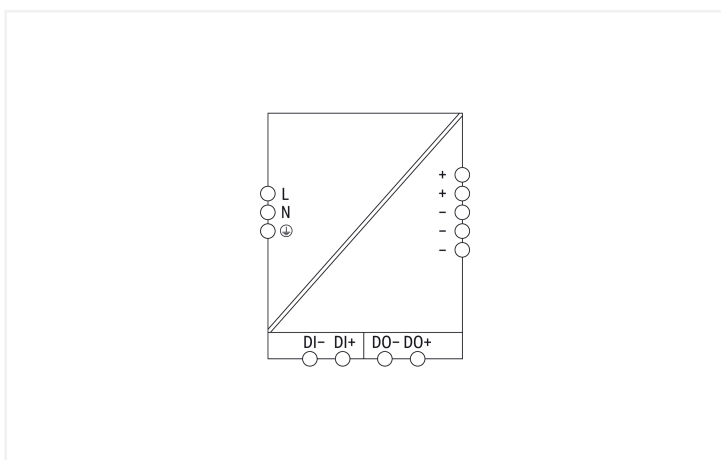


# Data Sheet | Item Number: 2787-2146

Power supply; Pro 2; 1-phase; 24 VDC output voltage; 10 A output current; Top-Boost + PowerBoost; communication capability

<https://www.wago.com/2787-2146>



## Features:

- Power supply with TopBoost, PowerBoost and configurable overload behavior
- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Optional connection to IO-Link, EtherNet/IP™, Modbus TCP or Modbus RTU
- Suitable for both parallel and series operation
- Natural convection cooling when horizontally mounted
- Pluggable connection technology
- Electrically isolated output voltage (SELV/PELV) per EN 61010-2-201/UL 61010-2-201
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

## Technical data

Input	
Phases	1
Nominal input voltage $U_{i\text{nom}}$	1 x 100 ... 240 VAC
Input voltage range	1 x 90 ... 264 VAC
Nominal mains frequency range	50 ... 60 Hz
Input current $I_i$	≤ 1.2 A (240 VAC; nominal load); ≤ 2.7 A (100 VAC; nominal load)
Inrush current	≤ 11 A (after 1 ms)
Power factor correction (PFC)	Active

Input	
Mains failure hold-up time	≥ 25 ms (230 VAC)

Output	
Nominal output voltage $U_{o, nom}$	24 VDC (SELV)
Output voltage range	24 ... 28 VDC (adjustable)
Default Setting	24 VDC
Nominal output current $I_{o, nom}$	10 A (24 VDC)
Nominal output power	240 W
Deviation	≤ 1 %
Residual ripple	≤ 70 mV (peak-to-peak)
Current limitation	1.1 × $I_{o, nom}$ (typ.)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)
PowerBoost	15 ADC (5 s)
TopBoost	Up to 600 %

Efficiency/Power Losses	
Power loss $P_1$	≤ 1 W (standby); ≤ 2.2 W (no load); ≤ 12 W (230 VAC; nominal load)
Efficiency (typ.)	95.2 % (230 VAC; 10 A; 25 °C)

Safety and protection	
Isolation voltage (pri.-sec., AC)	3510 V
Isolation voltage (pri.-PE, AC)	2200 V
Isolation voltage (sec.-PE)	0.5 kVDC
Isolation voltage (sec.-signal)	0.5 kVDC
Protection class	I
Protection type	IP20; per EN 60529
Resistance to reverse feed	≤ 35 VDC
Overvoltage category	III (≤ 2000 m a.s.l.); II (> 2000 m a.s.l.)
Pollution degree	2
Transient suppression (primary)	Yes
Overvoltage protection; secondary	Internal protective circuit ≤ 35 VDC (in the event of a fault)
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	> 1,200,000 h (per IEC 61709)

Connection Data	
<b>Connection 1</b>	
Connection type	Input/output/signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 Series
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches

Signaling and Communication	
Signaling	Optical status indication (DC OK; load; warning and error states) Digital signal input and output (DI/DO)
Communications	USB (750-923 Communication Cable) EtherNet/IP™ (2789-9023 Communication Module) IO-Link (2789-9080 Communication Module) Modbus RTU (Communication Module 2789-9015) Modbus TCP (2789-9052 Communication Module)

Circuit Protection	
Internal fuse	T 6.3 A / 250 VAC
Backup fuse (recommended)	16 A (for USA/Canada: 15 A)

### Physical data

Width	50 mm / 1.969 inches
Height	130 mm / 5.118 inches
Depth from upper-edge of DIN-rail	130 mm / 5.118 inches
Note (dimensions)	Height without connector Height with connector: 166 mm

### Mechanical data

Mounting type	DIN-35 rail
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### Material data

Fire load	0.338 MJ
Weight	1063.5 g

### Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C (Device starts at -40 °C (type-tested))
Ambient temperature (storage)	-40 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	-3 %/K (> 55 °C and $U_1 < 230$ VAC); -3 %/K (> 60 °C and $U_1 \geq 230$ VAC)
Climatic category	3K3 (per EN 60721)
Operating altitude (max.)	5000 m

### Standards and Specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61204-3 UL 61010-1 UL 61010-2-201 SEMI F47 UL 121201 (HazLoc)

### Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	IN
GTIN	4066966861204

### Product Classification

UNSPSC	39121004
ETIM 9.0	EC002540
ETIM 10.0	EC002540
ECCN	NO US CLASSIFICATION

**Environmental Product Compliance**

RoHS Compliance Status	Compliant, No Exemption
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**Approvals / Certificates**

**General approvals**



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03080
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc.	UL 61010-2-201	E255817

**Declarations of conformity and manufacturer's declarations**

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
MFD for SEMI F47 WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

**Approvals for hazardous areas**



Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	UL 121201	A-E198726

**Downloads**

**Environmental Product Compliance**

Compliance Search
Environmental Product Compliance 2787-2146 <a href="#">↓</a>

**Documentation**

Manual
Product Manual Power supply; Pro 2; 1-phase; 24 VDC output voltage; 10 A output current V 1.2.2 18.02.2022 pdf 8191.26 KB <a href="#">↓</a>

Bid Text
2787-2146_EUSA 04.07.2019 docx 23.35 KB <a href="#">↓</a>
2787-2146_EUSA 04.07.2019 xml 7.91 KB <a href="#">↓</a>
ausschreiben.de 2787-2146 <a href="#">↓</a>

Instruction Leaflet			
WAGO Pro 2 Power Supplies	V 1.1.0 26.04.2021	pdf 4459.96 KB	<a href="#">↓</a>

## CAD/CAE-Data

CAD data	
2D/3D Models 2787-2146	<a href="#">↓</a>

CAE data	
EPLAN Data Portal 2787-2146	<a href="#">↓</a>
ZUKEN Portal 2787-2146	<a href="#">↓</a>

## Runtime Software

Firmware			
2787-2146, Stromversorgung; Pro 2	V 010513 13.10.2021	zip 1187.33 KB	<a href="#">↓</a>

## 1 Compatible Products

### 1.1 Product Expansions

#### 1.1.1 Communication Module



[Item No.: 2789-9023](#)  
Communication module; EtherNet/IP; MQTT Pub/Sub; communication capability



[Item No.: 2789-9080](#)  
Communication module; IO-Link; communication capability



[Item No.: 2789-9015](#)  
Communication module; Modbus RTU; RJ45; communication capability



[Item No.: 2789-9052](#)  
Communication module; Modbus TCP; communication capability

### 1.2 Optional Accessories

#### 1.2.1 Cables and connectors

##### 1.2.1.1 Communication cable



[Item No.: 750-923/000-001](#)  
Configuration cable; USB connector; Length: 5 m

#### 1.2.3 Marking

##### 1.2.3.1 Marker



[Item No.: 2009-115](#)  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

### 1.2.3.2 Marker carrier



**Item No.: 2789-1233**

Marker carrier; for WMB or marking strips;  
Length: 33 mm

### 1.2.3.3 Marking strip



**Item No.: 2009-110**

Marking strips; for Smart Printer; on reel;  
not stretchable; plain; snap-on type; white

## 1.2.4 Tool

### 1.2.4.1 Operating tool



**Item No.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a  
partially insulated shaft; multicoloured



**Item No.: 210-721**

Operating tool; Blade: 5.5 x 0.8 mm; with a  
partially insulated shaft; multicoloured