

A Series

10 WATTS Single/Dual Output DC/DC CONVERTERS

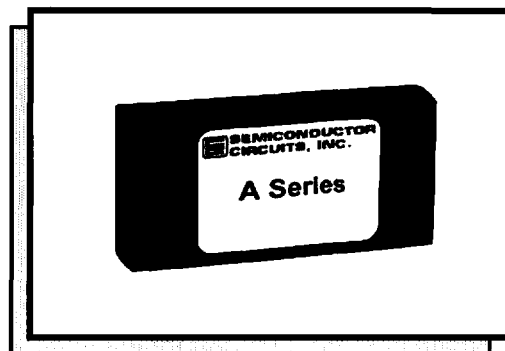


**SEMICONDUCTOR
CIRCUITS, INC.**

49 RANGE RD., WINDHAM, N.H. 03087

SUBSIDIARY OF ASTEC AMERICA, INC.

The A series of DC to DC converters feature 9-36, 18-75 and a telecom input range of 36-75Vdc. Design specifically to meet the demands of today's telecommunication systems, the A series features input and output filtering, six sided shielding and high isolation.



Special Features

- 10W of output power
- 4:1 Input range
- Special Telecom 2:1 input range (-48 models) featuring thermal shutdown and undervoltage lockout to meet ETS 300 132-2 Paragraph 4.6
- 1.0"x 2.0"x 0.4" Case size
- 5 year warranty

Safety

UL1950 Recognition Pending

Environmental

Operating temperature
Ambient -40°C to +80°C
(Full load, no derating)

Baseplate 105°C max

Storage Temperature
-55°C to +125°C

Humidity 5% to 95%
(Non Condensing)

Specifications

Input

Input Range 9-36 Vdc
18-75 Vdc
36-75 Vdc

Input Capacitance

-46/-48 models 2.4µF (typ)
-18 models 5.2µF (typ)

Input surge voltage 100V for 100mS

No load input power 350mW (typ)

Input reflected ripple② <1mA
(P to P)

Efficiency 83% (typ)

Control

Enable Consult factory

General

I/O isolation 1500Vdc

Isolation resistance 1 x 10⁹
(Ohms)

Isolation Capacitance 250pF(max)

Switching Frequency 375kHz

EMI RFI shielding Six sided

Output

Voltage Tolerance
Singles ± 1%
Duals ± 2%

Line Regulation ±0.50%

Load Regulation

Single Output ± 1.0%
(10% to 100% load)

Dual Output ± 1.0%
(10% to 100% load balanced)

Ripple and noise 35mV (typ)
(mV P-P)①

Short Circuit Protection Continuous
Power cycle

Overvoltage Protection Zener Clamp

Transient Response 500 µsec max
(50% step load change to within 1%V_o)

Temperature Coefficient
(case temperature) ± 0.02%/°C

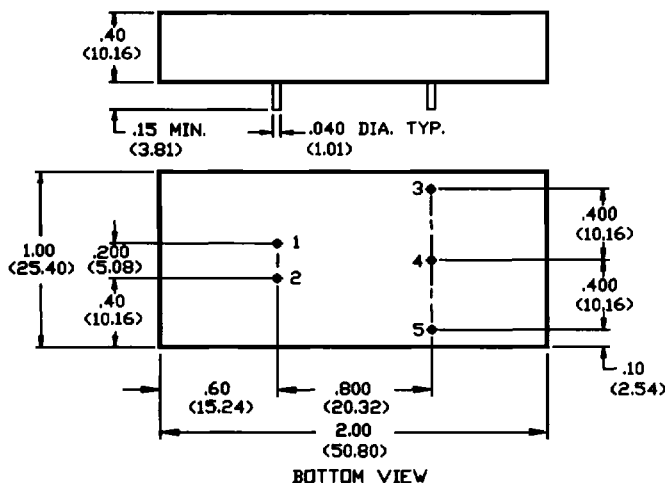
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49 Range Rd. Windham, NH 03087

Call: 1 - 888 - GET -DCDC
internet: www.dcdc.com

ORDERING INFORMATION (Consult Factory for other voltages)

Input Voltage	Output 1 Voltage	Output 2 Voltage	Maximum Output Power	Model Number
9-36VDC	5V @ 2A		10 W	A11-200-18
9-36VDC	12V @ .830A		10 W	A12-083-18
9-36VDC	15V @ .670A		10 W	A13-067-18
9-36VDC	5V @ .750A	-5V @ .750A	7.5 W	A21-150-18
9-36VDC	12V @ .375A	-12V @ .375A	9.0 W	A22-075-18
9-36VDC	15V @ .300A	-15V @ .300A	9.0 W	A23-060-18
18-75VDC	5V @ 2A		10 W	A11-200-46
18-75VDC	12V @ .830A		10 W	A12-083-46
18-75VDC	15V @ .670A		10 W	A13-067-46
18-75VDC	5V @ .750A	-5V @ .750A	7.5 W	A21-150-46
18-75VDC	12V @ .375A	-12V @ .375A	9.0 W	A22-075-46
18-75VDC	15V @ .300A	-15V @ .300A	9.0 W	A23-060-46
36-75VDC	5V @ 2A		10 W	A11-200-48
36-75VDC	12V @ .830A		10 W	A12-083-48
36-75VDC	15V @ .670A		10 W	A13-067-48
36-75VDC	5V @ .750A	-5V @ .750A	7.5 W	A21-150-48
36-75VDC	12V @ .375A	-12V @ .375A	9.0 W	A22-075-48
36-75VDC	15V @ .300A	-15V @ .300A	9.0 W	A23-060-48

**Pin Assignment**Single Output

1. +Vin
2. -Vin
3. Output 1
4. No pin
5. Comm

Dual Output

1. +Vin
2. -Vin
3. Output 1
4. Comm
5. Output 2

Notes:

ALL DIMENSIONS ARE IN INCHES (mm)

1. 20 MHz bandwidth. An external 0.1uf ceramic capacitor is recommended to be placed from +V out to -V out
2. Requires a 1.0uf ceramic capacitor connected between +V in and -V in to meet FCC class A and ETS300-386-1 requirements for conducted noise. Consult factory for filter recommendations to meet FCC class B, VDE or EIC specifications
3. All specifications are typical at nominal line, full load, and 25 ° C unless otherwise noted.
4. All specifications subject to change without notice. Mechanical drawings are for reference only.

Mechanical Specification

Case Material Metal (six sides)
Weight 1.40 Oz/40Grms

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