

12/24V to 5V 10A 50W DC-DC CONVERTER, NON-ISOLATED

FEATURES

- ✓ Wide input voltage from 10V to 30V
- ✓ Stable output voltage is 5V
- ✓ 100% full rated power
- ✓ 100% full stable output Current
- ✓ 100% burn-in-test
- ✓ High efficiency up to 95%
- ✓ IP68 waterproof, Epoxy potting, Anti-vibration, Dustproof
- ✓ Cooling by free air convection
- ✓ Surface mountable
- ✓ 1 year warranty
- ✓ Over current protection, Over voltage protection
- ✓ Over temperature protection
- ✓ According to: EN 61000-6-3:2007/A1:2011/AC:2012 EN 55014-1:2006/A2:2011 EN 60950-1:2006/AC:2011

model	input voltage range (Vdc)	output voltage (Vdc)	output current typ (A)	output power max (W)	ripple and noise typ (mVp-p)	efficiency typ (%)
B10-1224-05	10-30	5	10	50	150	95

Note: All specifications measured at 25°C, nominal input voltage, and full load unless otherwise noted.

INPUT

Parameter	Test conditions or description	Min	Typ	Max	Units
operating input voltage	12/24 V input	10	12/24	30	Vdc

OUTPUT

Parameter	Test conditions or description	Min	Typ	Max	Units
line regulation	measured from high line to low line			±0.2	%
load regulation	measured from full load to zero load			±0.2	%
voltage accuracy				±1.5	%
adjust range		4.9	5	5.1	V
temperature coefficient			±0.03		%/°C

PROTECTIONS

Parameter	Test conditions or description	Min	Typ	Max	Units
output over voltage protection	%Vo	115		140	%
Output short circuit protection	Continuous				
current limit	% nominal output current	110	120	130	%
thermal shutdown case temp.			85		°C
cooling	free air convection				
fuse	built in PCB		30		A

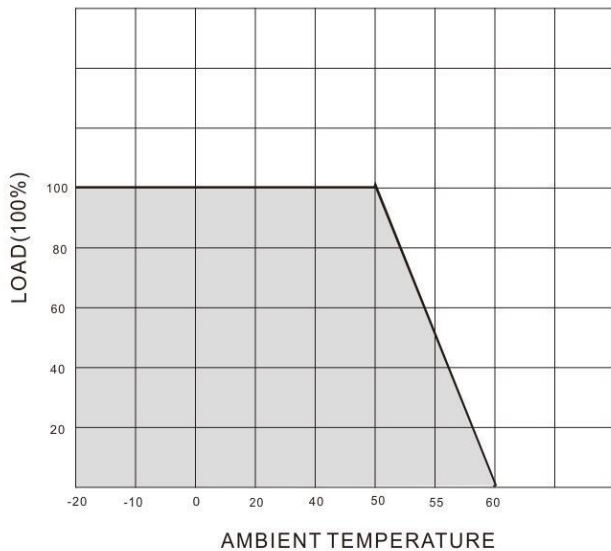
SAFETY AND COMPLIANCE

Parameter	Test conditions or description	Min	Typ	Max	Units
safety approvals	EN 61000-6-3:2007/A1:2011/AC:2012 EN 55014-1:2006/A2:2011 EN 60950-1:2006/AC:2011				
enclosures	IP68				

ENVIRONMENTAL

Parameter	Test conditions or description	Min	Typ	Max	Units
case operating temperature		-40	25	85	°C
Ambient temperature		-20		60	°C
storage temperature		-40		105	°C
humidity	non-condensing			95	%

DERATING CURVE



MECHANICAL

Parameter	Test conditions or description	Min	Typ	Max	Units
dimensions (L x W x H)	2.48 x 2.09 x 0.79 (63 x 53 x 20 mm)				inch
case material	plastic				
weight			70		grams
Package	1pcs/box, 200pcs/carton				
Carton measurement	34.5*22.5*25.5				cm

PHOTOS



MECHANICAL DRAWING

Units: mm

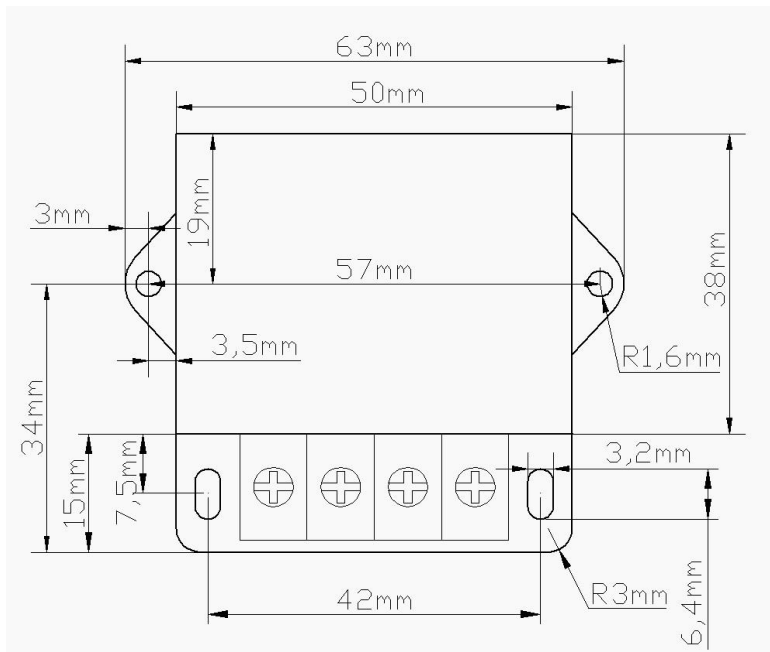


DIAGRAM WIRING

INPUT+ TO BATTERY+

INPUT- TO BATTERY-

OUTPUT+ TO LOAD+

OUTPUT- TO LOAD-

Notes: Never reverse the input polarity, or it burns the converter.

REVISION HISTORY

rev.	description	date
1.0	initial release	5/4/2014
2.0	revision	November 21, 2017

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Power conversion solutions from 1W to 200kW