

Flush-mounted:
The power supply
unit can be fully
hidden in walls.

Flush-mounted

SEEING THE UNSEEN

The FRIWO flush-mounted range: Compact, highly efficient switch mode power supply units, with an optimum size for easy mounting. With a maximum diameter of just 51 mm, these units are ideal for installation in all standard flush-mounted sockets and can be fully hidden in walls. FRIWO's flush-mounted power supply units offer numerous advantages, from protection against vandalism to reduced cleaning in applications that require high levels of hygiene. This has made them a firm favorite for building technology, security and sanitary applications. Their cast housing means they are ideally suited for use in damp environments (protection class IP67).

Along with 6 W, 12 W and 18 W cast devices, the flush-mounted range includes the UP USB. This power supply unit features two USB interfaces in one standard socket, allowing you to charge a broad range of home and office devices directly from the wall, while reducing the need for additional chargers and annoying tangled cables. More power for each port: The third generation of the FRIWO UP USB socket comes with an intelligent detection by smart IC. This allows the connected devices to be provided with individually adjusted currents - with a maximum power of up to 3 A at a USB port! A significant advantage compared to conventional UP USB solutions, which, despite a total capacity of 3 A, can only provide max. 1.5 A per USB port.



For easy installation and
protection against vandalism.

All the devices in the UP range have a 90 to 264 V AC wide range input, making them suitable for use anywhere in the world. The devices are protection class II compliant, voltage controlled, current-limited and continuously short-circuit-proof, which means they offer a high level of operational safety combined with a long operational life. They also comply with the latest guidelines. Thanks to idle consumption of ≤ 300 mW and high efficiency at every power level, the units comply with the current threshold values of various energy efficiency programs, such as Energy Star, MEPS or ErP. Flush-mounted power supply units with custom outputs or special leads are also possible on request.

Characteristics

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Technical data

Input voltage	100 – 240 V
Frequency	50 – 60 Hz
Input current	150 mA (UP6), 200 mA (UP USB), 400 mA (UP12, UP18)
Leakage current	≤ 10 µA (UP6), ≤ 25 µA (UP12, UP18), ≤ 90 µA (UP USB)
Output voltage tolerance	± 5 %
Efficiency (typ. full load)	≥ 80 %
MTBF	200.000 h*

Environmental specifications

Operating temperature	0 – 40 °C
Humidity	10 – 95 %
Storage temperature	-20 – 70 °C

Safety specifications

Layout acc. to safety standard	IEC 60335-1, IEC 60950, IEC 61558 (UP6, UP12, UP18), IEC 60950 (UP USB)
Approvals	EU, US (UP6, UP12, UP18), EU (UP USB)
Safety class	II
EMC	EN 55011, EN 55024, EN 55032 (UP6, UP12, UP18), EN 55024, EN 55024 (UP USB)

Mechanical data

Dimensions	51.0 x 48.0 x 25.0 mm (UP6), 51.0 x 48.0 x 35.0 mm (UP12, UP18), 48.0 x 44.0 x 43.0 mm (UP USB)
Weight	95 g (UP6), 130 g (UP12, UP18), 70 g (UP USB)
Connectors	AC input: Leads 150 mm (UP6, UP12, UP18) Screw terminal 2 x 2.5 mm ² (UP USB) DC output: Leads 150 mm (UP6, UP12, UP18) USB socket type A (UP USB)

Please find adapters and accessories on page 86.

For notes on connection and safe operation, please refer to the operating instructions.

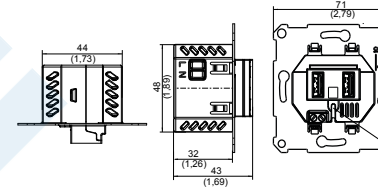
*Mil217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)



UP USB



FW7810 | Optionally with smart IC
for intelligent device recognition



Alle Abmessungen in Millimeter (Inch), Abweichung ± 0,5 (0,02)
All Dimensions in Millimeter (Inch), deviation ± 0,5 (0,02)

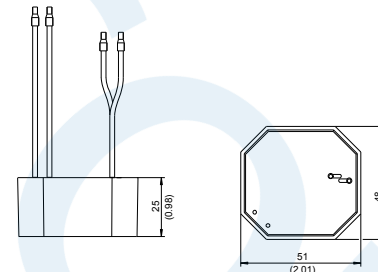


Output data				Worldwide	
Voltage	Current	Smart IC	Ripple voltage	Support ring	Article no.
5 V	2100 mA	no	80 mV pp	yes	1897516
5 V	2100 mA	no	80 mV pp	no	1899027
5 V	3000 mA	yes	80 mV pp	yes	1899549
5 V	3000 mA	yes	80 mV pp	no	1899778

UP6



FW7801



Alle Abmessungen in Millimeter (Inch), Abweichung ± 0,5 (0,02)
All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0,02)

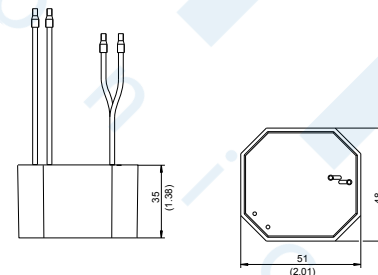


Output data			Worldwide
Voltage	Current	Ripple voltage	Article no.
4 V	1300 mA	300 mV pp	1891505
5 V	1200 mA	300 mV pp	1894388
6 V	1000 mA	300 mV pp	1891506
9 V	660 mA	300 mV pp	1891507
12 V	500 mA	300 mV pp	1891508
15 V	400 mA	300 mV pp	1891509
18 V	330 mA	300 mV pp	1891510
24 V	250 mA	300 mV pp	1891511

UP12 / UP18



FW7802 / FW7803



Alle Abmessungen in Millimeter (Inch), Abweichung ± 0,5 (0,02)
All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0,02)



Output data UP12			Worldwide
Voltage	Current	Ripple voltage	Article no.
12 V	1000 mA	300 mV pp	1891767
24 V	500 mA	300 mV pp	1891768

Output data UP18			Worldwide
Voltage	Current	Ripple voltage	Article no.
12 V	1500 mA	400 mV pp	1832688
24 V	750 mA	400 mV pp	1891685