

AVS50 Series, DC-DC Converters

50 Watt Single Output



- Features**
- 3.10" x 2.60" x 0.6" package
 - Single output 96V/520mA
 - Pinout similar to VI series of Vicor
 - High efficiency up to 89%
 - No heat sink requirement
 - Operating case temperature: -25°C-100°C
 - 2:1 wide input voltage range
 - 1000V isolation
 - Meets safety and FCC Class A requirements

Common Specifications

Input	Min	Nom	Max	Units	Notes
Input Voltage	36	48	72	Vdc	100V max < 100ms
Isolation				Vdc	
Input-Case	1000			Vdc	
Output-Case	1000			Vdc	
Input-Output	1500			Vdc	
Control Voltage				Vdc	
On		Open		Vdc	The public reference pin: -Vin
Off	0		4.6	Vdc	
Control Current			0.6	mA	

Output	Min	Nom	Max	Units	Notes
Power		50		W	
Setpoint Accuracy	94	96	98	V	
Line Regulation				%Vo	
Load Regulation				± 0.2	
Load Regulation				± 0.5	
Dynamic Response				mV	
50-75% load		250		mV	
50-25% load		200		µs	
50-25% load		250		mV	
50-25% load		200		µs	
Temperature Regulation				± 0.02	%Vo/°C

General	Value	Units	Notes
MTBF	2100	kHrs	Belcore TR332, 25°C
Case Temperature	-25	100	°C
Storage Temperature	-40	105	°C
Switching Frequency	210	kHz	
Pin Soldering Temperature		260	°C Wave solder < 10s
Hand Soldering Time		5	s Iron temperature 425°C
Weight	70	grams	

Electrical Specifications

	Nominal Input Voltage (V)	Output Voltage (V)	Output Current (A)	Switching Frequency (kHz) typ	Ripple (mV rms) typ	Noise (mV pp) typ	Efficiency (%) typ
AVS50-48S96	48	96	0.52	2	75	150	89

Test condition: Input capacitor-47µF/100V, Output capacitor-220µF/160V
 Note: A capacitor no less than 47µF/160V must be connected to the output, the recommended value is 220µF/160V.

