



GENERAL FEATURES:

- Low profile PCB mount - 24 pin DIL
- Input/output isolated
- Low output ripple noise
- Short circuit protection
- Internal Pi (π) filter
- Output filtering
- High efficiency and reliability
- Fully encapsulated
- Low cost
- Single and dual output available
- Custom design available

GENERAL DESCRIPTION

JBM's model D2 DC/DC converter is a 24-pin power supply, capable of accepting inputs ranging from 5 volts to 48 volts. Outputs for this model typically range from 3.3 volts to 15 volts. The units have a low profile for easy PCB mounting, and are available in standard and custom configurations.

NOTES TO SCHEMATIC

White Dot Pin #1

Leads: 0.020" Diameter Solderable Copper
 Case Material: Non-Conductive Black Plastic
 Marking: White Epoxy Ink
 Tolerance: .xx +/- 0.020"
 .xxx +/- 0.010"

WIRING DETAILS

Single Output		Dual Output	
Pin #	Connection	Pin #	Connection
1 & 24	+ V in	1 & 24	+ V in
10 & 15	- V out	2 & 23	- V out
11 & 14	+ V out	3 & 22	Common
12 & 13	- V in	10 & 15	Common
		11 & 14	+ V out
		12 & 13	- V in

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range: -25 to +71 degrees C
 Storage Temperature Range: -55 to +130 degrees C
 Temperature Coefficient: +/- 0.05% per degree C
 Derating: None
 Cooling: Free Air Convection
 Humidity (Non-Condensing): 20% to 95% RH

ELECTRICAL SPECIFICATIONS

Efficiency (at Full Load): 50% to 70%
 Isolation Voltage: 500 VDC Min
 Isolation Resistance: 1000 M ohms
 Switching Frequency: 25 KHz Min.
 Burn-In @ Full Load: 100%/ 4 Hrs @ 50 degrees C.

INPUT SPECIFICATIONS

Input Voltage: See Table of Values
 Input Filter: Pi Network

OUTPUT SPECIFICATIONS

Output Voltage / Accuracy: See Table of Values
 Output Current: See Table of Values
 Ripple and Noise (20 MHz BW): 50 MV P-P Max.
 Line Regulation*: 1.0% Max. Regulated
 1.2% Max. Unregulated
 Load Regulation**: 1.0% Max. Regulated
 8.0% Max. Unregulated
 Voltage Stability (24 Hour): +/- 0.05% Max.
 Short Circuit Protection: 10 Seconds Max.

* Line Regulation is per 1.0% Change in Input Voltage
 ** Load Regulation is for Load Change from 20% to 100%

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REGULATED POWER SUPPLIES JBM PART NO.	INPUT V _{dc}	OUTPUT V _{dc}	OUTPUT CURRENT (mA)	EFFICIENCY AT FULL LOAD %	REGULATION LINE %	REGULATION LOAD %	O/P NOISE mVp-p
DC02-0505-D2	5.0	5.0	300	60	1.0	1.0	50
DC02-0509-D2	5.0	9.0	170	60	1.0	1.0	50
DC02-0512-D2	5.0	12.0	150	50	0.5	0.5	50
DC02-0515-D2	5.0	15.0	120	50	0.5	0.5	50
DC02-1205-D2	12.0	5.0	360	50	0.5	0.5	50
DC02-1209-D2	12.0	9.0	170	60	1.0	1.0	50
DC02-1212-D2	12.0	12.0	150	50	0.5	0.5	50
DC02-1215-D2	12.0	15.0	100	50	1.0	1.0	50
DC02-2405-D2	24.0	5.0	300	50	1.0	1.0	50
DC02-2412-D2	24.0	12.0	125	50	1.0	1.0	50
DC02-2415-D2	24.0	15.0	100	50	1.0	1.0	50
DC02-4805-D2	48.0	5.0	300	50	1.0	1.0	50
DC02-4812-D2	48.0	12.0	125	50	1.0	1.0	50
DC02-4815-D2	48.0	15.0	100	50	1.0	1.0	50
DC02-0505D-D2	5.0	± 5.0	± 180	50	0.5	0.5	50
DC02-0512D-D2	5.0	± 12.0	± 75	50	0.5	0.5	50
DC02-0515D-D2	5.0	± 15.0	± 60	50	0.5	0.5	50
DC02-1212D-D2	12.0	± 12.0	± 75	50	0.5	0.5	50
DC02-1215D-D2	12.0	± 15.0	± 60	50	0.5	0.5	50

UNREGULATED POWER SUPPLIES JBM PART NO.	INPUT V _{dc}	OUTPUT V _{dc}	OUTPUT CURRENT (mA)	EFFICIENCY AT FULL LOAD %	REGULATION LINE %	REGULATION LOAD %	O/P NOISE mVp-p
DC02-0505-D2	5.0	5.0	360	70	1.2	8.0	50
DC02-0509-D2	5.0	9.0	200	70	1.2	8.0	50
DC02-0512-D2	5.0	12.0	150	70	1.2	8.0	50
DC02-0515-D2	5.0	15.0	120	70	1.2	8.0	50
DC02-1205-D2	12.0	5.0	360	70	1.2	8.0	50
DC02-1209-D2	12.0	9.0	170	70	1.2	8.0	50
DC02-1212-D2	12.0	12.0	150	70	1.2	8.0	50
DC02-0505D-D2	5.0	± 5.0	± 180	70	1.2	8.0	50
DC02-0512D-D2	5.0	± 12.0	± 75	70	1.2	8.0	50
DC02-0515D-D2	5.0	± 15.0	± 60	70	1.2	8.0	50
DC02-1212D-D2	12.0	± 12.0	± 75	70	1.2	8.0	50
DC02-1215D-D2	12.0	± 15.0	± 60	70	1.2	8.0	50

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