

USW2 is a compact (<22 mm width) power supply developed according to USB standard. It is aimed to be used for standard in-wall modules. The PCB can be assembled in various custom made enclosures in order to remain compliant to the customer's design needs.

#### ■ Main Features

- )] Ultra compact in-wall USB Power Supply (< 22mm width)
- )] Developed according to USB standard
- )] Modular PCB can be assembled in various custom made enclosure

## TECHNICAL DATA

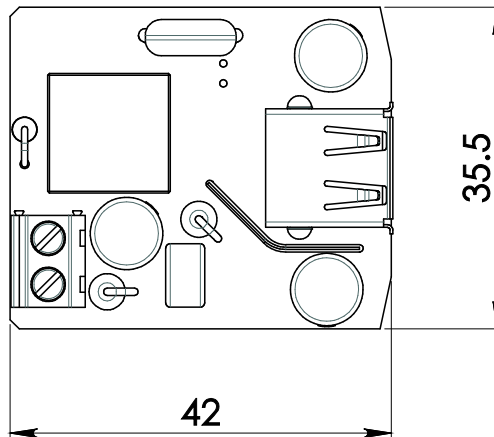
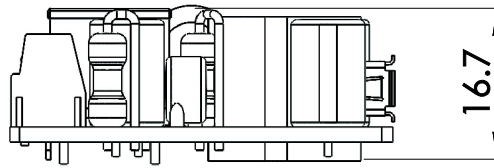
Model type	USW2A	
<b>OUTPUT DATA</b>		
Output voltage	5Vdc $\pm$ 10%	
Continuous current	1A	
Overload limit	1.25A	
Short circuit peak current	1.50A	
Load regulation	$\leq$ 2%	
Ripple & Noise <sup>1</sup>	$\leq$ 100mVpp	
Hold up time	$\geq$ 25ms	
Vin = 120Vac	$\geq$ 80ms	
Vin = 230Vac		
Protections	Constant current at the overload limit with auto reset	
<b>INPUT DATA</b>		
Input AC rated voltage	Nominal: 120...240Vac	
Frequency	Range: 90...264Vac 47...63Hz	
Input DC rated voltage	110...345Vdc	
Input AC rated current	120mA	
Vin = 120Vac	70mA	
Vin = 230Vac		
Input DC rated current	80mA	
Vin = 110Vdc	40mA	
Vin = 345Vdc		
Internal protection fuse	Fuse Resistor 10 $\Omega$ (not user replaceable)	
<b>GENERAL DATA</b>		
Efficiency	$>$ 73%	
Dissipated power	$<$ 60mW	
Operating temperature	- 20°C...+ 60°C	
Storage temperature	- 40°C...+ 80°C	
Humidity	5...95% r.H. non condensing	
Overvoltage category	▪ EN50178	II
Pollution degree	▪ IEC60664-1	2
Input / output isolation	4.2kVdc	
Safety Standards	▪ UL508	(reference)
	▪ EN60950	(reference)
	▪ EN50178	(reference)
EMC Emission	▪ EN55011 (CISPR11)	Class B
	▪ EN55022 (CISPR22)	Class B
EMC Immunity	▪ EN61000-4-2	Level 2
	▪ EN61000-4-3	Level 2
	▪ EN61000-4-4	Level 2
	▪ EN61000-4-5	Level 2
	▪ EN61000-4-11	Level 2
Protection degree	▪ EN60529	IP20
Vibration sinusoidal	▪ IEC 60068-2-6	(5-17.8Hz: $\pm$ 1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z))
Shock	▪ IEC 60068-2-27	(30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)
Connection terminals Input	1.5mm <sup>2</sup> , screw type header (24...16AWG)	
Connection terminals Output	USB-A female connector	
Case material	Plastic, Flame retardant UL94 V-0	
Weight	25g	
Size (W x H x D)	16.7 x 35.5 x 42mm (PCB dimension) To be hosted in a standard 22mm switch type housing	

1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1 $\mu$ F MKP parallel capacitor.

## Notes:

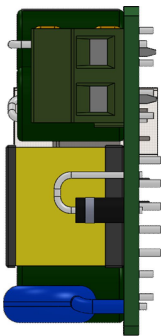
- Technical parameters are typical, measured in laboratory environment at 25°C and 230Vac / 50Hz, at nominal values, after minimum 5 minutes of operation.
- Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.
- Data may change without prior notice in order to improve the product.

**DIMENSIONS**



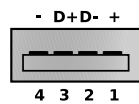
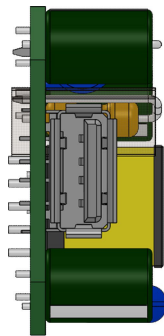
**CONNECTION**

Input Connection Side



- Single phase:
- L = Line
  - N = Neutral

USB-A Side



- 1 = VBUS (+5V)
- 2 = Data (D-)
- 3 = Data (D+)
- 4 = GND