



Features:

- 45W High Power Density 76.2 x 50.8 x 27.0mm
- Wide AC & DC Input 85V to 264VAC
- Temperature Range -25°C to +70°C
- Protection: OVP, OCP and Output Short Circuit
- Output Range: 3.3V - 48VDC
- Low Standby Power <0.5W
- Fully Isolated Pri - Sec >3000Vrms
- Insulation: Class II
- Materials: UL94-V0
- IEC/EN/UL62368
- 2 Year Warranty



Description

VTX-210-045-0## is a compact Open style AC-DC power converter. It features universal AC input and at the same time accepts DC input voltage, low power consumption, high efficiency, high reliability, reinforced isolation. It offers good EMC performance compliant to IEC/EN61000-4 and CISPR32/EN55032 and meets UL/EN/IEC62368, EN/UL60335 standards. The converters are widely used in industrial, office and civil applications. Please contact our Technical team for further support.

Selection Guide

Part Number	Power Rating Watts	Output Voltage (VDC)	Output Current (mA)	Ambient Temp. (°C)	Efficiency Typical	Input Range
VTX-210-045-003	26.4	3.3	8000	50°C (70°C @ 50%)	>76%	85 - 264VAC (100 - 370VDC)
VTX-210-045-005	40	5	8000			
VTX-210-045-009	45	9	4444			
VTX-210-045-012	45	12	3750			
VTX-210-045-015	45	15	3000			
VTX-210-045-024	45	24	1875			
VTX-210-045-048	45	48	940			

Note: Other output voltages are available upon request.

Please contact Vigortronix for any enquiries. Products can be altered to suit custom requirements.
The information contained in this document is subject to change without notice.

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Input Specification					
Item	Conditions	Min	Typical	Max	Unit
Input Voltage	AC Input	85	-	264	VAC
	DC Input	100	-	370	VDC
Input Frequency		47	-	63	Hz
Input Current	115VAC	-	-	1.2	A
	230VAC	-	-	0.70	
Inrush Curent	115VAC	-	35	-	
	230VAC	-	50	-	
Leakage Current	264VAC / 50Hz	0.25mA RMS Max			

Output Specification					
Item	Conditions	Min	Typical	Max	Unit
Output Voltage	3.3V Output	-	+/-3	-	%
	5V/9V/12V/15V/24V/48V	-	+/-2	-	
Line Regulation	3.3V Full Load	-	+/-0.5	-	
	5V/9V/12V/15V/24V/48V	-	+/-0.5	-	
Load Regulation	3.3V 0% - 100% Load	-	+/-1	-	
	5V/9V/12V/15V/24V/48V	-	+/-1	-	
Ripple / Noise	20MHz Bandwidth (Peak to Peak Value)	-	50	100	mV
Stand by Power	230VAC	-	-	0.5	W
Temp. Coefficient		-	+/-0.02	-	%/°C
Short Circuit Protection		Hiccup, Continuous, Self-recovery			
Over Current Protection		>150% Load, Self-recovery			
Over Voltage Protection		Hiccup, Continuous, Self-recovery			
Minimum Load		0	-	-	%
Hold-up Time	115VAC Input	-	20	-	mS
	230VAC Input	-	50	-	

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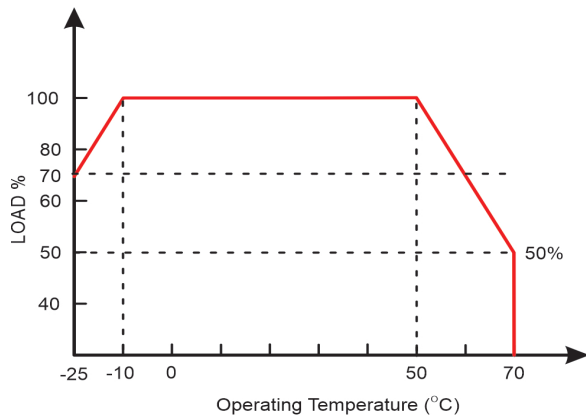
General Specification					
Item	Conditions	Min	Typical	Max	Unit
Dielectric Strength	Input to Output (1Min, 10mA)	3000	-	-	VAC
Insulation Resistance	Input to Output (500VDC)	100			M.Ohm
Operating Temperture		-25	-	+70	°C
Storage Temperture		-25	-	+85	
Operating Humidity		20	-	90	%RH
Storage Humidity		-	-	95	
Soldering Temperature	Wave Soldering	260 +/-5°C 5-10s			
	Manual Soldering	360 +/-5°C 3-5s			
Switching Frequency		-	65	-	KHz
Altitude		-	-	2000	m
Safety Class		CLASS II			
MTBF		>300KHrs @ 25°C (MIL-HDBK-217F)			
Safety Approvals		IEC/EN/UL62368			
Dimensions		76.2 x 50.8 x 27.0mm (3 x 2 Inch)			
Cooling Method		Free air convection			
Weight		90g			

EMC Specification		
Emissions	CE /RE	CISPR32 / EN55032 CLASS B EN55014-1
Immunity	ESD	IEC/EN 61000-4-2 CONTACT +/-6KV EN55014-2
	RS	IEC/EN 61000-4-3 10V/m EN55014-2
	EFT	IEC/EN 61000-4-4 +/-2KV
	SURGE	IEC/EN 61000-4-5, EN55014-2
	CS	IEC/EN 61000-4-6 10V/r.m.s. EN55014-2
	Voltage Variation	IEC/EN 61000-4-11, EN55014-2

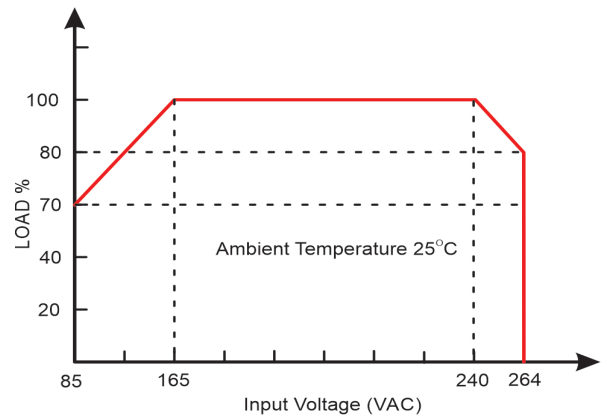
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Derating Graphs

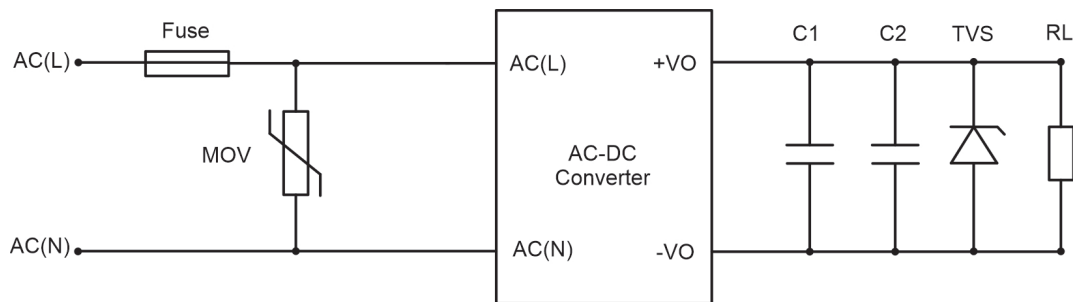
Temperature Derating Graph



Input Voltage Derating Graph



Application Circuit



C1 (uF)	C2 (uF)	TVS	Fuse	MOV
1.0	47	SMBJxxA	3.15A/300V Slow Blow	S14K350

Efficiency Guide

Part Number	Output Voltage (VDC)	Efficiency Typical (%)	Capacitance Load Max
VTX-210-045-003	3.3	76	30000 uF
VTX-210-045-005	5	82	20000 uF
VTX-210-045-009	9	84	6000 uF
VTX-210-045-012	12	84	4000 uF
VTX-210-045-015	15	86	3500 uF
VTX-210-045-024	24	86	1000 uF
VTX-210-045-048	48	87	600 uF

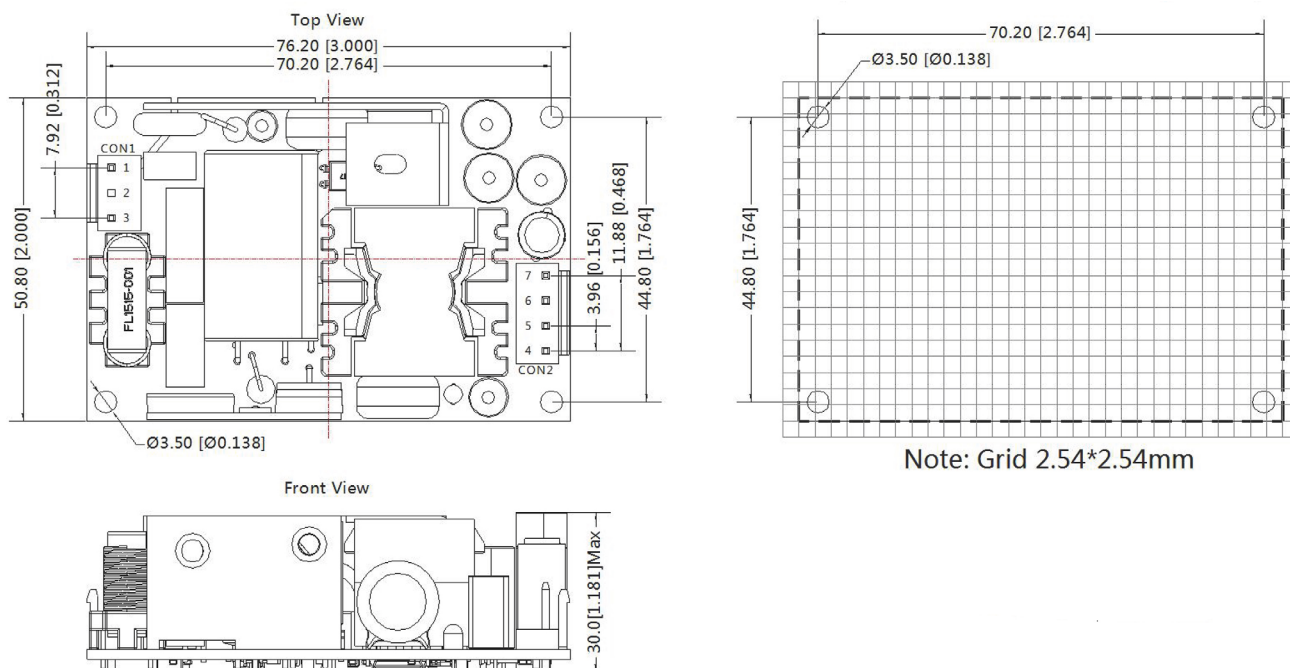
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Dimensions



PIN Number	Function	Connector	Terminal
1	AC(L)	VH-3A or B2P3-VH or Equivalent	VH-3Y or VHR-3N or Equivalent
2	No Pin		
3	AC(N)		
4	-Vo	VH-2A or B2P-VH or Equivalent	VH-2Y or VHR-2N or Equivalent
5	+Vo		

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