

C&D TECHNOLOGIES

Power Solutions

DC to DC CONVERTERS

C&D TECHNOLOGIES' DC TO DC CONVERTERS provide efficient, highly regulated and reliable dc power for telecommunications equipment, radio transmission, control systems, and other critical electronic loads.

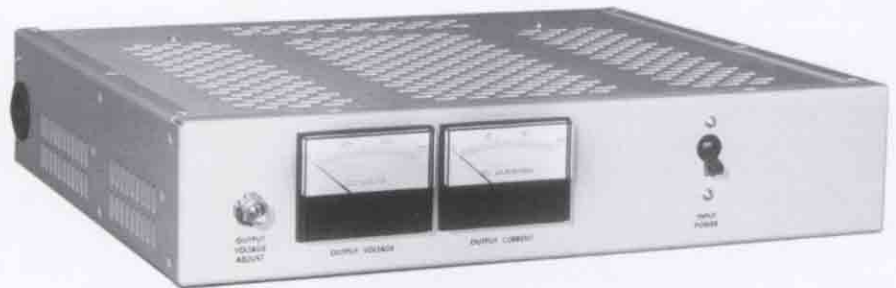
Models are available with nominal dc input voltages of 24, 48, 120, and nominal dc output voltages of 12, 24, 48 and 120 volts. A wide selection of models are available in output power

ranges of 200, 400 and 800 watts. The output is galvanically isolated from the source and chassis and, therefore, may be connected either as positive or negative output.

Standard features let users parallel and load share multiple converters for redundancy and for additional power.

FEATURES

- Small size
- Light weight
- Regulated and adjustable output voltage
- Low output voltage ripple
- Input-output isolation
- 19-in or 23-in relay rack mountable
- 80 to 90 percent typical efficiency
- Output series diodes
- Balanced load sharing



CABINET SIZES

	Height	Width	Depth
A	3.45 in	17 in	13.2 in
C	3.45 in	17 in	13.4 in

Input Voltage Range (Vdc)	Output Voltage Adjustment Range (Vdc)	Input Current* (Adc)	Output Current (Adc)	Cabinet Size	Model Number
20-29	12-14	10.4	0-15	A	JV00088
20-29	12-14	20.6	0-30	A	JV00089
20-29	22-26	9.8	0-8	A	JV00090
20-29	22-26	19.3	0-16	A	JV00091
20-29	44-52	9.7	0-4	A	JV00092
20-29	44-52	19.2	0-8	A	JV00093
21-29	45.5-50.5	36.2	0-16	C	JV00058
40-58	12-14	5.2	0-15	A	JV00094
40-58	12-14	10.3	0-30	A	JV00095
40-58	22-26	4.8	0-8	A	JV00096
40-58	22-26	9.5	0-16	A	JV00097
42-58	22-26	17.7	0-30	C	JV00101
40-58	44-52	4.7	0-4	A	JV00098
40-58	44-52	9.4	0-8	A	JV00099
40-58	123.5-136.5	4.7	0-1.5	A	JV00102
40-58	123.5-136.5	9.5	0-3	A	JV00103
105-140	12-14	1.7	0-15	A	JV00104
105-140	12-14	3.4	0-30	A	JV00105
105-140	22-26	1.7	0-7.5	A	JV00106
105-140	22-26	3.4	0-15	A	JV00107
105-140	44-52	1.7	0-4	A	JV00108
105-140	44-52	3.4	0-8	A	JV00109
105-140	123.5-136.5	1.7	0-1.5	A	JV00110
105-140	123.5-136.5	3.4	0-3	A	JV00111

*Typical current at full load, nominal input and output voltage

GENERAL SPECIFICATIONS

INPUT

Models available with nominal input voltages of 24, 48, 120.

OUTPUT

Nominal output voltages of 12, 24, 48, and 120 Vdc with adjustable output voltage ranges as specified.

OUTPUT VOLTAGE REGULATION

Model Number	Versus Line	Versus Load
JV00083 through JV00088	± 1.0%	± 3.0%
All other models	± 0.1%	± 0.5%

TYPICAL OUTPUT VOLTAGE RIPPLE

Model Number	Millivolts rms	Millivolts peak-to-peak
JV00058	5	50
JV00083 through JV00086	10	100
JV00088 through JV00099 JV00102 through JV00111	3	30
JV00100	10	100
JV00101	5	50

ISOLATION AND GROUNDING

Mutual electrical isolation is provided between the input circuit, the output circuit and the chassis ground.

PROTECTION

Protection against overloads, short circuits and output overvoltages is standard. Recovery to normal operating conditions is automatic upon removal of the overload or short-circuit fault. Following an overvoltage shutdown on models JV00058 and JV00088 through JV00111, input power to the converter must be removed and reapplied to resume converter operation. Protection against accidental reversal of the dc input-voltage polarity during installation is provided.

AMBIENT TEMPERATURE RANGE

Operating: -22°F to 122°F (-30°C to 50°C)
(convection cooling)

Storage: -40°F to 203°F (-40°C to 95°C)

EFFICIENCY

The typical efficiency reaches 80 percent at approximately 15 percent of full load and remains above 80 percent for most of the load range. Typical no-load input power is approximately five watts. Heat dissipation is approximately 400 Btu/hour for 800-watt models, 340 Btu/hour for 400-watt models and 170 Btu/hour for 200-watt models.

CONTROLS AND INDICATORS

A combination circuit breaker and on/off switch is provided for input power. A voltmeter and ammeter display the dc output. A potentiometer shaft with locking nut is provided to adjust the output voltage level.

PHYSICAL CHARACTERISTICS

Weight is less than 18 pounds for all models. Brackets are provided for 19-inch or 23-inch relay rack mounting. Input, output and alarm connections are made to covered barrier-type terminal blocks mounted to the rear of the enclosure.

STANDARD FEATURES

- Output series diodes for parallel-redundant operation of multiple converters
- Auxiliary Form C contact for remote indication of improper output (converter failure)
- Balanced load sharing between converters being paralleled for additional power



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