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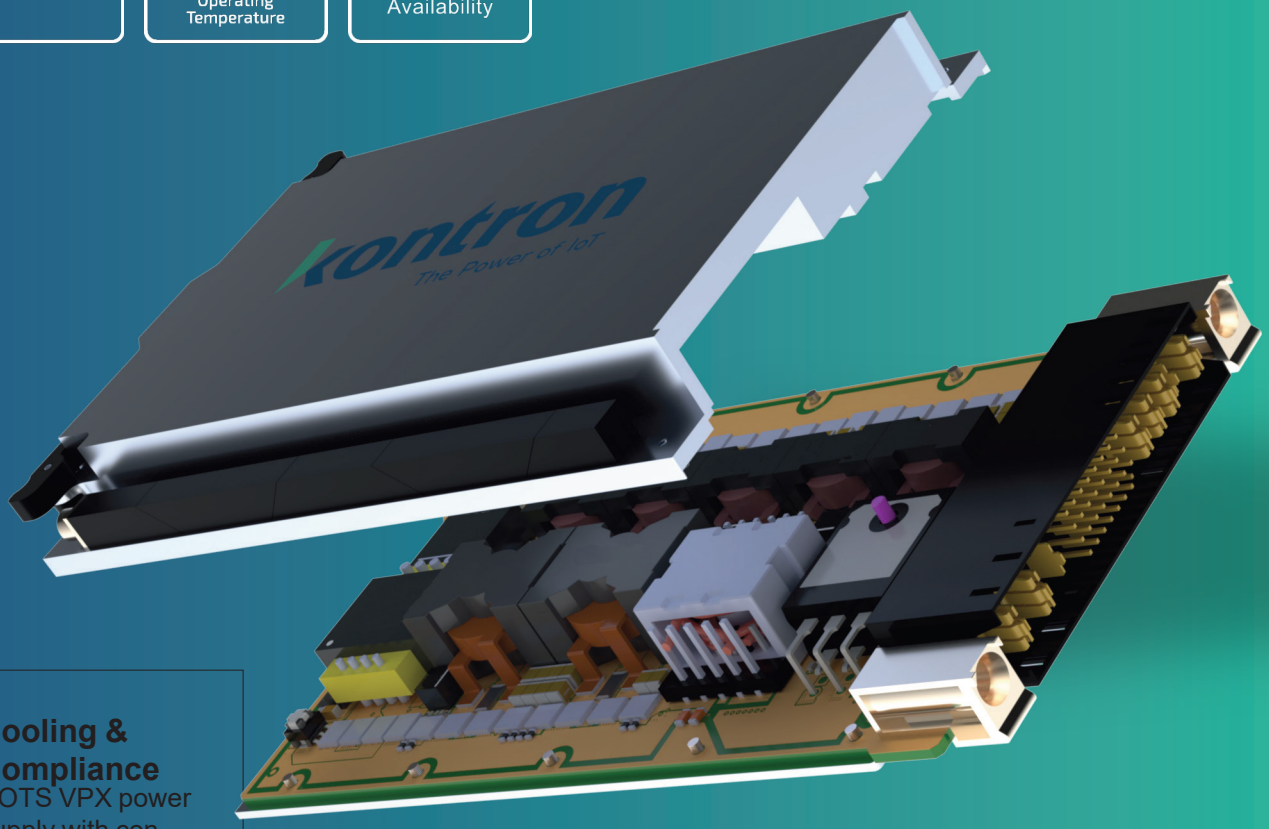
VPX 360

Made in Germany

-40° / 85°C
Operating Temperature

10 Years
Availability



Cooling & Compliance
COTS VPX power supply with conduction cooling (VITA 62.0 compliant)

Compact Form
Compact 3U x 5HP form factor,fits standard VITA 46.0 envelope

Flexible Input
Supports both 28VDC and 48V DC input platforms

Power & Efficiency
High output power and efficiency through next-gen switching technology

Monitoring & Standards
I²C (IPMI optional) and USB monitoring; designed to meet MIL-STD 461,704 and 1275

Last updaded 2026/02

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VPX360 600 WATT

Kontron Hartmann Wiener VPX360 power supplies areconduction-cooled, commercial off-the-shelf (COTS) converters designed according to ANSI/VITA 62.0 and compatible with standard VPX chassis per VITA 46.0. Thanks to our next-generation switching power technology, the series delivers increased output power and current in a compact 3U x 5HP footprint, while maintaining high efficiency.
A newly developed input filter, combined with a booster and isolation stage, enables operation with both 28V DC and 48V DC input systems. Built to meet MILSTD-461, 704, and 1275 requirements, the VPX360 also features onboard monitoring and control via I²C (IPMI) and USB. All mechanical and electrical interfaces follow the VITA 62 standard. Rugged design for operation in harshest environments. MIL-STD 810G compliance tested. Manufactured with conformal coating to withstand sand, dust and salt atmosphere.
The electronic components are fully conformal coated to ensure long-term protection against moisture, dust, and environmental stress

VX3060DMA – Output Table

Output	Voltage	Max. Current
VS1	+12 V	40 A
VS2	+3.3 V	20 A
VS3	+5 V	40 A
Vaux1	+12 V	1 A
Vaux2	–12 V	1 A
Vaux3	+3.3 V	6 A

Input Voltage: 28 V DC Total Power: 600 W Compliance: VITA 62, MIL-STD-461 / -704 / -1275 Conformal Coating: Standard acrylic

VPX360EMA – Output Table

Output	Voltage	Max. Current
VS1	+12 V	40 A
VS2	+3.3 V	20 A
VS3	+5 V	40 A
Vaux1	+12 V	1 A
Vaux2	–12 V	1 A
Vaux3	+3.3 V	6 A

Input Voltage: 48 V DC Total Power: 600 W Compliance: VITA 62, MIL-STD-461 / -704 / -1275 Conformal Coating: Standard acrylic

Design & Components
› No liquid / wet / aluminum electrolytic capacitors

Mechanical Dimensions
› 100.0 mm x 168.5 mm x 19.56 mm (3.94 in x 6.63 in x 0.97 in)

Power & Efficiency
› Next generation power conversion technology
› Output power up to 600W with high efficiency
› Dual / wide input voltage range: 12 V DC … 68 V DC (nominal 28V and 48V)
› Reverse polarity and input overvoltage protection.

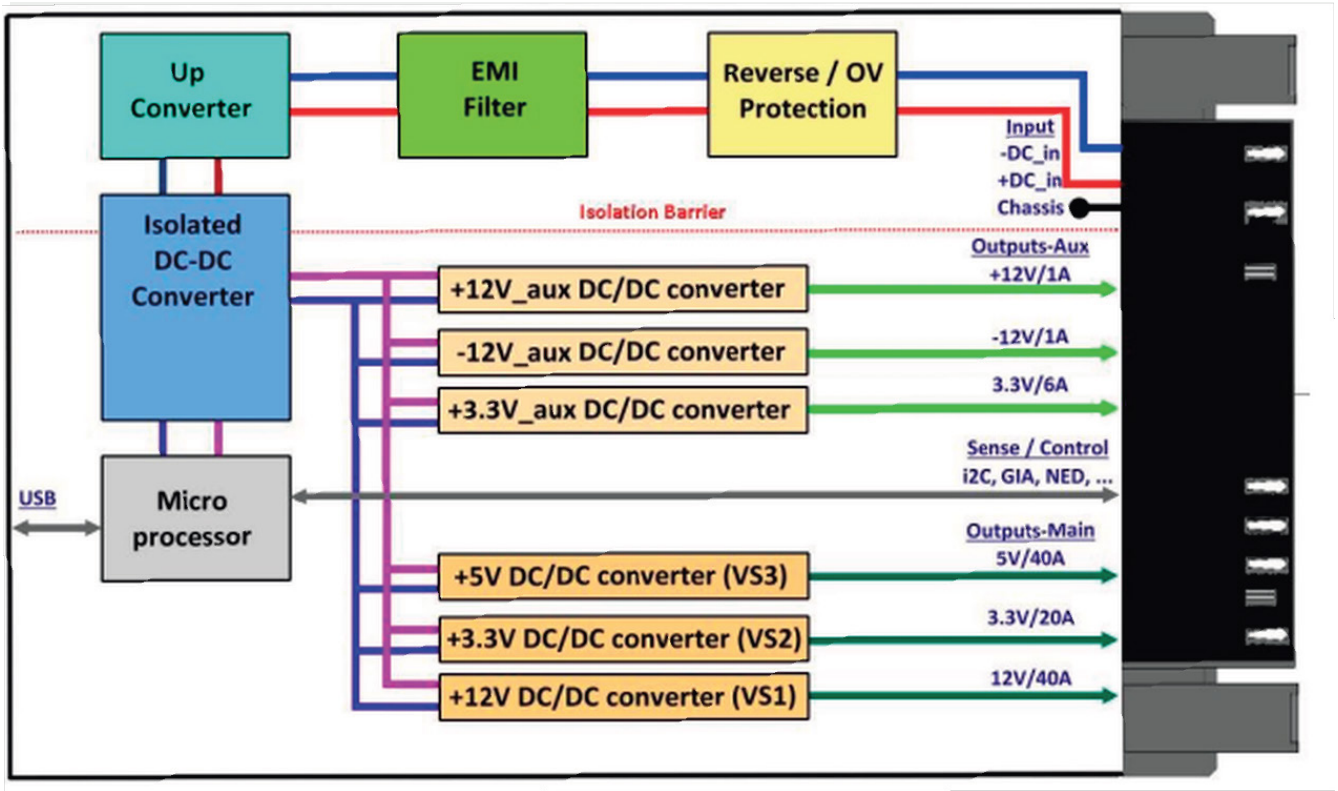
Software Features
› Programmable Enable/Inhibit behaviour
› Programmable power on delay per channel
› Event log
› Customizeable failure handling on request

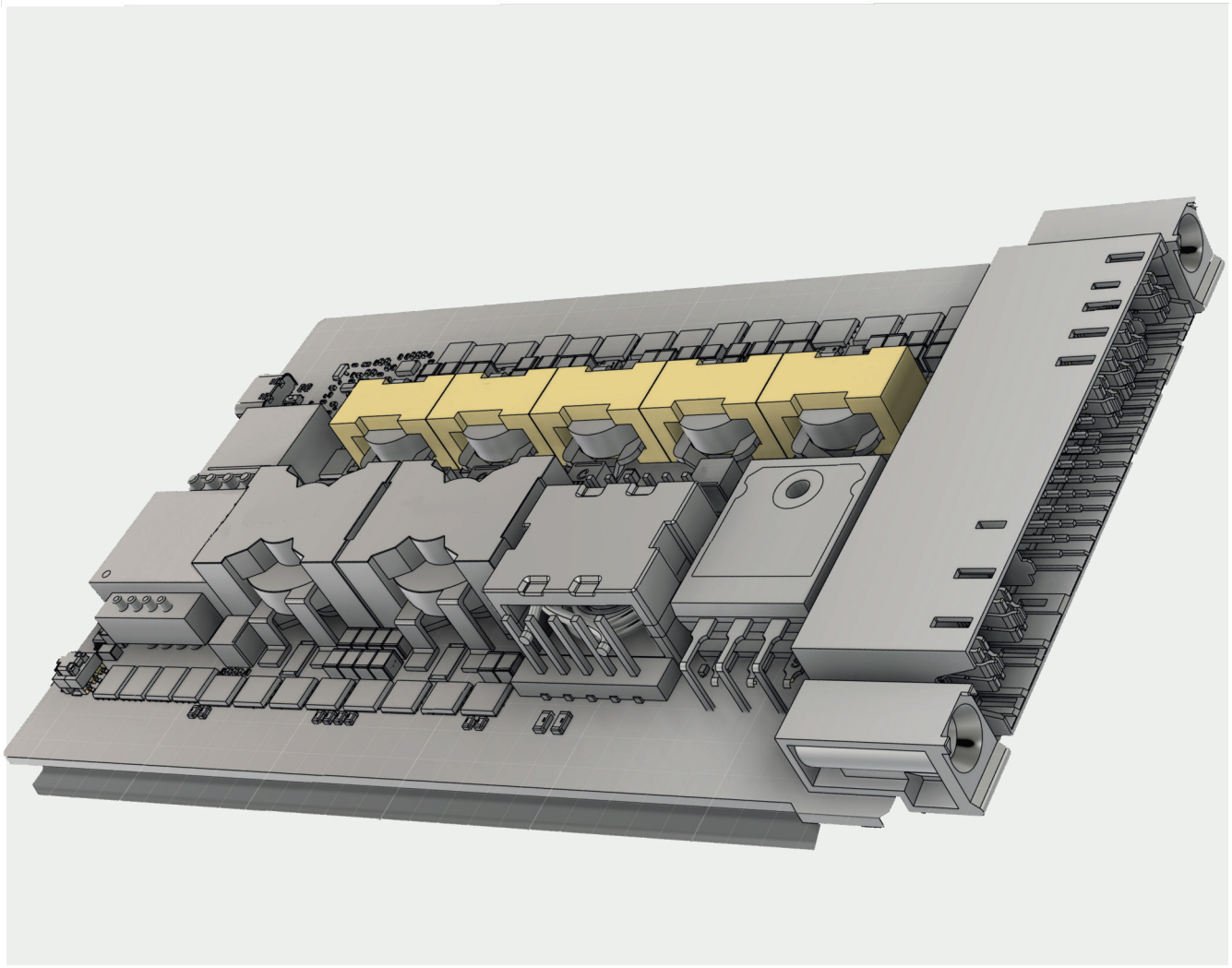
Protection Features
› Voltage sense controlled
› Overvoltage, Undervoltage, Overcurrent, Over Temperature protection, hardware current limit

Management & Control
› Microprocessor controlled
› I²C bus communication for monitoring (status input and 6 output voltages and currents, temperatures) optional control features
› USB-C connector for communication and firmware
› IPMI support as per VITA 46.11

Compliance
› Compliant to VITA 62 specification
› MIL-STD-461, MIL-STD-704, MIL-STD-1275 compliance (to be tested as per VITA 62, par. 3.2.1)
› Ruggedized to MIL-STD-810, with standard conformal coating (other on request)

Block Diagram





Technical Information

Article	Ordering Code	Description	Variant
VPX360DMA	**VPX360DMA**	600W 3U VITA 62 VPX power supply Standard Version, **28V** key, MIL-STD-461, -704,-1275 compliant, with standard acrylic conformal coat- ing	
VPX360DMA	**VPX360DMA1**	600W 3U VITA 62 VPX power supply Standard Version, **28V** key, MIL-STD-461, -704,-1275 compliant, with standard acrylic conformal coat- ing	RoHS
VPX360EMA	**VPX360EMA**	600W 3U VITA 62 VPX power supply Standard Version, **48V** key, MIL-STD-461,-704,-1275 compliant, with standard acrylic conformal coating	
VPX360EMA	**VPX360EMA1**	600W 3U VITA 62 VPX power supply Standard Version, **48V** key, MIL-STD-461, -704,-1275 compliant, with standard acrylic conformal coating	RoHS

Technical Data

Form Factor	3U VPX CC	
Pitch	5 HP / 1.0 inch	
Weight	0.8 kg / 1.8 lbs	
Operating Temperature (at wedge lock)	-40 °C to 85 °C (relative humidity 95 %)	[derate max power from 600 W to 500 W (linear) for 75 °C to 85 °C operation
Storage Temperature	-55 °C to 105 °C	
Isolation	Input to Output Isolation	500 V
	Input to Case Ground Isolation	500 V
	Output to Case Ground Isolation	500 V
Case Ground to Safety Ground Resistance	< 10 mΩ (TBC)	
Power	Maximum Output Power	600 W
	Maximum Input Power	~680W
	Maximum Dissipated Power @ max. Power	~80W
Nominal Input Voltage	28 V DC / 48V DC (different keys)	
Minimum Turn ON Voltage	12 V	
Minimum Turn OFF Voltage	8V	
Maximum Continuous/Peak Input Voltage	68 V / ± 250 V (<1 ms spike)	
Input Overvoltage Protection:	Outputs disable if input voltage exceeds 68 VDC for > 600 ms (10 second auto-restart)	
Maximum Internal Working Temperatures	125 °C	

Technical Information

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Temperature Protection Sensing Point (internal)	125 °C
Temperature Protection Sensing Point (internal)	125 °C (Outputs disable when internal PCB temperature exceeds threshold)
Maxim um Currents 12V /3V3 / 5V	see tables in "variants" for different power configurations
Fixed Switching Frequencies 12V/3V3/5V	520 kHz / 520 kHz / 520 kHz
Peak Efficiencies 12V / 3V3/ 5V	92% / 82% / 87%
Max. Output Ripple and Noise: 12V / 3V 3 / 5V	< 120 mVpp / < 50 mVpp / < 50 mVpp (worst case)
(0-20 MHz Bandwidth)	< 30 mVpp / < 25 mVpp / < 25 mVpp (typcial)
Line Regulation: 12V / 3V3/ 5V.	< 10 mV / 10 mV / 50 mV
Vin=Vin , min to Vin,max, Io and Tc fixed	< 0.1%
Load Regulation: 12V /3V3 / 5V	60 mV / 50 mV / 10 mV
12V / 3V3 / 5V: Maximum Output Voltage (Sense Lines Open)	12.3 V / 3.45 V / 5.15 V
Load Transient Recovery Time (50 % load change condition)	1 ms
AUX Channels	
Maximum Current	1A/ 1A/ 6A
Load Dependent Switching Frequency	300 Hz ... 600 kHz
Efficiency	60% ... 70%
Max. Output Ripple and Noise (0-20 MHz Bandwidth)	< 120 mVpp / < 50 mVpp / < 50 mVpp
Load Transient Recovery Time (50 % load change condition)	1 ms
MIL Standard Compliance	as per VITA 62 specification
MIL-STD-461F (EMI) Compliance	Designed (to be tested) in compliance with sections CE102, CS101, CS114, CS115, CS116. See user manual for more details.
MIL-STD-704F Compliance	Designed (to be tested) in compliance for normal transients (LDC105), abnormal transients (LDC302) and distortion spectrum (LDC103). External hold-up circuit optional. See user manual for more details.

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Kontron Hartmann-Wiener GmbH

Linde 18, D-51399 Burscheid Germany

E: sales.khw@kontron.com

P: +49(2174)6780 F:+49 (2174)678555

Kontron Hartmann-Wiener GmbH

Motorstraße 43, D-70499 Stuttgart Germany

E: sales.khw@kontron.com

P: +49 (711) 139890 F:+49 (711) 8661191

Manual VPX360

More VPX