6U VME430 6021

6U VME430 6021 Bulletpoints

- Power Mechanics: 6U × 160 mm, IEEE 1101.10 compliant, EMC/ESD-protected
- Slots: 21 VME/VME430 (J1/Jaux/J2)
- Power Supply: up to 1000 W, low-noise microprocessor-controlled
- Ripple: typ. < 10 mV(pp) or < 3 mV(rms)
- Interfaces: Ethernet, RS232, CAN-bus
- Cooling: front 2U fan tray, temperature-controlled

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Electrical Parameters:	
Inputs	
Mains input range	92 – 265 VAC (auto-range)
Input current	approx. 16 A (H version) / up to 32 A (K version)
Inrush current	limited to rated input current (cold start)
Input fuse	external standard; internal on request
Outputs	
Number of channels	up to 8 independent floating DC outputs (modular PSU slots)
Output Voltages	+5 V, ±12 V, –5.2 V, –2 V (optional ±15 V)
Output Power	H version (3U PSU): 1–<3 kW K version (6U PSU): 2–<6 kW
Overvoltage protection	crowbar protection at ≈125% of nominal
Overcurrent protection	microprocessor-controlled shutdown and restart
Ripple and Noise	<10–15 mVpp or <2 mVrms (standard), <3 mVpp for voltages <12 V (ultra-low noise option)
Efficiency	75–85%
Monitoring & Control	
Voltage	monitored per channel via microprocessor
Current	monitored per channel
Status LED	front LEDs and alphanumeric fan tray display
Isolation	
Input - Output	compliant with CE EN 60950, ISO 380, VDE 0805, UL 1950, C22.2.950
Input - Chassis	safe isolation per above standards
Output - Chassis	safe isolation per above standards
Environment and Cooling:	
Operation temperature:	0 °C to +50 °C (no derating); storage –30 °C to +85 °C
Cooling media	forced air, UEL 6020 fan tray with temperature-controlled DC fans (1200–3600 RPM)
Mechanical Parameters	
Dimensions	19” × 8U × 480 mm (+25 mm with PSU inserted)
Weight	bin ~13–14 kg; PSU 9.6–30 kg depending on module configuration
Input Connector	IEC inlet (H version) / fixed 2 m power cord (K version)
Output connector	VME430 backplane (J1/Jaux/J2)
Mounting	19” rack-mountable, IEEE 1101.10 compliant
Other	
Communication Protocols	Ethernet, RS232, CAN-bus
Reliability	MTBF >65,000 h (fans at 40 °C), >100,000 h (electronics)
Warranty / Maintencance	2 years / 5 years

Electrical, Environmental & Compliance Data

Main Power

- **Output Voltages / Currents: +5 V (up to 200 A), +3.3 V (up to 120 A), ±12 V (up to 40 A), ±24 V optional; other auxiliary voltages on request**
- **Regulation (load change 10–100%): ≤0.5% for all standard rails**
- **Ripple & Noise (full load): typ. <10–15 mVpp (<3 mVpp with low-noise option)**
- **Recovery time (10–100% load): <0.2 ms**
- **Output impedance (static/dynamic @ 100 kHz): <1 mΩ / <0.5 Ω**

Auxiliary Power

- **None – all configured primary outputs available on the main VME430 backplane connector**

Compliance

- **Compliant with CERN VME430 standard**
- **CE conformity: EN 60950, ISO 380, VDE 0805, UL 1950, C22.2.950**
- **EMC: EN 61000-6-3 (emissions) and EN 61000-6-2 (immunity, including ESD, surge, burst, radiated fields)**

Environmental

- **Operating temperature: 0 °C to +50 °C (no derating); storage −30 °C to +85 °C**
- **Cooling: Forced air via UEL 6020 fan tray, 3 controlled DC fans (1200–3600 RPM), MTBF >65,000 h @ 40 °C**
- **Humidity: up to 90% RH, non-condensing**
- **Chassis: 19" × 8U IEEE 1101.10 compliant rigid steel-aluminum construction**

Communication / Monitoring

- **Interfaces: Ethernet, RS232, CAN-bus**
- **Monitoring: Channel voltages and currents monitored by microprocessor**
- **Remote Control: Remote on/off and programmable settings via PPM (Power Protection Memory)**
- **Front Panel: Status LEDs and alphanumeric fan tray display**

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