

VME8100

8U 21 Slot VME64/64X Enhanced Crate Series



Features



- 19" x 8U (6+2) enclosure
- 21 slot for 6U x 160mm VME modules
- Pluggable Power Supplies with different configurations up to 2500 W
- Available with VME64, VME64X compliant monolithic backplane
- Pluggable 2U Fan Unit
- Short circuit protection
- Over / Undervoltage protection
- Over temperature protection
- CAN bus, Ethernet, USB, RS232 interface for remote monitoring and control
- SBC controlled with graphic OLED Display
- Automatic Daisy Chain, CBLT compliant
- Easy firmware upgrading
- Libraries, Demos (C and LabView) and Software tools for Windows and Linux

Description

The **Mod. VME8100** crates are based on a modularity concept and consist of three detachable parts easily to exchange:

- The Subrack (Bin + Backplane): Mod V8100XX 8U Bin, with 21 slot monolithic backplane, (VME64/ VME64X).
- The Pluggable Power Supply: Models V81XX, VME Power supply with different configurations, allows up to 2500 W output.
- The Pluggable ventilation and control unit (2U Fan Tray): Mod A8160 Smart VME Fan Unit, with OLED display and various interfaces.

Safety features include: short circuit protection, Over / Undervoltage protection, Over temperature protection. Remote monitoring and control take place through CAN bus, Ethernet, USB and RS232 interfaces. The crates are also SBC controlled via graphic OLED Display, provides Automatic Daisy Chain and supports Chained Block Transfers (CBLT). User-friendly control software completes the VME 8100 features. The Unit is powered by 92 ÷ 264 Vac, 50 ÷ 60 Hz, power factor 0.98% (230VAC).

Technical Specifications

Mechanics

8U bin for 6U x 160 mm VME cards, 21 slots, 2U space for fan tray

Backplane

VME64 J1/J2, VME64X J1/J2 - J1/J0/J2
Automatic daisy chain, CBLT compliant

Mains input

Auto range: 92 ÷ 264 Vac, 50 ÷ 60 Hz,
inrush current: < 16 A @ 230 Vac power. fact. > 0.98 @ Output Power > 1 kW

Maximum Total Output Power

- 1200 W @ 100 Vac
- 2530 W @ 211 Vac

Fuse

External 16 A, type B/C

Output power

- 110/220 A @ +5 V
- 20/40A @ +/-12 V
- 110/220 A @ +3.3 V

Isolation

CE acc. to EN 61010

Power requirements

1760W @ 100Vac at full load; 3600W @ 211Vac at full load

Load Regulation

- < 10 mV for 0-100% load change @ +5 V
- < 10 mV for 0-100% load change @ +3.3 V
- < 15 mV for 0-100% load change @ +/-12 V

Efficiency

75% ÷ 85% @ 230 Vac configuration dependent

Noise and ripple (backplane connector)

- +5 V < 10 mVpp, < 1 mVrms Typ: 4.0 mVpp, 0.5 mVrms
- +3.3 V < 10 mVpp, < 1 mVrms Typ: 6.0 mVpp, 1.0 mVrms
- +/-12 V < 10 mVpp, < 2 mVrms Typ: 8.0 mVpp, 1.5 mVrms

Interface

RS 232, USB (2.0), CAN bus, Ethernet

Temperature sensors

- Power Supply Control: nr. 1
- FAN Unit: nr. 1
- Backplane: nr. 8 (optional)

Over Voltage Protection

Trip Off when the output voltage > 103% ÷ 120% (programmable) of set voltage

Under Voltage Protection

Trip Off when the output voltage < 80% ÷ 97% (programmable) of set voltage

Over Current Protection

Trip Off when the current > programmable Iset value

Over Temperature Protection

Trip Off when temperature of a single Power Supply block > 90° C Signaled:

- temperature FAN Unit > 50°C
- temperature Power Supply Control > 65° C

Operation

0÷50°C without derating

Cooling Airflow

540 m³/h (at maximum fan speed)

Firmware

VME8100 firmware can be upgraded via Ethernet

Ordering Options

Code	Description	
WV8100VME000	VME8100/00 - VME64 8U crate, 21 slot J1/J2, smartfan unit, (5V 110A, ±12V 20A)	RoHS
WV8100VME001	VME8100/01 - VME64 8U crate, 21 slot J1/J2, smartfan unit, (5V 220A, ±12V 20A)	RoHS
WV8100VME002	VME8100/02 - VME64 8U crate, 21 slot J1/J2, smartfan unit, (5V 110A, ±12V 40A)	RoHS
WV8100VME003	VME8100/03 - VME64 8U crate, 21 slot J1/J2, smartfan unit, (5V 220A, ±12V 40A)	RoHS
WV8100VME004	VME8100/04 - VME64X 8U crate, 21 slot J1/J2, smartfan unit, (5V 110A, ±12V 20A, 3.3V 110A)	RoHS
WV8100VME005	VME8100/05 - VME64X 8U crate, 21 slot J1/J2, smartfan unit, (5V 220A, ±12V 20A, 3.3V 110A)	RoHS
WV8100VME006	VME8100/06 - VME64X 8U crate, 21 slot J1/J2, smartfan unit, (5V 110A, ±12V 20A, 3.3V 220A)	RoHS
WV8100VME007	VME8100/07 - VME64X 8U crate, 21 slot J1/J2, smartfan unit, (5V 220A, ±12V 20A, 3.3V 220A)	RoHS
WV8100VME008	VME8100/08 - VME64X 8U crate, 21 slot J1/J2, smartfan unit, (5V 110A, ±12V 40A, 3.3V 110A)	RoHS
WV8100VME009	VME8100/09 - VME64X 8U crate, 21 slot J1/J2, smartfan unit, (5V 220A, ±12V 40A, 3.3V 110A)	RoHS
WV8100VME010	VME8100/10 - VME64X 8U crate, 21 slot J1/J2, smartfan unit, (5V 110A, ±12V 40A, 3.3V 220A)	RoHS
WV8100VME011	VME8100/11 - VME64X 8U crate, 21 slot J1/J0/J2, smart fan unit, (5V 110A, ±12V 20A, 3.3V 110A)	RoHS
WV8100VME012	VME8100/12 - VME64X 8U crate, 21 slot J1/J0/J2, smart fan unit, (5V 220A, ±12V 20A, 3.3V 110A)	RoHS
WV8100VME013	VME8100/13 - VME64X 8U crate, 21 slot J1/J0/J2, smart fan unit, (5V 110A, ±12V 20A, 3.3V 220A)	RoHS
WV8100VME014	VME8100/14 - VME64X 8U crate, 21 slot J1/J0/J2, smart fan unit, (5V 220A, ±12V 20A, 3.3V 220A)	RoHS
WV8100VME015	VME8100/15 - VME64X 8U crate, 21 slot J1/J0/J2, smart fan unit, (5V 110A, ±12V 40A, 3.3V 110A)	RoHS
WV8100VME016	VME8100/16 - VME64X 8U crate, 21 slot J1/J0/J2, smart fan unit, (5V 220A, ±12V 40A, 3.3V 110A)	RoHS
WV8100VME017	VME8100/17 - VME64X 8U crate, 21 slot J1/J0/J2, smart fan unit, (5V 110A, ±12V 40A, 3.3V 220A)	RoHS

Related Software

OPC Server



OPC Server for CAEN Power Supplies

Related Software Libraries

CAEN HV Wrapper Library



Library for CAEN Power Supply Control

Related Products

VME8008X



4U 8 Slot VME64X Mini Crate

VME8008B



4U 8 Slot VME64 Mini Crate

VME8011



7U 21 Slot VME64 Low Cost Crate

VME8004X



2U 4 Slot VME64X Mini Crate

VME8004B



2U 4 Slot VME64 Mini Crate

VME8001



1U 2 Slot VME64 Mini Crate

VME8010



7U 21 Slot VME64 Low Cost Crate



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