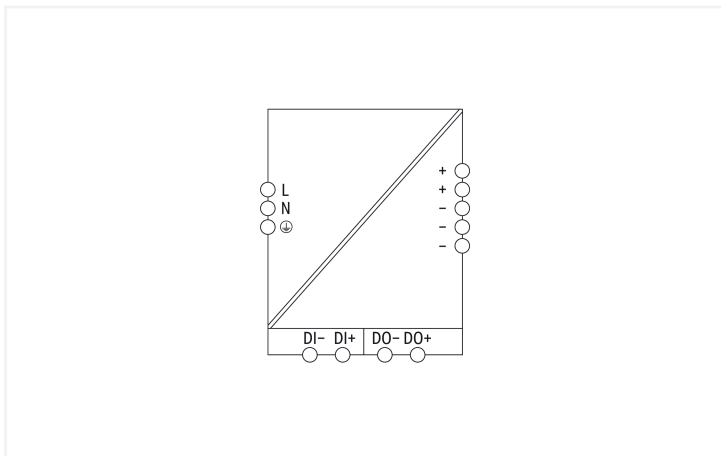


# Data Sheet | Item Number: 2787-2146/000-070

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

<https://www.wago.com/2787-2146/000-070>



## 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
- Coated PCBs, resistant to flowing mixed gas per ISA S71.04:1985, G3 Group A
- Marker slot for WAGO marking cards (WMB) and WAGO marking strips

## Technical data

### Input

Phases	1
Nominal input voltage $U_{i,nom}$	1 x 100 ... 240 VAC
Input voltage range	1 x 90 ... 264 VAC
Nominal mains frequency range	50 ... 60 Hz
Input current $I_i$	$\leq 1.2$ A (240 VAC; nominal load); $\leq 2.7$ A (100 VAC; nominal load)
Inrush current	$\leq 11$ A (after 1 ms)
Power factor correction (PFC)	Active
Mains failure hold-up time	$\geq 25$ 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	$\leq 1$ %
Residual ripple	$\leq 70$ mV (peak-to-peak)
Current limitation	$1.1 \times I_{o,nom}$ (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 %

## 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)

## Efficiency/Power Losses

Power loss $P_l$	$\leq 1$ W (standby); $\leq 2.2$ W (no load); $\leq 12$ W (230 VAC; nominal load)
Efficiency (typ.)	95.2 % (230 VAC; 10 A; 25 °C)

## Circuit Protection

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

## 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
Protective coating	Coated PCBs
Resistance to reverse feed	$\leq 35$ VDC
Overvoltage category	III ( $\leq 2000$ m a.s.l.); II ( $> 2000$ m a.s.l.)
Pollution degree	2
Transient suppression (primary)	Yes
Overvoltage protection; secondary	Internal protective circuit $\leq 35$ 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

### Connection 1

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

## 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
---------------	-------------

## Material data

Fire load	0 MJ
Weight	1000 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 <sub>i</sub> < 230 VAC); -3 %/K (> 60 °C and U <sub>i</sub> ≥ 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 DNV UL 121201 (HazLoc) ISA S71.04:1985; G3 Group A SEMI F47

### Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	CN
GTIN	4066966125948
Customs tariff number	85044083900

### 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
------------------------	-------------------------

### 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 marine applications



Approval	Standard	Certificate Name
DNV DNV GL SE	DNV-CG-0339, Aug. 2021	TAA00002ZF

#### Approvals for hazardous areas



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

## Downloads

## Environmental Product Compliance

## Compliance Search

Environmental Product  
Compliance  
2787-2146/000-070



## 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



## Instruction Leaflet

WAGO Pro 2 Power  
Supplies

V 1.1.0  
26.04.2021

pdf  
4459.96 KB



## CAD/CAE-Data

## CAD data

2D/3D Models  
2787-2146/000-070



## CAE data

EPLAN Data Portal  
2787-2146/000-070



## Runtime Software

## Firmware

2787-2146, Stromver-  
sorgung; Pro 2

V 010513  
13.10.2021

zip  
1187.33 KB



## 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; commu-  
nication 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 Marking

## 1.2.1.1 Marker carrier

[Item No.: 2789-1233](#)

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

Subject to changes. Please also observe the further product documentation!

Current addresses can be found at: [www.wago.com](http://www.wago.com)