

**SPECIFICATIONS:**

Ideal for charging, up to 60V, with controlled current up to 10A, the most diverse batteries, this mini Buck-Boost of 600W max completes the range of our Buck-Boost of 400W, 2.3kW and 2.8kW. It is molded in a resin that homogenizes its internal temperature and makes it insensitive to humidity, dust, shocks and vibrations.

**FUNCTIONS:**

- transforms any input voltage  $V_{in}$ , between 7.5 and 62V, into any output voltage  $V_{out}$ , adjustable from 2.5 to 60V (zero to 60V optional)
- accepts an input power  $P_{in}$  ( $V_{in}$  x input current  $i_{in}$  limited to 12A), increasing from 90W (7.5V x 12A) to 660W (60V x 12A)
- allows a power output  $P_{out} = P_{in}$  x efficiency
- has a precise limitation of the output current  $i_{out}$ , adjustable from 5 to 10A (0 to 10A in option)

**EXAMPLE OF CONVERSION 24V → 48V; efficiency: 92%**  
 $V_{in} = 24V$  determines  $P_{in\ max} = 24V \times 12A = 288W$ , generating  $P_{out\ max}$  of  $288W \times 0.92 = 265W$ , i.e. an output current  $i_{out}$  of 5.5A under 48V.

**OTHER FEATURES:**

- input zero and output zero: non isolated
- line and load regulation of the output voltage: < 1%
- current regulation, in constant current mode: < 2%
- residual: < 400mV
- switching frequency: ≈ 170kHz
- ON / OFF (optional)
- thermal characteristics:
  - ◆ thermal resistance of the case: 5°C / W
  - ◆ maximum case temperature: 100°C
  - ◆ storage temperature: -50°C to +120°C
  - ◆ suggested simple heatsink: ≤ 200 x 200 x 2mm aluminum sheet, according to the treated powers
- Case:
  - ◆ all aluminum: 80 x 55 x 26mm / weight: 200g / IP67 sealing
  - ◆ mounting: 2 smooth through holes Ø 4.2mm, and 2 blind M4 on support side; center distances: 45 x 71 mm
- Screw terminal block:
  - ◆ for inputs and outputs: 4 connections of 8mm<sup>2</sup>
  - ◆ additive connections: terminal block for wires Ø ≤ 1.8mm

**ADDITIONAL ADVANTAGE:**

Even when not powered, this regulator supports any positive output voltage, up to 60V, while absorbing only 0 to 1mA. This faculty allows, for example, the direct charge of a battery, without the classic and energy-consuming intermediate anti-reverse diode.

**SOME OPTIONS:**

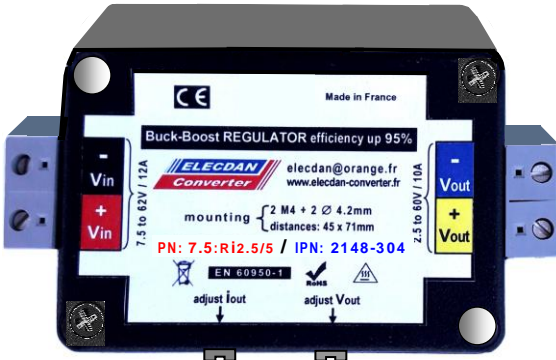
- output voltage and/or current adjustable down to zero
- output current adjustable down to 0
- factory-set  $V_{out}$  and  $i_{out}$
- ON / OFF (additive mini terminal block)
- outputs on overmoulded wires

**STANDARDS AND SPECIFICATIONS:**

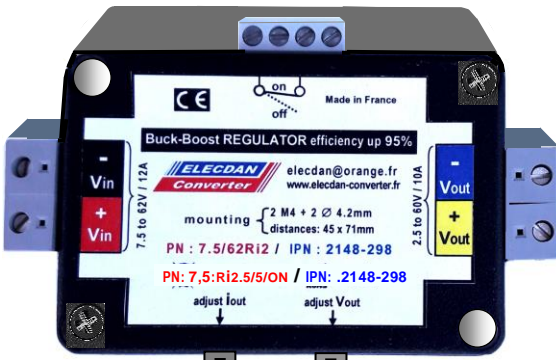
- CSA / 60950-1 / RoHS
- MTBF > 400 000 hours, at full load, base at 25°C

Examples of voltage conversions, and corresponding maximum powers								
Efficiency	92%	91%	92%	92%	93%	94%	93%	95%
Input voltage $V_{in}$	12V	24V	48V	60V				
Input power $max$	144W	288W	576W	630W				
Output voltage $V_{out}$	15V	24V	12V	48V	24V	60V	24V	48V
Output power $max$	132W	131W	120W	265W	240W	541W	240W	480W

Scale: 3/4 - Dimensions: 80 x 55 x thickness 26 mm

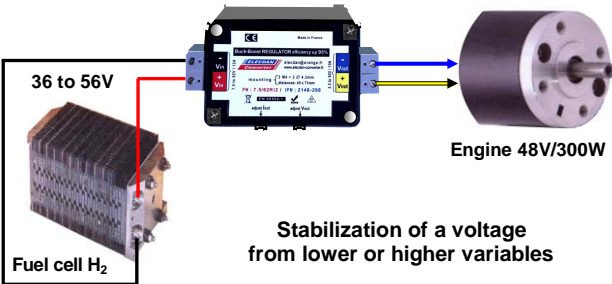


SKU: 7.5Ri2.5/5



SKU: 7.5Ri2.5/5/ON

**Example of application**



SKU	Version	Settings		Pre-tax prices (€)
		Vout	iout	
7.5Ri2.5/5	①	inbuilt 2.5 to 60V	inbuilt 5 to 10A	
7.5Ri0/0	②	inbuilt 0 to 60V	inbuilt 0 to 10A	
7.5RC./...	③	factory-set		
ON	④	option ON / OFF		

Please contact us for prices per quantity