

COMBINED UNIT (AC+DC) EACR SERIES

The combined power supply units EACR series are intended for power supply of the on-board electrical equipment of aircrafts and helicopters during pre-flight preparation at airports, the shop floors of aircraft industry enterprises and complex training simulators in aviation training centers.

These power supply units have two types of independent outputs: one with direct current of 28.5 V and second one with alternating current of 400 Hz. All channels can be independently regulated and used simultaneously. The voltage compensation system is made separately for each output. Up to 4 outputs configuration are available.



MAIN TECHNICAL PARAMETERS

EACR series combined unit (AC+DC)

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General

- 🌱 Climatic execution: -60 to +75°C
- 🌱 Humidity: 10 – 100%
- 🌱 Noise level: < 50dB(A)@ 1m
- 🌱 Warranty: 24 months
- 🌱 Execution: solid state/mobile
- 🌱 Protection class: IP 54
- 🌱 Country of origin: Estonia

Input Parameter

- 🌱 Input voltages, V: $3 \times 400 \pm 10\%$ N, PE
- 🌱 Input frequency, Hz: $50/60 \pm 5\%$
- 🌱 Inrush current: soft start
- 🌱 Input cable length, m: 20
- 🌱 Input plug, A: up to 250

AC Output parameters

- 🌱 Total output power, kVA: 60
- 🌱 Rated output voltage, VAC: $115/200 \pm 2$
- 🌱 Range of load changes, %: 0 – 100
- 🌱 Range of voltage regulation, V: 104-120
- 🌱 Range of frequency regulation, Hz: 360-420
- 🌱 Total harmonic distortion, not worse, %: 3
- 🌱 Output frequency, Hz: 400 ± 0.01
- 🌱 Coefficient of amplitude modulation of the output voltage, %, not more: 1.5
- 🌱 Overload rating:

600 sec – 125%
60 sec – 150%
30 sec – 200%
10 sec – 300%
1 sec – 400%
- 🌱 Output cable length, m: 15m

DC Output parameters

- 🌱 Current (continuous), A Rated: 600.
- 🌱 Rated output voltage, VDC: 28,5
- 🌱 Output voltage stabilization accuracy, VDC: 0.5
- 🌱 Range of voltage regulation, V: 19-33
- 🌱 Output voltage ripple factor, %: maximum 2
- 🌱 Overload rating:

600A – Nominal
1200A – 30s;
1800A – 10s;
2400A – 2s.

Output parameters

- 🌱 Number of outputs: 2
- 🌱 Power factor: > 0.8 at 100% load
- 🌱 Coefficient of efficiency, %: 97
- 🌱 Line drop compensation: automatic
- 🌱 Logging faults: up to 100 events
- 🌱 Interlock: ON/OFF switch, military/civil switch

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

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

Control panel (customizable)

- 🌱 Luminescent display (channel voltage, current, frequency, errors and fault messages), regulation buttons, POWER indicator, emergency stop

Documentation

- 🌱 User + service manual
- 🌱 Passport
- 🌱 Warranty certificate

Optional: extra payment items

- 🌱 Anti – condensation heating
- 🌱 28/56V output voltage
- 🌱 Range of input voltages: $3 \times 220 / 3 \times 440 / 3 \times 460 / 3 \times 480 /$ other
- 🌱 Remote control: duplicates the main control panel
- 🌱 Additional outputs: 220V, 16A (1Ph+N+PE) + residual – current device
- 🌱 User interfaces: RS485 / 232 ; TCP/IP; Modbus
- 🌱 Measuring devices type: analog or digital
- 🌱 Additional power outputs configuration
- 🌱 Monitoring of energy consumption
- 🌱 Remote control / Voice signalization

Norms, standards and directives that we follow:

ISO6858, ISO1540, BS 2G 219, MIL-STD-704F, EN 62040-1, EN 61000-6-4, EN 61000-6-2, 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, ISO 45001:2018, 2014/35/EU, 2004/108/EC