

Features:

- 550W High Power Density 127 x 76.2 x 40.5mm
- 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 - 48VDC
- Low Standby Power <1.0W
- Fully Isolated Pri - Sec >4000Vrms
- PG signal and remote sensing function
- Materials: UL94-V0
- IEC/EN/UL62368, EN61558, EN60601
- 3 Year Warranty



Description

VTX-210-550-0## 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 to IEC/EN61000-4 and CISPR32/EN55032 and meets UL/EN/IEC62368, EN60335 and EN60601 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-210-550-012	Air Cooling	320	12	26.7	11.4~12.6	90- 264VAC (120 - 370VDC)
	25CFM	499	12	41.6		
VTX-210-550-015	Air Cooling	319	15	21.3	14.25~15.8	
	25CFM	499	15	33.3		
VTX-210-550-024	Air Cooling	321	24	13.4	22.8~25.2	
	25CFM	549	24	22.9		
VTX-210-550-027	Air Cooling	321	27	11.9	25.65~28.4	
	25CFM	550	27	20.4		
VTX-210-550-036	Air Cooling	320	36	8.9	34.2~37.8	
	25CFM	550	36	15.3		
VTX-210-550-048	Air Cooling	321	48	6.7	45.6~50.4	
	25CFM	550	48	11.46		

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.

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	-	-	6.5	A
	230VAC	-	-	3.0	
Inrush Current	115VAC	-	50	-	
	230VAC	-	80	-	
Power Factor	230VAC Full Load	0.95	-	-	-
Leakage Current	264VAC / 50Hz	<0.1mA RMS Max			

Output Specification					
Item	Conditions	Min	Typical	Max	Unit
Output Voltage	Output	-	+/-1	+/-2	%
Line Regulation	Full Load	-	+/-0.5	-	
Load Regulation	0% - 100% Load	-	+/-1	-	
Ripple / Noise	20MHz Bandwidth (P-P Value)	-	-	200	mV
Stand by Power	230VAC	-	-	0.5	W
Temp. Coefficient		-	+/-0.03	-	%/°C
Short Circuit Protection		Hiccup, Continuous, Self-recovery			
Over Current Protection		>105% 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	-	10	-	mS
Fan Power		Output Power of 12V/0.5A			
PS_ON Input Signal	Power On / PS_ON High	2	-	5	V
	Power Off / PS_ON Low	0	-	0.5	
PG Signal	Power On PG signal goes high high, delay:	10	-	500	mS
	Power Off/ TTL Signal goes low, delay	1	-	-	
	High Level	2	-	6	V
	Low Level	0	-	0.6	

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.

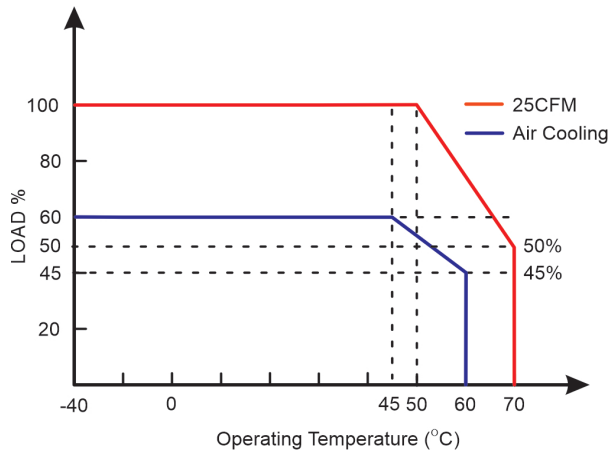
General Specification					
Item	Conditions	Min	Typical	Max	Unit
Dielectric Strength	Input to Output (1Min, <10mA)	4000	-	-	VAC
	Input to Earth(1Min, <10mA)	2000	-	-	
Insulation Resistance	Input to Output (500VDC)	100	-	-	M.Ohm
Isolation level	Input to Output	2x MOPP			
Operating Temperture		-40	-	+70	°C
Storage Temperature		-40	-	+85	
Operating Humidity		20	-	90	%RH
Storage Humidity		-	-	95	
Switching Frequency		-	-	-	KHz
Altitude		-	-	5000	m
Safety Class		CLASS I			
MTBF		>200KHrs @ 25°C (MIL-HDBK-217F)			
Safety Approvals		EN62368, IEC/EN61558, EN60335, ES60601-1			
Dimensions		127 x 76.2 x 40.5mm (5 x 3 Inch)			
Cooling Method		Free air convection (320W) / 25CFM			
Weight		490g			

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 +/-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

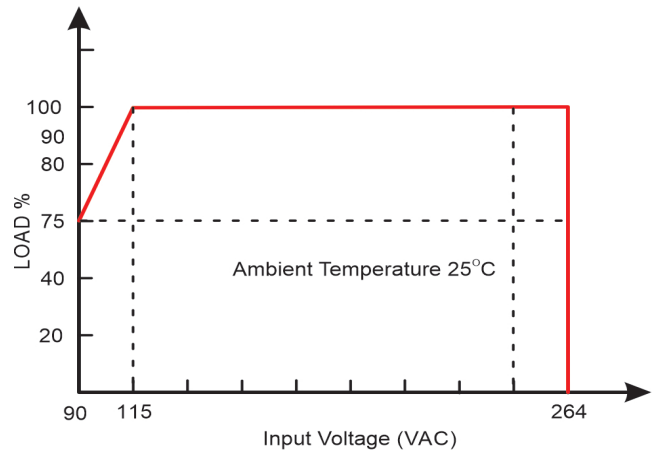
Please contact Vigortronix for any enquiries. Products can be altered to suit custom requirements.
The information contained in this document is subject to change without notice.

Derating Graphs

Temperature Derating Graph



Input Voltage Derating Graph

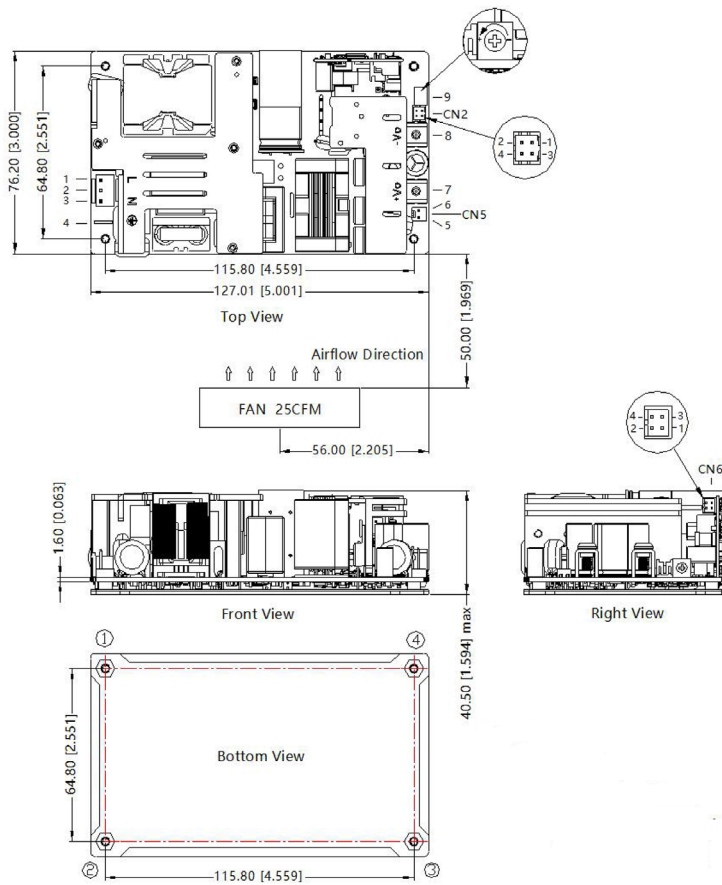


Efficiency Guide			
Part Number	Output Voltage (VDC)	Efficiency Typical (%)	Capacitance Load Max
VTX-210-550-012	12	91	6000 uF
VTX-210-550-015	15	92	6000 uF
VTX-210-550-024	24	93	6000 uF
VTX-210-550-027	27	93	4000 uF
VTX-210-550-036	36	94	3000 uF
VTX-210-550-048	48	94	2000 uF

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.

Dimensions

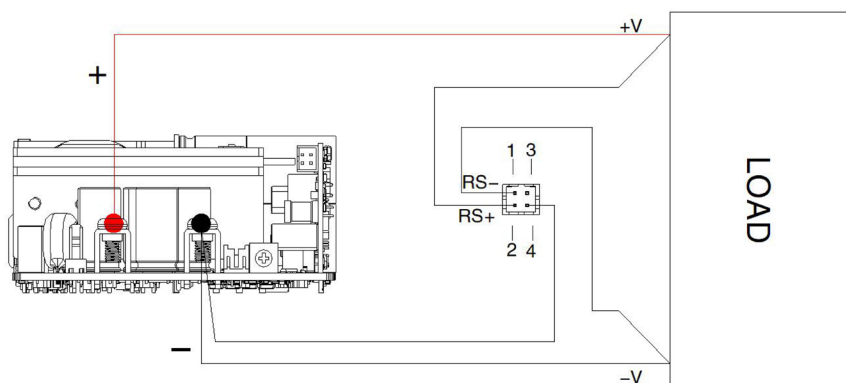


Pin-Out		Customer Connector
Pin	Mark	
1	AC(L)	Housing: JST VHR or equivalent Contact: JST SVH-21T-P1.1 or equivalent
2	NC	
3	AC(N)	
4	\oplus	CN5: Fan power output port Housing: TKP 2502 or equivalent Contact: TKP 8811 or equivalent
5	FAN+	
6	FAN-	
7	+Vo	
8	-Vo	
9	ADJ Output adjustable resistor	

Pin-Out		Customer Connector
Pin	Mark	
1	+5V	CN6: PS_ON signal input port(3-4) 5VDC Standby output(1-2) Housing: JST PHD-2*2Y or equivalent Contact: JST PHD-TE or equivalent
2	GND	
3	PS-ON	
4	GND	

Pin-Out		Customer Connector
Pin	Mark	
1	RS-	CN2: Remote sensing signal input port(1-2) PG signal(3-4) Housing: JST PHD-2*2Y or equivalent Contact: JST PHD-TE or equivalent
2	RS+	
3	GND	
4	PG	

Remote sensing function wiring diagram



Note

1. RS- and RS+ cannot be shorted or reversed. otherwise the power module will be damaged.
2. The remote compensation function can compensate the voltage drop on the output cable, which includes the sum of the cable drop connected to the output positive terminal and the output negative terminal.
3. If you need to use remote compensation function, the signal pin needs to be connected with the load and with a twisted pair otherwise the power module will be damaged

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.