## 9U VME64x 6023



### 9U VME64x 6023 Bulletpoints

- **▶** Power Supply: UEP 6021 switching PSU, modular DC/DC outputs, up to 3 kW (3U) or 6 kW (6U), ultra-low noise (< 3 mVpp)
- **▶** Output Power & Configuration: Programmable floating outputs (2–60 V including ± rails) with integrated UV/OV/OC/OT protection and shutdown logic
- ➤ Cooling: High-efficiency UEL 6020 EX Fan Tray with 4/6/9 temperature-controlled DC fans, bottom-to-top airflow, 1U plenum, MTBF > 60 000 h
- ➤ Chassis: Rugged 19" rack-mount, 12U height for 9U cards, 720 mm depth, heavy-duty steelaluminium construction, optional rear transition cage
- ➤ Monitoring & Control: Ethernet/RS-232/CAN-bus interfaces, integrated web server, alphanumeric LED diagnostics for critical parameters
- ➤ Safety & Isolation: Fully isolated DC distribution per EN 60950 / UL 1950; no internal AC wiring; robust EMI/ESD shieldin



# Technical Information

<b>Electrical Parameters:</b>	
Inputs	
Mains input range	94–260 VAC, auto-ranging with power-factor correction
Input current	Depends on PSU configuration (UEP 6021 in 3U up to 3 kW or 6U up to 6 kW)
Inrush current	Limited by PSU soft-start (not explicitly specified)
Input fuse	Not specified; PSU provides internal protection
Outputs	
Number of channels	Modular — based on DC/DC converter modules in UEP 6021 PSU
Output Voltages	Programmable floating DC outputs, depending on installed modules (typ. 2–60 V, including ± rails)
Output Power	Up to 3 kW (3U PSU) or up to 6 kW (6U PSU)
Overvoltage protection	Programmable UV/OV/OC/OT; PSU self-protecting (crowbar, shutdown)
Overcurrent protection	Programmable current limits causing shutdown if exceeded
Ripple and Noise	Ultra-low: < 3 mVpp (for <12 V rails), < 10 mVpp for other rails, < 2 mVrms
Efficiency	Not explicitly stated, but expected to be similar to 6023 series (~75–85 %)
Monitoring & Control	
Voltage	Programmable via PSU, displayed on Fan Tray and remotely via Ethernet
Current	Monitored individually, programmable via microprocessor contro
Status LED	Alphanumeric LED display on Fan Tray shows voltages, currents, power, temperature, setup data
Isolation	
Input - Output	Isolated DC lines, no AC wiring inside bin; compliant with EN 60950 / UL 1950
Input - Chassis	Protective isolation meeting standard safety norms
Output - Chassis	Protective isolation applied
<b>Environment and Cooling:</b>	
Operation temperature:	Not explicitly specified — expected similar to 6U variant (approx. 0–50 $^{\circ}$ C)
Cooling media	Bottom-to-top forced-air via UEL 6020 EX Fan Tray, with 4/6/9 individually controlled DC fans (1200–3600 RPM), MTBF > 60 000 h; airflow enhanced with 1U plenum chamber
Mechanical Parameters	
Dimensions	19" (482 mm) × 12U (533 mm) × 720 mm (W × H × D) for 9U/400 mm cards
Weight	Not explicitly stated — bin expected ~16–17 kg; PSU and Fan Tray additional weight AC input via rear PSU module
Input Connector	
Output connector	DC outputs delivered via PSU modules; remote sense/control interfaces on Fan Tray (optionally Sub-D)
Mounting	rack-mount, IEEE 1101.10 compliant steel-aluminum chassis; rugged construction with 5 mm thick side plates

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	and zero-tolerance screw positioning; optional rear transition cage available
Other	
Communication Protocols	Ethernet (remote monitoring/control), microprocessor- based control via Fan Tray UEL 6020 EX; also includes RS-232 and CAN-bus interfaces
Reliability	Fan Tray MTBF > 60 000 h; PSU and electronics designed for high MTBF through modular Cavity-VHF switching technology
Warranty / Maintencance	2 years / 5 years

## Electrical, Environmental & Compliance Data

#### **Main Power**

- Output Voltages / Currents: +6 V 5 A, -6 V 5 A, +12 V 3 A, -12 V 3 A, +24 V 1.5 A, -24 V 1.5 A, 115
  VAC 0.1 A
- Regulation (load change 10–100 %): 6 V < 0.2 %, 12/24 V 0.1 %</li>
- Ripple & Noise (full load): ±6 V < 3 mVpp, ±12 V < 5 mVpp, ±24 V < 10 mVpp
- Recovery time (10–100 % load): < 0.15 ms
- Output impedance (static/dynamic @ 100 kHz): 1.5 m $\Omega$  / 0.5  $\Omega$

#### **Auxiliary Power**

• None – all primary outputs available on main connector

#### Compliance

- NIM standard (AEC report TID20893)
- CE Class B, FCC Class B (modellabhängig)

#### **Environmental**

- Operating temperature: 0 °C to +50 °C (derating > 40 °C by 2 %/°C to max. 60 °C)
- Storage temperature: -20 °C to +80 °C
- Clean earth wiring with 0.25 mm<sup>2</sup>
- Non-ventilated rigid chassis

#### **Communication / Monitoring**

• Optional CAN-bus interface for DC voltage monitoring and remote on/off

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