

**DHV-12 SERIES, 12WATT, 2:1 INPUT RANGE**
**FEATURES:**

- ✓ Wide input range(2:1)
- ✓ Six-side shielded metal case
- ✓ Low ripple and noise
- ✓ Over current and short circuit protection
- ✓ Typical efficiency up to 86%
- ✓ 3 year warranty



Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
DHV12-0511	5(4.5~9)	5	2400	80%
DHV12-0515		9	1333	82%
DHV12-0512		12	1000	83%
DHV12-0513		15	800	83%
DHV12-0514		24	500	84%
DHV12-0521		±5	±1200	80%
DHV12-0525		±9	±667	81%
DHV12-0522		±12	±500	83%
DHV12-0523		±15	±400	84%
DHV12-0524		±24	±250	84%
DHV12-1211	12(9~18)	5	2400	80%
DHV12-1215		9	1333	82%
DHV12-1212		12	1000	83%
DHV12-1213		15	800	84%
DHV12-1214		24	500	85%
DHV12-1221		±5	±1200	80%
DHV12-1225		±9	±667	81%
DHV12-1222		±12	±500	83%
DHV12-1223		±15	±400	84%
DHV12-1224		±24	±250	84%
DHV12-2411	24(18~36)	5	2400	80%
DHV12-2415		9	1333	82%
DHV12-2412		12	1000	84%
DHV12-2413		15	800	85%
DHV12-2414		24	500	85%
DHV12-2421		±5	±1200	80%
DHV12-2426		±9	±667	82%
DHV12-2422		±12	±500	84%
DHV12-2423		±15	±400	85%
DHV12-2425		±18	±333	80%
DHV12-2424	±24	±250	86%	

**DHV-12 SERIES, 12WATT, 2:1 INPUT RANGE**

Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
DHV12-4811	48(36~72)	5	2400	83%
DHV12-4815		9	1333	82%
DHV12-4812		12	1000	83%
DHV12-4813		15	800	84%
DHV12-4814		24	500	85%
DHV12-4821		±5	±1200	81%
DHV12-4825		±9	±667	86%
DHV12-4822		±12	±500	85%
DHV12-4823		±15	±400	85%
DHV12-4824		±24	±250	86%

**Notes:**

1. Other input and output models may available on request;
2. Above models are default to metal case;
3. Add suffix "C" for CTRL pin function.

**ELECTRICAL**

Output voltage accuracy	+Vo	±2% max.
	-Vo	±3% max.
Output voltage adjustable	Special for "Trim" pin	±10% typ.
Line regulation	Nominal Load, full voltage	±0.5% max.
Load regulation	20% ~ 100% rated load	±1% max.
Ripple and noise	20MHz BM, full load	150mVp-p max.
Operating frequency	Typical value	300KHz typ.
Isolation voltage (<1mA/min)	Input to output	1500Vdc
Isolation resistance	---	1000mΩ
Temperature coefficient	---	±0.03%/°C max.
Operating temperature range	---	-40°C to +85°C
Storage temperature range	---	-55°C to +125°C
Short circuit protection	---	Continuous, auto-recovery
CTRL *	Turn on	Hang or connect high level(3.5-12Vdc)
	Turn off	Connect -Vin or low level(0-1.2Vdc)
	Shut off input current	1mA typ.
Cooling method	---	Cooling by air convection
Relative humidity	---	10%-90% max.
Weight	---	35g
MTBF	Bellcore TR-332, 25°C	1000Hrs

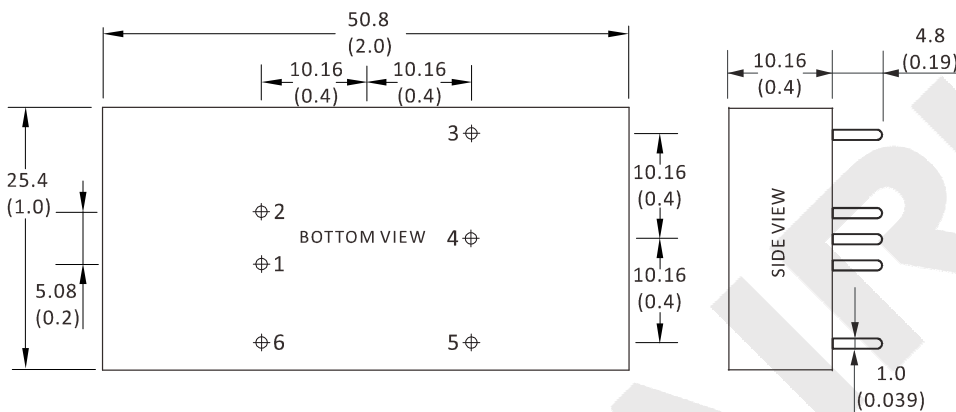
DHV-12 SERIES, 12WATT, 2:1 INPUT RANGE

**ELECTRICAL**

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.

\* The voltage of "CTRL" pin is almost equal to input "-Vin" pin

**MECHANICAL**



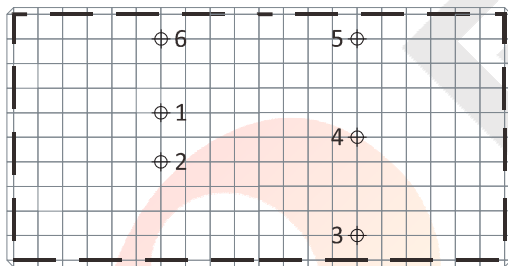
**CONNECTION**

PIN #	SINGLE	DUAL
1	GND	GND
2	+Vin	+Vin
3	+Vo	+Vo1
4	No Pin	0V
5	0V	-Vo2
6	No Pin	No Pin

**CONNECTION - "CTRL"**

1	-Vin	-Vin
2	+Vin	+Vin
3	+Vo	+Vo1
4	TRIM	0V
5	GND	-Vo2
6	CTRL	CTRL

**LAYOUT**

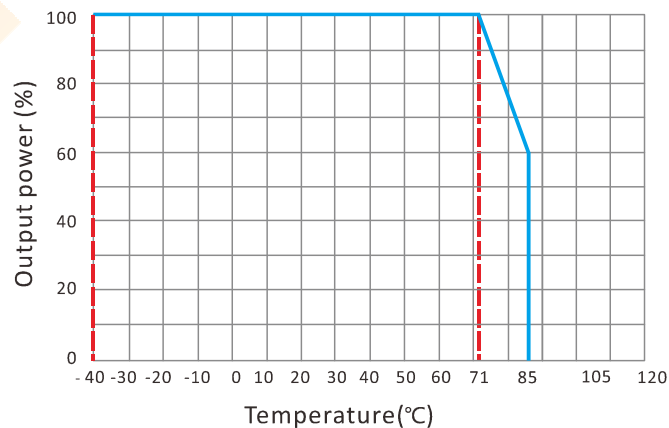


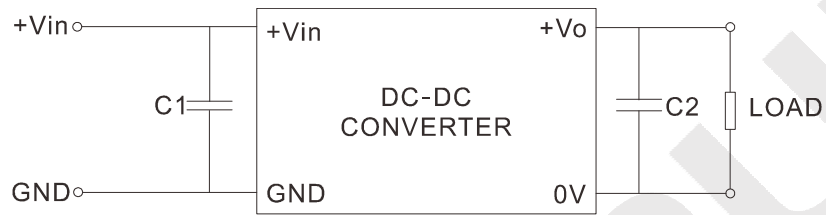
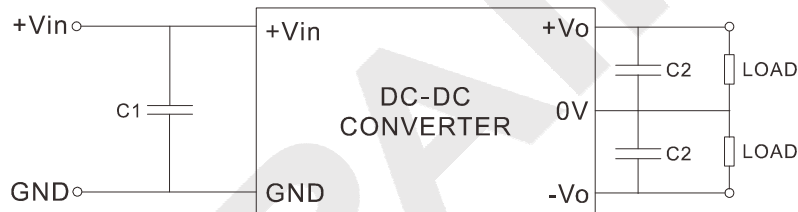
Unit: mm(inch)  
 PCB vertical view  
 Grid spacing: 2.54mm(0.1inch)

Note:

\* Unit is mm(inch).

**ELECTRICAL CURVE**



**DHV-12 SERIES, 12WATT, 2:1 INPUT RANGE**
**NOTES**
**RECOMMENDED TEST AND APPLICATION CIRCUIT**
**SINGLE OUTPUT**

**DUAL OUTPUT**

**CAPACITOR SELECTION**

INPUT VOLTAGE	C1	SINGLE OUTPUT	C2	DUAL OUTPUT	C2
5VDC	220 $\mu$ F	5VDC	1000 $\mu$ F	$\pm$ 5VDC	470 $\mu$ F
12VDC	220 $\mu$ F	9VDC	470 $\mu$ F	$\pm$ 9VDC	220 $\mu$ F
24VDC	100 $\mu$ F	12VDC	220 $\mu$ F	$\pm$ 12VDC	100 $\mu$ F
48VDC	47 $\mu$ F	15VDC	220 $\mu$ F	$\pm$ 15VDC	100 $\mu$ F
--	--	24VDC	100 $\mu$ F	$\pm$ 24VDC	47 $\mu$ F