



PHI-CON

# 8W DC-DC Converter P8Z-Series

- 8W Output power
- 2:1 Wide input voltage range
- International safety standard approval
- Five-sided continuous shield
- High efficiency up to 85%
- Standard 1.25" x 0.8" x 0.4" package
- Fixed switching frequency



## Model selection guide

Typ	Input nominal voltage [V <sub>DC</sub> ]	Input current full-load [mA]	Output voltage [V <sub>DC</sub> ]	Output current [mA]	Efficiency typ. [%]	Capacitor load max. [µF]
<b>Single Output</b>						
P8Z12S33	9...18	724	3.3	2000	80	3300
P8Z12S05	9...18	801	5	1500	82	1600
P8Z12S12	9...18	833	12	666	84	350
P8Z12S15	9...18	843	15	533	83	240
P8Z24S33	18...36	362	3.3	2000	80	3300
P8Z24S05	18...36	396	5	1500	83	1600
P8Z24S12	18...36	416	12	666	84	350
P8Z24S15	18...36	416	15	533	84	240
P8Z48S33	36...75	181	3.3	2000	80	3300
P8Z48S05	36...75	198	5	1500	83	1600
P8Z48S12	36...75	208	12	666	84	350
P8Z48S15	36...75	208	15	533	84	240
<b>Dual Output</b>						
P8Z12D05	9...18	843	±5	±800	83	2 x 1000
P8Z12D12	9...18	833	±12	±333	84	2 x 160
P8Z12D15	9...18	834	±15	±267	84	2 x 100
P8Z24D05	18...36	427	±5	±800	82	2 x 1000
P8Z24D12	18...36	422	±12	±333	83	2 x 160
P8Z24D15	18...36	411	±15	±267	85	2 x 100
P8Z48D05	36...75	211	±5	±800	83	2 x 1000
P8Z48D12	36...75	206	±12	±333	85	2 x 160
P8Z48D15	36...75	206	±15	±267	85	2 x 100

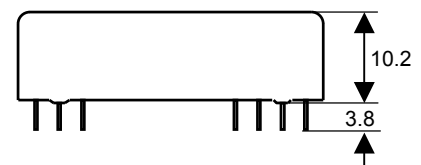
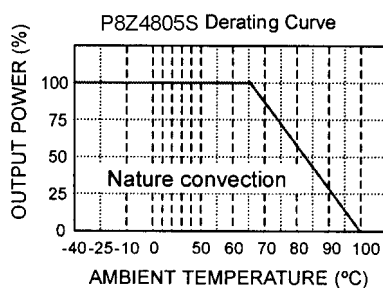
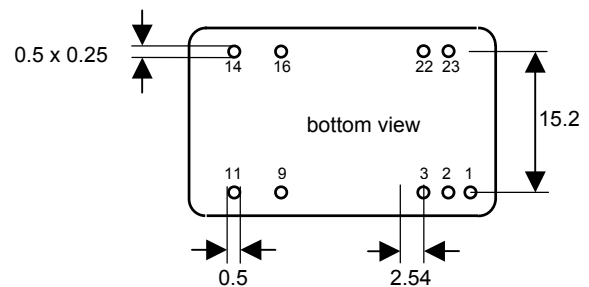
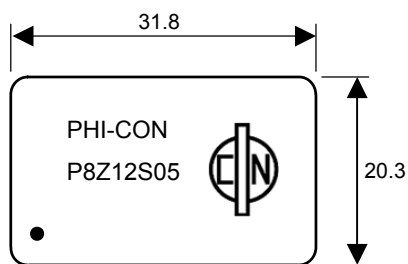
# 8W DC-DC Converter P8Z-Series

## Specifications

Input	
Voltage range	9-18, 18-36, 36-75 V <sub>DC</sub>
Filter	Pi type
Isolation:	
Rated voltage	1600 V <sub>DC</sub>
Leakage current	1 mA
Resistance	10 <sup>9</sup> Ω
Capacitance	300 pF, typ.
Output	
Cross regulation (dual)	± 5%
Ripple and noise (at 20 MHz BW)	Single: 50mVp-p
Short circuit protection	continuous automatic recovery
Over load protection	150% @ nominal input
Line voltage regulation	± 0,2%
Load voltage regulation @ 10% to 100 % load	single: ± 0,5% dual: ±1%
Temperature coefficient	± 0.02% / °C

Remote control input	
DC-DC ON	Open or 3.5 V...12 V
DC-DC OFF	Short or 0 V...1.2 V
Remote off input current	2.5 mA
General Specification	
Efficiency	See table
Switching frequency	300 kHz, typ.
Environmental	
Operating temperatur (ambient)	-40 °C to +85 °C with derating (see table)
Storage temperature	-55 °C to +105 °C
Max. case temperature	100°C
Thermal impedance	20 °C / Watt
Humidity	5% to 95% RH
Physical	
Dimensions	31.8x20.3x10.2 mm
Weight	16 g
Potting material	Epoxy (UL94-V0)
Case material	Nickel-coated copper

## Dimensions



## Pin connections

Pin	Standard	
	Single	Dual
1	CTRL input	CTRL input
2	- Input	- Input
3	- Input	- Input
9	NC	Common
11	NC	- Output
14	+ Output	+ Output
16	- Output	Common
22	+ Input	+ Input
23	+ Input	+ 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. Rev: 5.05 f