

## Introduction – DC-DC Converters

DC to DC converters enable customers to derive low voltage DC signals from either 12 VDC or 24 VDC sources. They are typically connected at the output of a DC power source and can deliver DC voltages of 5, 12, 15 or 24 volts. DC voltage converters (DC to DC converters) are intended in particular for the decentralized power supply of circuits, assemblies and modules. DC voltage converters are often required for emergency generators to supply electrical devices from batteries or other DC systems.

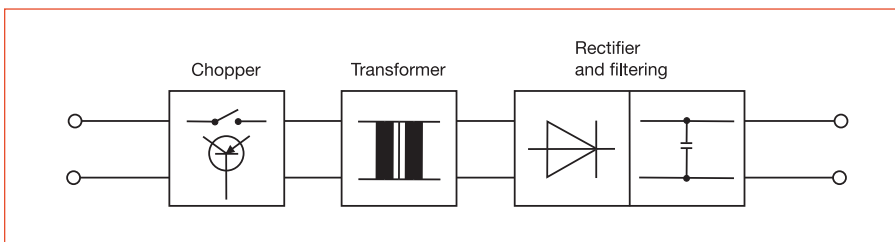
The CP-DCDC 50W family is available in 2 input versions and 4 output versions, making them very versatile.

Typical applications include feeding TTL level circuits (5 VDC) and providing emergency power to low voltage circuits.

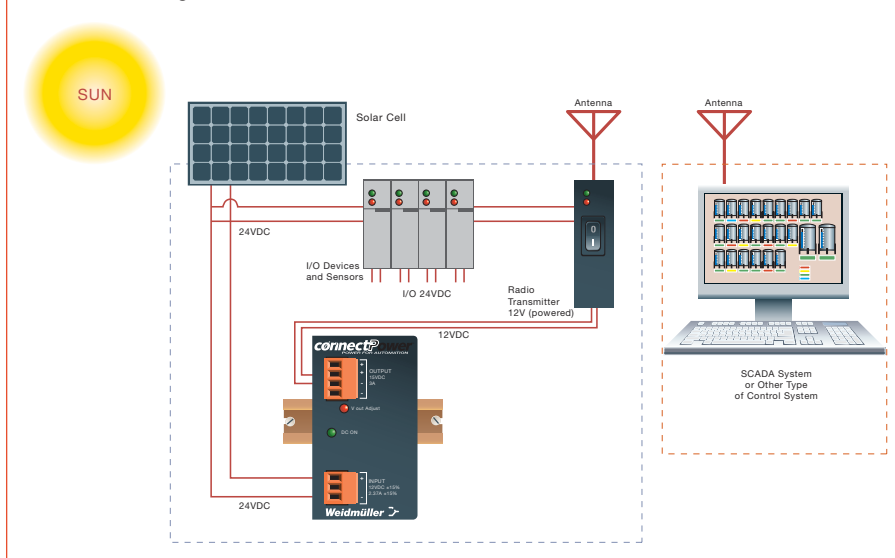
### DC-DC Converters

- 12V and 24V input versions
- 5V, 12V, 15V and 24V output variations
- User adjustable output voltage
- Input and output plug-socket connectors
- Output status LED
- DIN rail (TS35) mountable
- Chassis mountable with optional hardware

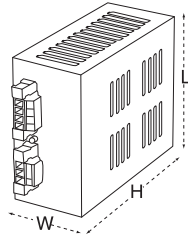
- Just 57mm (2.24") wide
- Robust metal housing
- CSA Class 1 Div 2 and Zone 2
- UL508 listed



### Remote Monitoring



- DC-DC converter used to convert solar array output (24 VDC in this case) that is used for powering 24 VDC input/output devices, to 12 VDC used for power to lower cost radio transmitter. The transmitter panel (remote monitoring system) transmits information to SCADA system that can monitor the conditions/physical properties at the remote site, taking corrective actions, alarming, or simply providing information on conditions at remote site.



CP-DCDC 50W  
12 VDC Input



CP-DCDC 50W  
24 VDC Input



Approvals:



Ordering Data

Output voltage/maximum current

Technical Data

Input voltage

Input Current for output of:

Input protection Fuse

Switching frequency

Efficiency at Maximum load

Maximum ripple

Overload protection

Maximum capacitance at output

Hold time

Temperature Storage

Operating

Humidity Operating temperature

Storage temperature

Galvanic isolation Input to output

Input/output to rail

Input to ground

Output to ground

Wire size

Dimensions (L x W x H)

Weight

Mounting position

Approvals/Certifications

Accessories

Chassis Mounting Kit

L Bracket Mounting Kit—Panelmount

Type Order No.

CP-DCDC 50W

22 - 24 VDC @ 2 A 9919371224

15 VDC @ 3 A 9919371215

12 VDC @ 3 A 9919371212

5 VDC @ 8 A 9919371205

12 VDC

10.2 VDC

Typical 12 VDC

Maximum 16 VDC

5 VDC @8A 4.53 A

12 VDC @3A 3.88 A

15 VDC @3A 4.7 A

24 VDC @2A 4.96 A

internal (not user serviceable) 2 A

180 kHz PWM

80% (75% 5 VDC @8 A)

0.2% RMS

Overvoltage switch-off with automatic reset/short circuit

10,000 µF (8000 µF 5 VDC @8 A)

2.5 mS

3.8 mS

3.5 mS

3.5 mS

-40°C...+85°C (-40°F...+185°F)

-10°C...+50°C (+14°F...+122°F) full rated load

20...85% RH

20...90% RH non-condensing

500 VAC RMS

4 KV RMS

500 VAC RMS

500 VAC RMS

0.1...4.0 mm<sup>2</sup> (26...12 AWG)

98 x 57 x 131 mm (3.86 x 2.24 x 5.16 in.)

454 g (1 lb.)

Horizontal on mounting rail TS35, Chassis w/ optional kit

CSA, UL Listed, CE

CSA Class 1 Div. 2 and Zone 2

Order No.

7920560000

7940000543

Type Order No.

CP-DCDC 50W

22-24 VDC @ 2 A 9919372424

15 VDC @ 3 A 9919372415

12 VDC @ 3 A 9919372412

5 VDC @ 8 A 9919372405

24 VDC

18 VDC

24 VDC

30 VDC

2.3 A

1.93 A

2.37 A

2.49 A

internal (not user serviceable) 2 A

330 kHz PWM

80% (75% 5 VDC @8 A)

0.2% RMS

Overvoltage switch-off with automatic reset/short circuit

8000 µF

7.8 mS

10 mS

7 mS

7 mS

-40°C...+85°C (-40°F...+185°F)

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