

# 12 Watt, EVV Series, DC-DC Converter (Single & Dual Output)

**ALL PSU LTD**  
Electronic Power Solutions

- 4:1 Input Range
- 24 Pin DIL Package
- 1600V Isolation
- Continuous Short Circuit Protection
- Full SMD Technology
- High Efficiency up to 90%
- -40 to +105 °C Operational Temperature Range



## Specification (typical values shown)

Input Ranges.....	9~36 Volts, 18~75 Volts
Outputs.....	Single or dual outputs available (see table below)
Line Regulation.....	+/-0.2%
Load Regulation.....	+/-0.5% for Single Outputs +/-1% for Dual Outputs
Efficiency.....	See table for each model
Voltage Accuracy.....	+/-1.2%
Short Circuit Protection.....	Continuous, auto-recovery
Isolation Voltage.....	Input to Output: 1600 VDC Input & Output to case: 1600 VDC
Operating Temperature.....	-40 to +60°C @ full load, derates to zero at 105°C.
Storage Temperature.....	-40 to +125 °C
Case Material.....	Copper with Nickel plate
Switching Frequency.....	270 kHz typical
Ripple & Noise.....	85 mV pk-pk (20 MHz bandwidth)
Radiated Emissions.....	EN55022 Class A
Conducted Emissions.....	EN55022 Class A
Safety.....	IEC/EN60950-1 (designed to meet)
MTBF.....	>1 Mhrs (MIL-HDBK-217F) calculated

## Models and Ratings

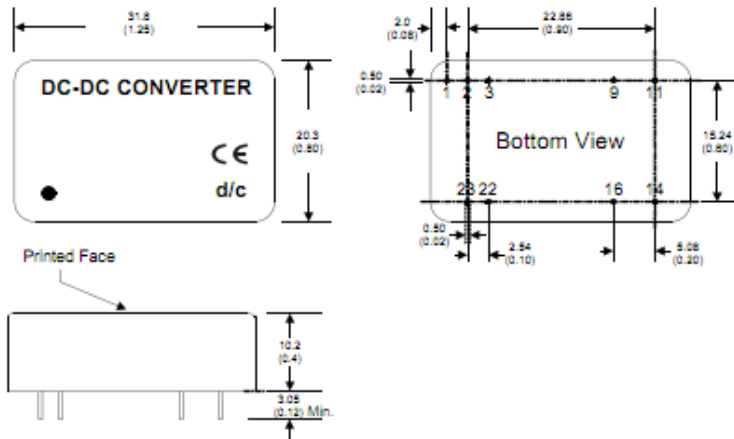
Model (9-36V input)	Model (18-75V input)	Output (VDC)	Output Current	Efficiency
<b>Single Output Units</b>				
EVV12-24S3R3	EVV12-48S3R3	3.3 V	3500 mA	87%
EVV12-24S5R1	EVV12-48S5R1	5.1 V	2400 mA	89%
EVV12-24S12	EVV12-48S12	12.0 V	1000 mA	90%
EVV12-24S15	EVV12-48S15	15.0 V	800 mA	90%
<b>Dual Output Units</b>				
EVV12-24D5	EVV12-48D5	+/-5 V	+/-1200 mA	87%
EVV12-24D12	EVV12-48D12	+/-12.0 V	+/-500 mA	90%
EVV12-24D15	EVV12-48D15	+/-15.0 V	+/-400 mA	90%

For mechanical drawing and pinout, see next page

Specifications may change without notice, E&OE. ALL PSU Terms & Conditions apply.

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## Mechanical Details and Pin-Out



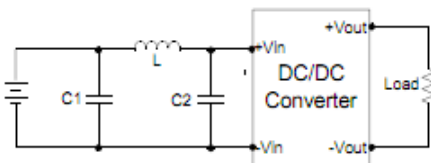
Pin	Function	Function
	Single O/P	Dual O/P
1	Remote on/off	Remote on/off
2	-V in	-V in
3	-V in	-V in
9	No Pin	Common
11	Not Connected	-V out
14	+V Out	+ V Out
16	-V Out	Common
22	+V Input	+V Input
23	+V Input	+V Input

### Notes:

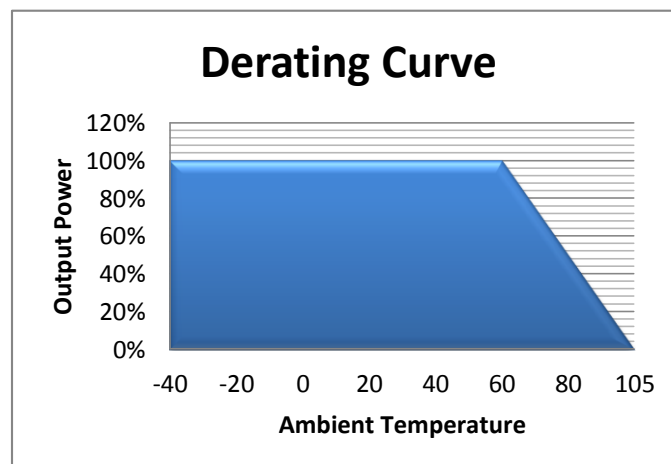
The input filter components (C1, C2 & L) are used to help meet conducted emission requirements and should be mounted as close as possible to the module and lead lengths minimised.

An external filter capacitor is required if the module has to meet EN61000-4-4, EN61000-4-5 EN61000-4-6 : Suggested filter capacitor: Nippon chemi-con KY series 330 uF/100 V

### Input Filter



Model	C1	L	C2
EVV12-24xxxxx	2.2uF/100V	12 uH	2.2uF/100V
EVV12-48xxxxx	2.2uF/100V	12 uH	2.2uF/100V



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