

5W DC-DC Converter P5Y-Series



- Wide 4:1 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				
P5Y2405S	9...36	5.0	1000	80
P5Y2409S	9...36	9.0	556	80
P5Y2412S	9...36	12.0	417	80
P5Y2415S	9...36	15.0	333	80
P5Y2418S	9...36	18.0	278	80
P5Y2424S	9...36	24.0	209	80
P5Y4805S	18...72	5.0	1000	79
P5Y4809S	18...72	9.0	556	80
P5Y4812S	18...72	12.0	417	82
P5Y4815S	18...72	15.0	333	82
P5Y4818S	18...72	18.0	278	82
P5Y4824S	18...72	24.0	209	82
Dual output				
P5Y2405D	9...36	±5.0	±500	78
P5Y2409D	9...36	±9.0	±278	80
P5Y2412D	9...36	±12.0	±208	80
P5Y2415D	9...36	±15.0	±167	82
P5Y2418D	9...36	±18.0	±139	82
P5Y2424D	9...36	±24.0	±104	82
P5Y4805D	18...72	±5.0	±500	78
P5Y4809D	18...72	±9.0	±278	79
P5Y4812D	18...72	±12.0	±208	79
P5Y4815D	18...72	±15.0	±167	80
P5Y4818D	18...72	±18.0	±139	80
P5Y4824D	18...72	±24.0	±104	80

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

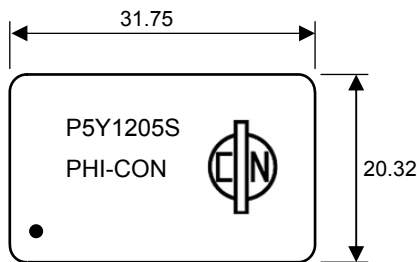
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Specifications

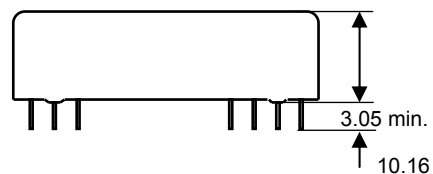
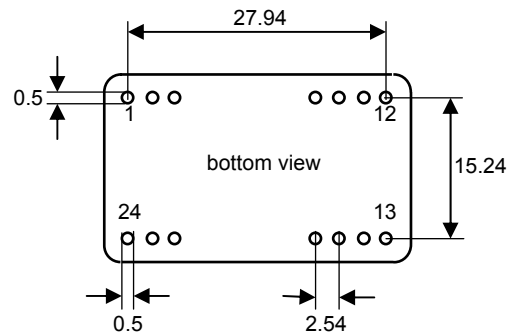
Input	
Voltage range	24 V _{DC} , 9...36 V _{DC} 48 V _{DC} , 18...72 V _{DC}
Filter	π (Pi)-Network
Isolation:	
Rated voltage	1500 V _{DC} , Standard 3500 V _{DC} , Suffix "H"
Resistance	10 ⁹ Ω
Capacitance	390 pF, typ.
Output	
Voltage accuracy	± 1%, max.
Voltage balance (dual outputs)	± 1%
Ripple and 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	78% to 82%
Switching frequency	100 kHz...400 kHz
Environmental	
Operating temperatur (ambient)	-40 °C to +85 °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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