10W DC-DC Converter P10C-Series

PHI-CON

- 10 W Output Power
- 4:1 Wide Input Voltage Range
- Optional Remote Control Input
- International Safety Standard
- Six-Sided Continuous Shield
- High Efficiency up to 84%
- Standard 2" X 1" X 0.4" Package
- Fixed Switching Frequency



Model selection guide

Typ	Input nominal voltage [V_{DC}]	Input current full-load [mA]	Output voltage [V_{DC}]	Output current [mA]	Efficiency typ. [%]	Capacitor load max. [uF]	Output over voltage protection [V]
Single output							
P10C24S33W	9...36	465	3.3	2500	78	6800	3.9
P10C24S05W	9...36	548	5	2000	80	4700	6.2
P10C24S12W	9...36	532	12	830	82	680	15
P10C24S15W	9...36	551	15	670	80	470	18
P10C48S33W	18...75	239	3.3	2500	76	6800	3.9
P10C48S05W	18...75	274	5	2000	80	4700	6.2
P10C48S12W	18...75	259	12	830	84	680	15
P10C48S15W	18...75	262	15	670	84	470	18
Dual output							
P10C24D05W	9...36	548	±5	±1000	80	2 x 680	6.2
P10C24D12W	9...36	547	±12	±416	80	2 x 330	15
P10C24D15W	9...36	548	±15	±333	80	2 x 110	18
P10C48D05W	18...75	271	±5	±1000	81	2 x 680	6.2
P10C48D12W	18...75	281	±12	±416	78	2 x 330	15
P10C48D15W	18...75	270	±15	±333	81	2 x 110	18

HY-LINE® POWER COMPONENTS

Deutschland:
Inselkammerstraße 10
D-82008 Unterhaching
Tel.: 089 614 503-10
E-Mail: power@hy-line.de

Schweiz:
Gründenstrasse 82
CH-8247 Flurlingen
Tel.: 052 647 42 00
E-Mail: power@hy-line.ch

10W DC-DC Converter P10C-Series

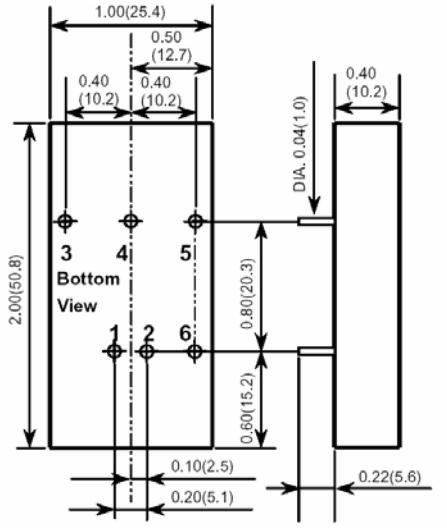
PHI-CON

Specifications

Input	
Voltage range	P10C: 9...36, 18...75 V_{DC}
Filter	π Pi type
Start up time @ R-load	20ms typ.
Input surge voltage for 100mS max.	24V type : 50 V_{DC} max. 48V type : 100 V_{DC} max.
Remote CTRL (Option) Positive logic Suffix "P"	On: open or 3.5..12 V_{DC} Off: 0...1.2 V_{DC}
Negative logic Suffix "N"	On: 0...1.2 V_{DC} Off: open or 3.5..12 V_{DC}
Remote CTRL input current	-2.5mA
Remote CTRL input reference	-Input
Remote off, Input current	20mA
Output	
Power	10W max
Voltage accuracy	± 2%
Ripple and noise (at 20 MHz BW)	Single type: 50mVp-p Dual type: 75mVp-p
Short circuit protection	Hiccup, automatics recovery
Line voltage regulation	± 0.2%
Load voltage regulation	single: ± 0.5% dual: ±1%
Temperature coefficient	± 0.02% / °C
Minimum load	10% to maintain the specified regulation

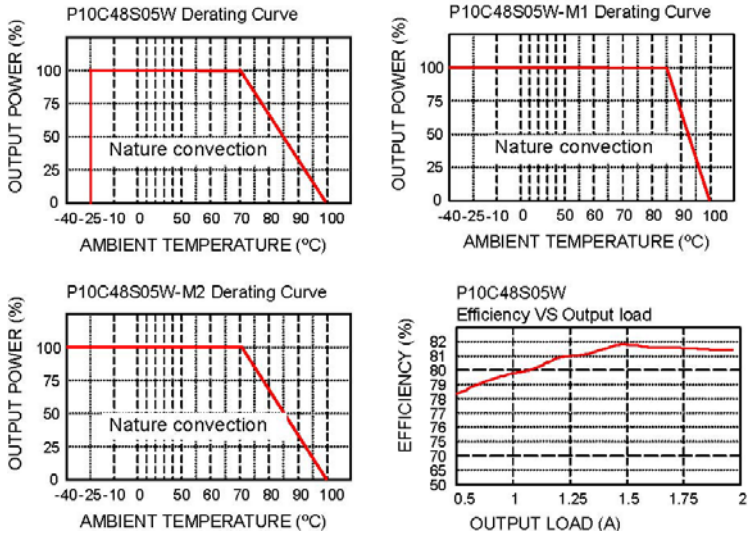
General	
Efficiency	See table
Switching frequency	300 kHz, typ.
Isolation voltage	1600 V_{DC}
Isolation Leakage current	1 mA
Isolation Resistance	10^9 Ω
Isolation Capacitance	300 pF, typ.
Standard in accordance with	EN60950-1, IEC60950-1, UL60950-1
MTBF Bellcore TR-NWT-000332	@Ta 40°C, 50% stress: $1.976x10^6$ hrs
Environmental	
Operating temperature	-25 °C to +85 °C (standard, derating)
Option "-M1"	-40 °C to +85 °C (no derating)
Option "-M2" (W-series)	-40 °C to +85 °C (with derating)
Storage temperature	-55 °C to +105 °C
Maximum case temp.	+100 °C
Humidity	5% to 95% RH
Cooling	Free-air convection
Physical	
Dimensions	1 x 2 x 0.4 inches 50.8 x 10.2 x 25.4 mm
Weight	27 g
Case material	Nickel-coated copper

Dimensions



All dimensions in inches (mm)
Pin Pitch tolerance ±0.014 (0.35)

Derating



Pin connections

Pin	Standard	
	Single	Dual
1	+ Input	+ Input
2	- Input	- Input
3	+ Output	+ Output
4	No Pin	Common
5	- Output	- Output
6	CTRL (Option)	CTRL (Option)

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: 9 / 05 f

HY-LINE® POWER COMPONENTS

Deutschland:
Inselkammerstraße 10
D-82008 Unterhaching
Tel.: 089 614 503-10
E-Mail: power@hy-line.de

Schweiz:
Gründenstrasse 82
CH-8247 Flurlingen
Tel.: 052 647 42 00
E-Mail: power@hy-line.ch