

## 8-40V to 12V 3A 36W DC-DC CONVERTER, NON-ISOLATED

### FEATURES

- ✓ Wide input voltage from 8V to 40V
- ✓ Stable output voltage is 12V
- ✓ 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, Output short circuit 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	output	output current	output power	ripple and noise	efficiency
	range (Vdc)	voltage (Vdc)	typ (A)	max (W)	typ (mVp-p)	typ (%)
B03-0840-12	8-40	12	3	36	120	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	24 V input	8	12/24	40	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		11.8	12	12.2	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		15		A

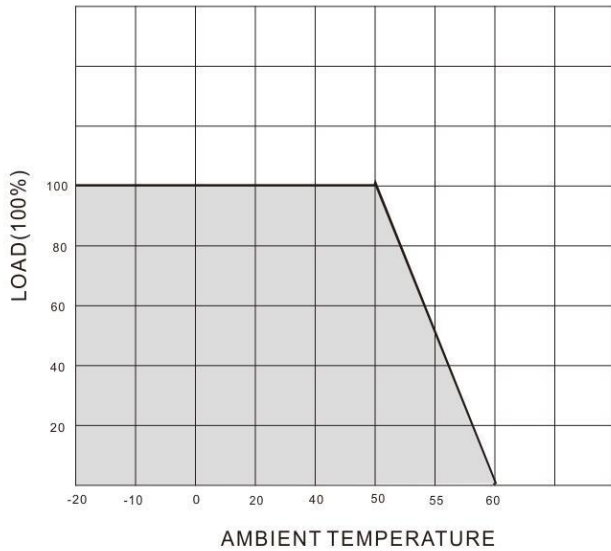
## SAFETY AND COMPLIANCE

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

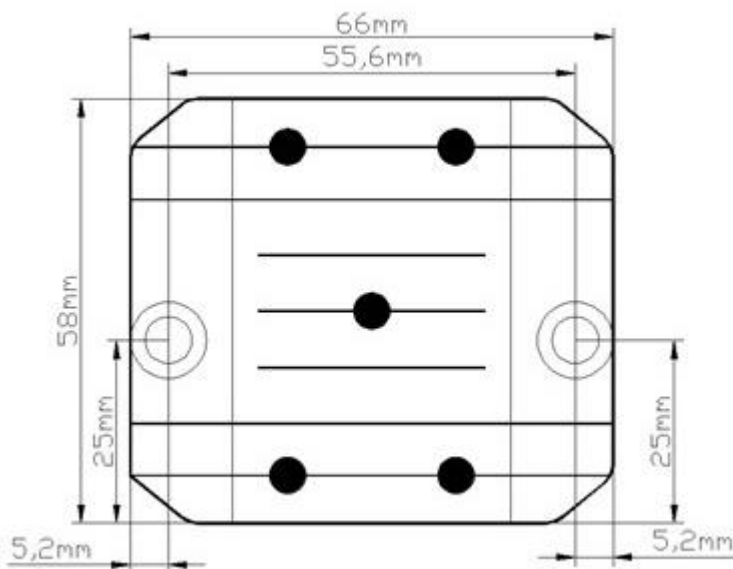
Parameter	Test conditions or description	Min	Typ	Max	Units
dimensions ( L x W x H )	2.6 x 2.28 x 0.91 (66 x 58 x 23mm)				inch
wire length	18				cm
case material	aluminum				
weight			125		grams
Package	1pcs/box,100pcs/carton				
Carton measurement	51.5*34.5*19				cm

## 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