

## DC2412-UPSDP2

12 VDC / 5 A

- ✓ DC UPS with wide range input 16...32 VDC and uninterruptible 12 VDC output
- ✓ DIN Rail version
- ✓ Already integrated Supercap as energy storage (5.1 kJ) on the PCB
- ✓ Temperature range -20...+65 °C
- ✓ Maintenance-free
- ✓ Active reverse polarity protection
- ✓ Power-fail signal via relay
- ✓ Additional features to open frame version:
  - Reboot function
  - Operation of UPS at host without software possible
  - Output release from 90% Supercap capacity



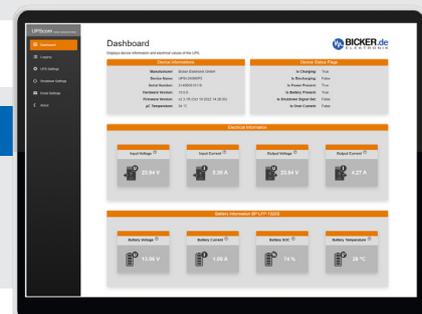
Including  
Software  
UPScom

### Technical Data

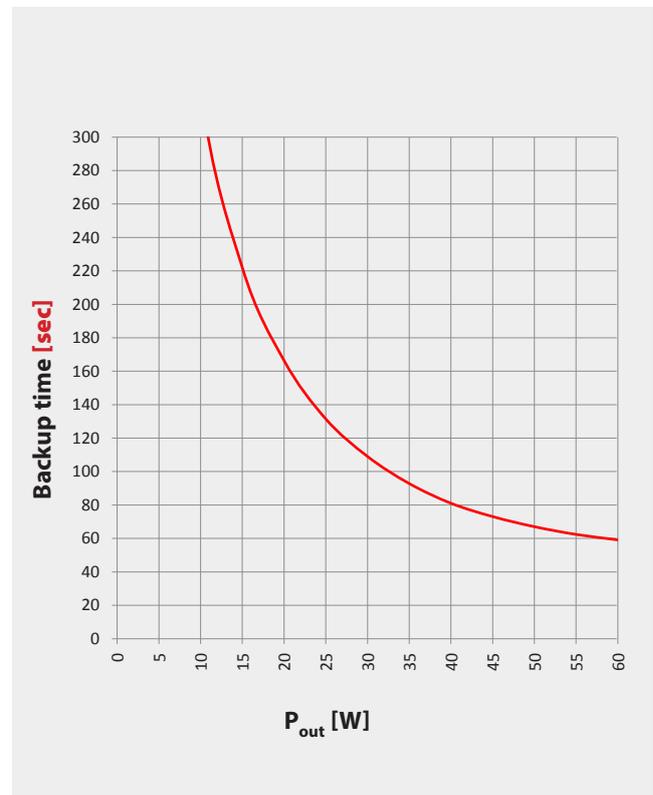
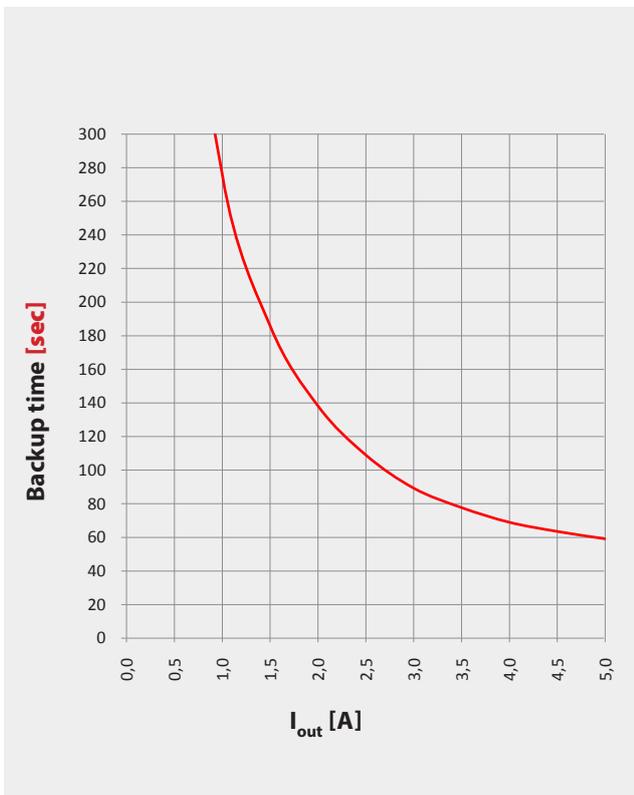
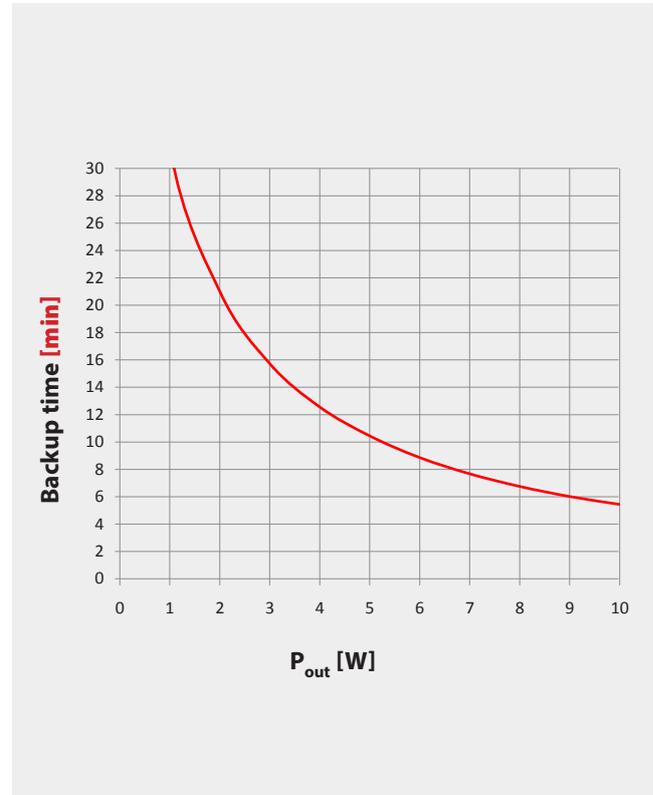
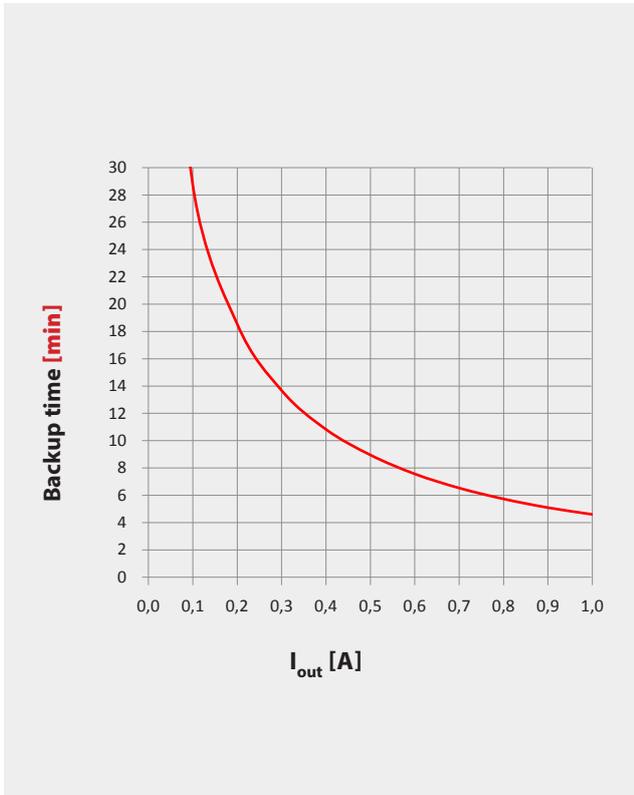
Input voltage	24 VDC (16...32 V)
Input current	2.9 A max.
Output voltage	12...11.8 VDC (depending on load)
Output current	5 A nominal
Charging method	CC – Constant Current
Protection	Overcurrent protection (non latch) Active reverse polarity protection
Interface	RS232
Battery technology	EDLC (Supercaps): 5.1 kJ (3.8 kJ useful) / 1.4 Wh (1.1 Wh useful)
Ambient temperature	Operating: -20...+65 °C Storage/Transport: -30...+65 °C
Operating altitude	≤4000 m
Max. permitted humidity	Operating: 10...85 % RH Storage: 10...90 % RH (no dew)
Dimensions W / H / D	67 x 147 x 122 mm (without front connectors and DIN Rail mounting bracket)
Weight	0.72 kg

### UPScom MANAGEMENT SOFTWARE

The software „UPScom“ is available for free.  
Download directly on the product page at  
[www.bicker.de/dc2412-upsdp2](http://www.bicker.de/dc2412-upsdp2)



## Backup time\* DC2412-UPSDP2



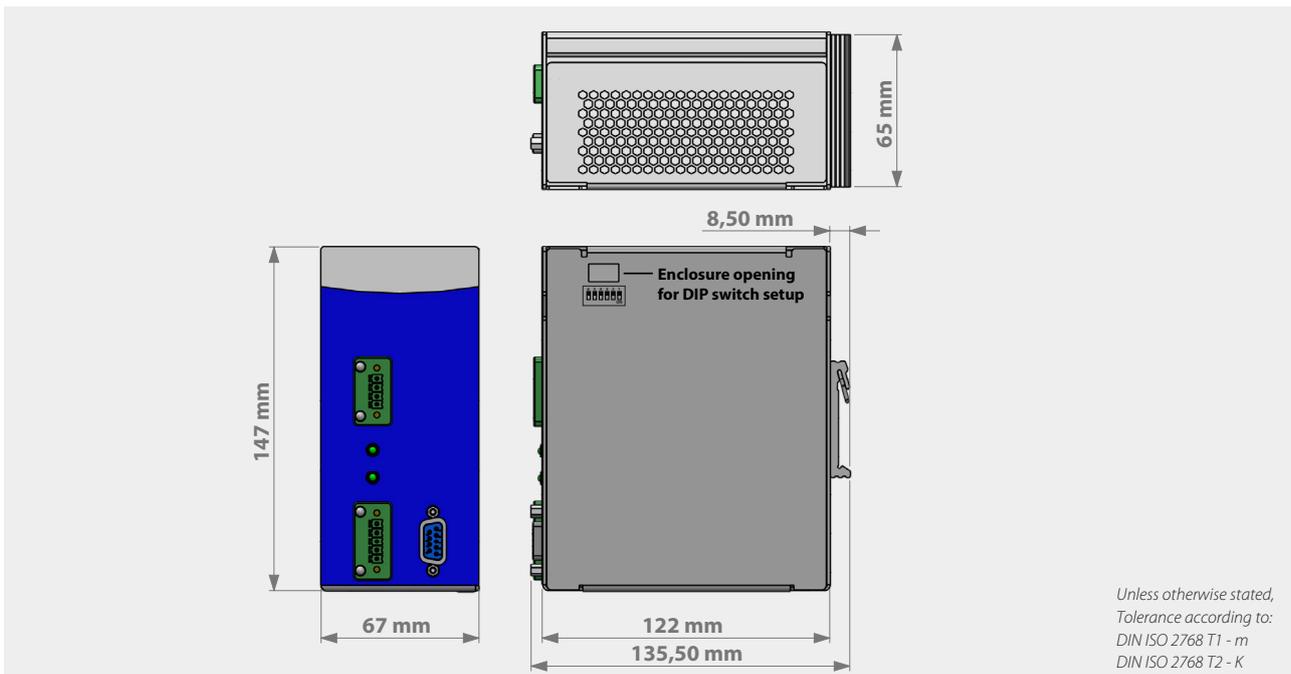
\*Backup time depends on battery capacitance, load and temperature. At very high or low temperatures a reduction of backup time occurs. Unless otherwise specified, the values apply to measurements at +25 °C

## SHORT OVERVIEW – TECHNICAL DATA

Unless otherwise stated, all specifications apply to 25 °C ambient temperature, 24 VDC input voltage and nominal output current ( $I_N$ ).

<b>Input current consumption</b>	
$I_N$ ( $U_N, I_{OUT} = I_N, I_{CHARGE} = 0$ )	2.7 A
$I_{MAX}$ ( $U_N, I_{OUT} = I_N, I_{CHARGE} = \max$ )	2.9 A
$I_{NO-LOAD}$ ( $U_N, I_{OUT} = 0, I_{CHARGE} = 0$ )	<100 mA
$I_{CHARGE}$ ( $U_N, I_{OUT} = 0, I_{CHARGE} = \max$ )	2.17 A
<b>Input Power consumption</b>	
$P_N$ ( $U_N, I_{OUT} = I_N, I_{CHARGE} = 0$ )	65 W
$P_{MAX}$ ( $U_N, I_{OUT} = I_{STAT.BOOST}, I_{CHARGE} = \max$ )	70 W
$P_{CHARGE}$ ( $U_N, I_{OUT} = 0, I_{CHARGE} = \max$ )	52 W
<b>Output current</b>	
$I_N$	5 A
<b>Output power</b>	
$P_N$ ( $U_N, I_{OUT} = I_N, I_{CHARGE} = 0$ )	60 W
Undervoltage threshold	13.8 V
Overcurrent shutdown	7.0...7.5 A
Charging time ( $I_{CHARGE} = \max, I_{OUT} = 0$ )	Approx. 3 min
Buffer time ( $I_{OUT} = I_N$ )	Approx. 58 sec

## Drawing DC2412-UPSDP2



## Pin assignment DC2412-UPSDP2

### RS232

01	DCD at PC – Detection cable connected
02	TXD (is connected to RXT at PC)
03	RXD (is connected to TXD at PC)
04	Shutdown signal detection
05	GND
06	DSR at PC – Detection caps loading status
07	RTS at PC – Supply voltage
08	CTS at PC – Power Fail detection
09	N/A

### RL / PBR

RL	Relay connection
RL	Relay connection
PBR –	(V–) Shutdown-Signal (Impulse 200-400 ms)
PBR +	(V+) Shutdown-Signal (Impulse 200-400 ms)

### IN / IGN / OUT

IN +	V+ Input
IN –	V– Input
IGN	n.c.
OUT +	V+ Output
OUT –	V– Output

### COUNTERPART RELAY CONNECTOR

Dinkle EC381VM-04P

### COUNTERPART POWER IN-OUT CONNECTOR

Dinkle EC381VM-05P

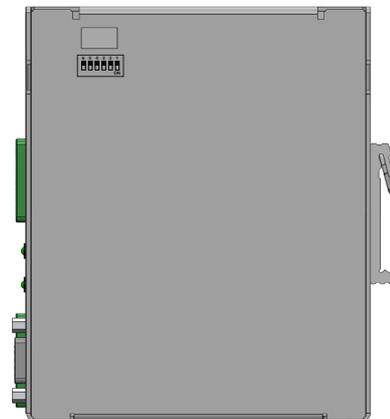
Counterparts included in scope of delivery

### RELAY CONTACT FOR POWER FAIL

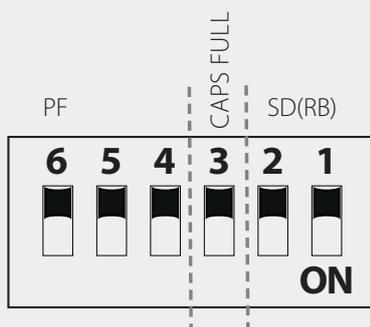
Power Fail  $\triangleq$  0  $\Omega$  / NC (Normally Closed)

0.5 A @ 125 VAC

1 A @ 24 VDC



## DIP SWITCH SETUP



### POWER FAIL (PF) - TIMER

6	5	4	PIN
<b>ON</b>	<b>ON</b>	<b>ON</b>	Software
OFF	<b>ON</b>	<b>ON</b>	3s
<b>ON</b>	OFF	<b>ON</b>	8s
OFF	OFF	<b>ON</b>	20s
<b>ON</b>	<b>ON</b>	OFF	40s
OFF	<b>ON</b>	OFF	60s
<b>ON</b>	OFF	OFF	100s
OFF	OFF	OFF	150s

### OUTPUT RELEASE

PIN 3	
<b>ON</b>	Output released when $V_{CAP}$ over 90%

### SHUTDOWN TIMER

PIN	2	1
No Reboot	<b>ON</b>	<b>ON</b>
Reboot after 10s	OFF	<b>ON</b>
Reboot after 30s	<b>ON</b>	OFF
Reboot after 60s	OFF	OFF

## DC2412-UPSP2

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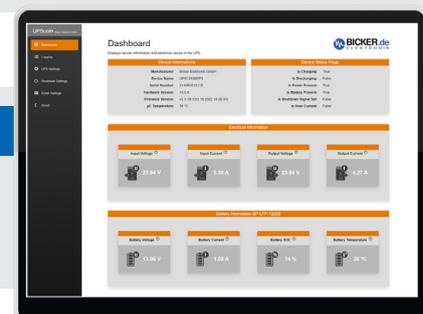
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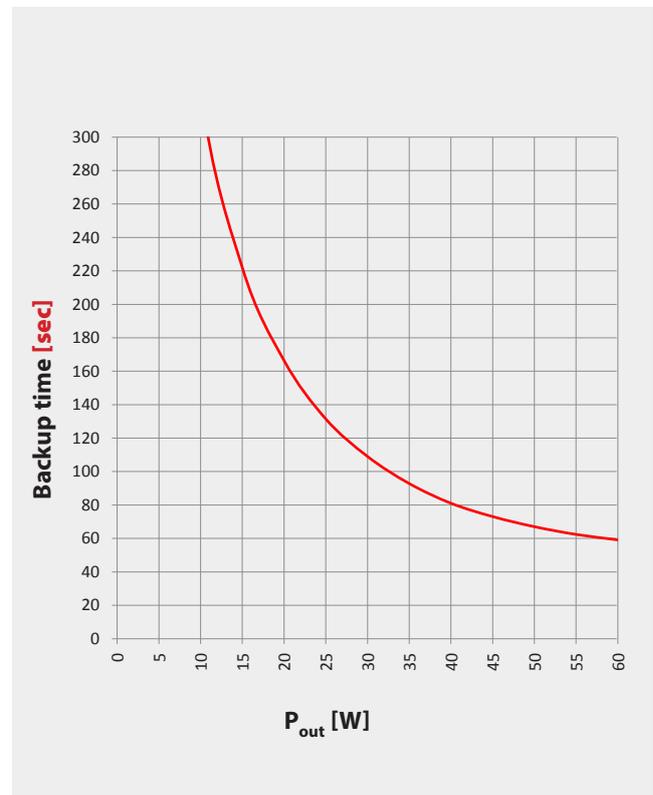
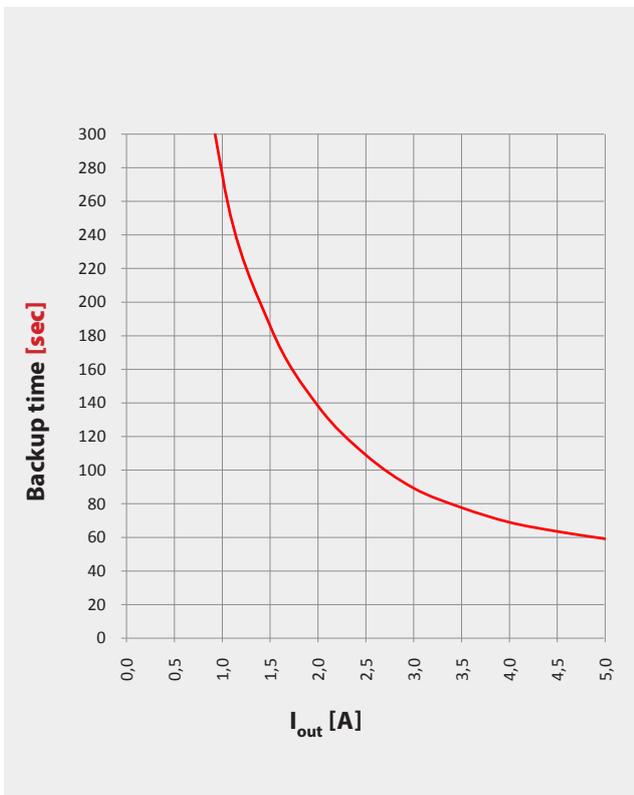
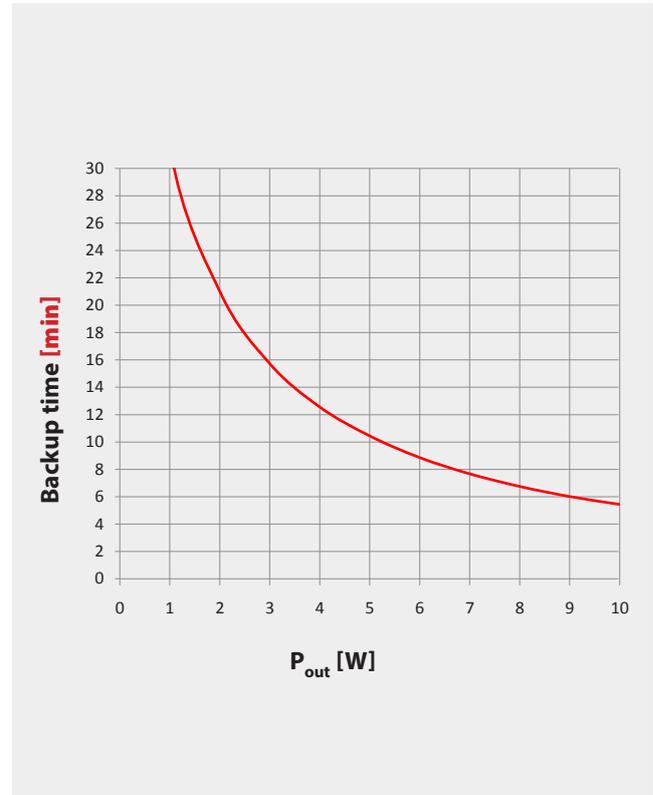
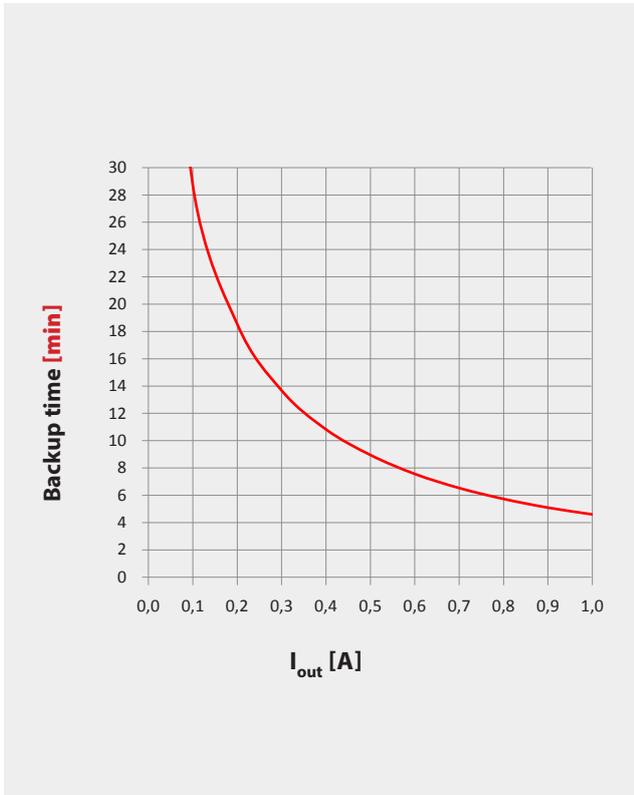
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Operating altitude	≤4000 m
Max. permitted humidity	Operating: 10...85 % RH Storage: 10...90 % RH (no dew)
Dimensions W / H / D	135 x 60.5 x 79.5 mm (incl. Supercaps)
Weight	0.35 kg

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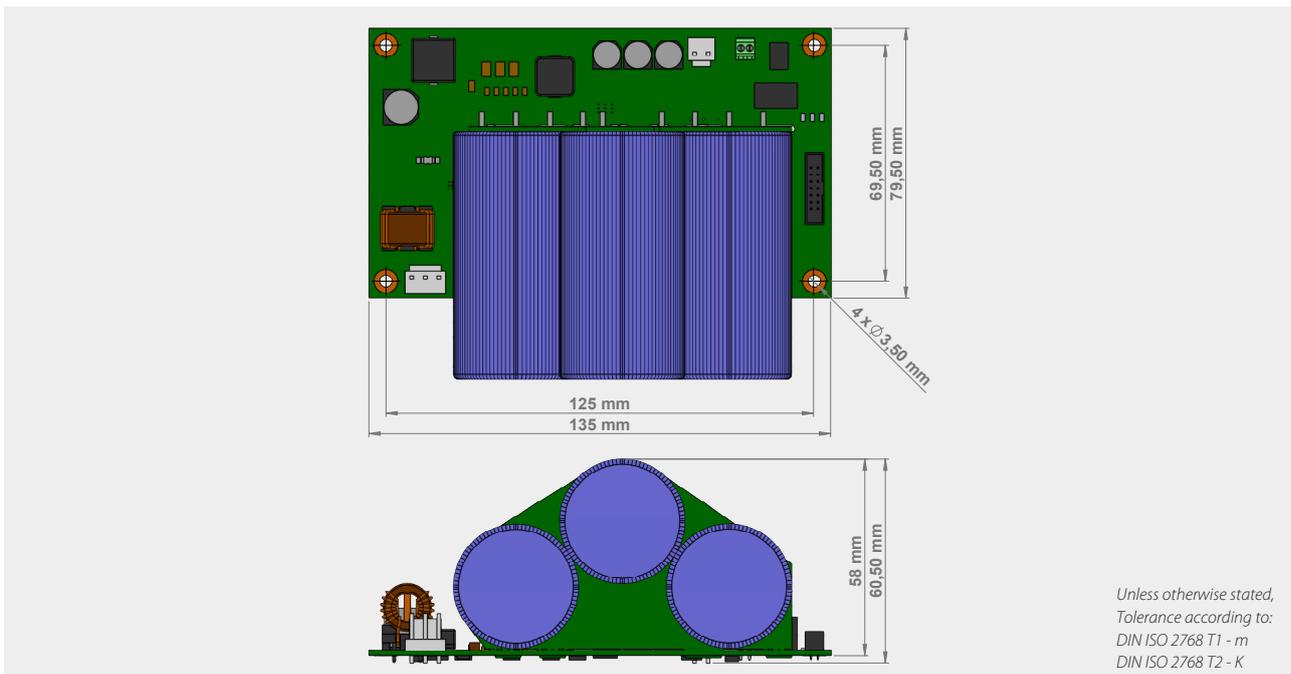
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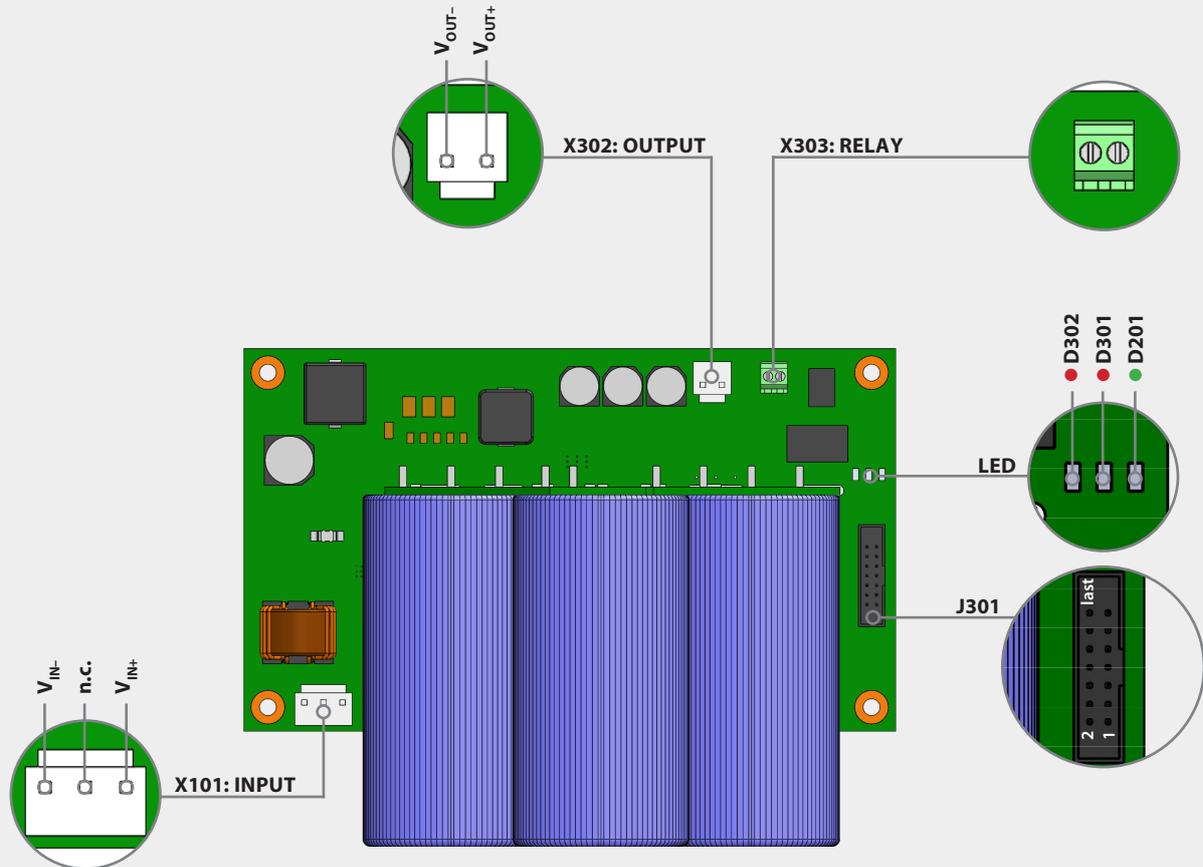
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## Drawing DC2412-UPSP2



## Pin assignment DC2412-UPSP2



### J301 – RS232

01	DCD signal
02	DSR signal (Low = Cap >90%; High = Cap <90%)
03	n.c.
04	RTS signal (Supply voltage, max. 12V)
05	n.c.
06	CTS signal (Low = Power Fail; High = Power OK)
07	n.c.
08	$\overline{OD}$ (Output Disable)
09	GND

### J301 – I<sup>2</sup>C

10	SMB alert
11	GND
12	XSDA I <sup>2</sup> C
13	+12V
14	XSCL I <sup>2</sup> C

### CONNECTORS

INPUT	JST-B3P-VH
OUTPUT	JST-B2P-VH
J301	WE 62501021621
RELAY	WE 691210910002

### LEDS

D302	RED	Caps charging state <90%
D301	RED	Power fail, backup mode
D201	GREEN	Normal mode

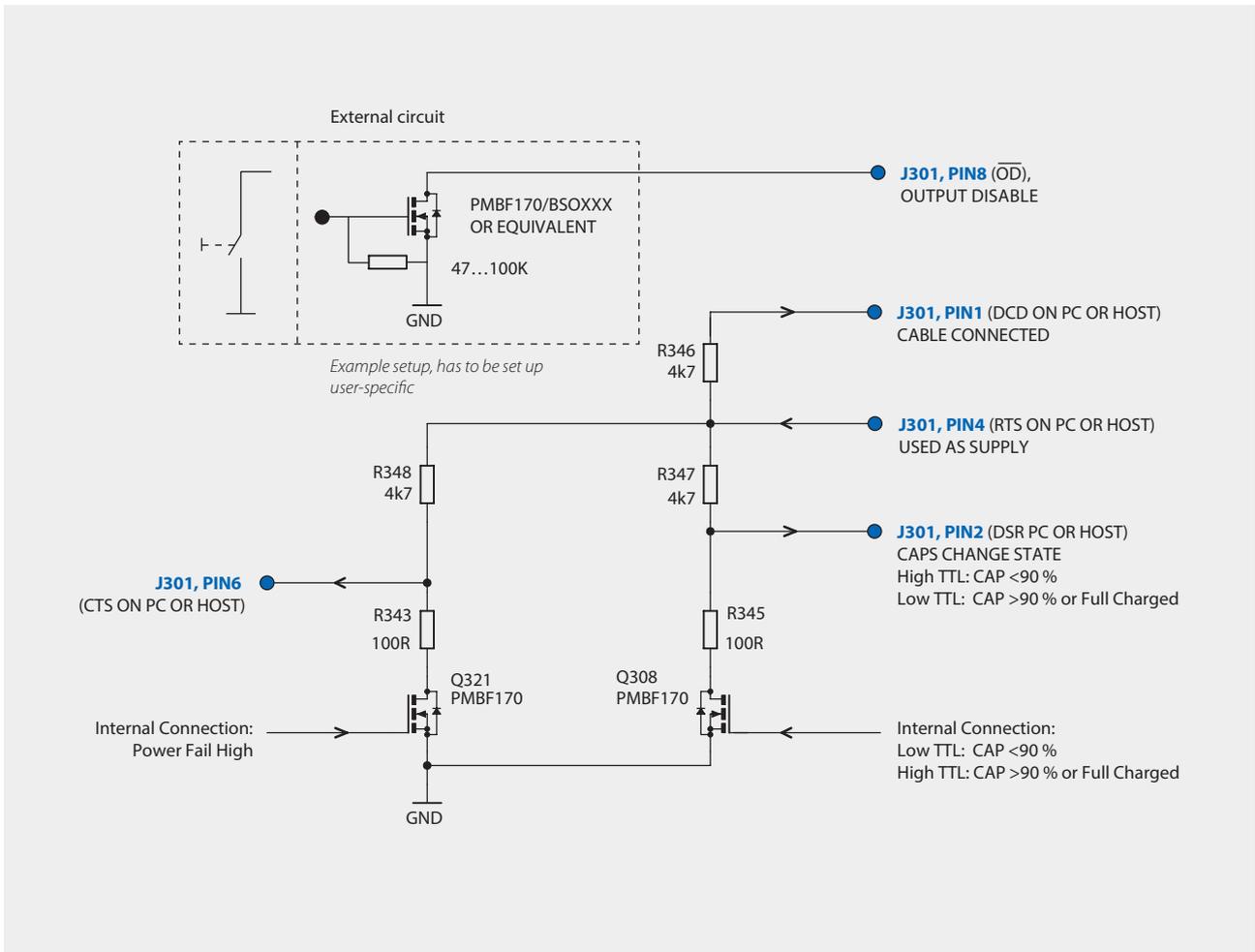
### RELAY CONTACT FOR POWER FAIL

Power Fail  $\triangleq$  0  $\Omega$  / NC (Normally Closed)

0.5 A @ 125 VAC

1 A @ 24 VDC

## Interface schematic J301



Specification is subject to change without notice. Errors excepted. Status as at: 02.08.2023