



3 Watt DC/DC Converters Serie DV300B



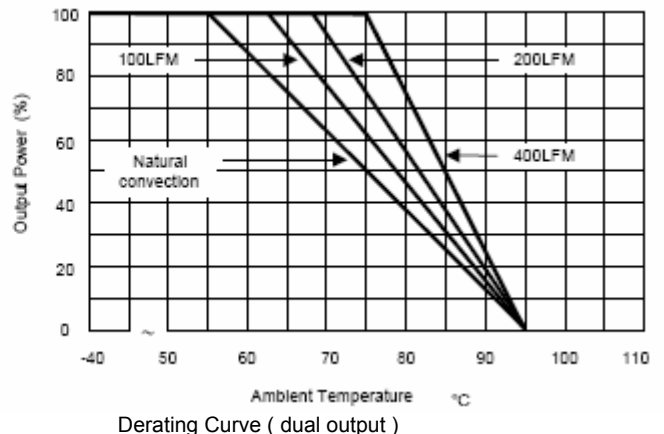
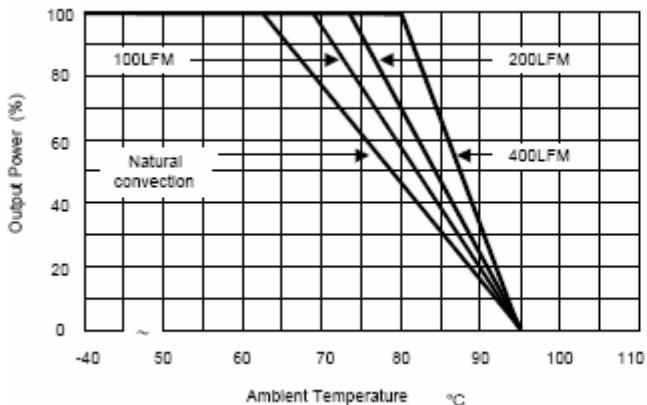
Features

- Regulated Outputs
- I/O Isolation 500 VDC
- 40mV P-P Ripple and Noise
- Low Cost
- MTBF > 600.000 Hours
- Short Circuit Protection

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [mA (max.)]	OUTPUT CURRENT [mA (min)]	INPUT CURRENT NO LOAD [mA (typ.)]	INPUT CURRENT MAX. LOAD [mA (typ.)]	EFF. [%] (typ.)	CASE
DV305-05S600B	5 ±10%	5	600	0	100	1000	60	B
DV305-12S250B		12	250	0	100	960	62	
DV305-15S200B		15	200	0	100	960	62	
DV305-12D125B		±12	±125	0	100	1000	60	
DV305-15D100B		±15	±100	0	100	1000	60	
DV312-05S600B	12 ±10%	5	600	0	50	420	60	B
DV312-12S250B		12	250	0	50	400	62	
DV312-15S200B		15	200	0	50	400	62	
DV312-12D125B		±12	±125	0	50	420	60	
DV312-15D100B		±15	±100	0	50	420	60	
DV324-05S600B	24 ±10%	5	600	0	25	210	60	B
DV324-12S250B		12	250	0	25	195	64	
DV324-15S200B		15	200	0	25	195	64	
DV324-12D125B		±12	±125	0	20	210	60	
DV324-15D100B		±15	±100	0	25	210	60	
DV348-05S600B	48 ±10%	5	600	0	15	105	60	B
DV348-12S250B		12	250	0	15	100	62	
DV348-15S200B		15	200	0	15	100	62	
DV348-12D125B		±12	±125	0	15	105	60	
DV348-15D100B		±15	±100	0	15	105	60	

Note:

1. Transient recovery time is measured to within 1% error band for a step change in output load of 50% to 100%.
2. All DC/DC converters should be externally fused at the front end for protection.



Technical change reserve

INPUT SPECIFICATIONS:

Input Voltage Range	5V	4,5-5,5VDC
	12V	10,8-13,2VDC
	24V	21,6-26,4VDC
	48V	43,2-52,8VDC
Input Filter		Pi Filter
Reverse Polarity Input Current		0,5A
Short Circuit Input Power		2500mW

OUTPUT SPECIFICATIONS:

Voltage Accuracy		±2,0% typ. / ±4,0% max.
Voltage Balance, Dual Output		±1,0% typ. / ±3,0% max.
Temperature Coefficient		±0,01%/°C typ. / ±0,02%/°C max
Ripple and Noise, 20 MHz BW		40mV p-p typ. / 50mVp-p max.
Over Line, Load & Temp.		75mV p-p max. 5mV RMS. max.

Reflected Ripple Current	5V	100mA typ.
	12V	40mA typ.
	24V	25mA typ.
	48V	10mA typ.

Short Circuit Protection		Continuous
Line Regulation (Vin=Min. to Max.)		±0,2% typ. / ±0,5% max.
Load Regulation (Io=10% to 100%)		±0,2% typ. / ±0,5% max.
Over Load		120% min.
Transient Recovery Time	50% Load Step Change	50µS
Transient Response Deviation	50% Load Step Change	±6%

GENERAL SPECIFICATIONS:

Efficiency		see Table
Isolation Voltage I/O	60 sec.	500 VDC
Isolation Test Voltage	Flash Tested for 1 sec.	550 VDC
Isolation Resistance	500VDC	1000M ohms
Isolation Capacitance	100KHz, 1V	100pF typ. / 150pF max.
Switching Frequency		40 KHz min. / 80 KHz typ.
MTBF	MIL-HDBK-217F@25°C, Ground Benign	600 K Hours min.
Operating Temperature Range	Ambient	-25°C to +71°C
Operating Temperature Range	Case	-25°C to +90°C
Derating Ambient, above 63°C to 95°C	single output	-3,125%/°C
Derating Ambient, above 55°C to 95°C	dual output	-2,5%/°C
Humidity		95% max.
Cooling		Free-Air Convection
Storage Temperature Range		-40°C to +125°C
Dimensions		31,8 x 20,3 x 10,2 mm
Weight		14,0g

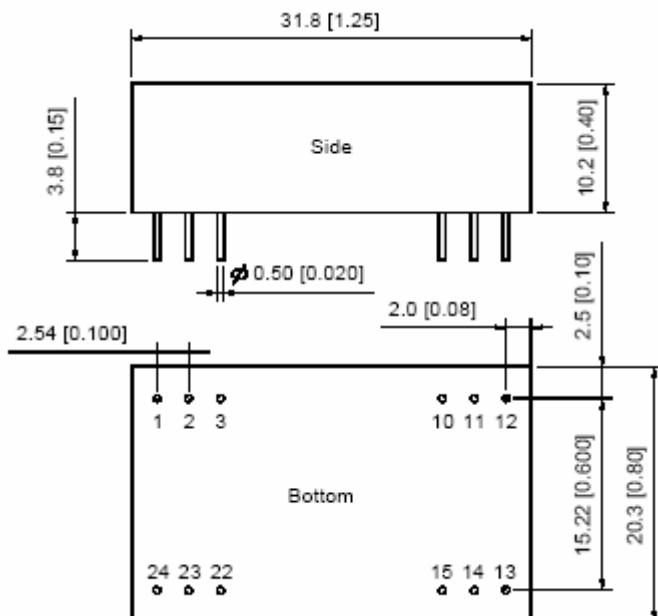
CASE MATERIAL:

Case Material	Black Coated Metal
Flammability	UL94V-0

All Specifications Typical at Nominal Line, Full Load and 25°C.

Case B

Tolerance .X±0,25 / .XX±0,25 / Pin ±0,05 mm
 [.xx±0,01 / .xxx±0,01 / Pin ±0,002 inches]
 All dimensions typical in mm [inches]



Absolute Maximum Ratings		Min.	Max.
Input Surge Voltage (1000mS)	5VDC Input	-0,7	7,5V
	12VDC Input	-0,7	15V
	24VDC Input	-0,7	30V
	48VDC Input	-0,7	55V
Lead Temp. (1,5mm from case for 10 sec.)		---	260°C

Exceeding these values can damage the module. These are not continuous operating ratings.

Pin	Single Output	Dual Output
1	+Vin	+Vin
2	NC	-Vout
3	NC	Common
10	-Vout	Common
11	+Vout	+Vout
12	-Vin	-Vin
13	-Vin	-Vin
14	+Vout	+Vout
15	-Vout	Common
22	NC	Common
23	NC	-Vout
24	+Vin	+Vin

NC: No Connection

Technical change reserve