350 Watt PCB Open AC-DC Converters

Features:

- 350W High Power Density 127 x 76.2 x 25.4mm
- Wide AC & DC Input 90V to 264VAC
- Active PFC
- Temperature Range -40°C to +70°C
- Protection: OVP, OCP and Output Short Circuit
- Output Range: 12V - 54VDC
- Low Standby Power <1.0W
- Fully Isolated Pri - Sec >4000Vrms
- Insulation: Class II
- Materials: UL94-V0
- IEC/EN/UL62368, EN61558, EN60335, ES60601
- 3 Year Warranty

Description

VTX-210-350-0## is a compact Open style AC-DC power converter with PFC. 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 toIEC/EN61000-4 and CISPR32/EN55032 and meets UL/EN/IEC62368, EN60335 and ES60601 standards. The converters are widely used in medical, industrial, office and civil applications. Please contact our Technical team for further support.

Selection Guide

Part Number	Cooling Method	Power Rating Watts	Output Voltage (VDC)	Output Current (A)	Output Voltage Adj. Range	Input Range
VTX-210-350-012	Air Cooling	180	12	15	11.4~12.6	90- 264VAC (120 - 370VDC)
	20.5CFM	300	12	25		
VTX-210-350-015	Air Cooling	180	15	12	14.25~15.8	
	20.5CFM	325	15	21.67		
VTX-210-350-024	Air Cooling	199	24	8.33	22.8~25.2	
	20.5CFM	350	24	14.6		
VTX-210-350-027	Air Cooling	199	27	7.4	25.65~28.4	
	20.5CFM	350	27	13		
VTX-210-350-036	Air Cooling	200	36	5.56	34.2~37.8	
	20.5CFM	350	36	9.73		
VTX-210-350-048	Air Cooling	200	48	4.17	45.6~50.4	
	20.5CFM	350	48	7.3		
VTX-210-350-054	Air Cooling	199	54	3.7	51.3~56.5	
	20.5CFM	350	54	6.5		

Note: Other output voltages are available upon request.

Please contact Vigortronix for any enquiries. Products can be altered to suit custom requirements.

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Input Specification					
Item	Conditions	Min	Typical	Max	Unit
Input Voltage	AC Input	90	-	264	VAC
	DC Input	120	-	370	VDC
Input Frequency		47	-	63	Hz
Input Current	115VAC	-	-	4	A
	230VAC	-	-	2	
Inrush Curent	115VAC	-	50	-	
	230VAC	-	75	-	
Power Factor	230VAC Full Load	0.95	-	-	-
Leakage Current	240VAC / 50Hz	<0.1mA RMS Max			

Output Specification					
Item	Conditions	Min	Typical	Max	Unit
Output Voltage	Output	-	+/-1	-	%
Line Regulation	Full Load	-	+/-0.5	-	
Load Regulation	0% - 100% Load	-	+/-0.5	-	
Ripple / Noise	20MHz Bandwidth (P-P Value) 12V to 24V	-	-	150	mV
	27V to 48V	-	-	200	
	54V	-	-	250	
Stand by Power	230VAC	-	1.0	-	W
Temp. Coefficient		-	+/-0.03	-	%/°C
Short Circuit Protection		Hiccup, Continuous, Self-recovery			
Over Current Protection		>110% Load, Self-recovery			
Over Voltage Protection		Hiccup, Continuous, Self-recovery			
Over Temperature Protection		Recovery after Supply Power Reset and load removed			
Minimum Load		0	-	-	%
Hold-up Time	230VAC Input	-	14	-	mS

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General Specification					
Item	Conditions	Min	Typical	Max	Unit
Dielectric Strength	Input to Output (1Min, <10mA)	4000	-	-	VAC
	Input to Earth(1Min, <10mA)	2000	-	-	
Insulation Resistance	Input to Output (500VDC)	100	-	-	M.Ohm
Operating Temperture		-40	-	+70	°C
Storage Temperture		-40	-	+85	
Operating Humidity		20	-	90	%RH
Storage Humidity		-	-	95	
Switching Frequency		-	65	-	KHz
Altitude		-	-	5000	m
Safety Class		CLASS I (With PE) CLASS II (Without PE)			
MTBF		>300KHrs @ 25°C (MIL-HDBK-217F)			
Safety Approvals		IEC/EN/UL62368, IEC/EN61558, IEC/EN60335, EN60601-1			
Dimensions		127 x 76.2 x 25.4mm (5 x 3 Inch)			
Cooling Method		Free air convection / 20.5CFM			
Weight		295g			

EMC Specification		
Emissions	CE /RE	CISPR32 / EN55032 CLASS B EN55014-1
Immunity	ESD	IEC/EN 61000-4-2 CONTACT +/-8KV EN55014-2
	RS	IEC/EN 61000-4-3 10V/m EN55014-2
	EFT	IEC/EN 61000-4-4 +/-4KV
	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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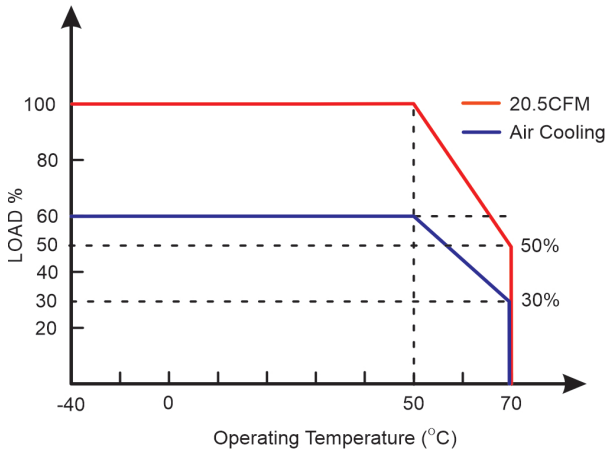
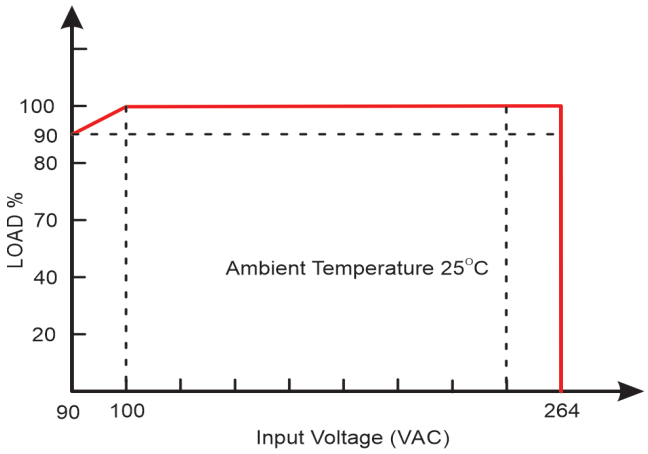
Derating Graphs

Temperature Derating Graph



Input Voltage Derating Graph



Efficiency Guide

Part Number	Output Voltage (VDC)	Efficiency Typical (%)	Capacitance Load Max
VTX-210-350-012	12	92	6000 uF
VTX-210-350-015	15	93	5000 uF
VTX-210-350-024	24	93	3200 uF
VTX-210-350-027	27	93	2600 uF
VTX-210-350-036	36	93	2000 uF
VTX-210-350-048	48	94	2000 uF
VTX-210-350-054	54	94	2000 uF

Note: Other output voltages are available upon request.

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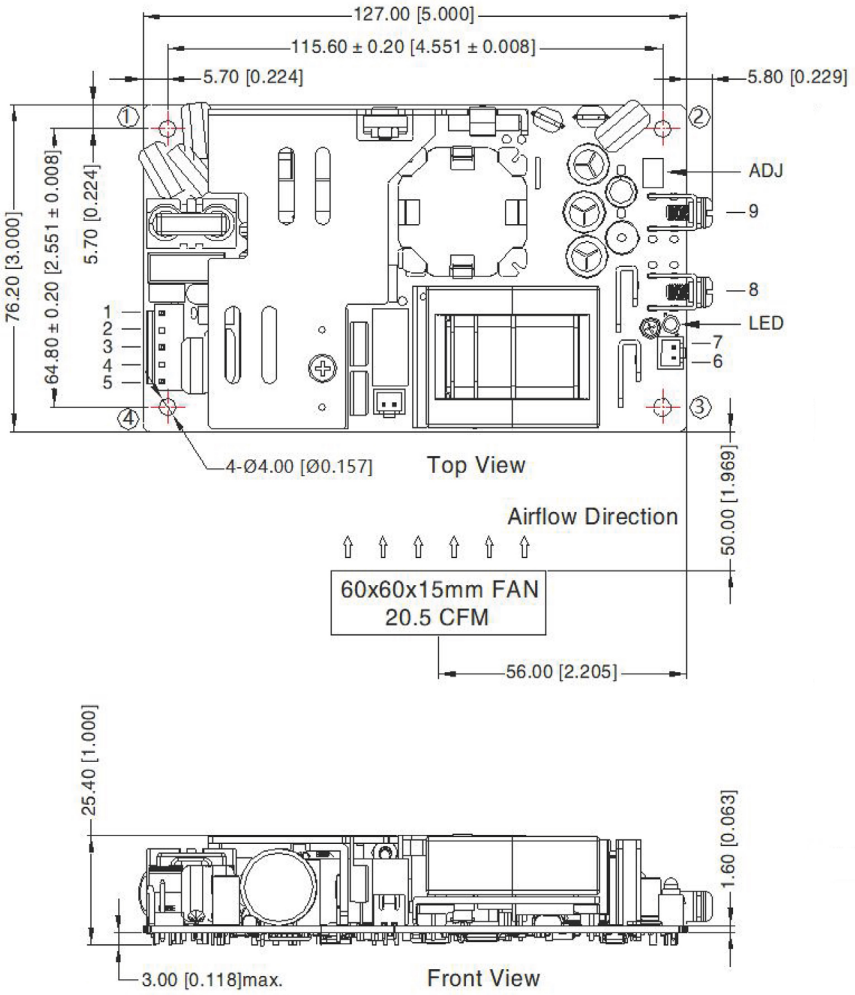
Dimensions



PIN Number	Function	Connector	Housing	Terminal
1	AC(N)/DC-	JST B5P-VH or Equivalent	JST VHR or Equivalent	JST SVH-21T-P1.1 or Equivalent
2	No Pin			
3	AC(L)/DC+			
4	NC			
5	Earth			
6	Fan -	KANGDAO 2.5XHS-2A or Equivalent	KANGDAO 2.5XHS-2Y or Equivalent	KANGDAO 2.5XH-TE or Equivalent
7	Fan +			
8	-Vo			
9	+Vo			

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