



Features:

- 3W Small Mini Size - PCB Mount
- Single Output - Regulated
- Input: 85 - 264VAC , 47 - 63Hz (100 - 370VDC)
- Output Range: 3.3V - 48VDC
- Low Standby Power <0.3W
- Low Ripple & Noise
- Fully Isolated Pri - Sec >3600Vrms
- Insulation: Class II
- Materials: UL94-V0
- UL File No: E472059
- Safety: EN61558, EN62368, CE



Description

VTX-214-003-2## is a small compact AC-DC power converter. It features a wide AC input 85V to 264Vac and a DC input voltage 100 to 370VDC. The converters have been designed with low power consumption, high efficiency, high reliability, reinforced isolation. The converters are widely used in industrial, power, home appliances, instrumentation, communication and civil applications. For extremely harsh EMC environment, we recommend using the application circuit show in this Datasheet. or 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-214-003-203	2.3	3.3	700	50°C	>65%	85 - 264VAC (100 - 370VDC)
VTX-214-003-205	3	5	600			
VTX-214-003-206	3	6	500			
VTX-214-003-207	3	7	714			
VTX-214-003-208	3	8	625			
VTX-214-003-209	3	9	333			
VTX-214-003-210	3	10	300			
VTX-214-003-212	3	12	250			
VTX-214-003-215	3	15	200			
VTX-214-003-218	3	18	166			
VTX-214-003-224	3	24	125			
VTX-214-003-248	3	48	63			

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	-	-	0.08	A
	230VAC	-	-	0.045	
Inrush Curent	115VAC	-	10	-	
	230VAC	-	20	-	
Leakage Current	230VAC / 50Hz	0.1mA RMS Max			
External Input Fuse		1Amp Slow Blow Fuse			

Output Specification					
Item	Conditions	Min	Typical	Max	Unit
Output Voltage	Output	-	+/-5	-	%
Line Regulation	Full Load	-	+/-0.5	-	
Load Regulation	0% - 100% Load	-	+/-1	-	
Ripple / Noise	<5%Vout Max (Vp~p) (A capacitor on the output can reduce the Ripple further)	-	-	5	
Stand by Power	230VAC	-	0.2	-	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	-	10	-	mS
	230VAC Input	-	60	-	

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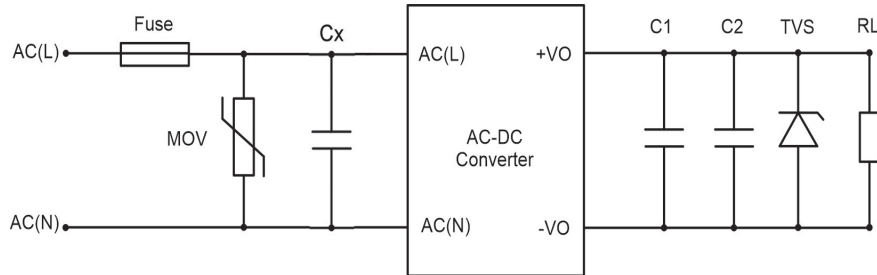
General Specification					
Item	Conditions	Min	Typical	Max	Unit
Dielectric Strength	Input to Output (1Min, 5mA)	3600	-	-	VAC
Insulation Resistance	Input to Output (500VDC)	100			M.Ohm
Operating Temperture		-25	-	+50	°C
Storage Temperture		-25	-	+105	
Storage Humidity		-	-	+95	%RH
Soldering Temperature	Wave Soldering	260 +/-5°C			
	Manual Soldering	360 +/-5°C			
Switching Frequency		-	100	-	KHz
Altitude		-	-	5000	m
Safety Class		CLASS II			
MTBF		>300KHrs @ 25°C (MIL-HDBK-217F)			
Power Derating	-40°C to -25°C,	1.0%/°C			
	-	-			
Safety Approvals		IEC62368, EN62368, UL62368			
Weight		25g			

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

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Application Schematic for EMC

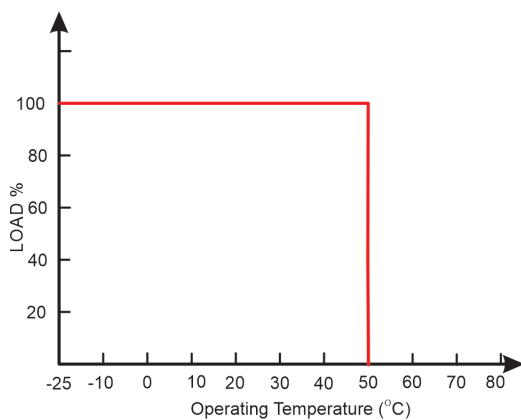
Typical Application EMC



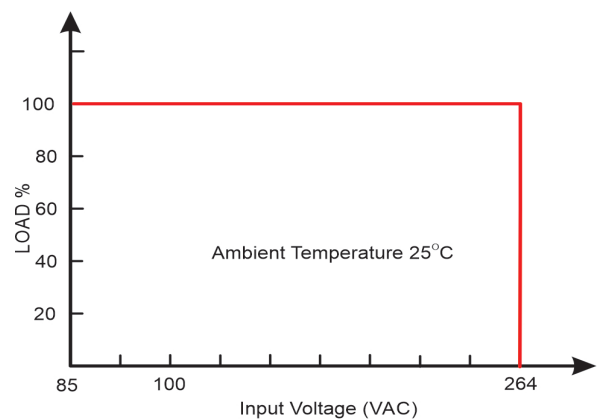
Part Number	Cx	C1	C2	TVS	Fuse	MOV
VTX-214-003-2xx	0.1uF /275V	1uF /50V	47uF ~ 470uF	SMBJ70A - SMBJ30A	1Amp/270V Slow Blow	14D431K
Note: For additional filtering requirements, contact technical support						

Derating Graphs

Temperature Derating Graph



Input Voltage Derating Graph

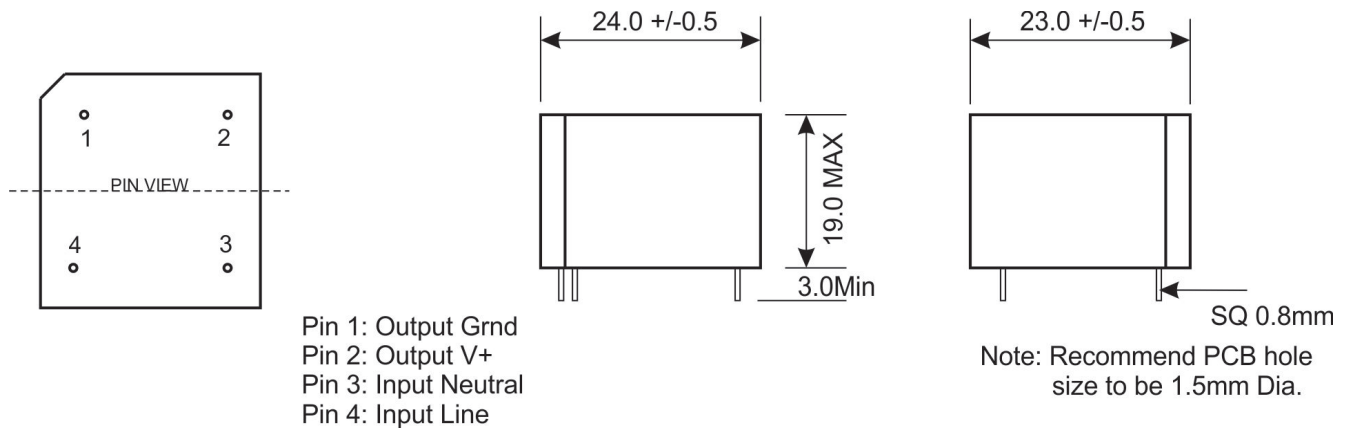


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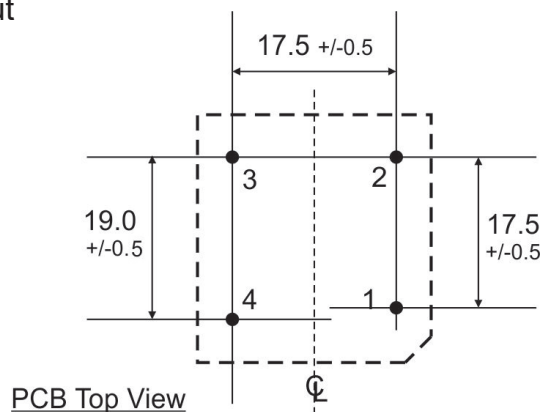
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Dimensions



PCB Layout



Recommended PCB
Hole size: 1.5mm Dia.

PIN Number	Function
1	-Vo
2	+Vo
3	AC(N) NC
4	AC(L)