

# VPX 371 - High Power

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**WIENER VPX power supplies are commercial off-the-shelf (COTS), conduction cooled single stage converters according to the ANSI/VITA 62.0 specification. They can be used to power a VPX chassis and will fit into the standard envelope defined by VITA 48.0 specifications.**

Using state of the art switching power technology a wide input range voltage range as well as high overall efficiency is achieved. The VPX715 series offers highest output power on all 6 DC output channels which makes it a perfect power supply for test and development applications.

The VPX power supply mechanical dimensions are 3U x 4HP (0.80" slot). It is outfitted with connectors, keying and alignment mechanism as per VITA 62.



VPX 371 - High Power



## Main Features

- Compliant to VITA 62 baseline specification
- Up to 715 W maximum / 600W continuous power,
- 3U size, 0.8" pitch
- 6 (5 independent) output voltages VS1 (12V), VS2 (3.3V), VS3 (5V), Vaux1(+12V), Vaux2(-12V), Vaux3 (3.3V)
- up to 88% peak efficiency
- 28V DC input voltage (19V ... 35V)

## VPX371 Power Supply Features

- Compliant to VITA 62 baseline specification
- Up to 715 W maximum / 600W continuous power
- Parallel mode with Hartmann Electronic Power-Backplanes possible
- Up to 88% peak efficiency
- 6 (5 independent) output voltages
- 28V DC input voltage (19V ... 35V)
- Voltage sense controlled, Over Voltage, Over Current, Over Temperature protection
- Ruggedized to MIL-STD-810
- Operating Temperature -40°C to 85°C
- Dimensions: 100.0 mm x 170.0 mm x 20.3 mm (3.9" x 6.69" x 0.8")
- Weight: 0.6kg (1.23 lbs)

Item	Description
VPX371D	715W VPX VITA62 power supply

## 715W VITA62 VPX Power Supply

High density, conduction cooled power supply according to VITA62 specification.

Power supply	Input	VS1 [+12V]	VS2 [+3.3V]	VS3 [+5V]	Vaux1 [+12V]	Vaux2 [-12V]	Vaux3 [+3.3V]
VPX371	28 V DC	21 A	50 A*	40 A	4.2 A	4.2 A	7 A**

(\* -> may be limited by connector or power backplane rating, \*\* depending on temperature, estimated 5A at 85C)

### Technical Details

Form Factor	3U VPX
Pitch	4HP / 0.8"
Weight	0.6 kg / 1.23 Lbs / 21.2 oz.
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 105°C
Input to Output Insulation	1500V
Input to Output Isolation with Case	550V
Input to Case Ground Isolation	500V
Output to Case Ground Isolation	50V
Case Ground to Safety Ground Resistance	< 10 mOhms
Maximum Output Power	715W
Maximum Input Power	~760W
Maximum Dissipated Power @ max. Power	~45W
Minimum Turn ON Voltage	>20V
Minimum Turn OFF Voltage	19V Hysteresis
Maximum Continuous Input Voltage	35V
Maximum Short Time Input Voltage	(15s) 36 V
Maximum Currents 12V / 3V3 / 5V	21 A / 50 A / 40 A
Fixed Switching Frequencies 12V / 3V3 / 5V	120 kHz / 125 kHz / 130 kHz
Peak Efficiencies 12V / 3V3 / 5V converters	94% / 92% / 92%
Max. Output Ripple and Noise: 12V / 3V3 / 5V	15 mVrms / 4 mVrms / 4 mVrms

(0-20 MHz Bandwidth)	65 mVpp / 27 mVrms / 27 mVpp
Line Regulation: 12V / 3V3 / 5V	40 mV / 2 mV / 4 mV
Vin=Vin,min to Vin,max, Io and Tc fixed	0.1%
Load Regulation: 12V / 3V3 / 5V	70 mV / 2 mV / 4 mV
	Vin=Vin,nom, Io=Io,min to Io,max, Tc fixed < 0.1%
Over voltage Protection:	14.4 V / 4.1 V / 6.1 V (hardware)
Temperature Protection Sensing Point (identical to case)	85°C (Latching)
Maximum Internal Working Temperatures	125°C

### Control Logic / Timing

Protection	OVC, OVT, OFLW
Minimum Hold up Time (at max. Power)	<= 1 ms
Minimum input voltage start up rise time	> 50 V/s

### Compatibility / Environmental

Compatibility	VDE 0805, IEC 950
Tested and passed	<ul style="list-style-type: none"> <li>- Altitude: MIL-STD-810F, Methode 500.4, Procedure II</li> <li>- Vibration: MIL-STD-810G, Methode 514.6 D-1, Category 12</li> <li>- Shock: MIL-STD 810G, 40g, 11ms semisinusoidal</li> </ul>

### Product Data Sheet

VPX 371 - High Power:	<a href="#">Print Product Data Sheet</a>
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### Documentation

Manual/Tech-Notes :	<a href="#">VPX371 manual</a>
Introduction:	<a href="#">WIENER Power Supplies_intro</a>

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