



### Features:

- 5W Small Compact Size
- Wide AC & DC Input 85V to 265VAC
- Temperature Range -40°C to +70°C
- Output Range: 3.3V - 48VDC
- Low Standby Power <0.15W
- Fully Isolated Pri - Sec >4200Vrms
- Insulation: Class II
- Materials: UL94-V0
- IEC/EN/UL62368, EN61558, EN60335
- UL File No. E472059



### Description

VTX-214-005-1## is a PCB mount AC-DC converter. It features a wide AC input 85V to 265Vac and a DC input voltage 85 to 370VDC. The converters have been designed with low power consumption, high efficiency, high reliability, reinforced isolation. It offers good EMC performance compliant to IEC/EN61000-3 and CISPR32/EN55032 and meets IEC/EN/UL62368, EN61558 standards. 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-214-005-103	4.2	3.3	1272	50°C (70°C @ 25%)	>70%	85 - 265VAC (85 - 370VDC)
VTX-214-005-105	5	5	1000			
VTX-214-005-106	5	6	833			
VTX-214-005-107	5	7.5	666			
VTX-214-005-108	5	8	625			
VTX-214-005-109	5	9	555			
VTX-214-005-110	5	10	500			
VTX-214-005-112	5	12	416			
VTX-214-005-115	5	15	333			
VTX-214-005-118	5	18	277			
VTX-214-005-124	5	24	208			
VTX-214-005-148	5	48	104			

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Input Specification					
Item	Conditions	Min	Typical	Max	Unit
Input Voltage	AC Input	85	-	265	VAC
	DC Input	85	-	370	VDC
Input Frequency		47	-	63	Hz
Input Current	115VAC	-	-	0.2	A
	230VAC	-	-	0.1	
Inrush Current	115VAC	-	10	-	
	230VAC	-	20	-	
Leakage Current	264VAC / 50Hz	0.3mA RMS Max			
External Input Fuse		2Amp Slow Blow Fuse			

Output Specification					
Item	Conditions	Min	Typical	Max	Unit
Output Voltage	3.3V Output	-	+/-7	-	%
	Other Outputs	-	+/-5	-	
Line Regulation	Full Load	-	+/-2	-	
Load Regulation	0% - 100% Load	-	+/-3	-	
Ripple / Noise	20MHz Bandwidth (Peak to Peak Value)	-	50	250	mV
Stand by Power	230VAC	-	0.15	-	W
Temp. Coefficient		-	+/-0.04	-	%/°C
Short Circuit Protection		Hiccup, Continuous, Self-recovery			
Over Current Protection		>200% Load Self-recovery			
Over Voltage Protection		Hiccup, Continuous, Self-recovery			
Minimum Load		0	-	-	%
Hold-up Time	115VAC Input	-	12	-	mS
	230VAC Input	-	63	-	

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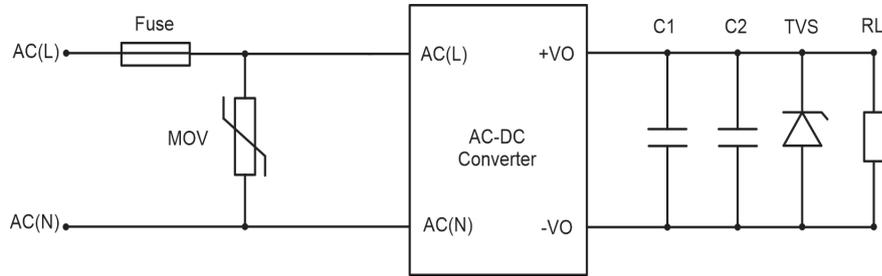
General Specification					
Item	Conditions	Min	Typical	Max	Unit
<b>Dielectric Strength</b>	Input to Output (1Min, 5mA)	4000	-	-	VAC
<b>Operating Temperature</b>		-40	-	+70	°C
<b>Storage Temperature</b>		-40	-	+105	
<b>Storage Humidity</b>		5	-	+95	%RH
<b>Soldering Temperature</b>	Wave Soldering	260 +/-5°C			
	Manual Soldering	360 +/-5°C			
<b>Switching Frequency</b>		-	65	-	KHz
<b>Altitude</b>		-	-	5000	m
<b>Safety Class</b>		CLASS II			
<b>MTBF</b>		>300,000Hrs @ 25°C (MIL-HDBK-217F)			
<b>Designed Life</b>	25°C, 230VAC 100% Load	>150x10 <sup>3</sup> h			
	70°C, 230VAC 100% Load	>27x10 <sup>3</sup> h			
<b>Safety Approvals</b>		IEC/EN/UL62368, EN61558-2-6			
<b>Cooling Method</b>		Free Air Convection			
<b>Weight</b>		30g			

EMC Specification		
<b>Emissions</b>	CE /RE	CISPR32 / EN55032 CLASS B EN55014-1
<b>Immunity</b>	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
	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, EN55014-1

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## Application Schematic for EMC

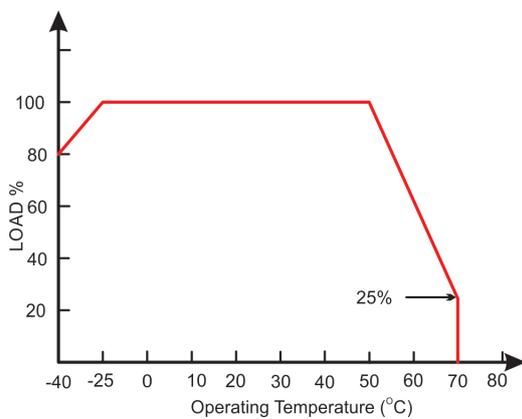
### Typical Application EMC



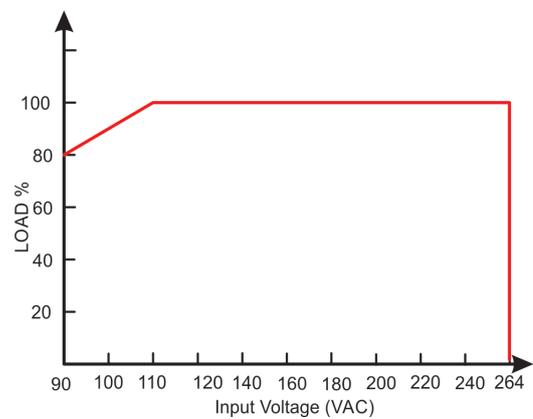
Part Number	C1 (uF)	C2 (uF)	TVS	Fuse	MOV
VTX-214-005-1##	0.1	150	SMBJ70A	2Amp/250V Slow Blow	14D 561K
Note: For additional filtering requirements, contact technical support					

## Derating Graphs

### Temperature Derating Graph



### Input Voltage Derating Graph

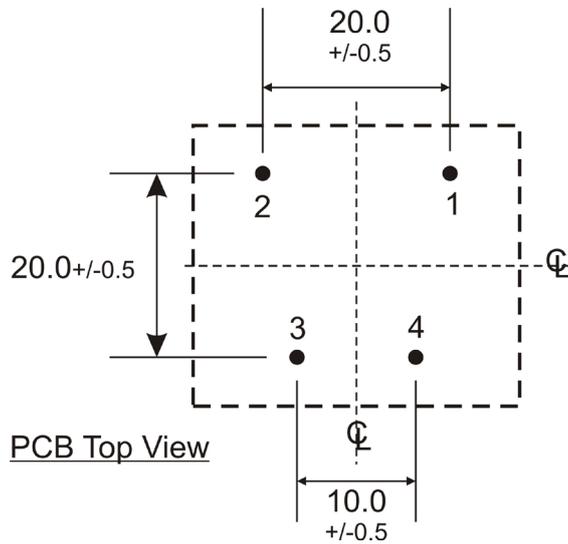
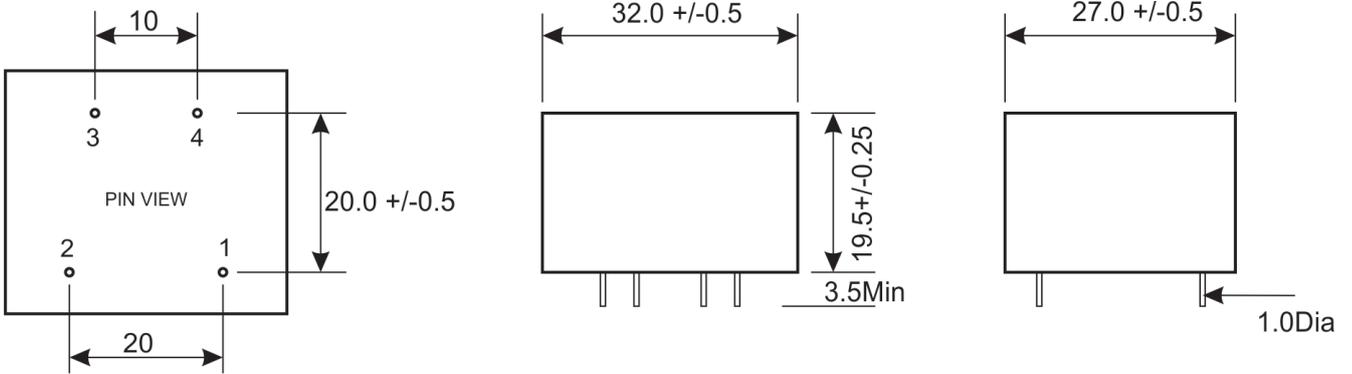


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## Dimensions



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

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