

FR-400/28 Series

COMBINED UNITS



The combined supply units of **FR-400/28 series** are designed to power on-board systems of aircraft and helicopters during ground handling at airports, shop floors, and training centers.

- DC output: **28,5 V**
- AC output: **400 Hz**

All channels can be adjusted and operated simultaneously.

Voltage drop compensation is individually set for each output.

DC Modes

- Dual-channel: **28 /48 /56 V**
- Single-channel: **28,5 V**

Totally customizable

- Trolley
- Color
- Cable length
- Technical parameters

AC + DC



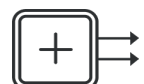
- Independent AC and DC outputs
- Possibility of simultaneous work of all channels

Ventilation cooling system



- Located on top
- Low noise fans
- Less time for maintenance

Special outputs



- Special 400 Hz 36 V output
- Ability to work on a 28 V/ 48 V/ 56 V mode
- 50/60 Hz sockets

GENERAL

Climatic execution	-55 °C to +55 °C
Humidity	up to 100 %
Noise level	<65 dB(A)@ 1 m
Execution	fixed, mobile
Protection class	IP 55
Country of origin	Estonia, EU

INPUT PARAMETERS

Input voltage, V	3×220/ 3×440/ 3×460 3×480 ± 10 %, N, PE
Input frequency, Hz	50/60 ± 5 %
Inrush current	soft start
Input plug, A	up to 400

OUTPUT PARAMETERS

Number of outputs	up to 5
Power factor	>0,8 at 100 % load
Coefficient of efficiency, %	97
Line drop compensation	automatic
Error log storage	up to 10 000 events
Interlock	ON/ OFF/ civil/ military

AC OUTPUT PARAMETERS

Total output power, kVA	up to 360
Rated output voltage, VAC	115/200 ± 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, %	2
Output frequency, Hz	400 ± 0,01
Coefficient of amplitude modulation of the output voltage, %	not more than 1,5
Overload	600 sec — 125 % 60 sec — 150 % 30 sec — 200 % 10 sec — 300 % 1 sec — 400 %

DC OUTPUT PARAMETERS

Current (continuous) of each output, A	up to 1600
Rated output voltage, VDC	28,5
Output voltage stabilization accuracy, VDC	0,5
Range of voltage regulation, V	up to 33
Output voltage ripple factor, %	maximum 2
Overload rating	up to 2500 A

PROTECTION (ISO 6858/ MIL-STD-704F)

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

OPTIONAL

Anti-condensation heating	with thermostat
Remote control	duplicates the main control panel
Additional outputs	36 V, up to 30 kVA
User interfaces	RS485 TCP/ IP; Modbus; Others
Measuring devices type	analog or digital
Output mode, V	28/48/56
Monitoring of energy consumption	
Control panel lighting	
EUR1 Certificate	
RFID access system	
Climatic execution	
Remote control	
Voice signalization	
Control panel backlight	
Beacon light	
Monitoring of energy consumption	

