



PHI-CON

6W DC-DC Converter P6W-Series

- Wide 2:1 input range
- Up to 3500 V_{DC} isolation
- Continuous short circuit protection
- None conductive plastic case



Model selection guide

Typ	Input nominal voltage [V _{DC}]	Output voltage [V _{DC}]	Output current [mA]	Efficiency typ. [%]
Single output				
P6W1205S	9...18	5.0	1200	77
P6W1209S	9...18	9.0	667	75
P6W1212S	9...18	12.0	500	80
P6W1215S	9...18	15.0	400	80
P6W1224S	9...18	24.0	250	80
P6W2405S	18...36	5.0	1200	80
P6W2409S	18...36	9.0	667	83
P6W2412S	18...36	12.0	500	83
P6W2415S	18...36	15.0	400	83
P6W2424S	18...36	24.0	250	83
P6W4805S	36...72	5.0	1200	80
P6W4809S	36...72	9.0	667	83
P6W4812S	36...72	12.0	500	83
P6W4815S	36...72	15.0	400	83
P6W4824S	36...72	24.0	250	83
Dual output				
P6W1205D	9...18	±5.0	±600	77
P6W1209D	9...18	±9.0	±334	75
P6W1212D	9...18	±12.0	±250	80
P6W1215D	9...18	±15.0	±200	80
P6W1224D	9...18	±24.0	±125	80
P6W2405D	18...36	±5.0	±600	80
P6W2409D	18...36	±9.0	±334	83
P6W2412D	18...36	±12.0	±250	83
P6W2415D	18...36	±15.0	±200	83
P6W2424D	18...36	±24.0	±125	83
P6W4805D	36...72	±5.0	±600	80
P6W4809D	36...72	±9.0	±334	83
P6W4812D	36...72	±12.0	±250	83
P6W4815D	36...72	±15.0	±200	82
P6W4824D	36...72	±24.0	±125	82

Input voltage range reach from 4.5V to 72V and the output voltage range reach from 3.3V to 24V

Suffix: "H" for 3.5kV isolation voltage

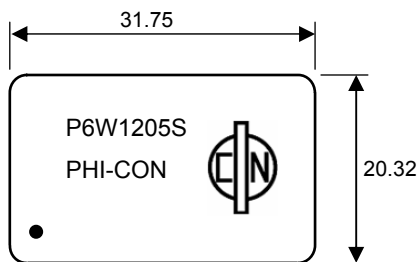
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Specifications

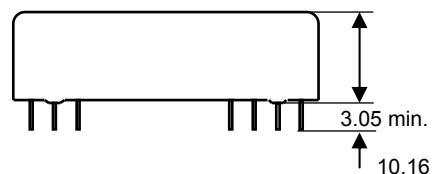
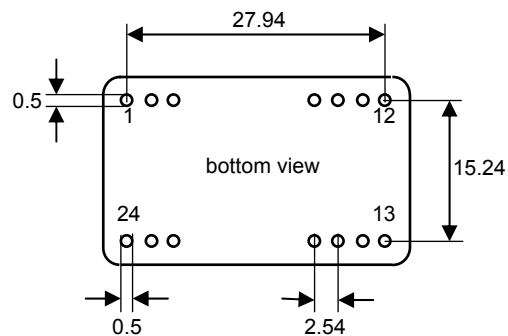
Input	
Voltage range	12 V _{DC} , 9...18 V _{DC} 24 V _{DC} , 18...36 V _{DC} 48 V _{DC} , 36...72 V _{DC}
Filter	Pi Network
Isolation:	
Rated voltage	1500 V _{DC} , Standard 3500 V _{DC} , Suffix "H"
Resistance	10 ⁹ Ω
Capacitance	390 pF, typ.
Output	
Voltage accuracy	± 1%, max.
Voltage balance (dual outputs)	± 1%
Ripple and noise (at 20 MHz BW)	60 mVp-p, max.
Short circuit protection	Continuous
Short circuit restart	Automatic
Line voltage regulation	± 0.5%, max.
Load voltage regulation	± 0.5%, max.
Temperature coefficient	± 0.02% / °C

General	
Efficiency	74% to 83%
Switching frequency	100 kHz...400 kHz
Environmental	
Operating temperatur (ambient)	-40 °C to +71 °C
Case temperature	100 °C max.
Storage temperature	-40 °C to +125 °C
Derating	None required
Humidity	Up to 90%, None condensing
Cooling	Free-air convection
Physical	
Dimensions	31.75x20.32x10.16 mm
Weight	17 g plastic standard, 19 g metal suffix "M"
Case material	None conductive plastic

Dimensions



All dimensions in mm
Tolerance ±0.25 mm



Pin connections

Pin	1.5kV & 3.5kV version	
	Single	Dual
1	+V Input	+V Input
2	+V Input	+V Input
10	N.C.	Common
11	N.C.	Common
12	-V Output	N.C.
13	+V Output	-V Output
15	N.C.	+V Output
23	-V Input	-V Input
24	-V Input	-V Input

Life Support Policy. HY-LINE does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
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