

# 5W DC-DC Converter P5Z-Series



- Wide 4:1 input range
- Up to 3500 V<sub>DC</sub> isolation
- MTBF > 1,12 MHours
- Continuous short circuit protection
- Low profile metal package available

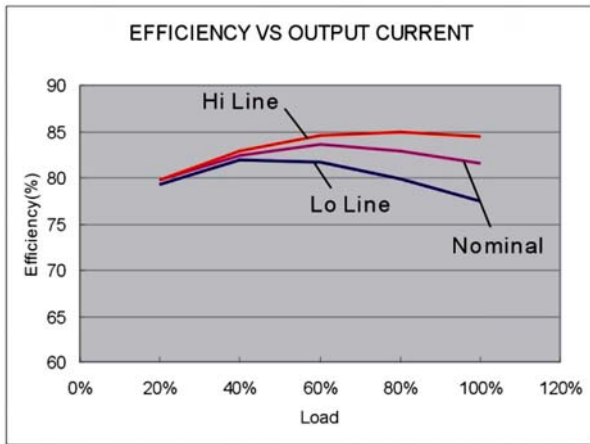


## Model selection guide

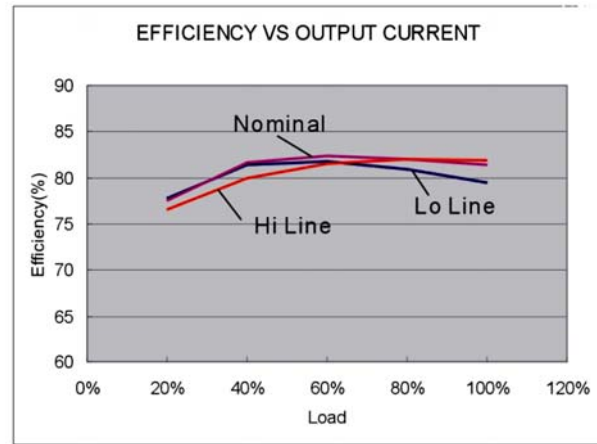
Typ	Input voltage nominal [V <sub>DC</sub> ]	Input current no load [mA]	Output voltage [V <sub>DC</sub> ]	Output current [mA]	Efficiency typ. [%]	Capacity load [μF]
Single output						
P5Z243R3S	9...36	15	3.3	1300	74	1000
P5Z2405S	9...36	27	5.0	1000	74	1000
P5Z247R2S	9...36	25	7.2	690	76	470
P5Z2409S	9...36	25	9.0	556	78	220
P5Z2412S	9...36	25	12.0	417	80	100
P5Z2415S	9...36	25	15.0	333	78	68
P5Z2418S	9...36	25	18.0	278	82	47
P5Z2424S	9...36	25	24.0	209	80	33
P5Z483R3S	18...72	20	3.3	1300	75	1000
P5Z4805S	18...72	24	5.0	1000	78	1000
P5Z487R2S	18...72	24	7.2	690	77	470
P5Z4809S	18...72	25	9.0	556	78	220
P5Z4812S	18...72	23	12.0	417	79	100
P5Z4815S	18...72	22	15.0	333	80	68
P5Z4818S	18...72	22	18.0	278	80	47
P5Z4824S	18...72	22	24.0	209	80	33
Dual output						
P5Z243R3D	9...36	22	±3.3	±758	76	2 x 680
P5Z2405D	9...36	31	±5.0	±500	78	2 x 330
P5Z247R2D	9...36	25	±7.2	±345	79	2 x 220
P5Z2409D	9...36	25	±9.0	±278	80	2 x 100
P5Z2412D	9...36	23	±12.0	±208	78	2 x 68
P5Z2415D	9...36	24	±15.0	±167	79	2 x 47
P5Z2418D	9...36	24	±18.0	±139	79	2 x 33
P5Z2424D	9...36	24	±24.0	±104	79	2 x 22
P5Z483R3D	18...72	20	±3.3	±758	75	2 x 680
P5Z4805D	18...72	24	±5.0	±500	78	2 x 330
P5Z487R2D	18...72	23	±7.2	±345	78	2 x 220
P5Z4809D	18...72	23	±9.0	±278	78	2 x 100
P5Z4812D	18...72	23	±12.0	±208	79	2 x 68
P5Z4815D	18...72	23	±15.0	±167	80	2 x 47
P5Z4818D	18...72	23	±18.0	±139	80	2 x 33
P5Z4824D	18...72	22	±24.0	±104	80	2 x 22

Suffix: "H" for 3.5kV isolation voltage

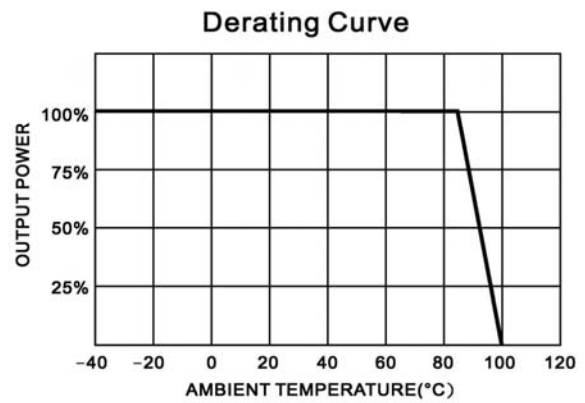
# 5W DC-DC Converter P5Z-Series



Vin 24V Types



Vin 48V Types



# 5W DC-DC Converter P5Z-Series

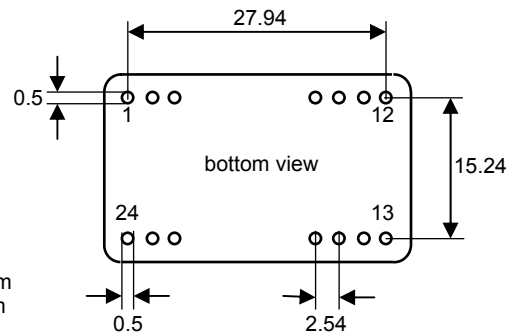
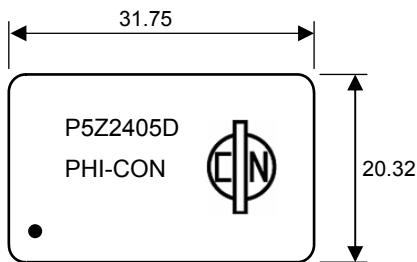


## Specifications

<b>Input :</b>	
Voltage range	24 V <sub>DC</sub> , 9...36 V <sub>DC</sub> 48 V <sub>DC</sub> , 18...72 V <sub>DC</sub>
Filter	Pi Network
<b>Isolation:</b>	
Rated voltage	1500 V <sub>DC</sub> , Standard 3500 V <sub>DC</sub> , Suffix "H"
Resistance	10 <sup>9</sup> Ω
Capacitance	470 pF, typ.
<b>Output:</b>	
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

<b>General:</b>	
Efficiency	74 to 80
Switching frequency	265 kHz, typ.
Test voltage I/O for 1s	1500Vdc H - type 3500Vdc
Safety in accordance with	IEC 60950-1:2001
<b>Environmental:</b>	
Operating temperature (ambient)	-40 °C to +85 °C
Case temperature	100 °C max.
Storage temperature	-40 °C to +125 °C
Derating	None required
Humidity	Up to 95%, non-condensing
Cooling	Free-air convection
Soldering temperature	260°C for 10s
Distance from body	1.5 mm
<b>Physical :</b>	
Dimensions	31.75x20.32x10.16 mm
Weight	17 g
Case material	Standard, nickel-coated copper

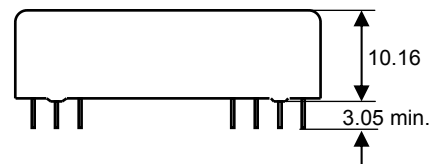
## Dimensions



All dimensions in mm  
Tolerance ±0.25 mm

## Pin connections

Pin	Standard		3.5KV <sub>DC</sub>	
	Single	Dual	Single	Dual
1	+V Input	+V Input	Omitted	Omitted
2	N.C.	-V Output	-V Input	-V Input
3	N.C.	Common	-V Input	-V Input
9	Omitted	Omitted	N.C.	Common
10	-V Output	Common	Omitted	Omitted
11	+V Output	+V Output	N.C.	-V Output
12	-V Input	-V Input	Omitted	Omitted
13	-V Input	-V Input	Omitted	Omitted
14	+V Output	+V Output	+V Output	+V Output
15	-V Output	Common	Omitted	Omitted
16	Omitted	Omitted	-V Output	Common
22	N.C.	Common	+V Input	+V Input
23	N.C.	-V Output	+V Input	+V Input
24	+V Input	+V Input	Omitted	Omitted



*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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