

DTV-300 SERIES, 300WATT, 2:1 INPUT RANGE
FEATURES:

- ✓ 3 year warranty
- ✓ Six-side shielded metal case
- ✓ Low ripple and noise
- ✓ Over current and short circuit protection
- ✓ Remote on/off
- ✓ Adjustable output voltage



Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (A)	Efficiency Typ.
DTV300-2411	24(18~36)	12	25	87%
DTV300-2412		24	12.5	87%
DTV300-2413		48	6.25	87%
DTV300-4811	48(36~72)	12	25	87%
DTV300-4812		24	12.5	87%
DTV300-4813		48	6.25	87%
DTV300-11011	110(72~144)	12	25	87%
DTV300-11012		24	12.5	87%
DTV300-11013		48	6.25	87%

Notes:

1. Other input and output models may available on request;
2. Above models are default to metal case and with heatsink, plus "R" in the suffix.

ELECTRICAL

	24V	18-36Vdc
	48V	36-72Vdc
	110V	72-144Vdc
Remote control (Low level remote)	High level or vacant Low level or connect ground	Turn on Turn off
Output voltage accuracy	---	±1
Output voltage adjustable	---	±10% max.
Line regulation	Nominal Load, full voltage	±0.2%
Load regulation	20% ~ 100% rated load	±0.5%
Dynamic response (transient/recovery time)	5%-50%-75% load capability	$\Delta V_o / \Delta t: \pm 4.0\% / 500\mu s$
Ripple and noise	20MHz BM, full load	$V_o \leq 5.0V, \leq 50mVp-p$ $V_o \geq 48V, \leq 180mVp-p$ Other, $\leq 100mVp-p$

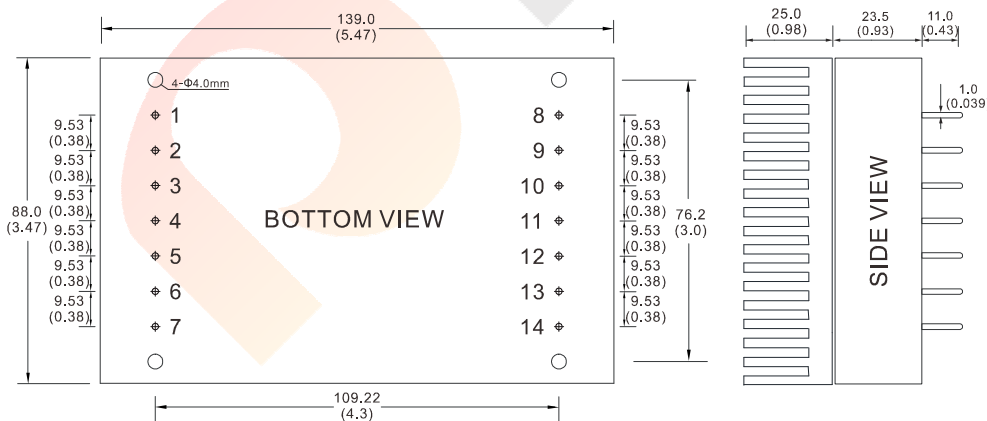
DTV-300 SERIES, 300WATT, 2:1 INPUT RANGE

ELECTRICAL

Isolation voltage ($<2\text{mA/min}$)	Input to output Input to case	1500Vdc 500Vdc
Switching frequency	300KHz	330KHz max.
Turn-on delay time	---	$\leq 200\text{ms}$
Operating temperature range	Free air	-25°C to $+55^{\circ}\text{C}$
Storage temperature range	---	-45°C to $+105^{\circ}\text{C}$
Input under voltage protection	When input voltage is lower than the low input voltage	Auto-recovery
Over current protection	---	Auto-recovery
Short circuit protection	---	Continuous auto-recovery
Relative humidity	---	10%-90% max.
Weight	---	540.8g
MTBF	Bellcore TR-332, 25°C	$2 \times 10^5\text{Hrs}$

Notes: Unless otherwise specified, all the parameters of the test conditions are as follows: ambient temperature 25°C , the nominal input voltage, pure resistive nominal load.

MECHANICAL



CONNECTION

PIN #	SINGLE
1	No pin
2 3	-Vin
4 5	+Vin
6	REM
7	CASE
8 9	GND
10 11	+Vo
12	-S
13	TRIM
14	+S

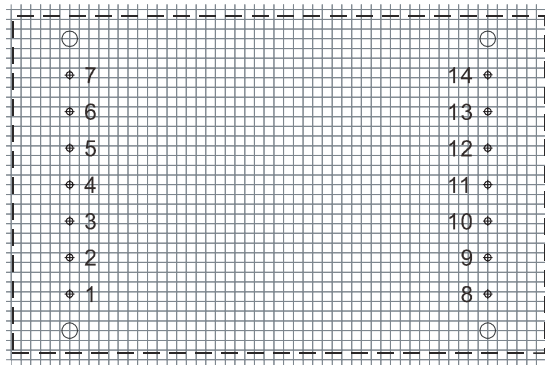
Note:

* Unit is mm(inch).

DTV-300 SERIES, 300WATT, 2:1 INPUT RANGE

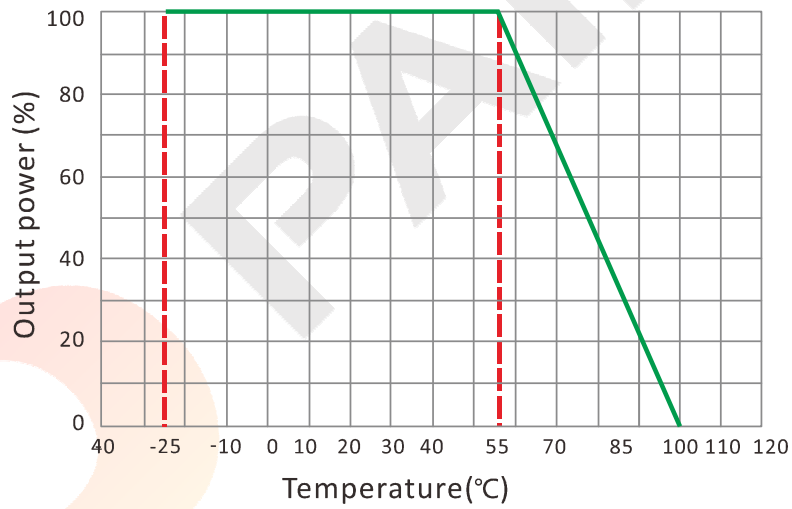
MECHANICAL

LAYOUT



Unit : mm(inch)
PCB vertical view
Grid spacing: 2.54mm(0.1inch)

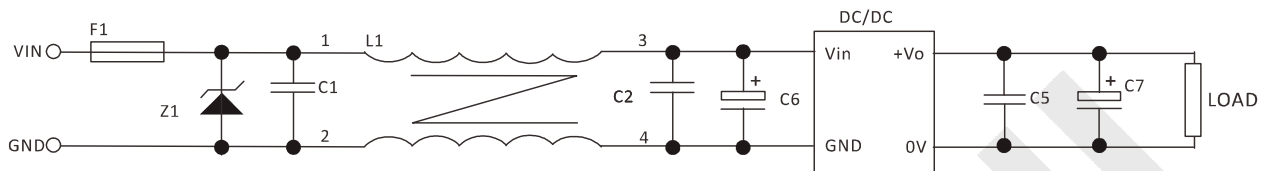
TEMPERATURE PROFILE



DTV-300 SERIES, 300WATT, 2:1 INPUT RANGE

NOTES

RECOMMENDED TEST AND APPLICATION CIRCUIT



1. TVS&FUSE be helpful with over voltage protection and inrush limiting. Recommended FUSE better be 1.5~2times of the rated current .
2. The input filter capacitor C6 could select the aluminum electrolytic capacitors or tantalum capacitors, and the withstand voltage should be greater than the highest input voltage. Recommended capacitor should be between $22\mu\text{F}\sim 100\mu\text{F}$.
3. C1,C2 for the input filter capacitor, $0.1\sim 1\mu\text{F}$ high-frequency ceramics capacitor or chip capacitor are recommended. The withstand voltage of output filter C5, C7 should be greater than the highest output voltage. Recommended capacitor of C7 better within $100\mu\text{F}$ and C5 connected with the chip to reduce the input voltage peak, recommended $0.1\sim 1\mu\text{F}$ high-frequency ceramics capacitor or chip capacitor.