60 $\pm 5\%$
- ✚ Rectification: 12 pulse
- ✚ Inrush current: soft start

Overload

- ✚ 600 sec – 125%
- ✚ 60 sec – 150%
- ✚ 30 sec – 200%
- ✚ 10 sec – 300%
- ✚ 1 sec – 400%

Protection (as per MIL-STD-704F and ISO 6858)

- ✚ Over / under voltage at input/output
- ✚ Overload
- ✚ Over / under frequency
- ✚ Overheating
- ✚ Short circuit at input/output
- ✚ Control voltage error
- ✚ Leakage current supervision
- ✚ No break power transfer

Documentation

- ✚ User + Service Manual
- ✚ Spare Parts Catalogue
- ✚ Passport
- ✚ Warranty Certificate

Output parameters

- ✚ Number of outputs: 1
- ✚ Rated output power, kVA: 1-360
- ✚ Rated output voltage, VAC: $3 \times 115/200$
- ✚ Range of load changes, %: 0 – 100
- ✚ Total harmonic distortion, not worse, %: 3
- ✚ Output frequency, Hz: 400 ± 0.001
- ✚ Power factor: > 0.8 at 100% load
- ✚ Coefficient of efficiency, %: 97
- ✚ Coefficient of amplitude modulation of the output voltage, %, not more: 1.5
- ✚ Line drop compensation: automatic
- ✚ Interlock: ON/OFF switch, civil/military switch

Control panel (customizable)

- ✚ Luminescent display (voltage, current, frequency, errors and fault messages), regulation buttons, main indicator, emergency stop

Optional: extra payment items

- ✚ Range of voltage regulation, V: $\pm 10\%$
- ✚ Range of frequency regulation, Hz: 360 – 440
- ✚ Anti – condensation heating: with thermostat
- ✚ Remote control: control panel, regulation buttons, main lamp, emergency stop
- ✚ Additional outputs: 1-phase, 3-phase
- ✚ Installation method: ground/wall-hanging
- ✚ Input voltage variants, V: $3 \times 220 / 3 \times 440 / 3 \times 460 / 4 \times 480$ / other
- ✚ User interfaces: RS485 / 232 ; TCP/IP; Modbus
- ✚ Measuring devices type: analog or digital
- ✚ Monitoring of energy consumption
- ✚ Beacon light
- ✚ Voice signalization
- ✚ Control panel backlight
- ✚ CE Certificate
- ✚ EUR 1 Certificate
- ✚ RFID access system

Norms, standards and directives that we follow:

ISO6858, ISO1540, BS 2G 219, MIL-STD-704F, EN 62040-1, EN 61000-6-4, EN 61000-6-25, EN61558-2-6, EN 2282, EN 1915-1, SAEARP 50 15, IEC 60721, IEC 60529, DFS400, GOST 54073-2010, ISO 9001:2008, ISO 14001:2004, IP 45001:2018, 2014/35/EU, 2004/108/EC