

DHV-12W SERIES, 12WATT, 4:1 INPUT RANGE
FEATURES:

- ✓ Wide input range(4:1)
- ✓ Six-side shielded metal case
- ✓ Low ripple and noise
- ✓ Over current and short circuit protection
- ✓ Typical efficiency up to 82%
- ✓ 2 year warranty



Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
DHV12W-1811	18(9~36)	5	2400	80%
DHV12W-1812		12	1000	82%
DHV12W-1813		15	800	82%
DHV12W-1814		24	500	82%
DHV12W-1821		±5	±1200	80%
DHV12W-1822		±12	±500	82%
DHV12W-1823		±15	±400	82%
DHV12W-1824		±24	±250	82%
DHV12W-3611	36(18~72)	5	2400	80%
DHV12W-3612		12	1000	82%
DHV12W-3613		15	800	82%
DHV12W-3614		24	500	82%
DHV12W-3621		±5	±1200	80%
DHV12W-3622		±12	±500	82%
DHV12W-3623		±15	±400	82%
DHV12W-3624		±24	±250	82%

Notes:

1. Other input and output models may available on request;
2. Above models are default to metal case.

ELECTRICAL

Input voltage range	18V	9-36Vdc
	36V	18-72Vdc
Output voltage accuracy	---	Vo1, Vo2: ±1%, ±3%
Line regulation	Nominal Load, full voltage	Vo1, Vo2: ±0.2%, ±1.5%
Load regulation	20% ~ 100% rated load	Vo1, Vo2: ±0.5%, ±4%
Dynamic response (transient/recovery time)	5%-50%-75% load capability	$\Delta Vo1/\Delta t$: ±4.0%/500 μ s

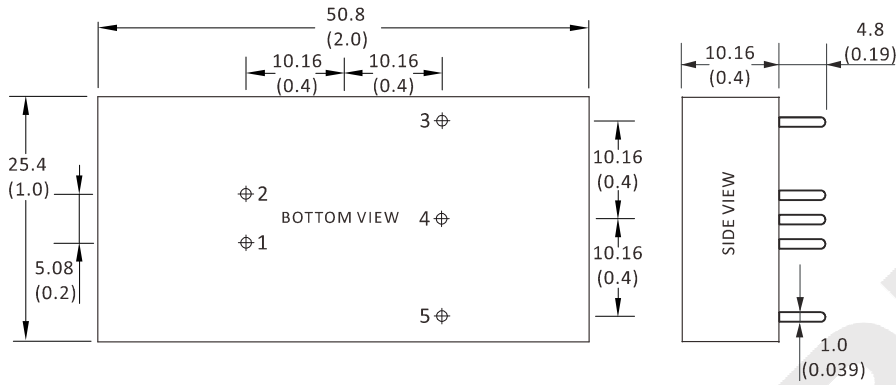
DHV-12W SERIES, 12WATT, 4:1 INPUT RANGE
ELECTRICAL

Ripple and noise	20MHz BM, full load	Vo≤5.0V, ≤50mVp-p Vo≥48V, ≤180mVp-p Other, ≤100mVp-p
Isolation voltage (<2mA/min)	Input to output Input to case	1500Vdc 500Vdc
Switching frequency	300KHz	330KHz max.
Turn-on delay time	---	≤200ms
Operating temperature range	Free air	-25°C to +55°C
Storage temperature range	---	-45°C to +105°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
Cooling method	---	Cooling by air convection
Relative humidity	---	10%-90% max.
Weight	---	23.5g
MTBF	Bellcore TR-332, 25°C	2x10 ⁵ 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.

DHV-12W SERIES, 12WATT, 4:1 INPUT RANGE

MECHANICAL



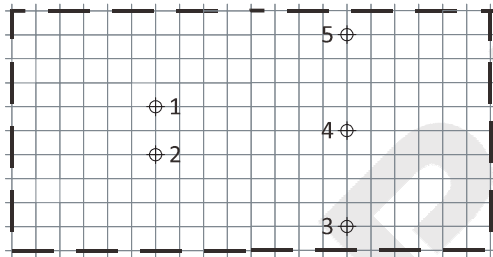
CONNECTION

PIN #	SINGLE	DUAL
1	-Vin	-Vin
2	+Vin	+Vin
3	+Vo	+Vo1
4	No pin	COM
5	GND	-Vo2

Note:

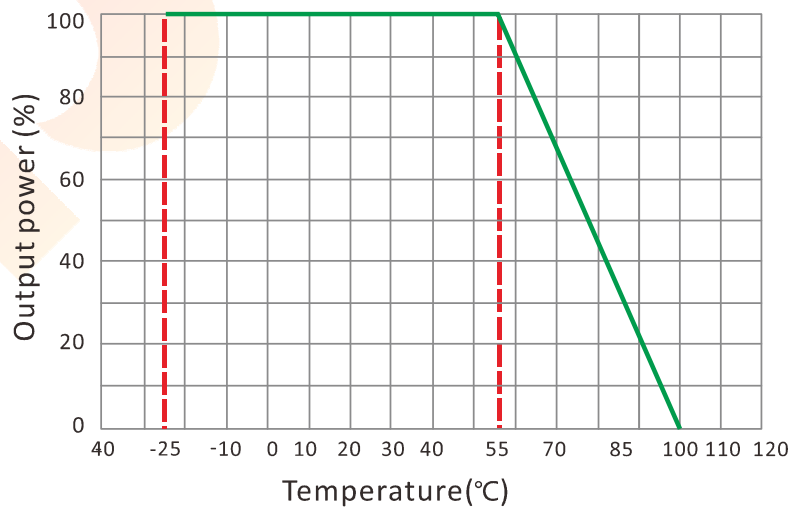
* Unit is mm(inch).

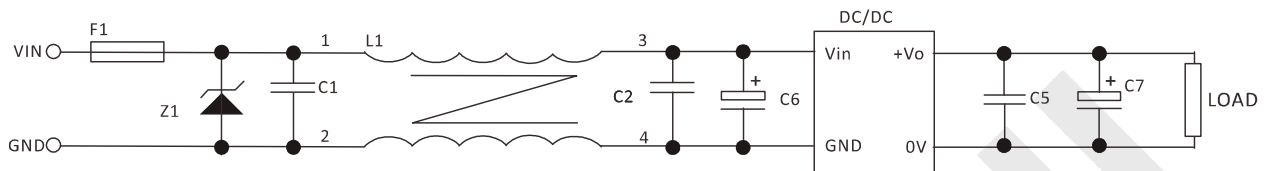
LAYOUT



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

TEMPERATURE PROFILE



DHV-12W SERIES, 12WATT, 4:1 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.