

Switchmode Power Supplies Medical Series

Conforms to IEC 60601-1



Applications

- Blood analyser
- Patient monitors
- Measuring equipment
- Laboratory equipment
- Inhalers
- Patient lifts

Characteristics

- Universal input 100 to 240 V AC
- Exchangeable primary adapters
- Constant voltage, current limited
- Green LED indicator
- Low leakage current $\leq 10 \mu\text{A}$
- Low standby power
 ≤ 0.3 Watts GPP 10/18 resp.
 ≤ 0.5 Watts MPP 15/30 and
GPP 10/18 (15, 18, 24 V)
- Continuously short circuit proof

Technical data

Input voltage
Input current

100 to 240 V AC ($\pm 10\%$)
250 mA (GPP 10), 400 mA, (GPP 18),
400 mA (MPP 15), 700 mA (MPP 30)

Frequency
Efficiency
EMC

50 to 60 Hz
80 % typ. at full load
Conforms to EN 55011
EN 55014, EN 55022/B,
FCC 47 part 15, EN 61000-3-2,
EN 61000-4-2, EN 61000-4-3,
EN 61000-4-4, EN 61000-4-5,
EN 61000-4-6, EN 61000-4-11
 $\pm 5\%$ (MPP 15/30) $+5\%$ -7% (GPP 10/18)

Output voltage tolerance

Environmental specification

Operating temperature

0 to 40° C at maximum load

Storage temperature

-40 to 70° C

Humidity

5 % to 95 % non condensing

Input transient susceptibility

Complies with IEC 61000 requirements

Safety specification

Standards

Fulfills Class II SELV for the following applications:
IEC 60601-1, UL 2601, VDE, CE label,
fulfills medical application class B/BF/CF

Reliability specification

MTBF calculation

200.000 hours at maximum load
and an ambient temperature of 25° C
(in accordance with MIL-HDBK-217)

Mechanical specification

Weight

approx. 113 g (GPP 10), 170 g (GPP 18),
160 g (MPP 15), 255 g (MPP 30),

Plug connector

AC input:
FRIVO exchangeable mains plug system:
EURO, UK, USA/Japan, Australia, IEC
DC output:
Universal output plug system

For primary adapters see page 26

GPP 10



GPP 18



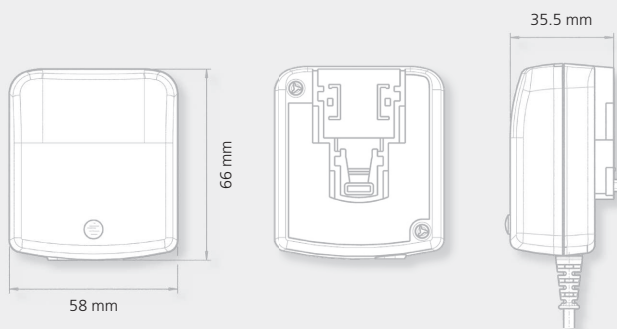
MPP 15



MPP 30

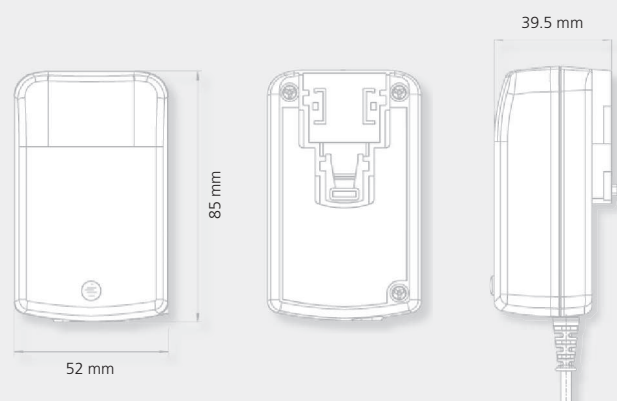


10 Watts



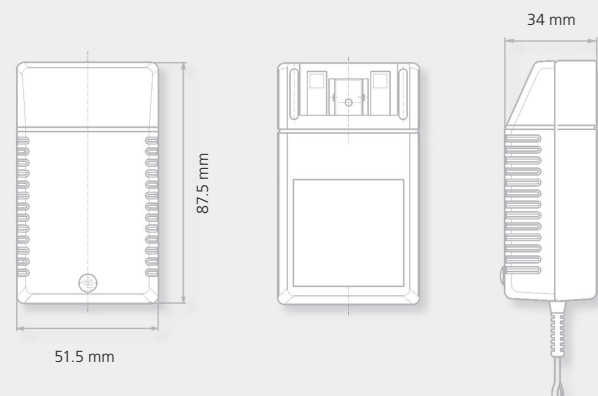
Output data			Worldwide
Voltage	Current	Ripple Voltage	Order No.
5 V	1600 mA	75 mV pp	1950062
6 V	1400 mA	75 mV pp	1950064
7.5 V	1200 mA	75 mV pp	1950063
9 V	1000 mA	75 mV pp	1950068
12 V	800 mA	75 mV pp	1950082
15 V	700 mA	75 mV pp	1950067
18 V	560 mA	125 mV pp	1950066
24 V	420 mA	125 mV pp	1950065

18 Watts



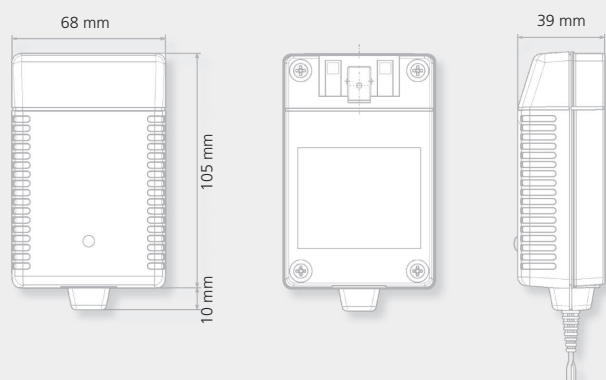
Output data			Worldwide
Voltage	Current	Ripple Voltage	Order No.
5 V	3000 mA	75 mV pp	1890854
6 V	2500 mA	75 mV pp	1890920
7.5 V	2000 mA	75 mV pp	1890925
9 V	1800 mA	90 mV pp	1890924
12 V	1500 mA	100 mV pp	1890856
15 V	1200 mA	100 mV pp	1890923
18 V	1000 mA	180 mV pp	1890922
24 V	750 mA	180 mV pp	1890855

15 Watts



Output data			Worldwide
Voltage	Current	Ripple Voltage	Order No.
5 V	2400 mA	75 mV pp	1883256
6 V	2100 mA	75 mV pp	1883257
7.5 V	1700 mA	75 mV pp	1883258
9 V	1500 mA	90 mV pp	1883259
12 V	1250 mA	120 mV pp	1883260
15 V	1000 mA	150 mV pp	1883261
18 V	840 mA	180 mV pp	1883262
24 V	625 mA	240 mV pp	1883263

30 Watts



Output data			Worldwide
Voltage	Current	Ripple Voltage	Order No.
5 V	4000 mA	75 mV pp	1883264
6 V	3600 mA	75 mV pp	1883265
7.5 V	3300 mA	75 mV pp	1883266
9 V	3000 mA	90 mV pp	1883267
12 V	2500 mA	100 mV pp	1883268
15 V	2000 mA	100 mV pp	1883269
18 V	1660 mA	120 mV pp	1883270
24 V	1250 mA	120 mV pp	1883271