

6U VME 6021 Full Size Chassis



6U VME 6021 Full Size Chassis Bulletpoints

- **Ultra-high-power** (up to 6 kW) modular VME crate with wide-range AC input and advanced safety controls.
- **Superior low-noise** "Cavity-VHF" switching PSUs delivering clean DC (ripple < 3 mVpp).
- **Intelligent thermal management** with adjustable fan speeds, extensive monitoring and remote control over Ethernet, CAN, RS232.
- **Rugged full-size 19"** bin with monolithic backplane, modular design, and optional transition cages.
- **Robust reliability with hot-swappability**, PPM logic, long MTBF components (> 65 000 h), and comprehensive protection features.

Electrical Parameters:	
Inputs	
Mains input range	94–260 VAC (worldwide auto-range), power factor correction (PFC)
Input current	Rated sinusoidal input current: 16 A (suffix H) or 32 A (suffix K)
Inrush current	Limited to rated input current via soft-start circuit
Input fuse	External fuse (internal on special request)
Outputs	
Number of channels	Modules configure up to eight independent regulated DC outputs; installed as MEH, MDH, MDL types
Output Voltages	+5 V: 115 A, 230 A, or 345 A ±12 V: 23 A or 46 A each
Output Power	Power supply outputs up to 3 kW (3U box) or 6 kW (6U box), using multiple modules
Overvoltage protection	Crow-bar trip at 125% nominal; programmable trip points; outputs discharged within 5 ms if >5% deviation or faults (over-/under-voltage, overheat, fan failure)
Overcurrent protection	Programmable current limits and self-protection against failure
Ripple and Noise	Ultra-low noise: < 3 mVpp on voltages < 12 V; other rails < 10 mVp
Efficiency	75 %–85 %, depending on modules used
Monitoring & Control	
Voltage	Locally via alphanumeric LED display showing voltages, currents, power, temperatures, set-up data; accuracy voltage < 0.5 %, current ~±2% of final value
Current	
Status LED	Fan-tray front panel shows status (green: OK), fan fail, overheat, system fail; recessed reset button for SYSRESET
Isolation	
Input - Output	Meets CE EN 60950, ISO 380, VDE 0805, UL 1950, C22.2.950 safety standards
Input - Chassis	Not explicitly specified; design ensures no AC wiring inside bin or fan tray (enhanced safety)
Output - Chassis	Floating outputs; common or separate ground configuration possible via backplane
Environment and Cooling:	
Operation temperature:	0...50 °C ambient without derating
Cooling media	UEL 6020 fan tray with 3 individually controlled long-life DC fans (1200–3600 RPM), MTBF > 65 000 h; intelligent control, thermal cut-offs and adjustable speeds; integrated display + interface
Mechanical Parameters	
Dimensions	UEV 6021 Bin, 6U version): 19" (482 mm) × 8U (355 mm) × 480 mm (W × H × D);
Weight	13-14 kg
Input Connector	Power supply (UEP 6021) modules with standard mains connectors; H version uses removable cord, K version fixed cord for 32 A
Output connector	Backplane delivers DC outputs; detailed backplane structure handles power distribution and sense circuits
Mounting	19" rack-mount full-chassis, modular bin with fan tray front and PSU rear; optional rear transition cage
Other	

Communication Protocols	Ethernet, CAN-bus, RS232, web server, SNMP, OPC-supported interfaces for full control and monitoring
Reliability	Modular, hot-swappable components; PPM prevents incompatible PSUs; long MTBF for fans and electronics (> 65 000 h at 40 °C)
Warranty / Maintenance	Not specified

Electrical, Environmental & Compliance Data

Main Power

- **Output Voltages / Currents:** +5 V: 33 A or 66 A +3.3 V: 6 A or 12 A +12 V: 1 A or 2 A
- **Regulation (10–100% load change):** $\pm 1\%$ to $\pm 4\%$ depending on voltage
- **Ripple & Noise (full load):** < 50 mVpp (typical < 30 mVpp, 0–20 MHz); < 3 mVrms (0–2 MHz)
- **Recovery time:** Not specified
- **Output impedance:** Not specified (static/dynamic @ 100 kHz)

Auxiliary Power

- **None** – primary rails provided via VME/VME64 backplane

Compliance

- **Safety:** CE EN 60950, ISO 380, VDE 0805, UL 1950, C22.2.950
- **EMC (emission):** Not specified
- **EMC (immunity):** Not specified
- **CE conformity:** Yes – worldwide auto-range AC input (90–265 VAC) with PFC

Environmental

- **Operating temperature:** 0...40 °C without derating; RH 30–80 % non-condensing; atmospheric pressure 70–110 kPa (≥ 85 kPa for 600 W continuous power)
- **Storage temperature:** –30...+85 °C
- **Clean earth wiring:** Not specified

- **Cooling:** Forced-air cooling via silent DC blower, rear-to-rear airflow; blower MTBF > 60 000 h at 40 °C; internal over-temperature cut-off (sink 110 °C, ambient 70 °C); fan ramps above 45 °C

Communication / Monitoring

- **Local:** Alphanumeric LED display for voltages, currents, fan speed, temperatures, settings/programming; plus 2 status LEDs
- **Remote:** Integrated WIENER CML Shelf Manager with Ethernet & USB; full monitoring/control of PSU, fan, remote on/off, SYSRES, thermal monitoring, and user I/O programming

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