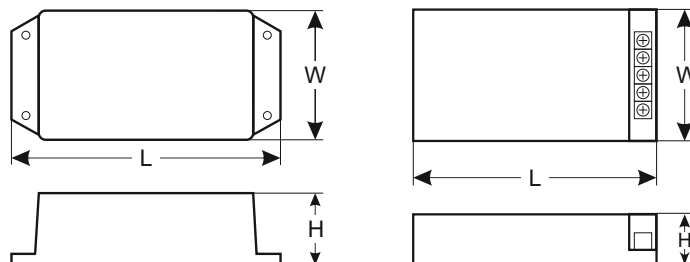


CODE: **Converters DCDC v.1.0/I**  
 NAME: **Step-down converters / Step-up/step-down converters**

EN



### Features:

- Two DC/DC converter topologies: voltage step-down and voltage step-up/step-down converters
- Adjustable output voltage – only for DCDC-ADJ2A-SD model
- Wide range of input voltage
- High efficiency: up to 94%
- Recommended for applications with low-tolerance supply voltage receivers
- Screw mounting
- Protections:
  - SCP short circuit protection
  - OLP overload protection
- LED optical indication
- Warranty – 2 years

### DESCRIPTION

DC/DC step-down and step-up/ step-down converters are used to adjust and stabilise the voltage, irrespective of any variations in the input voltage. Dedicated, among other things, to systems with buffer backup, where the output voltage is dependent on the battery charge level. Such solutions are particularly recommended for low-tolerance supply voltage devices. In step-down converters, the module's input voltage is stepped down to a level set at the output (adjustable in the DCDC-ADJ2A-SD). Input voltage must be higher than output voltage (min. 2 V). In step-up/step-down converters, on the other hand, the output voltage is stabilised over the entire input voltage range of the converter. For example, this makes it possible to stabilise the 12V voltage in a buffer system, irrespective of the battery charge level (10.5 - 13.8 V). Modules are not galvanically isolated between the inputs/outputs (IN-AUX, IN-OUT), so they operate on a common "ground".

Model	Input voltage	Output voltage	Output current max.	Power	Topology
DCDC-ADJ2A-SD	8 – 28 V	4,5 – 19 V	2 A	24 W	Lowering
DCDC-12V2A-SD	20 – 60 V	12 V	2 A	24 W	Lowering
DCDC-12V5A-SD	20 – 60 V	12 V	5 A	60 W	Lowering
DCDC-12V2A-SE	10 – 30 V	12 V	2 A	24 W	Step-up/step-down converter
DCDC-12V4A-SE	10 – 18 V	12 V	4 A	48 W	Step-up/step-down converter
DCDC-24V1A-SE	10 – 30 V	24 V	1 A	24 W	Step-up/step-down converter
DCDC-24V2A-SE	18 – 30 V	24 V	2 A	48 W	Step-up/step-down converter

Model	DCDC-ADJ2A-SD	DCDC-12V2A-SD	DCDC-12V5A-SD	DCDC-12V2A-SE	DCDC-12V4A-SE	DCDC-24V1A-SE	DCDC-24V2A-SE
Voltage adjustment range (power supply)	8 – 28 V	20 – 60 V	20 – 60 V	10 – 30 V	10 – 18 V	10 – 30 V	18 – 30 V
Input current	1,8 A	1,3 A	3,2 A	2,8 A	5,6 A	2,8 A	3 A
Output voltage	4,5 – 19 V	12 V	12 V	12 V	12 V	24 V	24 V
Output current	2 A	2 A	5 A	2 A	4 A	1 A	2 A
Module power P	24 W	24 W	60 W	24 W	48 W	24 W	48 W
Topology	Lowering			Step-up/step-down converter			
Energy efficiency	92%	91%	94%	89%	89%	92%	93%
Ripple voltage	20 mV p-p	20 mV p-p	20 mV p-p	20 mV p-p	20 mV p-p	20 mV p-p	50 mV p-p
Current consumption by module system	<10 mA	<10 mA	<40 mA	<20 mA	<30 mA	<30 mA	<40 mA
Short-circuit protection SCP	electronic, automatic recovery						
Overload protection OLP	110-150% module power @25°C, manual restart (failure requires disconnection of DC output circuit)						
Optical indication - a diode indicating DC power status at the PSU output	- n/a	- green, normal status: permanently illuminated					
Operating conditions	-10°C +40°C, air flow must be provided around the module for convection cooling						
Declarations, warranty	CE, 2 years						

