



## DC 1000 SERIES 100 WATT DC-DC CONVERTERS

### FEATURES

- Current Mode Control
- 200 KHz Switching Frequency
- Remote Control Shutoff
- Adjustable Output Voltage
- Input Surge Protection
- Remote Sense
- Over 100,000 Hrs MTBF per MIL STD 217D at 40°C G.B. Environment

### APPLICATIONS

- Distributed Power Architecture
- Telecommunications
- Instrumentation
- Computers



Model	Input Range (VDC)	Output Voltages (VDC)	Output Current (AMPS)
DC1001	18-36	5	20.0
DC1002	18-36	12	8.3
DC1003	18-36	15	6.7
DC1004	18-36	5,12,12	10,2,2
DC1005	18-36	5,15,15	10,2,2*
DC1006	36-72	5	20.0
DC1007	36-72	12	8.3
DC1008	36-72	15	6.7
DC1009	36-72	5,12,12	10,2,2
DC1010	36-72	5,15,15	10,2,2*

\*Power limited to 100 watts.

CONTACT OUR SALES APPLICATION DEPARTMENT  
WITH YOUR CUSTOM DESIGNS AND SPECIFICATIONS.  
AT INTRONICS WE ARE PREPARED TO  
RESPOND PROMPTLY TO YOUR NEEDS.

### GENERAL SPECIFICATIONS

Voltage Accuracy	± 1% Main, ± 3% Auxiliary
Voltage Adjustments	5% (Main Only)
Ripple	<1%
Noise (<20 MHz)	<2%
Temperature Coefficient	.02%/°C
Transient Response	1mS 0.5% V Excursion
	60% Load ± 40%
Regulation Line/Load	± 1% Main, ± 2% Auxiliary
Isolation (Input-to-Output)	500Vdc
Isolation (Terminal-To-Case)	500Vdc
Switching Frequency	200 KHz Typical Fixed
Efficiency	82% Typical
Remote Control On	5.5Vdc or open circuit
Off	0.5Vdc

### FAULT PROTECTION

Reverse Polarity Protection	Yes (External fuse required)
Overvoltage Main	Yes
Short Circuit	Indefinite, Auto Recovery
Thermal Shutdown	Optional†

### ENVIRONMENTAL

Operating Temperature	-20°C to 70°C
Storage Temperature	-40°C to 105°C

### OPTIONS AVAILABLE

Current sharing and external synchronization	-1
Thermal shutdown	-2
Terminal block	-3
Inrush current limit	-4

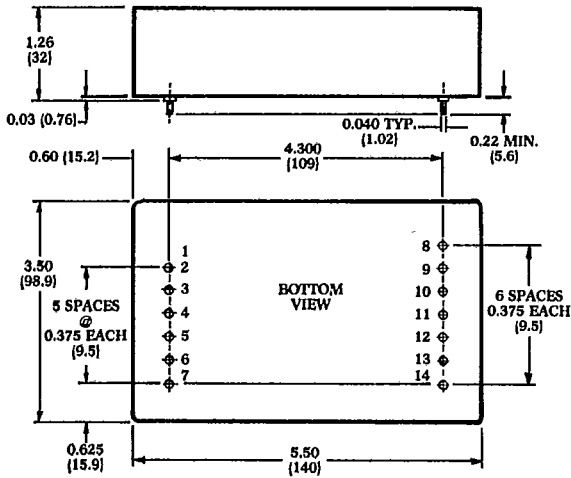
### SUFFIX

### ORDERING INFORMATION FOR OPTIONS

Choose option or options. Add suffix to model number. i.e. Option -1 DC1002-1. If more than one option is chosen then add suffix as follows:  
DC1001-1/3/4 adding a / after each option.

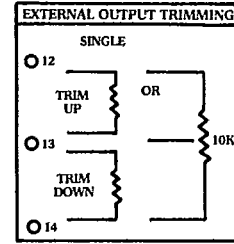
MECHANICAL OUTLINES AND CONNECTIONS

PC MOUNTING



DC1000 Series

Connections		
PIN	SINGLE	TRIPLE
<b>INPUTS</b>		
1	No Pin	*
2	- Input	*
3	- Input	*
4	+ Input	*
5	+ Input	*
6	Control	*
7	Case	*
<b>OUTPUTS</b>		
8	- Output	- Sense 1
9	- Output	- Output 1
10	+ Output	+ Output 1
11	+ Output	+ Sense 1
12	- Sense	- Output 2
13	Trim	Com 2 & 3
14	+ Sense	+ Output 3



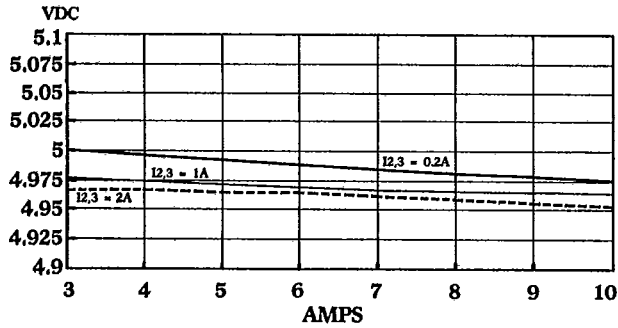
\*Connection is same as single column

Tolerance .xx = ±0.04

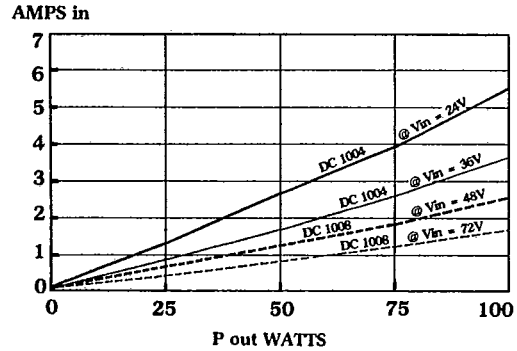
.xxx = ±0.005

PERFORMANCE CURVES

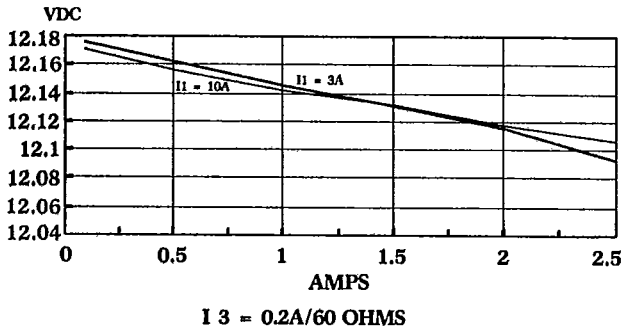
DC 1004  
 OUTPUT #1 REGULATION  
 I<sub>2,3</sub> = OUTPUT CURRENT ON CHANNEL 2 & 3



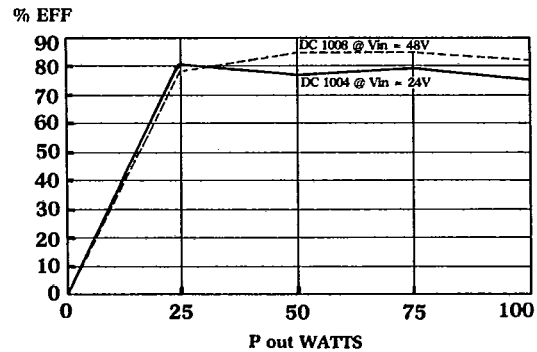
DC 1004 & 1008  
 P out VS I in



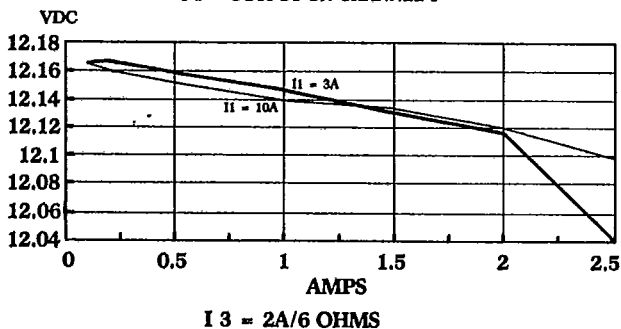
DC 1004  
 OUTPUT #2 REGULATION  
 I<sub>1</sub> = OUTPUT CURRENT ON CHANNEL 1



DC 1004 & 1008  
 P out VS I % EFF



DC 1004  
 OUTPUT #2 REGULATION  
 I<sub>1</sub> = OUTPUT ON CHANNEL 1



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