Powering Innovation –
Empowering Solutions

FRIWO

PIONEERING POWER SOLUTIONS

FRIWO Product Portfolio

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Get to know us

FRIWO stands for pioneering spirit, innovation, German engineering excellence, agile decision-making and a global network of expertise. With state-of-the-art development centers, production facilities and sales offices across Europe, Asia and the United States, we are strategically positioned in all major markets worldwide.

Our portfolio includes standard and customized solutions for power supplies and charging technology. In addition, we offer comprehensive OEM and EMS services that cover everything from development and component sourcing to assembly, testing, packaging and delivery. This allows us to support our customers with reliable end-to-end solutions tailored to their specific requirements.

Global Manufacturing – German Engineering

FRIWO serves customers across a wide range of industries, including Industrial Applications, Medical & Healthcare Solutions, E-Mobility, Transportation & Logistics, Specialized Tools & Equipment and Lifestyle Solutions. Whether it is a standard product or a customer-specific solution, our focus is always on quality, efficiency, safety and long-term reliability.

Headquartered in Ostbevern, Germany, FRIWO combines German engineering with flexible and efficient manufacturing. The majority of production takes place in two in-house facilities near Ho Chi Minh City, Vietnam, closely managed from Germany through regular audits, close coordination and the collaboration of local specialists and German experts. In this way, we combine technical excellence, international manufacturing expertise and a strong commitment to supporting our customers around the world.



E-Mobility, Transportation & Logistics

Reliable power supply and charging solutions for high-performance e-mobility, transportation and logistics applications.



Medical & Healthcare Solutions

Advanced solutions for medical technology, healthcare devices and diagnostic systems.



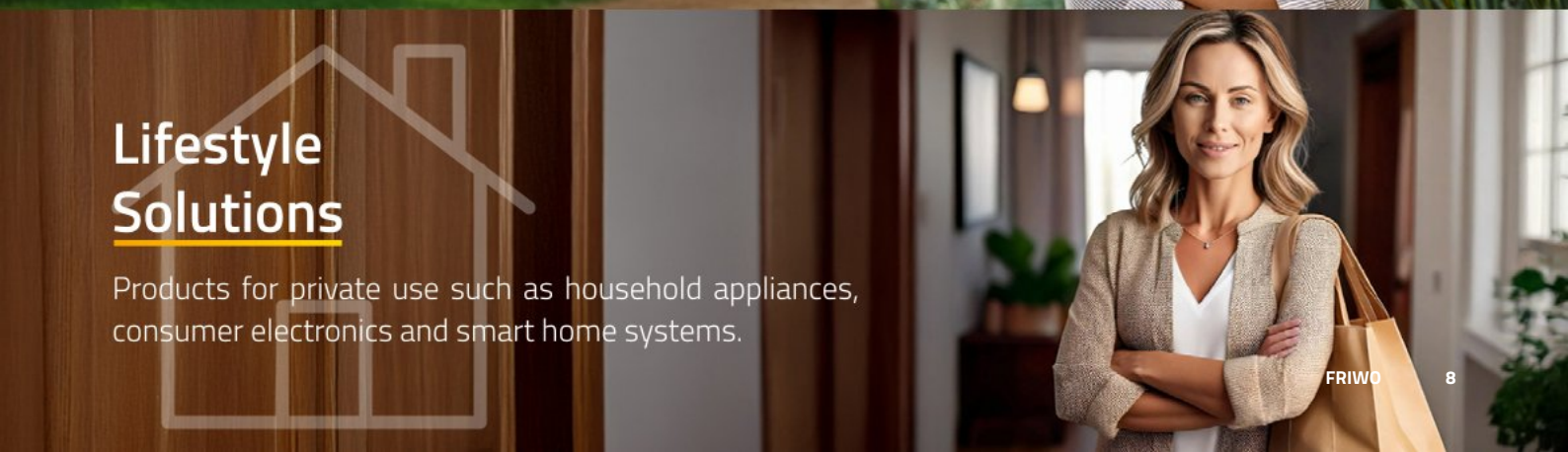
Industrial Applications

Automation, manufacturing technology, industrial control systems and food processing.



Specialized Tools & Equipment

High-quality power supplies for tools and specialised equipment in various industries.



Lifestyle Solutions

Products for private use such as household appliances, consumer electronics and smart home systems.



CUSTOMIZED SOLUTIONS

May It Be a Little More?

FRIWO as OEM Partner

Customized solutions

One of the main reasons why companies outsource their production is to reduce costs. This allows them to focus more on their own skills and core competencies, which is why they look for solution providers that offer expertise in their specific area or market sector.

Many special requirements can hardly be handled by standard power supplies, whether it is solutions for short-term current peaks and fluctuating load profiles in drive technology, the encapsulation of electronics for use in damp rooms, or the strictest measures for patient protection in medical technology. Industrial applications use many technologies across a wide range of sectors.

From scope and specification to prototyping and testing and all the way to custom manufacturing of your product, we reliably support you with our many years of experience as an OEM service provider across numerous industries and our leading know-how as an expert for customized power supplies.

You have a brilliant idea? Let's put it into practice!



ELECTRONIC MANUFACTURING SERVICES

Electronic Assembly and Equipment Manufacturing

Electronic Manufacturing Services

Full service from a single source

As an experienced EMS service provider, we offer end-to-end contract manufacturing of electronic assemblies and equipment. You provide technical documentation, such as component lists and drawings and we do the rest – supplying everything you need from a single source. We work closely with you throughout:

Our EMS team offers competent support, from the initial enquiry through to the finished device.

Thanks to our EMS services, you too benefit from a significant synergy effect: You can concentrate on your core competencies and gain access to additional capacities, avoiding capacity bottlenecks or surpluses. FRIWO is certified according to DIN EN ISO 9001:2008, DIN EN ISO 14001:2009, and DIN EN ISO 13485:2016. The company is equipped with state-of-the-art technology and meets the latest manufacturing standards, thereby reducing commercial risk on your part while avoiding the need to invest in new technologies.

How can we help you?

FRIWO's support services include everything from the production of entire devices or systems, through to testing and packing and, finally, delivery to your customers. Our procurement professionals handle the worldwide sourcing of the required electronic and mechanical components. Automatic inspection systems ensure process safety. Special laser equipment sets the required voltages and currents (active laser adjustment). And our quality department is closely involved in the manufacturing process and monitors each individual stage of production.



UNIQUE SELLING POINTS

Our Most Important Strengths at a Glance

Our Key Strengths at a Glance

Global Expertise – Delivered Locally

German engineering, legal certainty and personal support – for more than 50 years.

FRIWO stands for German engineering excellence with substance. For more than five decades, we have been developing power supplies, chargers, battery packs and integrated system solutions for demanding applications.

Our strength lies not only in technology, but also in our deep understanding of quality, safety and long-term product responsibility. Our English and German speaking sales and project teams are personally accessible, regionally close to customers and deeply involved in every project. Decisions are made clearly, processes are thoroughly documented and contracts are implemented with legal certainty.

For our customers, this means: planning certainty, reliability, and a partner who takes responsibility – both technically and legally.

Scalable Series Production in Vietnam

Efficient, scalable manufacturing according to German standards.

Series production takes place in our own facilities in Vietnam – structured, high-performance and consistently managed according to German quality standards. Modern production lines, qualified teams, well-established processes and a seamless full trace system ensure both low and high production volumes while maintaining consistently high quality.

The result: cost-efficient structures, short lead times and reliable delivery capability – without compromising quality, transparency or control.

Quality Starts in Our Own Laboratories

Our in-house test laboratories and EMC testing ensure independent product qualification and the highest standards.

With internal testing facilities, an approval department and comprehensive EMC testing, we guarantee that every product complies with the strictest international standards. Our independence in product qualification ensures maximum safety and reliability.

Quality remains verifiable even in series production.

As part of VPQCT (Volume Production Quality Control Testing), components are regularly requalified during ongoing production – depending on the production lot size. This ensures that defined quality characteristics are consistently maintained even at high production volumes.

High Level of Manufacturing Depth for Maximum Flexibility

In-house fixture and test equipment construction enables rapid adjustments and independence.

Our high level of vertical integration allows for customer-specific adaptations and fast responses to product changes. Thanks to our own tool and fixture construction, we are largely independent of external service providers – a key advantage for on-time delivery and quality

Actively Shaping Standards

Early insight into regulatory requirements through participation in international standardization bodies.

As an active member of international standards committees, we have direct influence on the development of standards. This gives both us and our customers a head start in implementing new regulatory requirements.

Potting and Varnish Coating for Protection Against External Influences

Protection and durability through state-of-the-art potting technologies and coating systems.

Vacuum potting protects our products against moisture, dust and mechanical stress. This technology ensures a long service life and maximum reliability – even under extreme conditions.

For applications where accessibility and repairability are essential, we use selective varnish coating as an ultra-thin, precisely applied protective layer. It reliably protects electronic assemblies against moisture, dust and chemical exposure. By targeting specific areas, it provides effective protection without unnecessarily affecting space requirements, weight or thermal performance.

Precision through 3D AOI

Automated Optical Inspection for Optimal Production Quality.

Our 3D AOI systems inspect every detail in the manufacturing process, ensuring that only flawless products leave our facilities. For our customers, this means the highest quality and minimal failure rates.

Compliance Experts at Your Side

Support in material compliance and global market approvals.

We support our customers in complying with complex regulations such as RoHS, REACH, POP, Proposition 65 many others. This ensures that your products are approved for global markets – without risks or delays.

Sustainability – Measurable, Managed, Transparent

Strategically anchored, clearly governed externally assessed – from environmental performance to governance.

Sustainability is firmly embedded in FRIWO's corporate strategy and is managed through a clear governance structure with responsibility at board level and coordination by an ESG committee.

Through our DIN ISO 14001-certified environmental management system, we continuously improve resource efficiency and reduce energy consumption. Our commitment to transparency and continuous improvement is further supported by regular participation in EcoVadis assessments and annual reporting to CDP.

IT & Audio Power Supply Solutions

Maximum Efficiency and Long Service Life

IT & Audio Interchangeable Plug-in Power Supplies
FOX**NEO Series**

Short Description

With the FOXNEO family, FRIWO completely redefines power supplies in terms of design. Its inner performance is equally impressive: high efficiencies and low standby losses stand for compliance with the latest efficiency standards. In addition, the lowest leakage currents, the MOPP protection class and a long service life enable use in the most demanding environments.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  - FOX**NEO**6: 160 – 80 mA
  - FOX**NEO**12: 300 – 150 mA
  - FOX**NEO**18: 400 – 200 mA
  - FOX**NEO**30: 600 – 300 mA
- Leakage current: ≤ 10 µA
- Turn-on delay:
  - FOX**NEO**6: ≤ 3 s
  - FOX**NEO**12: ≤ 2 s
  - FOX**NEO**18: ≤ 1 s
  - FOX**NEO**30: ≤ 3 s
- Stand-by: ≤ 0.1 W
- Efficiency:
  DoE: 10 CFR §430.32 / Energy Efficiency Level VI /
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 62368-1
- Approvals: EU, USA, AUS, JPN, CN
- Safety class: II
- EMC: EN 55032, EN 55035

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:
  - FOX**NEO**6: 5,000 m
  - FOX**NEO**12: 5,000 m
  - FOX**NEO**18: 5,000 m
  - FOX**NEO**30: 4,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: Secondary adapter system

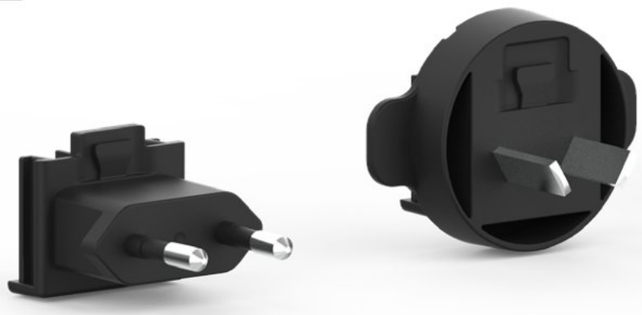
Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

Customer-specific industries on request.
Certifications can vary.

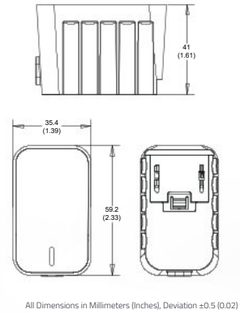


* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

NEO006.0-I-X

FOX**NEO6**





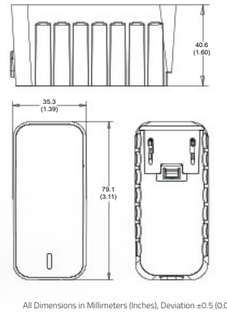
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960559	5 V ± 5 %	1,400 mA	NEO006.0-I-X-05
1960560	12 V ± 5 %	600 mA	NEO006.0-I-X-12
1960561	24 V ± 5 %	300 mA	NEO006.0-I-X-24

NEO012.0-I-X

FOX**NEO12**





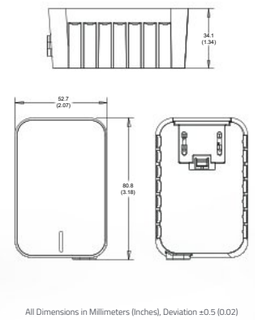
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960562	5 V ± 5 %	2,000 mA	NEO012.0-I-X-05
1960563	12 V ± 5 %	1,000 mA	NEO012.0-I-X-12
1960564	24 V ± 5 %	500 mA	NEO012.0-I-X-24

NEO018.0-I-X

FOX**NEO18**





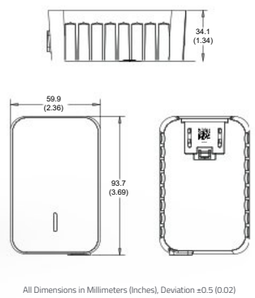
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960565	5 V ± 5 %	3,000 mA	NEO018.0-I-X-05
1960566	12 V ± 5 %	1,500 mA	NEO018.0-I-X-12
1960567	24 V ± 5 %	750 mA	NEO018.0-I-X-24

NEO030.0-I-X

FOX**NEO30**





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960568	5 V ± 5 %	5,000 mA	NEO030.0-I-X-05
1960569	12 V ± 5 %	2,500 mA	NEO030.0-I-X-12
1960570	24 V ± 5 %	1,250 mA	NEO030.0-I-X-24



Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Interchangeable Plug-in Power Supplies
FOX Series

Short Description

Our highly efficient plug-in power supplies for industrial and ITE applications set standards in performance and flexibility. From ultra-low standby power and minimal leakage current to the patented interchangeable AC plug system with IP42 protection – combined with a robust industrial housing and a thoughtfully engineered design for demanding, high-end use. A reliable solution wherever flexibility and efficiency matter.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  FOX6-X: 160 – 80 mA
  FOX12-X: 300 – 150 mA
  FOX18-X: 400 – 200 mA
  FOX30-X: 600 – 300 mA
- Leakage current: ≤ 10 µA
- Turn-on delay:
  FOX6-X: ≤ 3 s
  FOX12-X: ≤ 2 s
  FOX18-X: ≤ 1 s
  FOX30-X: ≤ 3 s
- Stand-by: ≤ 0.1 W
- Efficiency:
  DoE: 10 CFR §430.32 / Energy Efficiency Level VI /
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 62368-1
- Approvals: EU, USA, AUS, JPN
- Safety class: II
- EMC: EN 55032, EN 55035

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:
  FOX6-X: 5,000 m
  FOX12-X: 5,000 m
  FOX18-X: 5,000 m
  FOX30-X: 4,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: Secondary adapter system

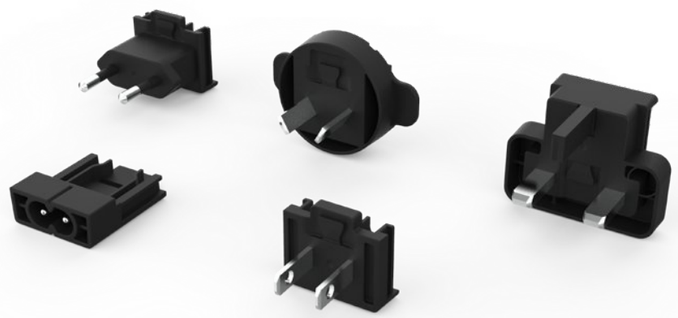
Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics
Medical & Healthcare Solutions
Industrial Applications
Specialized Tools & Equipment
Lifestyle Solutions

Customer-specific industries on request.
Certifications can vary.

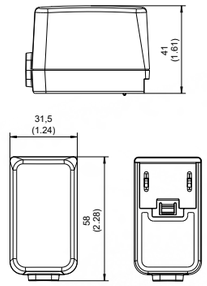


* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW8002.2

FOX6-X





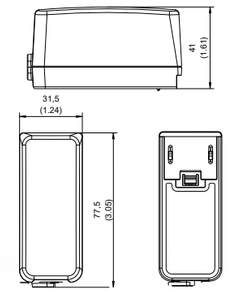
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961909	5 V ± 10 %	1,400 mA	FW8002.2/05
1961910	5.9 V ± 10 %	1,200 mA	FW8002.2/06
1961968	7.5 V ± 10 %	800 mA	FW8002.2/08
1961912	9 V ± 10 %	800 mA	FW8002.2/09
1961913	12 V ± 10 %	600 mA	FW8002.2/12
1961914	15 V ± 10 %	500 mA	FW8002.2/15

FW8000

FOX12-X





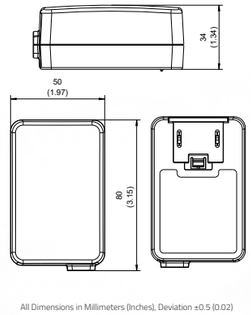
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898115	5 V ± 10 %	2,000 mA	FW8000/05
1898116	5.9 V ± 10 %	2,000 mA	FW8000/06
1898117	7.5 V ± 10 %	1,400 mA	FW8000/08
1898118	9 V ± 10 %	1,300 mA	FW8000/09
1897510	12 V ± 10 %	1,000 mA	FW8000/12
1898120	15 V ± 10 %	800 mA	FW8000/15
1898121	18 V ± 10 %	660 mA	FW8000/18
1898122	24 V ± 10 %	500 mA	FW8000/24

FW8001

FOX18-X





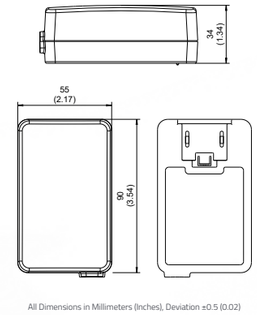
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898142	5 V ± 10 %	3,000 mA	FW8001/05
1898143	5.9 V ± 10 %	3,000 mA	FW8001/06
1898144	7.5 V ± 10 %	2,400 mA	FW8001/08
1898145	9 V ± 10 %	2,000 mA	FW8001/09
1898146	12 V ± 10 %	1,500 mA	FW8001/12
1898147	15 V ± 10 %	1,200 mA	FW8001/15
1898148	18 V ± 10 %	1,000 mA	FW8001/18
1898149	24 V ± 10 %	750 mA	FW8001/24

FW8030

FOX30-X





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898151	5 V ± 10 %	5,000 mA	FW8030/05
1898152	5.9 V ± 10 %	4,200 mA	FW8030/06
1898153	7.5 V ± 10 %	4,000 mA	FW8030/08
1898154	9 V ± 10 %	3,300 mA	FW8030/09
1898155	12 V ± 10 %	2,500 mA	FW8030/12
1898156	15 V ± 10 %	2,000 mA	FW8030/15
1898157	18 V ± 10 %	1,670 mA	FW8030/18
1898158	24 V ± 10 %	1,250 mA	FW8030/24

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Interchangeable Plug-in Power Supplies
PD Series

Short Description

FRIWO Power Delivery Power Supplies provide a modern and versatile solution for reliable power supply in everyday electronic applications. Designed for seamless integration and user convenience, they combine a compact form factor with dependable performance. Their flexible usability makes them well suited for a wide range of devices and application environments, delivering reliable power wherever it is needed.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  PD30: 1,200 mA
  PD45: 1,500 mA
- Leakage current: ≤ 0.25 µA
- Stand-by: ≤ 0.5 W
- Efficiency:
  DoE: 10 CFR §430.32 / Energy Efficiency Level VI /
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 125,000 h*

Product Overview

- Universal compatibility
- GaN technology
- USB-C PD3.1 standard
- PPS-mode available
- Enable fast and efficient charging
- With interchangeable adapter system

Safety specifications

- Layout acc. to safety standard: IEC 62368-1
- Approvals:
  PD30: EU, USA, AUS, JPN, CN, KR
  PD45: EU, USA, AUS
- Safety class: II
- EMC: EN 55032, EN 55035

Environmental specifications

- Operating temperature:
  PD30: 0 – 40 °C
  PD45: 0 – 35 °C
- Humidity: 10 – 95 %
- Storage temperature: -20 – 60 °C
- Operating altitude:
  PD30: 5,000 m
  PD45: 2,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: USB Type-C Socket

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

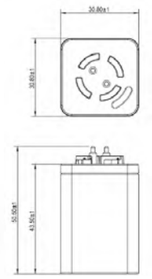
Customer-specific industries on request.
Certifications can vary.



* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25°C, 100% load)

FW9030T
PD30





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

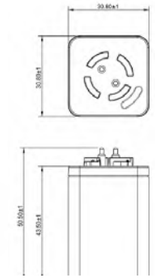
Article no.	Voltage	Current	FRIWO Type
20004635	5 – 20 V ±5%	3,000 mA	FW9030T/PD30/C Base only
20004817	5 – 20 V ±5%	3,000 mA	FW9030T/PD30/C EU
20004820	5 – 20 V ±5%	3,000 mA	FW9030T/PD30/C US
20004818	5 – 20 V ±5%	3,000 mA	FW9030T/PD30/C UK
20004819	5 – 20 V ±5%	3,000 mA	FW9030T/PD30/C AU
20004821	5 – 20 V ±5%	3,000 mA	FW9030T/PD30/C CN
20004637	5 – 20 V ±5%	3,000 mA	FW9030T/PD30/C all heads

Performance table

Voltage	Current	Power
5 VDC ±5%	3,000 mA	15 W
9 VDC ±5%	3,000 mA	27 W
12 VDC ±5%	2,500 mA	30 W
15 VDC ±5%	2,000 mA	30 W
20 VDC ±5%	1,500 mA	30 W

FW9045T
PD45





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
20008656	5 – 20 V ±5%	3,000 mA	FW9045T/PD45/C Base only
20008658	5 – 20 V ±5%	3,000 mA	FW9045T/PD45/C EU
20008661	5 – 20 V ±5%	3,000 mA	FW9045T/PD45/C US
20008659	5 – 20 V ±5%	3,000 mA	FW9045T/PD45/C UK
20008660	5 – 20 V ±5%	3,000 mA	FW9045T/PD45/C AU
20008657	5 – 20 V ±5%	3,000 mA	FW9045T/PD45/C all heads

Performance table

Voltage	Current	Power
5 VDC ±5%	3,000 mA	15 W
9 VDC ±5%	3,000 mA	27 W
12 VDC ±5%	3,000 mA	36 W
15 VDC ±5%	3,000 mA	45 W
20 VDC ±5%	2,500 mA	45 W

All devices are available in black and white

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Interchangeable USB Plug-in Power Supplies
FOX USB Series

Short Description

With our USB power solutions, we can supply your device with exactly the power it needs – thanks to smart application recognition via Smart IC technology. Whether it is the globally interchangeable AC plugs, compact installation space, or durable flush-mounted solution for permanent installation: we can guarantee your power supply!

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  FOX6-X-USB: 160 – 80 mA
  FOX12-X-USB: 300 – 150 mA
- Leakage current:
  FOX6-X-USB: ≤ 10 µA
  FOX12-X-USB: ≤ 90 µA
- Turn-on delay:
  FOX6-X-USB: ≤ 3 s
  FOX12-X-USB: ≤ 2 s
- Stand-by: ≤ 0.1 W
- Efficiency:
  DoE: 10 CFR §430.32, Energy Efficiency Level VI
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 62368-1
- Approvals: EU, USA, AUS, JPN
- Safety class: II
- EMC: EN 55032, EN 55035

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude: 5,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: USB Type-A Socket

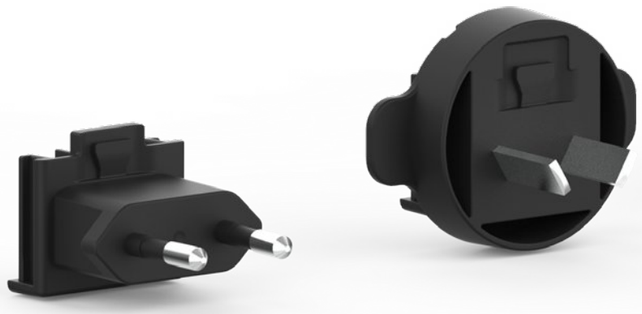
Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics | Medical & Healthcare Solutions | **Industrial Applications** | Specialized Tools & Equipment | **Lifestyle Solutions**

Customer-specific industries on request.
Certifications can vary.

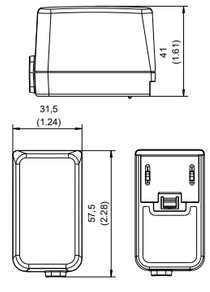


* Mil217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW8002.2USB

FOX6-X-USB





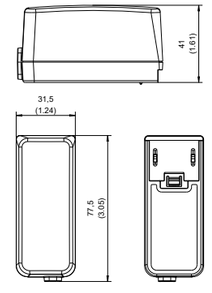
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961928 Black Housing	5 V ± 5 %	1,400 mA	FW8002.2USB/05
1960946 White Housing	5 V ± 5 %	1,400 mA	FW8002.1USB/05

FW8000USB

FOX12-X-USB





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1897730 Black Housing	5 V ± 5 %	2,200 mA	FW8000USB/05



Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Power Supplies with fixed AC-Plug
FOX Series

Short Description

Engineered for industrial and ITE use, our plug-in power supplies with fixed AC plugs combine high efficiency with maximum operational reliability. Low standby losses, minimal leakage current and a robust enclosure make them ideal for permanent installations and demanding applications requiring consistent, long-term performance.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  FOX6-F: 160 – 80 mA
  FOX12-F: 300 – 150 mA
  FOX 18-F: 400 – 200 mA
  FOX30-F: 600 – 300 mA
- Leakage current: ≤ 10 µA
- Turn-on delay:
  FOX6-F: ≤ 3 s
  FOX12-F: ≤ 2 s
  FOX18-F: ≤ 1 s
  FOX30-F: ≤ 3 s
- Stand-by: ≤ 0.075 W
- Efficiency:
  DoE: 10 CFR §430.32 / Energy Efficiency Level VI /
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 62368-1
- Approvals: EU, USA
- Safety class: II
- EMC: EN 55032, EN 55035

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:
  FOX6-F: 5,000 m
  FOX12-F: 5,000 m
  FOX 18-F: 5,000 m
  FOX30-F: 4,000 m

Connectors

- AC input: see article no.
- DC output: Secondary adapter system

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

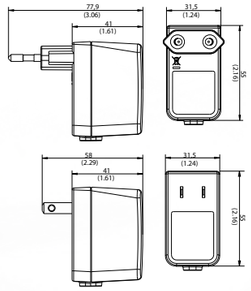
Customer-specific industries on request.
Certifications can vary.

* MIl217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW8002.1

FOX6-F





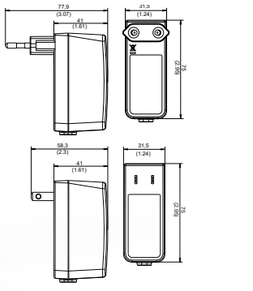
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1961458	1961466	5 V ± 5 %	1,400 mA	FW8002.1/05
1961459	1961467	5.9 V ± 5 %	1,200 mA	FW8002.1/06
1961460	1961468	7.5 V ± 5 %	800 mA	FW8002.1/08
1961461	1961469	9 V ± 5 %	800 mA	FW8002.1/09
1961462	1961470	12 V ± 5 %	600 mA	FW8002.1/12
1961463	1961471	15 V ± 5 %	500 mA	FW8002.1/15
1961464	1961472	18 V ± 5 %	400 mA	FW8002.1/18
1961465	1961473	24 V ± 5 %	300 mA	FW8002.1/24

FW8000

FOX12-F





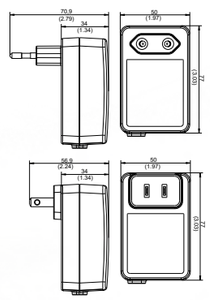
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1898758	1898767	5 V ± 5 %	2,200 mA	FW8000/05
1898759	1898768	5.9 V ± 5 %	2,000 mA	FW8000/06
1898760	1898769	7.5 V ± 5 %	1,400 mA	FW8000/08
1898761	1898770	9 V ± 5 %	1,300 mA	FW8000/09
1898762	1898771	12 V ± 5 %	1,000 mA	FW8000/12
1898763	1898772	15 V ± 5 %	800 mA	FW8000/15
1898764	1898773	18 V ± 5 %	660 mA	FW8000/18
1898765	1898774	24 V ± 5 %	500 mA	FW8000/24

FW8001

FOX18-F





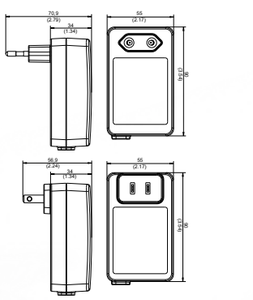
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1898877	1898886	5 V ± 5 %	3,000 mA	FW8001/05
1898878	1898887	5.9 V ± 5 %	3,000 mA	FW8001/06
1898879	1898888	7.5 V ± 5 %	2,400 mA	FW8001/08
1898880	1898889	9 V ± 5 %	2,000 mA	FW8001/09
1898881	1898890	12 V ± 5 %	1,500 mA	FW8001/12
1898882	1898891	15 V ± 5 %	1,200 mA	FW8001/15
1898883	1898892	18 V ± 5 %	1,000 mA	FW8001/18
1898884	1898893	24 V ± 5 %	750 mA	FW8001/24

FW8030

FOX30-F





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1898795	1898804	5 V ± 5 %	5,000 mA	FW8030/05
1898796	1898805	5.9 V ± 5 %	4,200 mA	FW8030/06
1898797	1898806	7.5 V ± 5 %	4,000 mA	FW8030/08
1898798	1898807	9 V ± 5 %	3,300 mA	FW8030/09
1898799	1898808	12 V ± 5 %	2,500 mA	FW8030/12
1898800	1898809	15 V ± 5 %	2,000 mA	FW8030/15
1898801	1898810	18 V ± 5 %	1,670 mA	FW8030/18
1898802	1898811	24 V ± 5 %	1,250 mA	FW8030/24

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Plug-in Power Supplies with fixed AC-Plug

PD Series

Short Description

FRIWO Power Delivery Power Supplies with fixed AC-Plug provide dependable power in a compact, ready-to-use solution. The permanently integrated AC plug enables straightforward connection, supporting convenient handling and installation. Their space-saving design and reliable performance make them suitable for a broad range of devices and application environments.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  - PD30: 800 mA
  - PD45: 1,000 mA
  - PD65: 1,500 mA
  - PD100: 1,500 mA
- Leakage current: ≤ 0.25 µA
- Stand-by:
  - PD30: ≤ 0.075 W
  - PD45: ≤ 0.1 W
  - PD65: ≤ 0.21 W
  - PD100: ≤ 0.15 W
- Efficiency:
  DoE: 10 CFR §430.32 / Energy Efficiency Level VI /
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 50,000 h*

Product Overview

- Universal compatibility
- GaN technology
- USB-C PD3.0 standard
- PPS-mode available
- Enable fast and efficient charging

Safety specifications

- Layout acc. to safety standard: IEC 62368-1
- Approvals: EU, USA, AUS
- Safety class: II
- EMC: EN 55032, EN 55035

Environmental specifications

- Operating temperature:
  - PD30: 0 – 40 °C
  - PD45: 0 – 40 °C
  - PD65: -10 – 35 °C
  - PD100: -10 – 40 °C
- Humidity: 10 – 95 %
- Storage temperature: -20 – 60 °C
- Operating altitude:
  - PD30: 2,000 m
  - PD45: 2,000 m
  - PD65: 5,000 m
  - PD100: 2,000 m

Connectors

- AC input: see article no.
- DC output: USB Type-C Socket

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

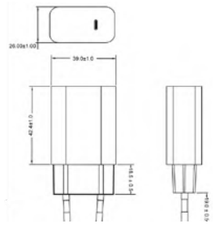
Customer-specific industries on request.
Certifications can vary.

* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW9030TMP/PD

PD30





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
20008281	5 – 20 V ± 5 %	3,000 mA	FW9030TMP/PD/EU
20008282	5 – 20 V ± 5 %	3,000 mA	FW9030TMP/PD/US
20008806	5 – 20 V ± 5 %	3,000 mA	FW9030TMP/PD/UK

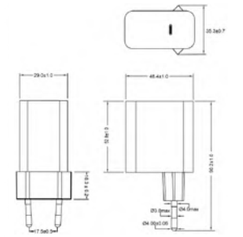
Performance table

Voltage	Current	Power
5 VDC ± 5 %	3,000 mA	15 W
9 VDC ± 5 %	3,000 mA	27 W
12 VDC ± 5 %	2,500 mA	30 W
15 VDC ± 5 %	2,000 mA	30 W
20 VDC ± 5 %	1,500 mA	30 W

FW9045TMP/PD

PD45





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
20008283	5 – 20 V ± 5 %	3,000 mA	FW9045TMP/PD/EU
20008286	5 – 20 V ± 5 %	3,000 mA	FW9045TMP/PD/US
20008285	5 – 20 V ± 5 %	3,000 mA	FW9045TMP/PD/UK
20008284	5 – 20 V ± 5 %	3,000 mA	FW9045TMP/PD/AU

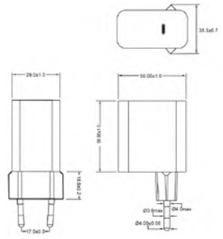
Performance table

Voltage	Current	Power
5 VDC ± 5 %	3,000 mA	15 W
9 VDC ± 5 %	3,000 mA	27 W
12 VDC ± 5 %	3,000 mA	36 W
15 VDC ± 5 %	3,000 mA	45 W
20 VDC ± 5 %	2,250 mA	45 W

FW9065TMP/PD

PD65





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
20008287	5 – 20 V ± 5 %	3,250 mA	FW9065TMP/PD/EU
20008290	5 – 20 V ± 5 %	3,250 mA	FW9065TMP/PD/US
20008289	5 – 20 V ± 5 %	3,250 mA	FW9065TMP/PD/UK
20008288	5 – 20 V ± 5 %	3,250 mA	FW9065TMP/PD/AU

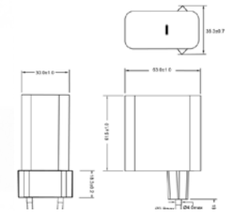
Performance table

Voltage	Current	Power
5 VDC ± 5 %	3,000 mA	15 W
9 VDC ± 5 %	3,000 mA	27 W
12 VDC ± 5 %	3,000 mA	36 W
15 VDC ± 5 %	3,000 mA	45 W
20 VDC ± 5 %	3,250 mA	65 W

FW9100TMP/PD

PD100





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
20008291	5 – 20 V ± 5 %	5,000 mA	FW9100TMP/PD/EU
20008294	5 – 20 V ± 5 %	5,000 mA	FW9100TMP/PD/US
20008293	5 – 20 V ± 5 %	5,000 mA	FW9100TMP/PD/UK
20008292	5 – 20 V ± 5 %	5,000 mA	FW9100TMP/PD/AU

Performance table

Voltage	Current	Power
5 VDC ± 5 %	3,000 mA	15 W
9 VDC ± 5 %	3,000 mA	27 W
15 VDC ± 5 %	3,000 mA	45 W
20 VDC ± 5 %	5,000 mA	100 W

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Plug-in Power Supplies with fixed AC-Plug

PD Series

Short Description

The FRIWO DOT PD20 fits almost flush with standard Schuko outlets, saves space, and is ready to use right away: it brings the convenience of USB-C charging to existing rooms – no remodeling required, no electrician needed. Just plug it in and start charging.

Technical Data

- Output Power: Up to 20 W
- Port: 1x USB-C
- Input voltage: 220 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current: 300 mA
- Leakage current: ≤ 0.25 µA
- Stand-by: ≤ 0.075 W
- Output: 5 V / 3 A • 9 V / 2.2 A • 12 V / 1.67 A
- PPS: 5 – 11 V / 2 A

Product Overview

- Universal compatibility
- GaN technology
- USB-C PD3.0 standard
- PPS-mode available
- Enable fast and efficient charging
- Short circuit protection
- Over temperature protection

Safety specifications

- Layout acc. to safety standard: IEC 62368-1
- Approvals: EU, USA, AUS
- Safety class: II
- EMC: EN 55032, EN 55035, EN 61000-3-2, EN610003-3

Environmental specifications

- Operating temperature: 0 – 30 °C
- Humidity: 10 – 95 %
- Storage temperature: -20 – 60 °C
- Operating altitude: 2,000 m

Connectors

- AC input: see article no.
- DC output: USB Type-C Socket

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

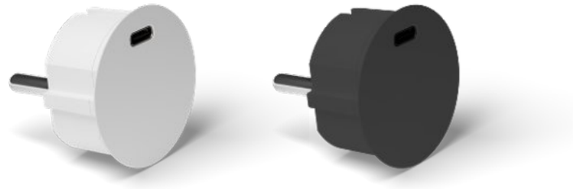
Available for the following FRIWO Sectors:

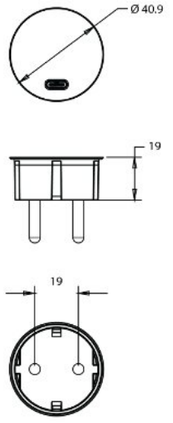
E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

Customer-specific industries on request.
Certifications can vary.

FW9020/PD20/C

PD20





All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Voltage	Current	FRIWO Type
20007708 White Housing	5 – 12 V ± 5 %	3.000 mA	FW9020/PD20/C/EU
20008607 Anthrazit Housing	5 – 12 V ± 5 %	3.000 mA	FW9020/PD20/C/EU

	Spannung	Strom	Leistung
Leistungstabelle	5 VDC ± 5 %	3.000 mA	15 W
	9 VDC ± 5 %	2.200 mA	20 W
	12 VDC ± 5 %	1.670 mA	20 W

The right USB-C Cable

Five lengths. Three power ratings.
Each length available in 65 W, 100 W and 240 W.



Power	1 m	1.2 m	1.5 m	1.8 m	2 m
65 W	20008808	20008809	20008810	20008811	20008812
100 W	20008813	20008814	20008815	20008816	20008817
240 W	20008819	20008820	20008821	20008822	20008823



IT & Audio USB Power Supplies with fixed AC-Plug
FOX USB Series

Short Description

Our highly efficient plug-in power supplies for industrial and ITE applications set standards in performance and flexibility. From ultra-low standby power and minimal leakage current to the patented interchangeable AC plug system with IP42 protection – combined with a robust industrial housing and a thoughtfully engineered design for demanding, high-end use. A reliable solution wherever flexibility and efficiency matter.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  - FOX5-F-USB: 150 mA
  - FOX6-F-USB: 160 – 80 mA
  - FOX12-F-USB: 300 – 150 mA
- Leakage current: ≤ 10 µA (FOX 12: ≤ 200 µA)
- Turn-on delay:
  - FOX6-F-USB: ≤ 3 s
  - FOX12-F-USB: ≤ 2 s
- Stand-by: ≤ 0.1 W
- Efficiency:
  DoE: 10 CFR §430.32 / Energy Efficiency Level VI /
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 62368-1
- Approvals: EU, USA
- Safety class: II
- EMC: EN 55032, EN 55035

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 5 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:
  - FOX5-F-USB: 2,000 m
  - FOX6-F-USB: 5,000 m
  - FOX12-F-USB: 5,000 m

Connectors

- AC input: see article no.
- DC output: USB Type-A Socket

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

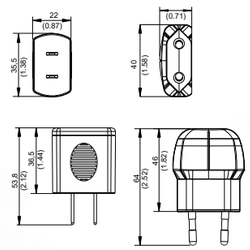
Customer-specific industries on request.
Certifications can vary.

* MI217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW8005/USB

FOX5-F-USB





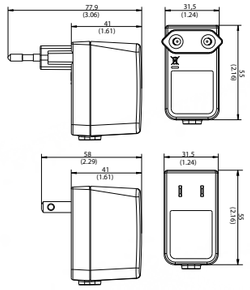
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1897974 Black Housing	1898333	5 V ± 5 %	1,000 mA	FW8005/XX/05
1899018 White Housing	/	5 V ± 5 %	1,000 mA	FW8005/XX/05

FW8002/USB

FOX6-F-USB





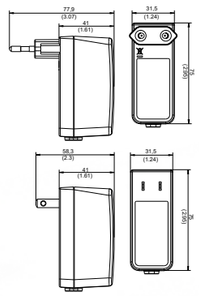
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1961492	1961493	5 V ± 5 %	1,400 mA	FW8002.1USB/05

FW8000/USB

FOX12-F-USB





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1898895	1898896	5 V ± 5 %	2,200 mA	FW8000USB/05

The "XX" in the FW type indicates the Fixed Floor country variant.

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Desktop Power Supplies
DT Series

Short Description

Our desktop power supplies are designed for reliable performance in demanding industrial and ITE applications. They combine high efficiency, low no-load losses and comprehensive protection features to ensure a safe and dependable power supply. Thanks to their durable design and long service life, they are ideal for applications that require consistent performance, operational safety and long-term reliability.

Technical Data

- Input voltage: 100 – 240 V +10 % / -15 %
- Frequency: 50 – 60 Hz
- Input current:
  - DT12: 250 – 130 mA
  - FOX30-D: 600 – 300 mA
  - FOX60-D: 1,300 mA
- Leakage current: ≤ 10 µA
  - DT12: ≤ 10 µA
  - FOX30-D: ≤ 250 µA
  - FOX60-D: ≤ 250 µA
- Stand-by: ≤ 0.1 W
- Efficiency:
  DoE: 10 CFR §430.32 / Energy Efficiency Level VI /
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 62368-1, UL 62368-1
- Approvals: EU, USA, AUS, JPN
- Safety class: II
- EMC: EN 55032, EN 55035

Environmental specifications

- Operating temperature: 0 – 40 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:
  - DT12: 5,000 m
  - FOX30-D: 4,000 m
  - FOX60-D: 5,000 m

Connectors

- AC input: 2-pole connector, IEC 60320-C8
- DC output: Secondary adapter system

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

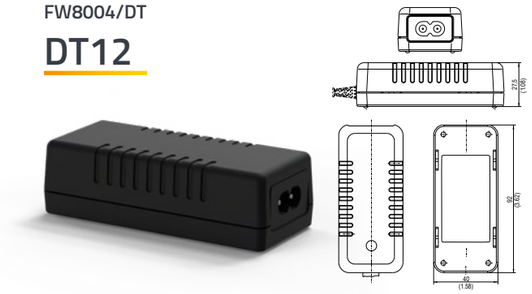
E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

Customer-specific industries on request.
Certifications can vary.

* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW8004/DT

DT12

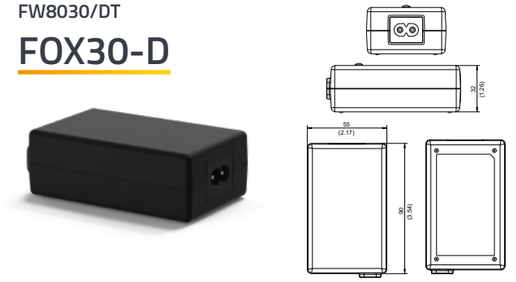


All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961521	5 V ±5%	2,000 mA	FW8004/DT/05
1961522	12 V ±5%	1,000 mA	FW8004/DT/12
1961523	24 V ±5%	500 mA	FW8004/DT/24

FW8030/DT

FOX30-D

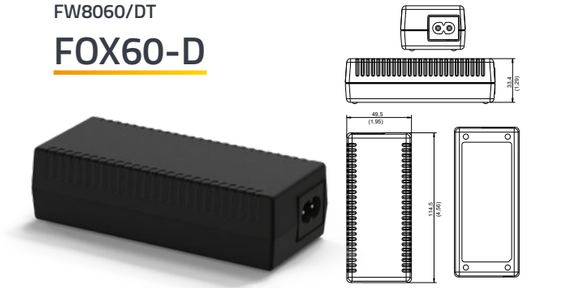


All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898169	5 V ±5%	5,000 mA	FW8030/DT/05
1898170	6 V ±5%	4,200 mA	FW8030/DT/06
1898171	7.5 V ±5%	4,000 mA	FW8030/DT/08
1898172	9 V ±5%	3,300 mA	FW8030/DT/09
1898173	12 V ±5%	2,500 mA	FW8030/DT/12
1898174	15 V ±5%	2,000 mA	FW8030/DT/15
1898175	18 V ±5%	1,670 mA	FW8030/DT/18
1898177	24 V ±5%	1,250 mA	FW8030/DT/24

FW8060/DT

FOX60-D



All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898544	12 V ±5%	5,000 mA	FW8060/DT/12
1898545	15 V ±5%	4,000 mA	FW8060/DT/15
1898547	24 V ±5%	2,500 mA	FW8060/DT/24

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Open Frame Power Supplies
HERC Series

Short Description

Designed for maximum resistance to vibration, shock and temperature, our built-in power supply components set standards with their immense service life. In minimal installation spaces, they achieve peak values for efficiency and no-load losses and are also ideally suited for use in medical and measurement technology thanks to their minimal leakage current.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:

  HERC60: 1,200 – 700 mA

  HERC175: 2,000 – 900 mA

  HERC250: 3,000 – 1,300 mA*

  ***Also available with aluminum housing**
- Earth leakage current: ≤ 100 µA
- Touch current: ≤ 100 µA
- Output voltage tolerance: ± 5 % (HERC175: ± 3 %)
- Stand-by:

  HERC60: ≤ 0.15 W

  HERC175: ≤ 0.21 W

  HERC250: ≤ 0.15 W
- MTBF: 200,000 h*

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard IEC 60601-1, ES 60601-1, IEC 62368-1
- Approvals: EU, USA
- EMC: EN 55032, EN 55035, EN 60601-1-2

Environmental specifications

- Operating temperature: -25 – 70 °C
- Humidity: 95 % max.
- Storage temperature: -40 – 85 °C
- Operating altitude: 5,000 m

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

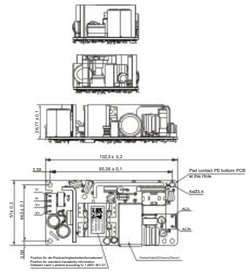
Customer-specific industries on request.
Certifications can vary.

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

FW8060M/OF

HERC60



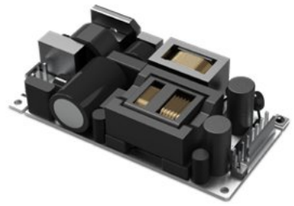


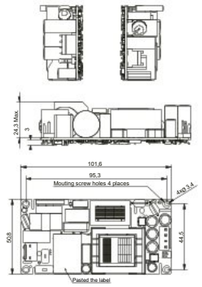
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961553	12 V ± 10 %	5,000 mA	FW8060M/OF/12/HERC
1961720	24 V ± 10 %	2,500 mA	FW8060M/OF/24/HERC
1961554	48 V ± 10 %	1,250 mA	FW8060M/OF/48/HERC

FW8175M/OF

HERC175





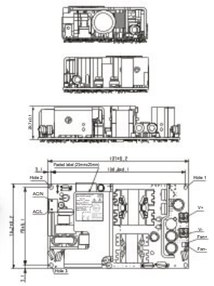
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1899208	12 V ± 10 %	14,600 mA	FW8175M/OF/12/HERC
1899059	24 V ± 10 %	7,300 mA	FW8175M/OF/24/HERC
20000653	36 V ± 10 %	4,861 mA	FW8175M/OF/36/HERC
20002366	48 V ± 10 %	2,500 mA	FW8175M/OF/48/HERC

FW8250M/OF

HERC250





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)



Open Frame Variant

Article no.	Voltage	Current	FRIWO Type
20002402	12 V ± 10 %	20,833 mA	FW8250M/OF/12/HERC
20002401	24 V ± 10 %	10,416 mA	FW8250M/OF/24/HERC
20002375	48 V ± 10 %	5,210 mA	FW8250M/OF/48/HERC

Enclosed Variant

Article no.	Voltage	Current	FRIWO Type
1962018	12 V ± 10 %	20,833 mA	FW8250M/CA/12/HERC
1962019	24 V ± 10 %	10,416 mA	FW8250M/CA/24/HERC
1962020	48 V ± 10 %	5,210 mA	FW8250M/CA/48/HERC

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Flush-Mounted Power Supplies
UP Series

Short Description

Particularly durable power supply units that disappear invisibly into the wall when installed in standard flush-mounted sockets. In addition to potted devices for use in demanding environments (e.g. in the sanitary sector or in security technology), this product range also includes power supply solutions that replace the standard socket outlet.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input Current:
  - UP6: 130 mA
  - UP12: 300 mA
  - UP18: 400 mA
  - UP30: 580 mA
- Leakage current :
  - UP6: ≤ 10 µA
  - UP12: ≤ 25 µA
  - UP18: ≤ 25 µA
  - UP30: ≤ 100 µA
- Output voltage tolerance ± 5 %
- Stand-by:
  - UP6: ≤ 0.3 W
  - UP12: ≤ 0.3 W
  - UP18: ≤ 0.3 W
  - UP30: ≤ 0.075 W
- MTBF: 200,000 h*

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard IEC 61558-1, IEC 61558-2-16, UL 1310 (FW7801 only)
- Approvals: EU (UP6: EU, USA)
- EMC: EN 55011, EN 55014-1, EN 55014-2, EN 61000-6-2, EN 61000-6-3

Environmental specifications

- Operating temperature: 0 – 40 °C (UP30: 0 - 50 °C)
- Humidity: 10 – 95 %
- Storage temperature: -20 – 70 °C

Connectors

- AC input: 150 – 160 mm cable
- DC output: 150 – 160 mm cable

Labels / Certifications

FW7801 only FW7801 only

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

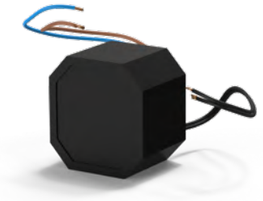
E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

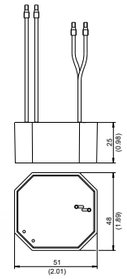
Customer-specific industries on request.
Certifications can vary.

* Mil 217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW7801

UP6





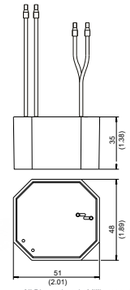
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1891507	9 V ± 5 %	660 mA	FW7801/09
1891508	12 V ± 5 %	500 mA	FW7801/12

FW7802

UP12





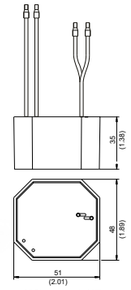
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1891767	12 V ± 5 %	1,000 mA	FW7802/12
1891768	24 V ± 5 %	500 mA	FW7802/24

FW7803

UP18



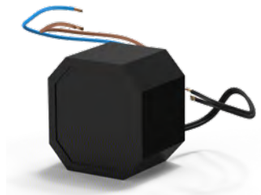


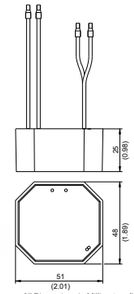
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1832688	12 V ± 5 %	1,500 mA	FW7803/12

FW7801.1

UP30





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961859	12 V ± 5 %	2,500 mA	FW7801.1/12/2.5

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

IT & Audio Flush-Mounted USB Power Supplies
UP Series

Short Description

Particularly robust power supply units designed for flush-mounted installation, remaining completely concealed within the wall. Alongside potted versions for use in demanding environments (such as sanitary areas or security technology), the product range also features modern power supply solutions with integrated USB ports, providing a functional alternative to the conventional socket outlet.

Technical Data

- Input voltage:
  - UP USB A: 120 – 240V ±10%
  - UP USB AC: 120 – 240V ±10%
  - UP USB PD30: 220 – 240V ±10%
  - UP USB PD60: 220 – 240V ±10%
- Frequency: 50 – 60 Hz
- Input current:
  - UP USB A: 300 mA
  - UP USB AC: 300 mA
  - UP USB PD30: 350 mA
  - UP USB PD60: 750 mA
- Leakage current:
  - UP USB A: ≤ 30 µA
  - UP USB AC: ≤ 30 µA
  - UP USB PD30: ≤ 100 µA
  - UP USB PD60: ≤ 250 µA
- Stand-by
  - UP USB A: ≤ 0.1 W
  - UP USB AC: ≤ 0.1 W
  - UP USB PD30: ≤ 0.075 W
  - UP USB PD60: ≤ 0.1 W
- MTBF: 200,000 h*

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard:
  - UP USB A: EN61558-1, IEC 62368-1
  - UP USB AC: EN 62368-1
  - UP USB PD30: EN 62368-1
  - UP USB PD60: EN 62368-1
- Approvals: EU (UP6: EU, USA)
- EMC: EN 55011, EN 55014-1, EN 55014-2, EN 61000-6-2, EN 61000-6-3

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -20 – 70 °C

Labels / Certifications

FW7810/TAE3AS & FW7810/TAE3AS/AC

FW7810/TAEPD60/C

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · **Industrial Applications** · Specialized Tools & Equipment · **Lifestyle Solutions**

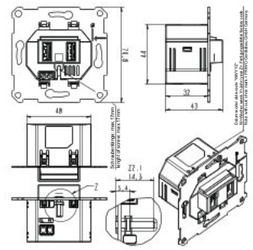
Customer-specific industries on request.
Certifications can vary.

* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW7810/TAE3AS

UP USB A





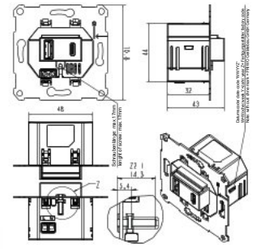
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1899549	5 V ± 5%	3,000 mA	FW7810/TAE3AS

FW7810/TAE3AS

UP USB AC





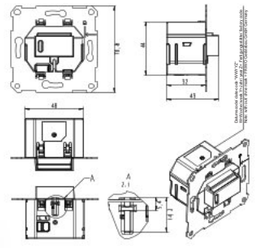
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1899702	5 V ± 5%	3,000 mA	FW7810/TAE3AS/AC

FW7810/TAEPD30

UP USB PD30





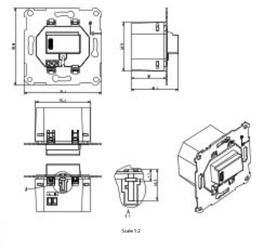
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961542 Black	5 – 20 V ± 5%	1,500 mA	FW7810/TAEPD30/C
20001987 White	5 – 20 V ± 5%	1,500 mA	FW7810/TAEPD30/C

FW7810/TAEPD60

UP USB PD60





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1962101 Black	5 – 20 V ± 5%	3,000 mA	FW7810/TAEPD60/C
20002007 White	5 – 20 V ± 5%	3,000 mA	FW7810/TAEPD60/C

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Power Supply Solutions

Full performance guaranteed under the most demanding conditions

Medical Interchangeable Plug-in Power Supplies
FOX**NEO Series**

Short Description

With the FOXNEO family of devices, FRIWO completely redefines power supplies in terms of design. But the inner workings are also impressive: high efficiencies and low standby losses stand for compliance with the latest efficiency standards. In addition, the lowest leakage currents, the MOPP protection class and a long service life enable use in the most demanding environments.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  - FOX**NEO**6: 160 – 80 mA
  - FOX**NEO**12: 300 – 150 mA
  - FOX**NEO**18: 400 – 200 mA
  - FOX**NEO**30: 600 – 300 mA
- Leakage current: ≤ 10 µA
- Turn-on delay:
  - FOX**NEO**6: ≤ 3s
  - FOX**NEO**12: ≤ 2s
  - FOX**NEO**18: ≤ 1s
  - FOX**NEO**30: ≤ 3s
- Stand-by: ≤ 0.1 W
- Efficiency:
  DoE: 10 CFR §430.32 / Energy Efficiency Level VI /
  ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 60601-1
- Approvals: EU, USA, AUS, JPN, CN
- Safety class: II
- EMC: EN 60601-1-2

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:
  - FOX**NEO**6: 3,000 m
  - FOX**NEO**12: 5,000 m
  - FOX**NEO**18: 3,000 m
  - FOX**NEO**30: 4,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: Secondary adapter system

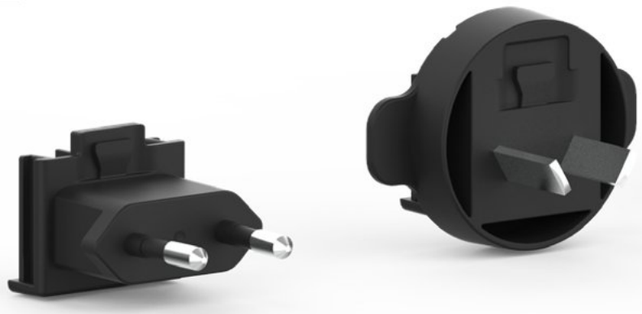
Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · **Medical & Healthcare Solutions** · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

Customer-specific industries on request.
Certifications can vary.

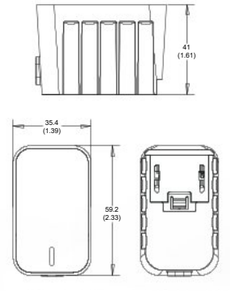


* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25°C, 100% load)

NEO006.0-I-X

FOX**NEO6**





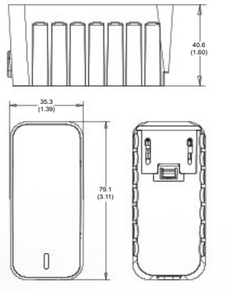
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960969	5 V ± 5 %	1,400 mA	NEO006.0-I-X-05
1960970	12 V ± 5 %	600 mA	NEO006.0-I-X-12
1960971	24 V ± 5 %	300 mA	NEO006.0-I-X-24

NEO012.0-I-X

FOX**NEO12**





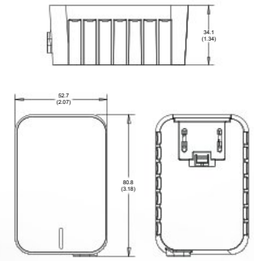
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960972	5 V ± 5 %	2,000 mA	NEO012.0-I-X-05
1960973	12 V ± 5 %	1,000 mA	NEO012.0-I-X-12
1960974	24 V ± 5 %	500 mA	NEO012.0-I-X-24

NEO018.0-I-X

FOX**NEO18**





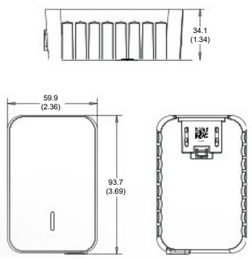
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960975	5 V ± 5 %	3,000 mA	NEO018.0-I-X-05
1960976	12 V ± 5 %	1,500 mA	NEO018.0-I-X-12
1960977	24 V ± 5 %	750 mA	NEO018.0-I-X-24

NEO030.0-I-X

FOX**NEO30**





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960978	5 V ± 5 %	5,000 mA	NEO030.0-I-X-05
1960979	12 V ± 5 %	2,500 mA	NEO030.0-I-X-12
1960980	24 V ± 5 %	1,250 mA	NEO030.0-I-X-24







Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Interchangeable Plug-in Power Supplies
FOX Series

Short Description

FRIWO's medical power supply solutions are designed for the most challenging conditions. We take possible future changes to norms and increasing efficiency requirements into account in development and manufacturing, to ensure the seamless long-term marketing of your products.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:
  - FOX 6-XM: 160 – 80 mA
  - FOX 12-XM: 300 – 150 mA
  - FOX 18-XM: 400 – 200 mA
  - FOX 30-XM: 600 – 300 mA
- Leakage current: ≤ 10 µA
- Turn-on delay:
  - FOX6-XM: ≤ 3 s
  - FOX12-XM: ≤ 2 s
  - FOX18-XM: ≤ 1 s
  - FOX30-XM: ≤ 3 s
- Stand-by: ≤ 0.1 W
- Efficiency: DoE: 10 CFR §430.32 / Energy Efficiency Level VI / ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC/ES 60601-1
- Approvals: EU, USA, AUS, JPN
- Safety class: II
- EMC: EN 60601-1-2
- Medical protection: 2 x MOPP

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:
  - FOX 6-XM: 3,000 m
  - FOX 12-XM: 3,000 m
  - FOX 18-XM: 5,000 m
  - FOX 30-XM: 3,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: Secondary adapter system

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · **Medical & Healthcare Solutions** · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

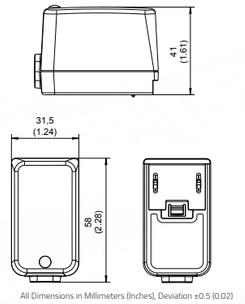
Customer-specific industries on request.
Certifications can vary.

* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW8002.2M

FOX6-XM





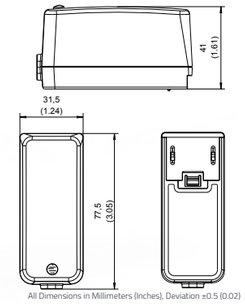
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961917	5 V ±5%	1,400 mA	FW8002.2M/05
1961918	5.9 V ±5%	1,200 mA	FW8002.2M/06
1961919	7.5 V ±5%	800 mA	FW8002.2M/08
1961920	9 V ±5%	800 mA	FW8002.2M/09
1961921	12 V ±5%	600 mA	FW8002.2M/12
1961922	15 V ±5%	500 mA	FW8002.2M/15

FW8000M

FOX12-XM





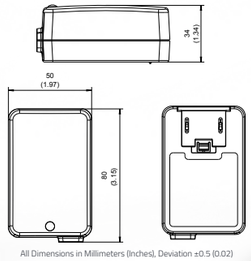
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898124	5 V ±5%	2,200 mA	FW8000M/05
1898125	5.9 V ±5%	2,000 mA	FW8000M/06
1898126	7.5 V ±5%	1,400 mA	FW8000M/08
1898127	9 V ±5%	1,300 mA	FW8000M/09
1898128	12 V ±5%	1,000 mA	FW8000M/12
1898129	15 V ±5%	800 mA	FW8000M/15
1898130	18 V ±5%	660 mA	FW8000M/18
1898131	24 V ±5%	500 mA	FW8000M/24

FW8001M

FOX18-XM





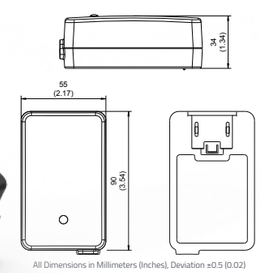
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898133	5 V ±5%	3,000 mA	FW8001M/05
1898134	6 V ±5%	3,000 mA	FW8001M/06
1898135	7.5 V ±5%	2,400 mA	FW8001M/08
1898136	9 V ±5%	2,000 mA	FW8001M/09
1898137	12 V ±5%	1,500 mA	FW8001M/12
1898138	15 V ±5%	1,200 mA	FW8001M/15
1898139	18 V ±5%	1,000 mA	FW8001M/18
1898140	24 V ±5%	750 mA	FW8001M/24

FW8030M

FOX30-XM





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898160	5 V ±5%	5,000 mA	FW8030M/05
1898161	5.9 V ±5%	4,200 mA	FW8030M/06
1898162	7.5 V ±5%	4,000 mA	FW8030M/08
1898163	9 V ±5%	3,300 mA	FW8030M/09
1898164	12 V ±5%	2,500 mA	FW8030M/12
1898165	15 V ±5%	2,000 mA	FW8030M/15
1898166	18 V ±5%	1,670 mA	FW8030M/18
1898167	24 V ±5%	1,250 mA	FW8030M/24

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Interchangeable USB Plug-in Power Supplies
FOX USB Series

Short Description

FRIWO's medical interchangeable USB plug-in power supplies are designed for flexible use in medical environments. Interchangeable AC plugs, future-oriented development and increasing efficiency requirements are taken into account to ensure reliable, long-term availability for global applications.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:

  FOX6-XM-USB: 160 – 80 mA

  FOX12-XM-USB: 300 – 150 mA
- Leakage current: ≤ 10 µA
- Turn-on delay:

  FOX6-XM-USB: ≤ 3 s

  FOX12-XM-USB: ≤ 2 s
- Stand-by: ≤ 0.1 W
- Efficiency: DoE: 10 CFR §430.32 / Energy Efficiency Level VI / ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC/ES 60601-1
- Approvals: EU, USA, AUS, JPN
- Safety class: II
- EMC: EN 60601-1-2
- Medical protection: 2 x MOPP

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude: 3,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: USB Type-A Socket

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · **Medical & Healthcare Solutions** · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

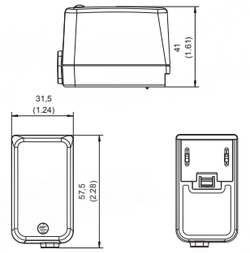
Customer-specific industries on request.
Certifications can vary.

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

FW8002.1MUSB

FOX6-XM-USB





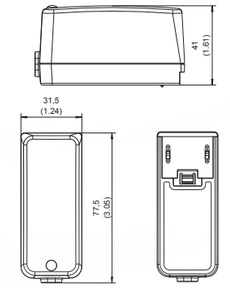
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961929	5 V ± 5 %	1,400 mA	FW8002.2MUSB/05
1960267 Black Housing	5 V ± 5 %	1,400 mA	FW8002.1MUSB/05
1960945 White Housing	5 V ± 5 %	1,400 mA	FW8002.1MUSB/05

FW8000MUSB

FOX12-XM-USB





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898350	5 V ± 5 %	2,200 mA	FW8000MUSB/05
1961018	5 V ± 5 %	2,200 mA	FW8000.1MUSB/05

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Power Supplies with fixed AC-Plug
FOX Series

Short Description

FRIWO's medical fixed plug-in power supplies are engineered for reliable, continuous operation in demanding environments. Designed with future regulatory developments and increasing efficiency requirements in mind, they ensure long-term availability and seamless integration into your applications while meeting stringent medical safety standards.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:

  FOX6-FM: 160 – 80 mA

  FOX12-FM: 300 – 150 mA

  FOX18-FM: 400 – 200 mA

  FOX30-FM: 600 – 300 mA
- Leakage current: ≤ 10 µA
- Output voltage tolerance: ± 5 %
- Turn-on delay:

  FOX6-FM: ≤ 3 s

  FOX12-FM: ≤ 3 s

  FOX18-FM: ≤ 1 s

  FOX30-FM: ≤ 3 s
- Stand-by: ≤ 0.075 W
- Efficiency: DoE: 10 CFR §430.32 / Energy Efficiency Level VI / ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC/ES 60601-1
- Approvals: EU, USA, AUS, JPN
- Safety class: II
- EMC: EN 60601-1-2
- Medical protection: 2 x MOPP

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:

  FOX6-FM: 3,000 m

  FOX12-FM: 5,000 m

  FOX18-FM: 3,000 m

  FOX30-FM: 4,000 m

Connectors

- AC input: See article no
- DC output: Secondary adapter system

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · **Medical & Healthcare Solutions** · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

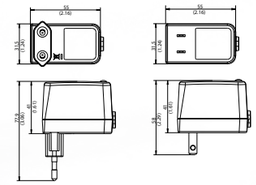
Customer-specific industries on request.
Certifications can vary.

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

FW8002.1M

FOX6-FM





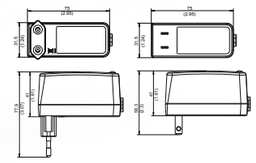
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1961474	1961482	5 V ±5%	1,400 mA	FW8002.1M/XX/05
1961475	1961483	5.9 V ±5%	1,200 mA	FW8002.1M/XX/06
1961476	1961484	7.5 V ±5%	800 mA	FW8002.1M/XX/08
1961477	1961485	9 V ±5%	800 mA	FW8002.1M/XX/09
1961478	1961486	12 V ±5%	600 mA	FW8002.1M/XX/12
1961479	1961487	15 V ±5%	500 mA	FW8002.1M/XX/15
1961480	1961488	18 V ±5%	400 mA	FW8002.1M/XX/18
1961481	1961489	24 V ±5%	300 mA	FW8002.1M/XX/24

FW8000M

FOX12-FM





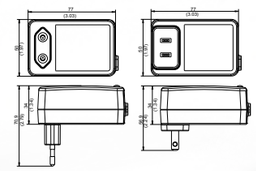
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1898776	1898785	5 V ±5%	2,200 mA	FW8000M/XX/05
1898777	1898786	5.9 V ±5%	2,000 mA	FW8000M/XX/06
1898778	1898787	7.5 V ±5%	1,400 mA	FW8000M/XX/08
1898779	1898788	9 V ±5%	1,300 mA	FW8000M/XX/09
1898780	1898789	12 V ±5%	1,000 mA	FW8000M/XX/12
1898781	1898790	15 V ±5%	800 mA	FW8000M/XX/15
1898782	/	18 V ±5%	660 mA	FW8000M/XX/18
1898783	1898792	24 V ±5%	500 mA	FW8000M/XX/24

FW8001M

FOX18-FM





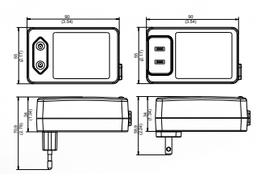
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1898937	1898946	5 V ±5%	3,000 mA	FW8001M/XX/05
1898938	1898947	5.9 V ±5%	3,000 mA	FW8001M/XX/06
1898939	1898948	7.5 V ±5%	2,400 mA	FW8001M/XX/08
1898940	1898949	9 V ±5%	2,000 mA	FW8001M/XX/09
1898941	1898950	12 V ±5%	1,500 mA	FW8001M/XX/12
1898942	1898951	15 V ±5%	1,200 mA	FW8001M/XX/15
1898943	1898952	18 V ±5%	1,000 mA	FW8001M/XX/18
1898944	1898953	24 V ±5%	750 mA	FW8001M/XX/24

FW8030M

FOX30-FM





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1898813	1898822	5 V ±5%	5,000 mA	FW8030M/XX/05
1898814	1898823	5.9 V ±5%	4,200 mA	FW8030M/XX/06
1898815	1898824	7.5 V ±5%	4,000 mA	FW8030M/XX/08
1898816	1898825	9 V ±5%	3,300 mA	FW8030M/XX/09
1898817	1898826	12 V ±5%	2,500 mA	FW8030M/XX/12
1898818	1898827	15 V ±5%	2,000 mA	FW8030M/XX/15
1898819	1898828	18 V ±5%	1,670 mA	FW8030M/XX/18
1898820	1898829	24 V ±5%	1,250 mA	FW8030M/XX/24

The "XX" in the FW type indicates the Fixed Floor country variant.

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical USB Power Supplies with Fixed AC-Plug
FOX USB Series

Short Description

FRIWO's medical fixed floor USB plug-in power supplies are designed for reliable use in medical environments. Development and manufacturing already take future requirements and increasing efficiency demands into account, ensuring dependable long-term availability for your applications.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:

  FOX6-FM-USB: 160 – 80 mA

  FOX12-FM-USB: 300 – 150 mA
- Leakage current: ≤ 10 µA
- Output voltage tolerance: ± 5 %
- Turn-on delay:

  FOX6-FM-USB: ≤ 3 s

  FOX12-FM-USB: ≤ 2 s
- Stand-by: ≤ 0.1 W
- Efficiency: DoE: 10 CFR §430.32 / Energy Efficiency Level VI / ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 60601-1
- Approvals: EU, USA
- Safety class: II
- EMC: EN 60601-1-2
- Medical protection: 2 x MOPP

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude: 3,000 m

Connectors

- AC input: See article no
- DC output: USB Type-A Socket

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics | **Medical & Healthcare Solutions** | Industrial Applications | Specialized Tools & Equipment | Lifestyle Solutions

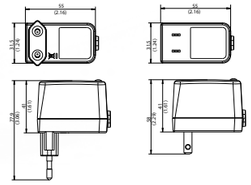
Customer-specific industries on request.
Certifications can vary.

* MII217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW8002.1MUSB

FOX6-FM-USB





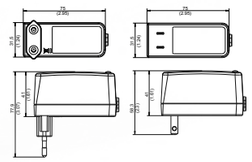
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1961490	1961491	5 V ± 5 %	1,400 mA	FW8002.1MUSB/XX/05

FW8000MUSB

FOX12-FM-USB





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no. (Euro)	Article no. (US)	Voltage	Current	FRIWO Type
1898871	1898872	5 V ± 5 %	2,200 mA	FW8000MUSB/XX/05

The "XX" in the FW type indicates the Fixed Floor country variant.

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Desktop Plug-in Power Supplies
DT Series

Short Description

Designed for maximum resistance to vibration, shock and temperature, our built-in power supply components set standards with their immense service life. In minimal installation spaces, they achieve peak values for efficiency and no-load losses and are also ideally suited for use in medical technology thanks to their minimal leakage current.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current:
  - DT12-M: 250 – 130 mA
  - DT50-M: 1,100 – 500 mA
  - DT60-M: 1,300 - 600 mA
  - DT150-M: 2,000 – 700 mA
- Leakage current: ≤ 10 µA (DT150 ≤ 100 uA)
- Stand-by: ≤ 0.1 -0.5 W
- Efficiency: DoE: 10 CFR §430.32 / Energy Efficiency Level VI / ErP: Commission Regulation (EU) 2019/1782
- MTBF: 200,000 h*

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 60601-1, ES60601-1, IEC 62368-1; IEC 61558-2-16
- Approvals: EU, USA (DT50-M: EU, USA, AUS)
- Safety class: II (DT150-M: I)
- EMC: EN 60601-1-2:2015, EN 60601-1-2 4th Edition (DT50-M)
- Medical protection: 2 x MOPP

Environmental specifications

- Operating temperature: 0 – 40 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude:
  - DT12-M: 5,000 m
  - DT50-M: 4,000 m
  - DT60-M: 3,000 m
  - DT150-M: 4,000 m

Connectors

- AC input: 3 pole, IEC 60320-C14 socket; 2 pole, IEC 60320-C8 socket (DT12/50-M)
- DC output: Secondary adapter system (DT150-M: Cable with coaxial plug)

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

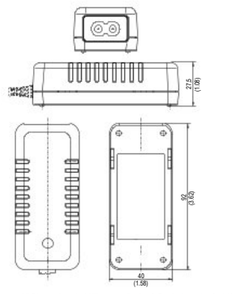
Customer-specific industries on request.
Certifications can vary.

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

FW8004/DT

DT12-M





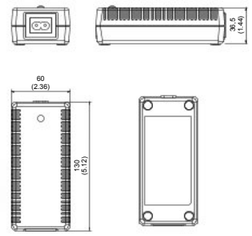
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1960134	5 V ±5%	2,000 mA	FW8004M/DT/05
1960077	12 V ±5%	1,000 mA	FW8004M/DT/12
1960227	24 V ±5%	500 mA	FW8004M/DT/24

FW7405M

DT50-M





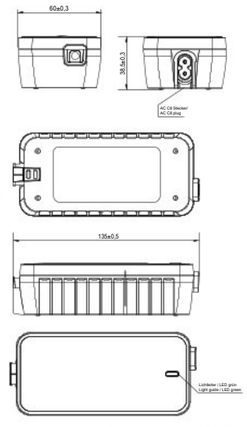
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1890649	5 V ±5%	5,000 mA	FW7405M/05
1890650	12 V ±5%	3,800 mA	FW7405M/12
1890839	15 V ±5%	3,000 mA	FW7405M/15
1825898	24 V ±5%	2,200 mA	FW7405M/24

DTC060.1-D-M-24

DT60-M



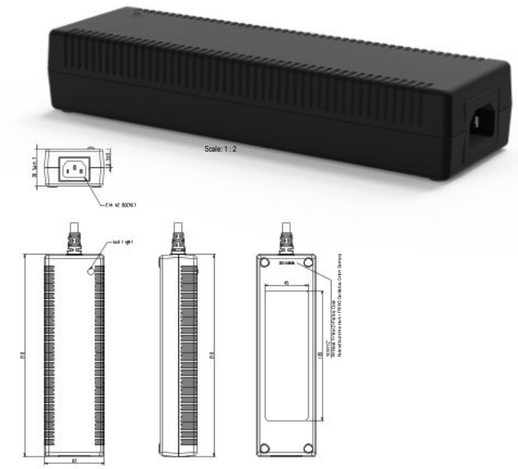


All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
20004525	24 V ±5%	2,500 mA	DTC060.1-D-M-24

D-NG DT150

DT150-M



All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1893142	24 V ±5%	6,250 mA	DT150-24 MOPP

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Desktop Plug-in Power Supplies
FOX Series

Short Description

FRIWO's medical desktop plug-in power supplies of the FOX series are designed for dependable use in medical environments. Robust design, future-oriented development and increasing efficiency requirements are considered from the outset to ensure reliable, long-term availability for a wide range of applications.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current: 600 – 300 mA
- Leakage current: ≤ 10 uA
- Turn-on delay: ≤ 3 s
- Stand-by: ≤ 0.1 W
- Efficiency: DoE: 10 CFR §430.32 / Energy Efficiency Level VI / ErP: Commission Regulation (EU)
- MTBF: 200,000 h*

Product Overview

- Efficiency level VI
- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 60601-1
- Approvals: EU, USA, AUS, JPN
- Safety class: II
- EMC: EN 60601-1-2
- Medical protection: 2 x MOPP

Environmental specifications

- Operating temperature: 0 – 45 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude: 4,000 m

Connectors

- AC input: 2 pole, IEC 60320-C8 socket
- DC output: Secondary adapter system

Labels / Certifications

CE

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

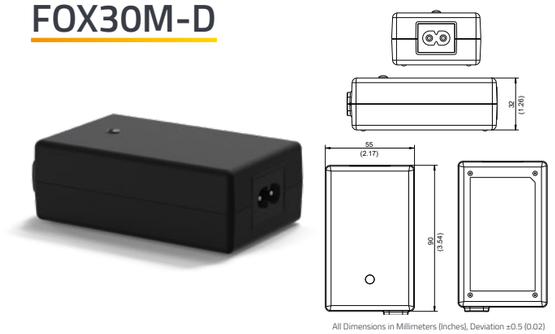
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Customer-specific industries on request.
Certifications can vary.

* Mil 217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100% load)

FW8030M/DT

FOX30M-D



All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1898179	5 V ±5%	5,000 mA	FW8030M/DT/05
1898180	5.9 V ±5%	4,200 mA	FW8030M/DT/06
1898181	7.5 V ±5%	4,000 mA	FW8030M/DT/08
1898182	9 V ±5%	3,300 mA	FW8030M/DT/09
1898183	12 V ±5%	2,500 mA	FW8030M/DT/12
1898184	15 V ±5%	2,000 mA	FW8030M/DT/15
1898185	18 V ±5%	1,670 mA	FW8030M/DT/18
1898186	24 V ±5%	1,250 mA	FW8030M/DT/24

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Open Frame Plug-in Power Supplies
HERC Series

Short Description

FRIWO's medical open frame plug-in power supplies of the HERC series are designed for integration into medical applications. Forward-looking development and increasing efficiency requirements are taken into account to ensure reliable performance and long-term availability.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current:

  HERC60: 1,200 – 700 mA

  HERC175: 2,000 – 900 mA

  HERC250: 3,000 – 1,300 mA*

  ***Also available with aluminum housing**
- Earth leakage current: ≤ 100 µA
- Touch current: ≤ 100 µA
- Output voltage tolerance: ± 5 % (HERC175: ± 3 %)
- Stand-by:

  HERC60: ≤ 0.15 W

  HERC175: ≤ 0.21 W

  HERC250: ≤ 0.15 W
- MTBF: 200,000 h*

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard IEC 60601-1, ES60601-1, IEC62368-1
- Approvals: EU, USA (HERC250: EU)
- EMC: EN 60601-1-2

Environmental specifications

- Operating temperature: -25 – 70 °C
- Humidity: 95 % max.
- Storage temperature: -40 – 85 °C
- Operating altitude: 5,000 m

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

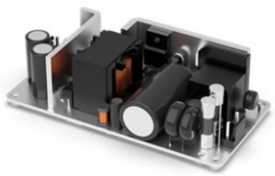
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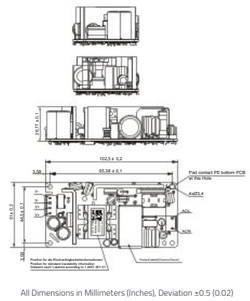
Customer-specific industries on request.
Certifications can vary.

* MIL217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25°C, 100% load)

FW8060M/OF

HERC60



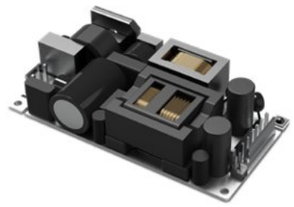


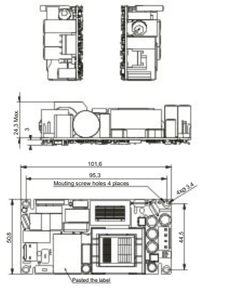
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1961553	12 V	5,000 mA	FW8060M/OF/12/HERC
1961720	24 V	2,500 mA	FW8060M/OF/24/HERC
1961554	48 V	1,250 mA	FW8060M/OF/48/HERC

FW8175M/OF

HERC175





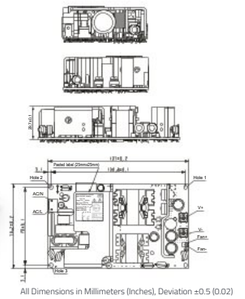
All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)

Article no.	Voltage	Current	FRIWO Type
1899208	12 V	14,600 mA	FW8175M/OF/12/HERC
1899059	24 V	7,300 mA	FW8175M/OF/24/HERC
20000653	36 V	4,861 mA	FW8175M/OF/36/HERC
20002366	48 V	2,500 mA	FW8175M/OF/48/HERC

FW8250M/OF

HERC250





All Dimensions in Millimeters (Inches), Deviation ±0.5 (0.02)



Open Frame Variant

Article no.	Voltage	Current	FRIWO Type
20002402	12 V	20,833 mA	FW8250M/OF/12/HERC
20002401	24 V	10,416 mA	FW8250M/OF/24/HERC
20002375	48 V	5,210 mA	FW8250M/OF/48/HERC

Caged Variant

Article no.	Voltage	Current	FRIWO Type
1962018	12 V	20,833 mA	FW8250M/CA/12/HERC
1962019	24 V	10,416 mA	FW8250M/CA/24/HERC
1962020	48 V	5,210 mA	FW8250M/CA/48/HERC

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Charging Technology

Fastest Charging Times For Use On The Go

Li-Ion Chargers
FOX Series

Short Description

Compact chargers for use anywhere in the world: Our solutions with interchangeable AC plugs are ideal for use on the go. The devices are controlled by micro-controllers and exceed the latest efficiency standards, offer minimal leakage current, and protect the battery with special charging characteristics.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current:

  FOX30-C: 500 – 300 mA

  FOX40-C: 770 – 430 mA (Art. no. 1960365)
  660 – 320mA (Art. no. 1899119)
- Leakage current: ≤ 100 µA
- Output voltage tolerance: ± 1 %
- Stand-by: ≤ 0.5 W
- Efficiency: DoE: 10 CFR §430.32
  CEC: Appliance efficiency regulation

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 60335-1, 60601-1, 60335-2-29; UL 1310
- Approvals: EU, USA
- Safety class: II
- EMC: EN 55014-1, EN 55014-2, EN60601-1-2

Environmental specifications

- Operating temperature: 5 – 90 °C
- Humidity: 5 – 90 %
- Storage temperature:

  FOX30-C: -25 – 70 °C

  FOX40-C: -20 – 70 °C
- Operating altitude: 5,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: JST plug

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

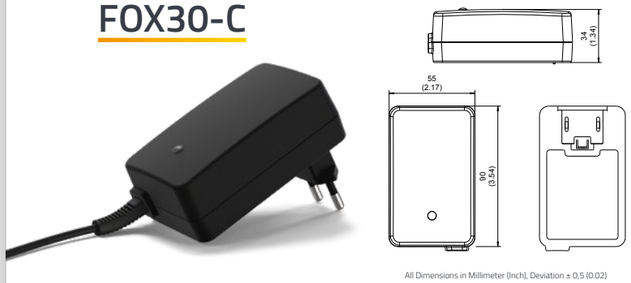
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Customer-specific industries on request.
Certifications can vary.

FW8103M

FOX30-C



All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1960274	3 S	10.8 V	2,000 mA	FW8103M
1899125	4 S	14.4 V	1,500 mA	FW8103M

FW8104M

FOX40-C



All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1899119	4 S	14.4 V	2,100 mA	FW8104M
1960365	5 S	18 V	1,750 mA	FW8104M

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Li-Ion Chargers
GPP Series

Short Description

The GPP-series can be variably equipped with the mains plugs as shown. Your applications and products can be sold and used worldwide due to the set of all country mains plugs which can be inserted with the unit. Mobility and dependability with respect to the use of the product are increased in this way and provide a constant level of functionality and availability – wherever you are in the world. Beyond that, these plug modules help reducing the logistic complexity, avoiding the need to plan and stock mains adapters and chargers in various mains plug configurations.

Technical Data

- Input voltage: 100 – 240 V ± 10 %
- Frequency: 50 – 60 Hz
- Input current:

  GPP18: 400 – 200 mA

  GPP36: 800 – 350 mA
- Leakage current: ≤ 100 µA
- Output voltage tolerance: ± 10 %
- Stand-by:

  GPP18: ≤ 0.5 W

  GPP36: ≤ 0.8 W
- Efficiency: DoE: 10 CFR §430.32

  CEC: Appliance efficiency regulation

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof
- Battery NTC sensor: R = 10 kR / B = 3977
- Reverse polarity protection (GPP36)

Safety specifications

- Layout acc. to safety standard: UL 1310, IEC/EN 60335-1, IEC 60335-2-29
- Safety class: II
- EMC: EN 55014-1, EN 55014-2

Environmental specifications

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

  GPP18: -20 – 70 °C

  GPP36: -40 – 70 °C
- Operating altitude: 2,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: 3-pin Texas plug

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

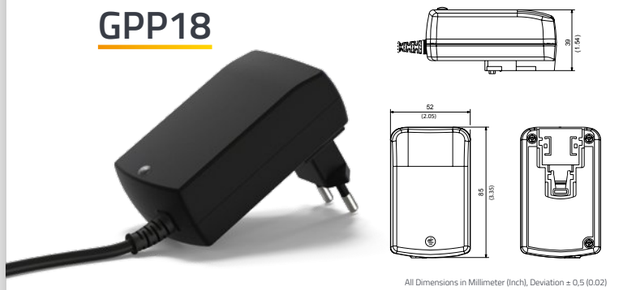
Available for the following FRIWO Sectors:

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Customer-specific industries on request.
Certifications can vary.

FW7290

GPP18

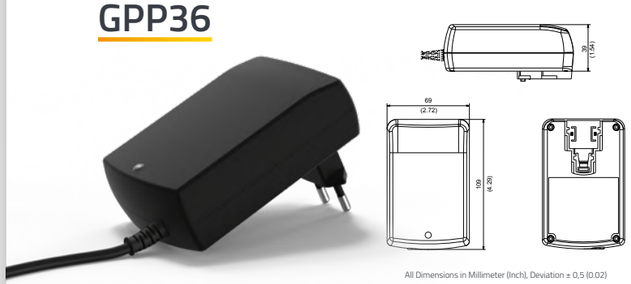


All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1832658	2 S	7.2 V	1,500 mA	FW7290

FW7300

GPP36



All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1834050	1 S	3.6 V	4,000 mA	FW7300
1834051	2 S	7.2 V	3,500 mA	FW7300
1834052	3 S	10.8 V	2,500 mA	FW7300
1834053	4 S	14.4 V	2,000 mA	FW7300
1834054	5 S	18 V	1,600 mA	FW7300

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Li-Ion Chargers
LEV500

Short Description

Our Li-Ion charger LEV500 impresses with the latest technology built into a unique and compact design. For this, the charger has received the prestigious Red Dot Award 2022 in the category „Product Design“. With the IP65 protection class, the device is dust-tight and protected against water jets from any angle. This means that the LEV500 can be used with maximum safety even under difficult conditions. The charger is designed for 14S battery packs as standard, but can also be parameterized for other cell sizes on request and with development effort.

Technical Data

- Input voltage: 220 – 240 V
- Frequency: 50 – 60 Hz
- Input current: 2.8 – 2 A
- Output voltage tolerance: ± 1 %

Product Overview

- Overvoltage protection
- Device status via LED display
- Removable handle
- Continuously short circuit proof
- Robust and compact design
- IP 65
- Reverse polarity protection
- Over temperature protection
- Convection cooling
- CAN communication (optional)
- Parameterisable for other cell sizes

Safety specifications

- Layout acc. to safety standard: IEC 60335-1, IEC 60335-2-29
- Approvals: EU
- Safety class: I
- EMC: EN 55014-1, EN 55014-2

Environmental specifications

- Operating temperature: -20 – 50 °C
- Humidity: 10 – 95 %
- Storage temperature: -40 – 70 °C

Connectors

- AC input: 3 pole, 1,2 m length
- DC output: Weipu 8Pol / Stäubli / on request

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

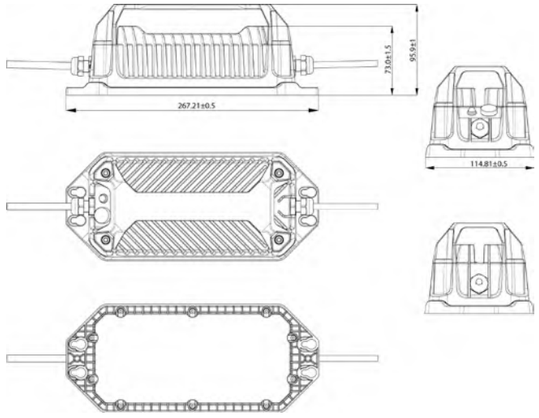
Customer-specific industries on request.
Certifications can vary.

reddot winner 2022

LEV500

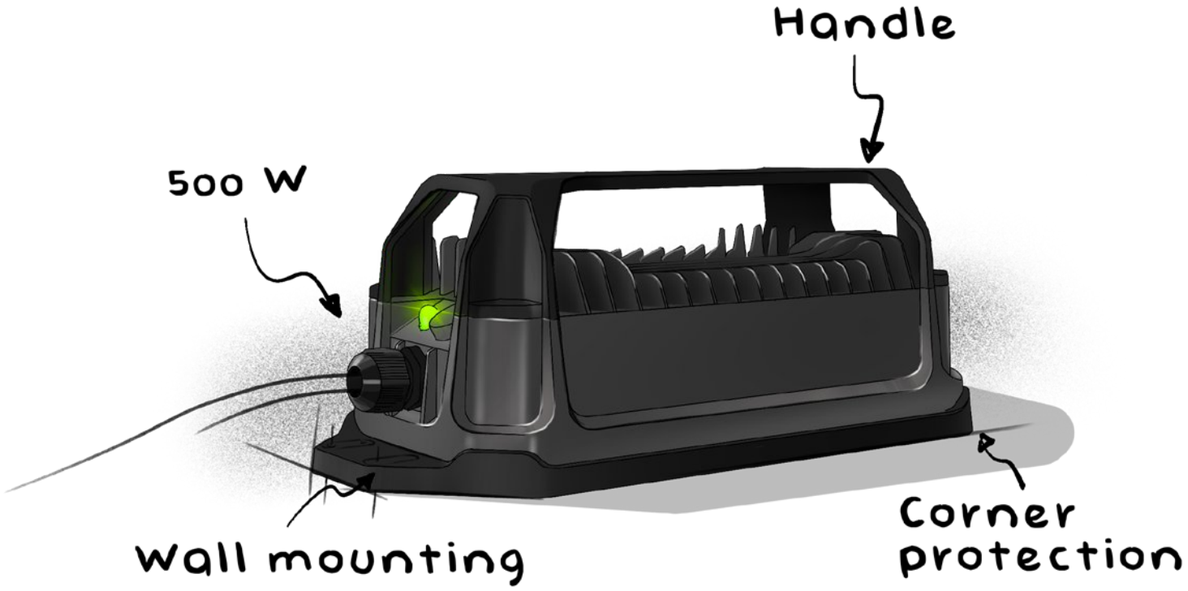
LEV500





All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1960948	14 S	36 – 58.8 V	0 – 8,500 mA	LEV500







Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

LiFePO4 Chargers
GPP Series

Short Description

The GPP-series can be variably equipped with the mains plugs as shown. Your applications and products can be sold and used worldwide due to the set of all country mains plugs which can be inserted with the unit. Mobility and dependability with respect to the use of the product are increased in this way and provide a constant level of functionality and availability – wherever you are in the world. Beyond that, these plug modules help reducing the logistic complexity, avoiding the need to plan and stock mains adapters and chargers in various mains plug configurations.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current: 180 – 450 mA
- Leakage current: ≤ 100 µA
- Output voltage tolerance: ± 10 %
- Turn-on delay: ≤ 1 s
- Stand-by: ≤ 0.8 W
- Efficiency: DoE: 10 CFR §430.32
  CEC: Appliance efficiency regulation

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 60335-1, IEC 60335-2-29, UL1310
- Safety class: II
- EMC: EN 55014-1, EN 55014-2

Environmental specifications

- Operating temperature: 0 – 40 °C
- Humidity: 5 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude: 2,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: 3-pin Texas plug

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

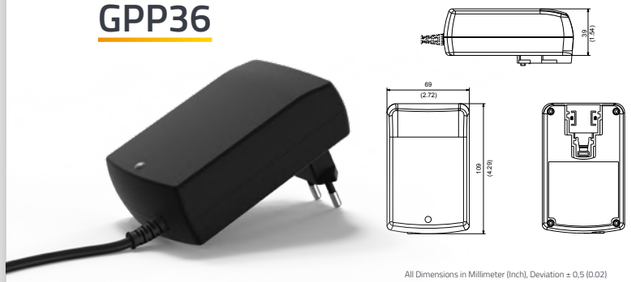
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Lifestyle Solutions

Customer-specific industries on request.
Certifications can vary.

FW7300

GPP36



Article no.	Cells	Voltage	Current	FRIWO Type
1834056	2 S	6.6 V	3,500 mA	FW7300
1834058	4 S	13.2 V	2,000 mA	FW7300

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Lead Acid Chargers
PP Series

Short Description

Our lead acid chargers are designed for reliable and safe charging in everyday industrial and professional applications. They combine durable design, stable charging performance and integrated protection features such as overload, overvoltage and continuous short circuit protection. With their compact housing and dependable operation, they provide a practical solution wherever robust and efficient charging is required.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current: 135 – 65 mA
- Leakage current: ≤ 10 µA
- Output voltage tolerance: ± 10 %
- Turn-on delay: ≤ 1 s
- Stand-by: ≤ 0.5 W

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC/EN 60335-1, IEC/EN 60335-2-29, IEC 60601-1, UL 1310
- Safety class: II
- EMC: EN 55014-1, EN 55014-2

Environmental specifications

- Operating temperature: 0 – 40 °C
- Humidity: 0 – 95 %
- Storage temperature: -40 – 70 °C
- Operating altitude: 2,000 m

Connector

- AC input: Euro plug
- DC output: Secondary adapter system

Labels / Certifications

CE

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

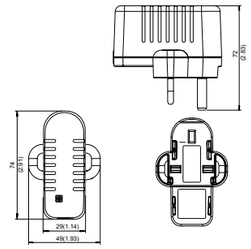
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Customer-specific industries on request.
Certifications can vary.

FW7118M

PP8





All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1890125	3 S	6 V	900 mA	FW7118M
1824396	6 S	12V	500 mA	FW7118M

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

NiCd/NiMH Chargers
GPP Series

Short Description

The GPP-series can be variably equipped with the mains plugs as shown. Your applications and products can be sold and used worldwide due to the set of all country mains plugs which can be inserted with the unit. Mobility and dependability with respect to the use of the product are increased in this way and provide a constant level of functionality and availability – wherever you are in the world. Beyond that, these plug modules help reducing the logistic complexity, avoiding the need to plan and stock mains adapters and chargers in various mains plug configurations.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current:

  GPP18: 400 - 200 mA

  GPP36: 700 – 300 mA
- Leakage current: ≤ 100 µA
- Output voltage tolerance: ± 10 %
- Turn-on delay: ≤ 1 s (GPP36)
- Stand-by: ≤ 0.5 – 0.8 W
- Efficiency: DoE: 10 CFR §430.32
  CEC: Appliance efficiency regulation (GPP18)

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof
- Battery NTC sensor: R = 10 kR / B = 3977 (GPP18)

Safety specifications

- Layout acc. to safety standard: UL 1310, IEC/EN 60335-1, IEC 60335-2-29
- Safety class: II
- EMC: EN 55014-1, EN 55014-2

Environmental specifications

- Operating temperature: 0 – 40 °C
- Humidity: 5 – 95 % (GPP18: 10 – 95 %)
- Storage temperature: -20 – 70 °C (GPP36: -40 – 70 °C)
- Operating altitude: 2,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: 3-pin Texas plug

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

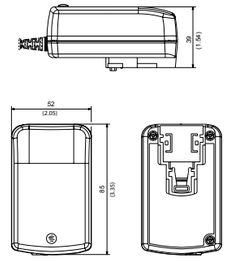
E-Mobility, Transportation & Logistics · Medical & Healthcare Solutions · Industrial Applications · Specialized Tools & Equipment · Lifestyle Solutions

Customer-specific industries on request.
Certifications can vary.

FW7290

GPP18





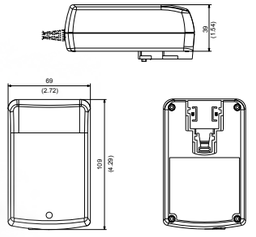
All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1832656	2 – 6 S	2.4 – 7.2 V	3,000 mA	FW7290

FW7300

GPP36





All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1834049	2 – 12 S	2.4 – 14.4 V	1,600 – 4,000 mA	FW7300

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Li-Ion Chargers
FOX Series

Short Description

Compact chargers for use anywhere in the world: Our solutions with interchangeable AC plugs are ideal for use on the go. The devices are controlled by micro-controllers and exceed the latest efficiency standards, offer minimal leakage current, and protect the battery with special charging characteristics.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current:

  FOX30-C: 500 – 300 mA

  FOX40-C: 640 – 350 mA (Art. no. 1960275)
  660 - 320 mA (Art. no. 1899119)
- Leakage current: ≤ 100 µA
- Output voltage tolerance: ± 1 %
- Stand-by: ≤ 0.5 W
- Efficiency: DoE: 10 CFR §430.32
  CEC: Appliance efficiency regulation

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC 60335-1, 60601-1, 60335-2-29; UL 1310
- Approvals: EU, USA
- Safety class: II
- EMC: EN 55014-1, EN 55014-2, EN60601-1-2

Environmental specifications

- Operating temperature: 0 – 40 °C
- Humidity: 5 – 90 %
- Storage temperature: -20 – 70 °C (FOX30-C: -25 – 70 °C)
- Operating altitude: 5,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: JST plug

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

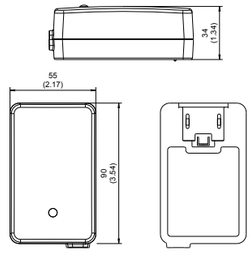
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Customer-specific industries on request.
Certifications can vary.

FW8103M

FOX30-C





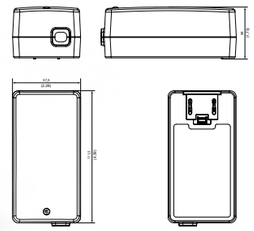
All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1960274	3 S	10.8 V	2,000 mA	FW8103M
1899125	4 S	14.4 V	1,500 mA	FW8103M

FW8104M

FOX40-C





All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1960275	3 S	10.8 V	2,600 mA	FW8104M
1899119	4 S	14.4 V	2,100 mA	FW8104M
1960365	5 S	14.4 V	1,750 mA	FW8104M

Medical Charging Technology

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Medical Lead Acid Chargers
FOX Series

Short Description

Our medical lead acid chargers are designed for reliable and safe charging in healthcare applications. They combine compact design, stable charging performance and integrated protection features such as overload, overvoltage and continuous short circuit protection. Compliant with medical safety standards, they provide a dependable solution wherever safe and efficient battery charging is required.

Technical Data

- Input voltage: 100 – 240 V
- Frequency: 50 – 60 Hz
- Input current: 500 – 300 mA
- Leakage current: ≤ 100 µA
- Output voltage tolerance: ± 1 %
- Stand-by: ≤ 0.5 W
- Efficiency: DoE: 10 CFR §430.32
  CEC: Appliance efficiency regulation

Product Overview

- Overload protection
- Overvoltage protection
- Continuously short circuit proof

Safety specifications

- Layout acc. to safety standard: IEC60601-1, ES60601-1, EN60335-1, EN60601-1, EN60335-2-29
- Approvals: EU, USA
- Safety class: II
- EMC: EN60601-1

Environmental specifications

- Operating temperature: 0 – 40 °C
- Humidity: 5 – 90 %
- Storage temperature: -25 – 70 °C
- Operating altitude: 3,000 m

Connectors

- AC input: Interchangeable primary adapter system
- DC output: Customer specific

Labels / Certifications

Customer-specific approvals on request.
Certifications can vary.

Available for the following FRIWO Sectors:

E-Mobility, Transportation & Logistics | **Medical & Healthcare Solutions** | Industrial Applications | Specialized Tools & Equipment | Lifestyle Solutions

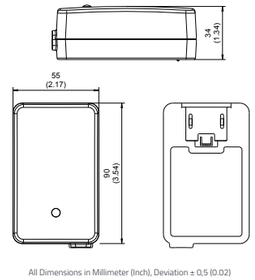
Customer-specific industries on request.
Certifications can vary.

* MIl217F (based on calculations at 120 VAC / 60 Hz & 230 VAC / 50 Hz, ambient temperature 25 °C, 100 % load)

FW8103M

FOX30





All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Article no.	Cells	Voltage	Current	FRIWO Type
1961875	12 S	24 V	1,000 mA	FW8103.1M

Medical Charging Technology

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Accessories

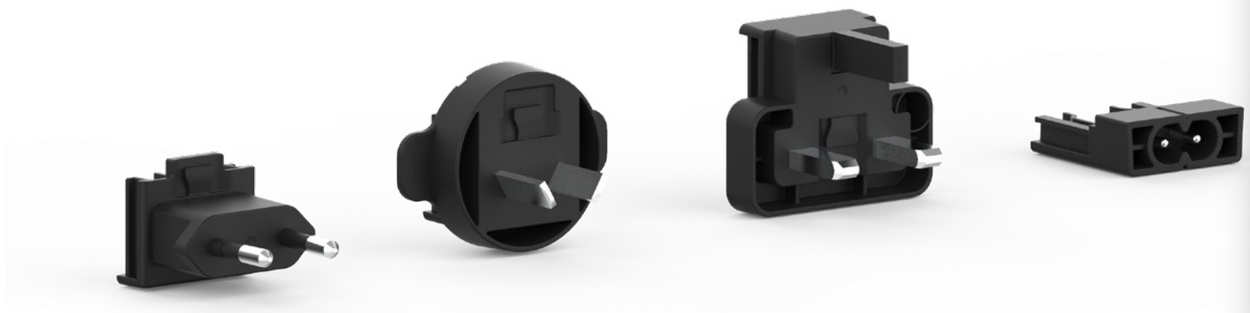
Accessories for Power Supplies and Chargers

Primary Adapters
FOX System

Short Description

Primary adapters for FRIWO's easy-to-use interchangeable adapter systems allow products to be used globally and can result in considerable reductions in the cost of logistics. The adapters featuring IP42-certified splash protection, which are available from FRIWO for the FOX system, are a particular highlight.

	black		white
FOX	IPx0	IPx2	IPx0
Country	**Article no.**	**Article no.**	**Article no.**
Europe	1847556	1847618	1847531
United Kingdom	1855854	1847606	1847543
United States / Japan	1847554	1847604	1847533
Australia	1847553	1847624	1847534
International standard	1847552		1847535
Argentinia	1847548		
Brazil	1847551		
China	1847550		
India (2-pin plug)	1847547		
India (3-pin plug)	1847546		
South Korea	1847545		
South Africa	1847549		



Primary Adapters
GPP System

Short Description

The easy-to-use, interchangeable primary adapters for FRIWO's adapter systems make it possible to use products globally and can result in considerable reductions in the cost of logistics. The IEC adapter (IEC320 C8) offers a standard alternative for countries with different power plugs.

GPP	
Country	**Article no.**
Europe	1827417
United Kingdom	1827420
United States / Japan	1827422
Australia	1827425
International standard	1827428
Argentinia	1831610
India	1831323
South Korea	1835619
South Africa	1838236



Adapter Key



North America / Central America / Caribbean / East Asia



North America / Central America / Caribbean / Parts of South America / Parts of Southeast Asia



Europe / North Africa / Parts of the Middle East / Parts of Sub-Saharan Africa / Parts of South America / Parts of Asia



South Asia



Continental Europe / North Africa



Continental Europe / Eastern Europe / Russia & CIS / Parts of the Middle East / East Asia (South Korea) / Parts of Southeast Asia

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

Secondary Adapters

Secondary Adapter System

Short Description

All of FRIWO's standard devices are delivered with a 1.83-meter secondary cable. At the end of this cable there is a coupling for the proven secondary adapter system. A range of easy-to-mount coaxial and jack connectors makes the system extremely flexible for use in a wide range of applications. The required polarity can be achieved by reversing the secondary connector. Custom cables can also be installed. Our experts are always happy to help you choose what you need.

Coaxial Connectors – Straight			
Ø a.	**Ø i.**	**Length mm**	**Article no.**
3.5	1.3	9.5 mm	1807699
4.0	1.7	9.5 mm	1822557
4.0	1.7	11.0 mm	1811994
4.8	1.7	9.5 mm	1822559
5.5	2.1	9.5 mm	1807700
5.5	2.1	11.5 mm	1807701
5.5	2.1	14.0 mm	1807697
5.5	2.5	9.5 mm	1807698
5.5	2.5	11.5 mm	1807702
5.5	3.3	9.5 mm	1822561
DIN 45323			1807703

Coaxial Connectors – Angled			
Ø a.	**Ø i.**	**Length mm**	**Article no.**
3.5	1.3	9.5	1822478
4.0	1.7	9.5	1822558
4.0	1.7	11.0	1822482
4.8	1.7	9.5	1822560
5.5	2.1	9.5	1822479
5.5	2.1	11.5	1822480
5.5	2.1	14.0	1822476
5.5	2.5	9.5	1822477
5.5	2.5	11.5	1822481
5.5	3.3	9.5	1822562
DIN 45323			1822483

Plugs / Sockets	
Description	**Article no.**
Texas Plugs	
Straight Texas Plug	1807706
Angled Texas Plug	1822486
Texas Sockets 2-Pin	
Snap-in Type	1323938
PCB Type	1321609
Texas Sockets 3-Pin	
Snap-in Type	1327259
PCB Type	1363506

Jack Connectors – Straight		
Ø a.	**Length mm**	**Article no.**
2.5	13 mm	1807704
3.5	14 mm	1807705

Jack Connectors – Angled		
Ø a.	**Length mm**	**Article no.**
2.5	13 mm	1822484
3.5	14 mm	1822485



Coaxial connectors



Jack connectors

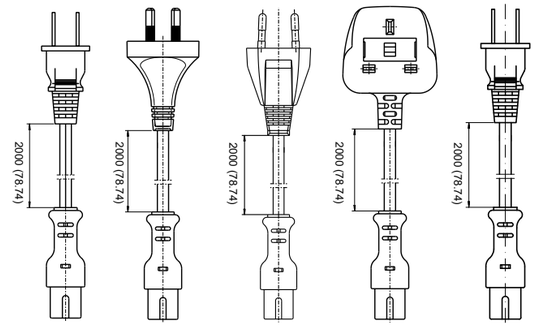
Accessories

Power Cords

Short Description

Together with the DT range and the FOX and GPP interchangeable adapter system from FRIWO, power cords with the IEC320 C7 power plug offer the right solution for every country. All power cords are 2 meters long and suitable for use with the appropriate IEC320 C8 socket.

Power Cords	
Country	**Article no.**
Europe	1812274
United Kingdom	1812275
United States	1812276
Australia	1812277
China	20007839



Alle Abmessungen in Millimeter (Inch), Abweichung ± 0,5 (0.02)
All Dimensions in Millimeter (Inch), Deviation ± 0,5 (0.02)

Accessories

Cables

USB cables C to C					
Wattage	**1 meter**	**1.2 meters**	**1.5 meters**	**1.8 meters**	**2 meters**
65	20008808	20008809	20008810	20008811	20008812
100	20008813	20008814	20008815	20008816	20008817
240	20008819	20008820	20008821	20008822	20008823



USB cables C to C

USB cables A to C		
	1.83 meters	**3 meters**
max. 3 A	1855094	1855095



USB cables A to C

All cables are available in black and white

Subject to change without notice – Illustrations similar.
Please refer to the operating instructions.

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Date of release: October 2026

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Empowering Solutions

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