



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

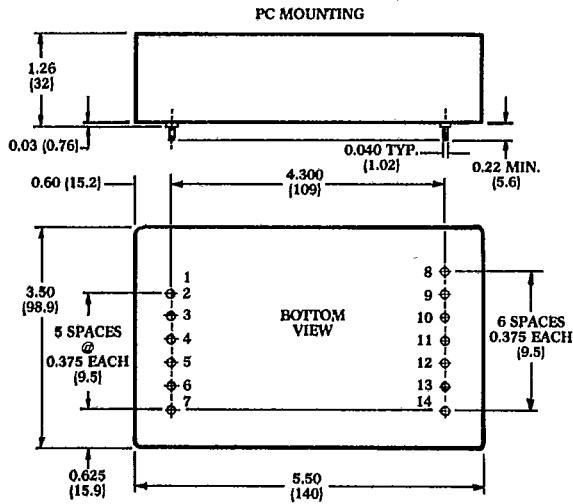
Current sharing and external synchronization	-1
Thermal shutdown	-2
Terminal block	-3
Inrush current limit	-4

SUFFIX

ORDERING INFORMATION FOR OPTIONS

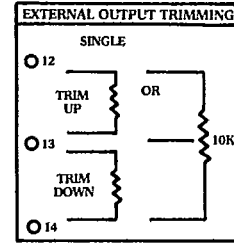
Choose option or options. Add suffix to model number. i.e. Option -1 DC1002-1. If more than one option is chosen then add suffix as follows:
DC1001-1/3/4 adding a / after each option.

MECHANICAL OUTLINES AND CONNECTIONS



DC1000 Series

Connections		
PIN	SINGLE	TRIPLE
INPUTS		
1	No Pin	*
2	- Input	*
3	- Input	*
4	+ Input	*
5	+ Input	*
6	Control	*
7	Case	*
OUTPUTS		
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

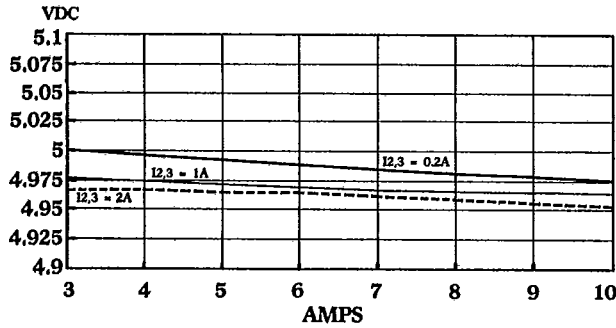


*Connection is same as single column

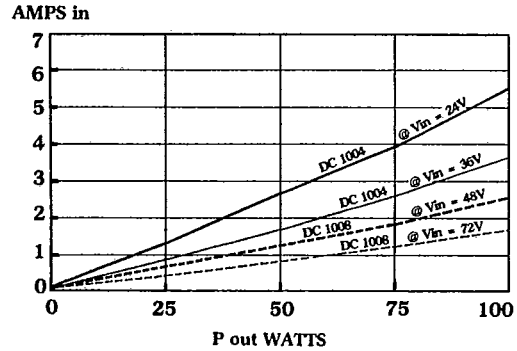
Tolerance .xx = ±0.04
.xxx = ±0.005

PERFORMANCE CURVES

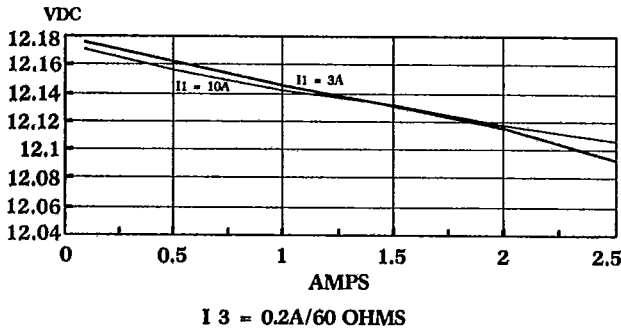
DC 1004
OUTPUT #1 REGULATION
I_{2,3} = OUTPUT CURRENT ON CHANNEL 2 & 3



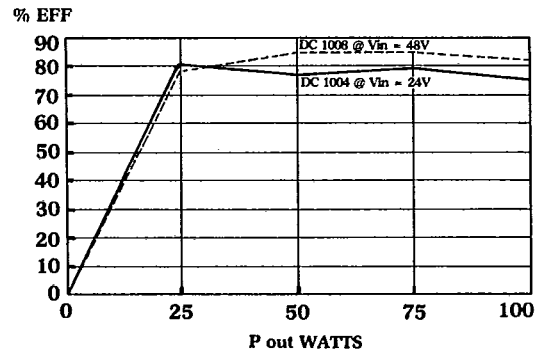
DC 1004 & 1008
P out VS I in



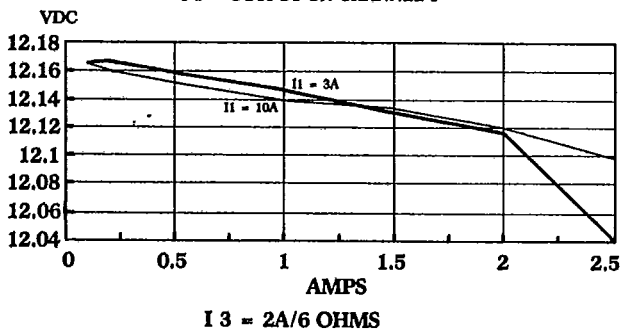
DC 1004
OUTPUT #2 REGULATION
I₁ = OUTPUT CURRENT ON CHANNEL 1



DC 1004 & 1008
P out VS I % EFF



DC 1004
OUTPUT #2 REGULATION
I₁ = OUTPUT ON CHANNEL 1



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