



# 10 Amp DC/DC Converter

## Product Specification Data Sheet

**Boost Voltage to Fully Charge Battery—No Matter the Temperature**

The DC/DC Converter allows operators to charge a remote 12 V battery bank at a temperature compensated voltage. This eliminates voltage loss due to long wire lengths and automatically adjusts for temperature extremes.

The DC/DC Converter charges liftgate and other batteries at the voltage needed, working to keep batteries charged and ready for your next lift.



### Specifications:

	Min	Max
Operating Voltage	8.0 V	16 V
Operating Temperature	-40°C	85°C
Heatsink Temperature		100°C
Humidity	0%	100%
Standoff Voltage		24 V
Reverse Polarity		-24 V
Input Current		12 A
Output Current		11 A
Quiescent current		< 30 mA
Voltage Regulation .....	Temp. Compensated	
IP67 Sealed .....	Yes	
Weight .....	3.74 lbs	

### Features:

- Automatically turns off if insufficient power
- No interference with vehicle ABS systems
- No interference with power line carriers (PLC)
- Boosts voltage to compensate for voltage drop
- Works in harsh environments (IP 67 graded)
- Temperature compensated charging without external sensors
- Built-in heatsink
- LED indication
- Charges through existing 7-way connector or dedicated single pole or dual pole connectors



# 10 Amp DC/DC Converter

## Electrical Characteristics

### DC/DC Converter

#### Characteristics:

Characteristic	Min	Typ	Max	Unit	Notes
Input Under-Voltage Turn Off	7.8	8.0	8.2	V	Input voltages below this level will cause the output to turn off.
Input Under-Voltage Recovery	10.3	10.5	10.7	V	Input voltages above this level will cause the output to turn on.
Input Over-Voltage Turn off	16.7	17.0	17.3	V	Input voltages above this level will cause the output to turn off.
Input Over-Voltage Recovery	15.1	15.8	16.1	V	Input voltages below this level will cause the output to turn on.
Input Quiescent Current	-	2	4	mV	Current draw from the input with no load attached to the output(J1-2), and ignition off Measured with the Input voltage at 12.6Vdc.
Efficiency	-	90	-	%	Over entire input voltage range at rated output current.
Output Voltage	-	14.2	-	V	The output voltage is temperature compensated. See "Temperature Compensation" graph.
Output Current Limit Boost Mode	-	10	-	A	Maximum current when in boost mode.
Output Current Limit Bypass Mode	-	12	-	A	

#### Wire Size:

Proper installation requires a minimum run length of wire on the input terminal. Use no less than 10 ft of 10 AWG wire. Use standard wiring practice for other connections.

Input Wire Length	Wire Gauge
10 – 20 Ft.	14
20 - 29 Ft.	12
30 – 39 Ft.	10
40 – 49 Ft.	8
50 – 59 Ft.	8
≥60 Ft.	6

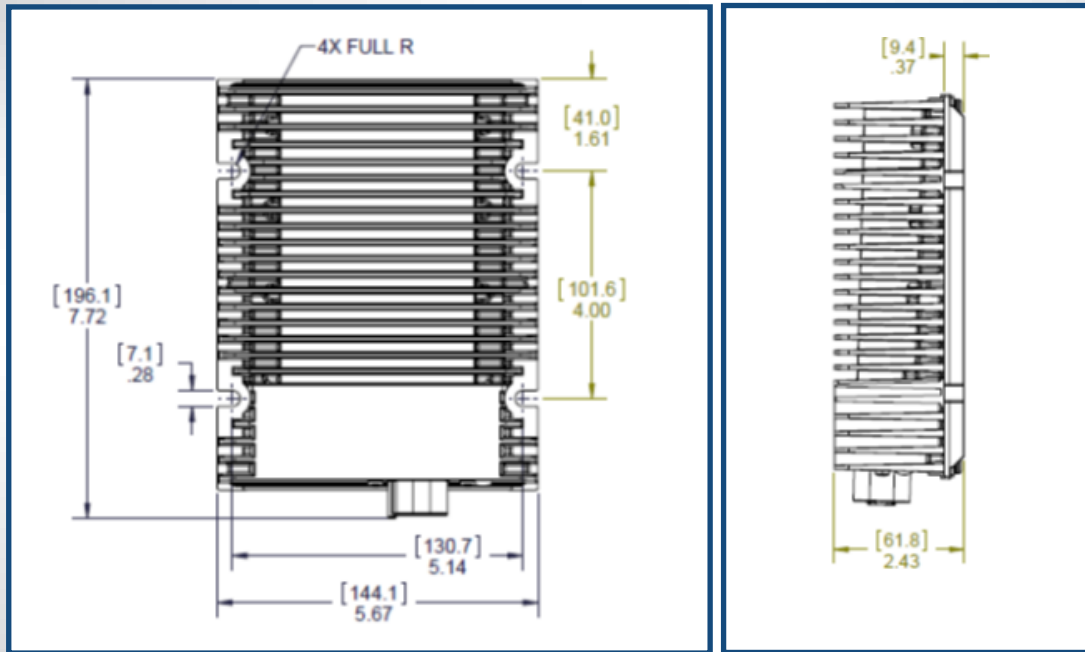


# 10 Amp DC/DC Converter

## Drawings and Diagrams

### DC/DC Converter

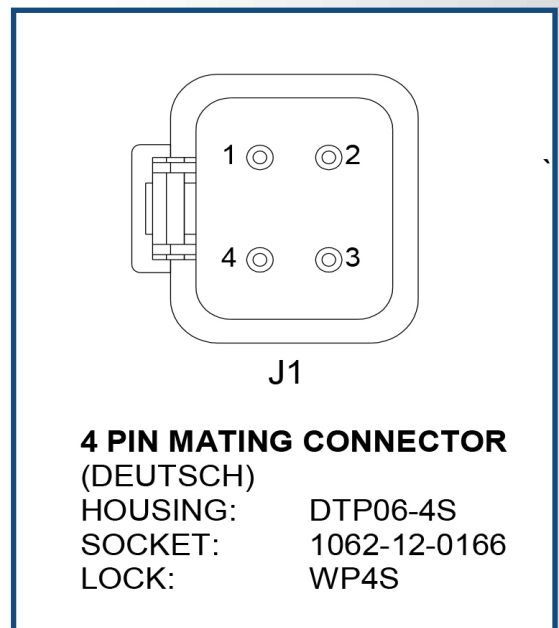
### Dimensions:



### Pins:

Connections to the unit are made via a 4-pin Deutsch connector. The terminals are as follows:

Pin	Name	Notes
J1-1	Vin	Provides the input voltage to the converter.
J1-2	Vout	Output to the battery to be charged. Keep wiring as short as possible.
J1-3	Ground	System ground. Must be common to both input and output.
J1-4	Ignition	Enables the converter when Ignition is on.



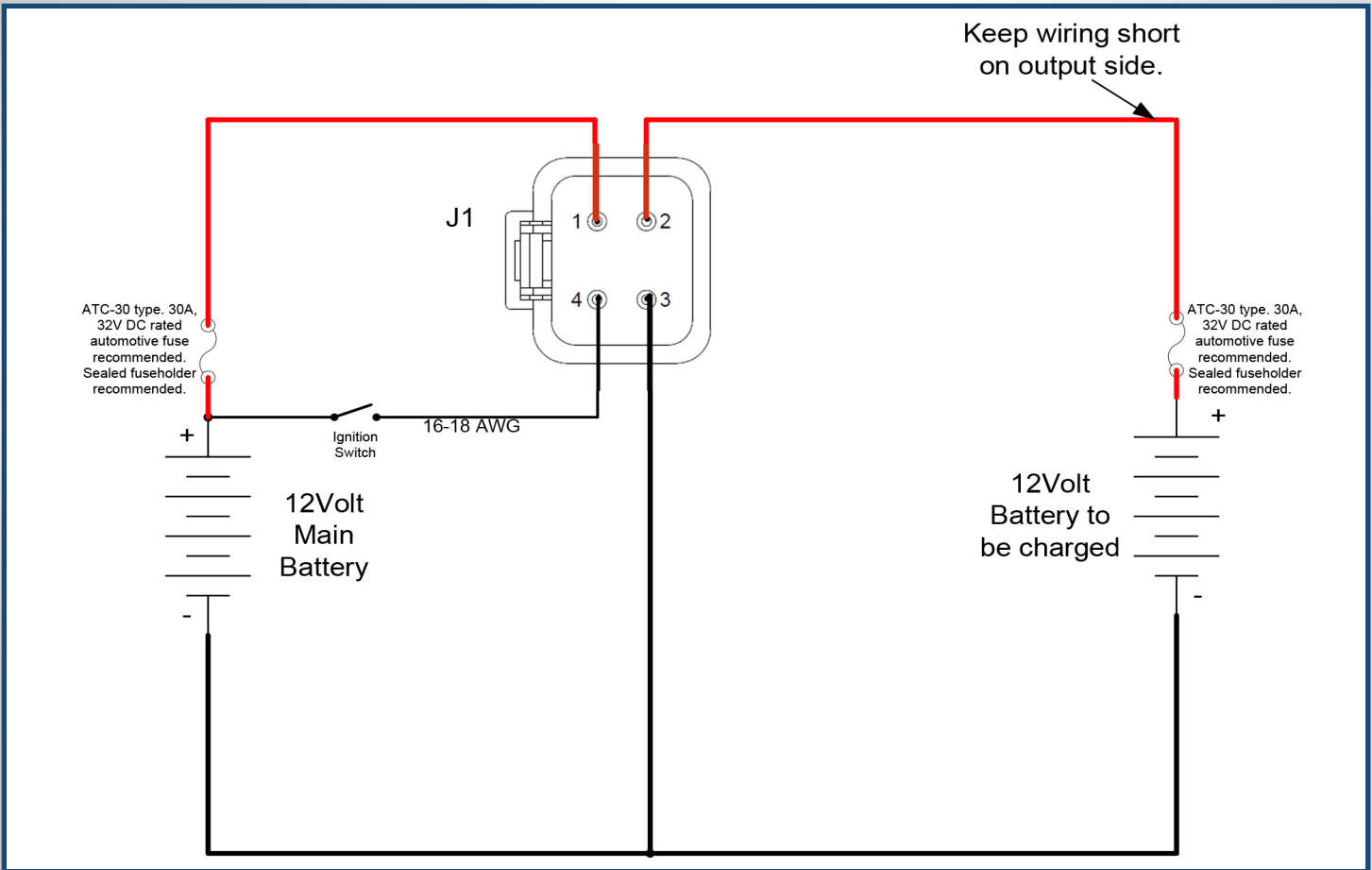
# 10 Amp DC/DC Converter



## Drawings and Diagrams

### DC/DC Converter

#### Wiring Diagram:



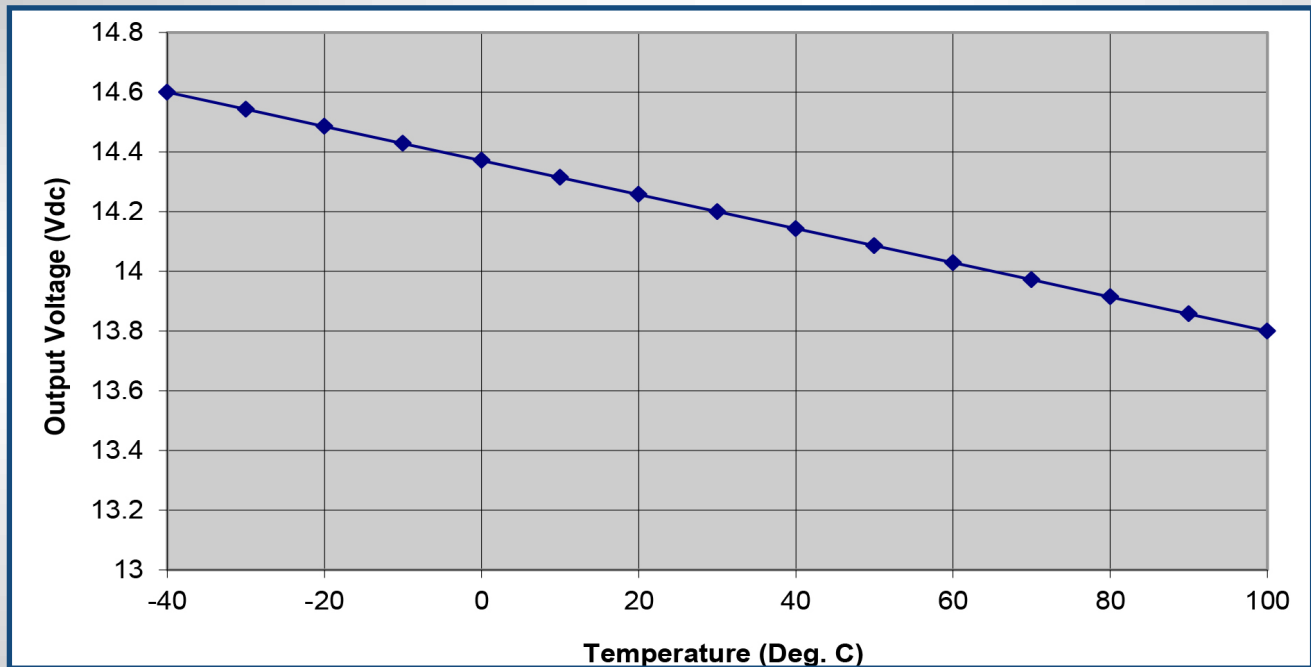


# 10 Amp DC/DC Converter

Drawings and Diagrams

DC/DC Converter

## Temperature Compensation:



## Load Regulation:

