

Description

Valiant's AC to DC converter may be used to convert 85V AC-264V AC, 47Hz-63Hz AC Mains Input Voltage to 24V DC output voltage. It may be also used to convert 120V DC - 370V DC Input Voltage to 24V DC Output Voltage. The AC to DC / DC to DC converter is designed for telecom applications requiring stable DC voltage with low EMI and EMC interference.

This is an external converter power supply, which is available in a portable desktop version with one fuse protected 24V DC output.



Safety Agency Approvals

- Complies with DEN-AN
- UL6095
- C-UL (CSA60950) recognized
- TUV approved

EMC Compliance

- EN61000-4-2
- EN61000-4-3
- EN61000-4-4
- EN61000-4-5
- EN61000-4-6
- EN61000-4-8
- EN61000-4-11
- EN55022-B
- EN61000-3-2

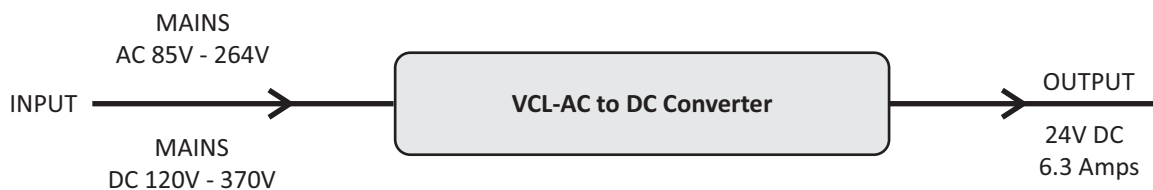
CE Marking

- Low Voltage Directive
- EMC Directive

EMI Compliance

- FCC-B
- CISPR22-B
- EN55022-B
- VCCI-B

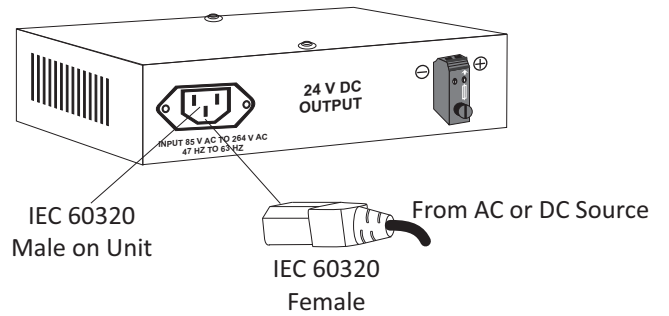
Application Diagram



Features

- Converts universal AC Mains Input (85V DC - 264V AC, 47 Hz - 63 Hz) to 24V DC, 6.3 Amps
- Converts 120V DC to 370V DC to 24V DC output current @ 24V DC = 6.3 Amps
- Small and compact
- High quality and cost effective
- Auto ranging voltage
- UL, recognized, TUV approved, CSA certified
- Built-in inrush current, over current and over voltage protection circuits
- Harmonic attenuator, PFC (Complies with IEC61000-3-2)
- Rugged PCB type construction
- RoHS Compliant

AC-DC Converter Shelf Desktop Version



Ordering Information (AC to DC Converter)

Part#	VCL-ACDC-24-150W-6.3A
Product Description	Power Supply (External) AC to DC Converter, DC to DC Converter, Desktop Version 150 Watts External Converter. Converts Universal 85V AC- 264V AC, 47 Hz to 63 Hz Main Voltage, or 120V DC -370V DC to 24V DC Output 6.3 Amps

Technical Specifications

Input Voltage	[V]		AC 85-264, 47 Hz - 63 Hz, DC 120 to 370
Current	[A]	ACIN 100V ACIN 200V	2.0typ (Io=100%) 1.0typ (Io=100%)
Frequency AC	[Hz]		50/60 (47 to 63) or DC
Efficiency	[%]	ACIN 100V ACIN 200V	82typ (Io=100%) 85typ (Io=100%)
Inrush Current	[A]	ACIN 100V ACIN 200V	15typ (Io=100%) (At cold start) (Ta=25°C) 30typ (Io=100%) (At cold start) (Ta=25°C)
Leakage Current	[mA]		0.75max (60Hz, According to IEC60950 and DEN-AN)
Output Voltage	[V]		24V DC
Max Output Wattage			151.2 (Peaks 288)
Current	[A]		0 to 6.3A (Peak 12)
Line Regulation	[mV]		48 max
Load Regulation	[mV]		76 max
Ripple	0 to +45°C		120 max
[mVp-p]	-10 to 0°C		160 max
Ripple Noise	0 to +45°C		150 max
[mVp-p]	-10 to 0°C		180 max
Temperature	0 to +45°C		120 max
Regulation [mV]	-10 to 45°C		145 max
Drift	[mV]		48 max
Start-Up Time	[mS]		500 max (ACIN 100V, Io=100%)
Hold- Up Time	[mS]		20typ (ACIN 100V, Io=100%)
Overcurrent Protection			Works over 101% of rating (-H:peak) and recovers automatically
Overvoltage Protection			Works at 115 to 140% of rating
Input- Output -RC Isolation			AC3000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)
Input-FG isolation			AC2000V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (At Room Temperature)
Output -RC-FG Isolation			AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (At Room Temperature)
Output -RC Isolation			AC100V 1minute, Cutoff current = 100mA, DC100V 10M Ω min (At Room Temperature)
Operating Temp., Humidity and Altitude			-10 to +70°C, 20 to 90% RH (Non-condensing) 3000 m (10,000 feet) max
Storage Temp., Humidity and Altitude			-20 to +75°C, 20 to 90% RH (Non-condensing) 9000 m (30,000 feet) max
Vibration			10 to 55Hz, 19.6m/s ² (2G), 3 minutes period, 60 minutes each along X, Y and Z axis
Impact			196.1m/s ² (20G), 11ms, once each X, Y and Z axis
Safety Agency Approvals			UL60950-1, C-UL, EN60950-1, EN50178 Complies with DEN-AN and IEC60950-1 (At only AC input)
Conducted Noise			Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B
Cooling Method			Convection

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Technical specifications are subject to changes without notice.

Revision – 10, May 25, 2022

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