

DC/DC Product Specification

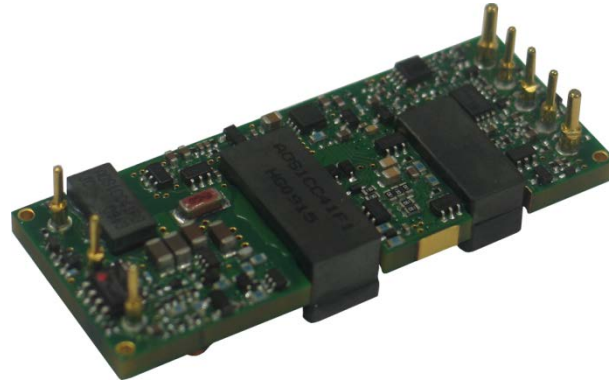
Embedded Power for
Business-Critical Continuity

- 1/8th brick fully regulated DCDC converter.

AVO120-48S12

1/8th brick

Input voltage: 36-75V
Single Output: 12V
Rated power: 120W



Rev 09/07/2012
AVO120 series
Page 1 of 2

Special Features

- 2:1 Wide input range
- Optimised for High density, small space applications
- Low ripple and noise
- Fixed switching frequency
- High efficiency
- High capacitive load capability
- Basic insulation system
- Pre-bias start-up capability
- Through hole or SMT termination
- Open frame structure with Base-plate option

Safety

- UL, cUL: UL60950
- TUV/CE: IEC/EN60950

Product Description

The AVO120-48S12 is the latest high efficiency 1/8th brick series. It operates from a wide input range of 36Vdc to 75Vdc and provides a regulated output voltage of 12Vdc. The output is rated to a power level up to 120Watts. Its protection features include Non-latching OCP, OTP and OVP. It also has an enable pin on the primary side of the converter. The unit is an open frame design with base-plate option that is optimised for either contact-cooled applications or forced airflow applications.

Specifications

Feature	
Output power:	120W
Super high efficiency:	93%(12V)
Functions:	Remote control, trim function, Sense; Input LVP, output OVP and OCP, OTP Open frame structure with base plate option.
Insulation:	Basic Insulation
Safety	
UL:	UL60950
TUV/CE:	IEC/EN60950
Input specification	
Input range	36Vdc to 75Vdc
Input Surge	100V for 100mSec
Control specification	
Enable	TTL compatible Positive or Negative enable
Output specification	
Output Voltage	12Vdc.
Trim range	+10% to -20% Vout
Output Current	10A
Ripple and noise	50mV pk-pk
Regulation	Load regulation =10mV, Line regulation = 5mV
Switching Frequency	Fixed switching frequency 165Khz
Isolation Voltage	2000Vdc
Transient response.	100mV deviation 150uS recovery (25%-50% ~ 25% Iout)

Environmental Specification

Storage Temperature	-55 to +125 deg C
Ambient operating temp	-40 to +85 deg C
MTBF at 25degC	1.5 Million hours
OTP	118 deg C

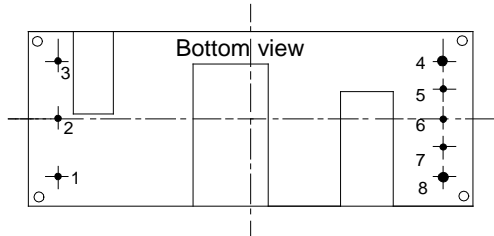
DC/DC Product Specification

Embedded Power for Business-Critical Continuity

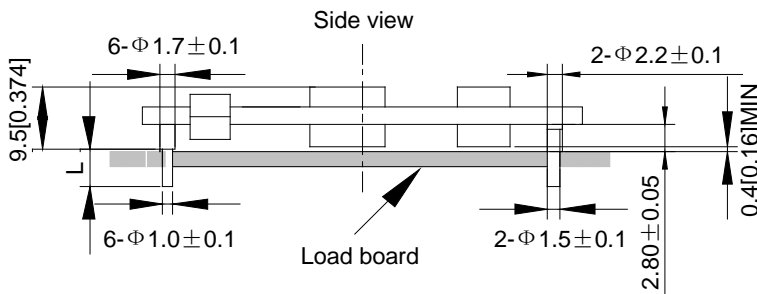
- 1/8th brick fully regulated DCDC converter.

Rev 09/07/2012
AVO120 series
Page 2 of 2

Mechanical



Pin #	Function
1	+V in
2	Enable
3	-V in
4	-V out
5	- Sense
6	Trim
7	+Sense
8	+V out



Unit: mm[inch] Bottom view: pin on upside

Tolerance: X.Xmm ± 0.5mm [X.X in. ± 0.02in.]

X.XXmm ± 0.25mm [X.XX in. ± 0.01in.]

Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 (760) 930 4600
Facsimile: +1 (760) 930 0698

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

Asia (HK)

14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

For global contact, visit:

www.powerconversion.com
techsupport.embeddedpower@emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Ordering information

Input voltage	Output voltage	Output current	Efficiency	Part number
48V	12V	10A	93%	AVO120-48S12-6L
48V	12V	10A	93%	AVO120-48S12B-6L
48V	12V	10A	93%	AVO120-48S12P-6L
48V	12V	10A	93%	AVO120-48S12PB-6L
48V	12V	10A	93%	AVO120-48S12-4LE

Notes

- Standard converter is Negative enable
- '-6' = 3.8mm pin length.
- '-P' = Positive remote control ,
- '-L' = RoHS-6 compliant.
- '-B' = Base-plate

Notes,

- 1\ 20Mhz bandwidth. External 10uF tantalum capacitor placed across +Vout and -Vout; 33 uF e-cap or equivalent placed across +Vin and -Vin.
- 2\ Efficiency measurements taken at full load and nominal line and Tamb = 25degC
- 3\ All specifications taken at nominal line, full load and Tamb = 25degC unless otherwise noted
- 4\ Mechanical dimensions are for reference only. Dimensions are in MM. Mechanical tolerance = +/- 0.5mm
- 5\ Technical reference notes should be consulted for detailed information when available.
- 6\ All specifications subject to change without notice
- 7\ Warranty 2 years
- 8\ The through-hole terminated modules are intended for wave-soldering process – special request for other manufacturing processes to be made to Emerson

Emerson Network Power.
The global leader in enabling business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2008 Emerson Electric Co.

