

Features

- World's most compact High Voltage Power Supplies
- Full SMD-Design with Ceramic Capacitors for highest Reliability
- Positive or negative Polarity Models
- Excellent Output Stability
- Low Temperature Coefficient
- Ultra low Ripple
- Remote Voltage Programming 0 to 100%
- Short Circuit Protection
- Shielded Metal Case



The PHV series are regulated miniature high voltage power modules using SMD and hybrid technology. They are designed for PCB mounting. The use of high stability components guarantees a minimal temperature drift and a very stable output voltage. Typical applications for these HV power supplies are photomultiplier tubes, gas chromatography, analytical instruments and wherever where small size and high output voltage stability is requested.

Models

Models	Input voltage	Output voltage	Output current max.
PHV12-350S10P	12 VDC 10.8 - 16.5 VDC	0... +350 VDC	10 mA
PHV12-350S10N		0... -350 VDC	10 mA
PHV12-0.5K10000P		0... +500 VDC	10 mA
PHV12-0.5K10000N		0... -500 VDC	10 mA
PHV12-1.0K5000P		0... +1000 VDC	5 mA
PHV12-1.0K5000N		0... -1000 VDC	5 mA
PHV12-2.0K2500P		0... +2000 VDC	2.5 mA
PHV12-2.0K2500N		0... -2000 VDC	2.5 mA

Order code P for positive output polarity
Order code N for negative output polarity

Input Specifications

Input voltage	+10.8VDC to +16.5 VDC
Reverse voltage protection	none

Output Specifications

Voltage accuracy	± 5 %
Voltage adjustment range (adjustable with external voltage 0 to +6 VDC or with 5 kOhm variable resistor)	0 – 100%
Remote ON / OFF control	ON = pin 2 to pin 5 open OFF = pin 2 to pin 5 short
Regulation – Input variation Vin min. to Vin max. – Load variation 0 – 100 %	± 0.01 % typ. ± 0.01 % typ.
Ripple and noise (20 MHz Bandwidth)	350V,500V,1KV:100 mVpk-pk max., 2KV: 160mVpk-pk max.
Temperature coefficient	± 0.01 % / °C
Stability	0.05% 8h after warm-up time
Current limitation	>105% of Iout max., constant current
Short circuit protection	indefinite

General Specifications

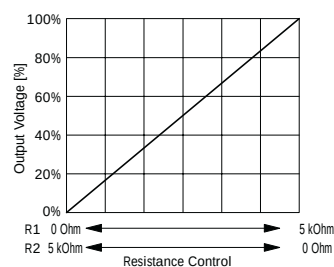
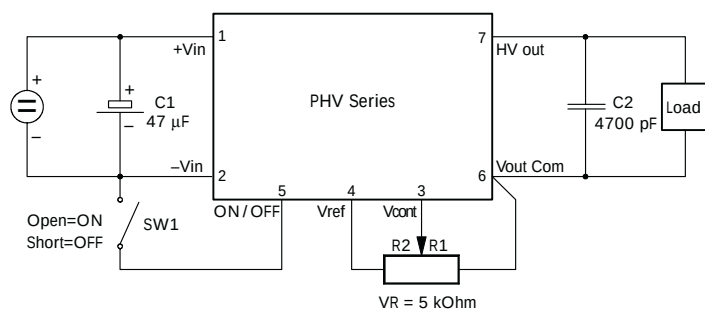
Temperature ranges – Operating – Case temperature – Storage	– 10 °C ... + 50 °C + 90 °C max. – 20 °C ... + 85 °C
Derating above 40°C	3 % / °C
Humidity (non condensing)	20 – 95 % RH
Efficiency	68 – 72%
Reliability, calculated MTBF (MIL-HDBK-217 E)	>300'000 h @ + 25 °C
Isolation voltage Input / Output	none
Vibration	5 –10 Hz amplitude 10 mm pk-pk 10 – 55 Hz acceleration 2 G
Shock	acceleration 20 G max. time 11 ms

Physical Specifications

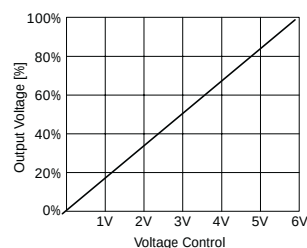
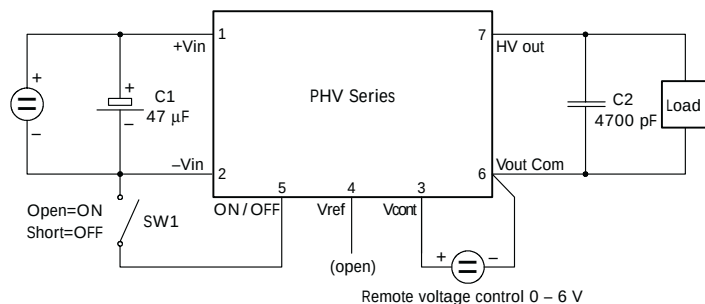
Case material	steel chrom-nickel plated
Weight	350V:72g (2.54oz) typ., 500V,1KV,2KV:94g (3.32oz) typ.
Soldering temperature	max. 260 °C / 10 sec.

Connection Diagram

Connection for remote control by variable resistor

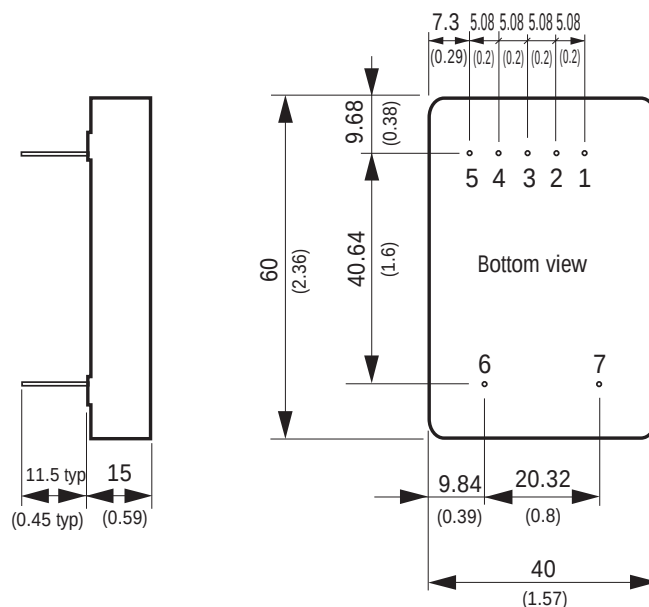


Connection for remote voltage control



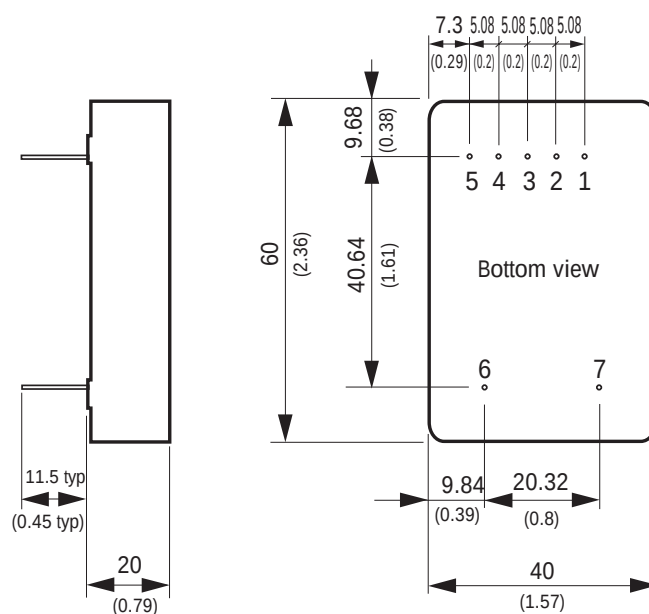
Outline Dimensions mm (inches)

PHV12-350S10P/N



Pin-Out	
Pin	
1	+Vin
2	-Vin
3	V cont.
4	V ref.
5	ON / OFF (option)
6	Vout (Com.)
7	HV out

all other models



Pin diameter $\varnothing 0.8 \pm 0.05$ (0.03) ± 0.002

Tolerances ± 0.5 (0.02)

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