Power supply; Pro 2; 1-phase; 24 VDC output voltage; 5 A output current;

TopBoost + PowerBoost; communication capability

www.wago.com/2787-2144







# Item description

#### Features:

Power supply with TopBoost, PowerBoost and configurable overload behavior

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

DI- DI+ DO- DO+

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- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Optional connection to IO-Link, EtherNet/IP<sup>TM</sup>, 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

#### Data

#### Technical data

## Input

Phases	1
Nominal input voltage U <sub>i nom</sub>	1 x AC 100 240 V
Input voltage range	1 x AC 90 264 V; DC 130 240 V
Nominal mains frequency range	50 60 Hz
Input current I	≤ 1 A (240 VAC; Nominal load); ≤ 1.8 A (100 VAC; Nominal load)
Inrush current	≤ 9 A (after 1 ms)
Power factor correction (PFC)	Active
Mains failure hold-up time	≥ 20 ms (230 VAC)

# Output

Nominal output voltage U <sub>o nom</sub>	DC 24 V (SELV)
Output voltage range	DC 24 28 V (adjustable)
Nominal output current I o nom	5 A (24 VDC)
Nominal output power	120 W
Residual ripple	≤ 70 mV (peak-to-peak)
Current limitation	1.1 x I <sub>o nom</sub> (typ.)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)
PowerBoost	DC 7.5 A (5 s)
TopBoost	Up to 600 %
	<u> </u>

 $\label{thm:continuity} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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# **Signaling and Communication**

Signaling	Digital signal input and output (DI/DO)
Communication	USB (Communication Cable 750-923)
	Ethernet/IP (Communication Module 2789-9023)
	IO-Link (Communication Module 2789-9080)
	Modbus RTU (Communication Module 2789-9015)
	Modbus TCP (Communication Module 2789-9052)

# Efficiency/power losses

Power loss P <sub>I</sub>	≤ 1 W (standby); ≤ 2 W (no load); ≤ 10 W (230 VAC; nominal load)
Efficiency (typ.)	93.8 % (230 VAC; 5 A; 25 °C)

# **Circuit protection**

Internal fuse	T 6.3 A / 250 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	16 A (for USA/Canada: 15 A)

# Safety and protection

Isolation voltage (prisec., AC)	3,510 V
Isolation voltage (priPE, AC)	2,200 V
Isolation voltage (secPE)	DC 0.5 kV
Protection class	I
Protection type	IP20; per EN 60529
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	> 1,000,000 h (per IEC 61709)

# **Connection data**

Connection type 1 Input/Output/Signaling

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Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 Series
Solid conductor	0.08 2.5 mm² / 28 12 AWG
Fine-stranded conductor	0.08 2.5 mm² / 28 12 AWG
Fine-stranded conductor; with insulated ferrule	2.5 1.5 mm² / 12 16 AWG
Fine-stranded conductor; with uninsulated ferrule	1.5 0.08 mm² / 16 28 AWG
Strip length	8 9 mm / 0.31 0.35 inches

# Physical data

Width	35 mm / 1.378 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**

Weight	650 g	
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# **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	See instruction leaflet
Operating altitude (max.)	5000 m

# Standards and specifications

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

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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## Commercial data

ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 pcs
Packaging type	box
Country of origin	CN
GTIN	4055143907415
Customs tariff number	85044083900

# **Environmental Product Compliance**

RoHS Compliance Status Compliant, No Exemption

# Approvals / Certificates

#### General approvals

			Certificate	
Logo	Approval	Additional Approval Text	name	
	UL	UL 61010-2-201	E255817	
(II)	Underwriters Laboratories Inc.			

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

Logo	Approval	Additional Approval Text	Certificate name
CE	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK	WAGO GmbH & Co. KG	-	-

## Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
(J)	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	A- E198726

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#### Optional accessories

Cables and pluggable connectors

Communication cable



Item no.: 750-923/000-001

Configuration cable; USB connector; Length: 5 m

www.wago.com/750-923

/000-001

Communication

Communication module

Item no.: 2789-9080

Communication module; IO-Link; communication capability

www.wago.com/2789-9080

Item no.: 2789-9015

Communication module; Modbus RTU; RJ45; communication capability

www.wago.com/2789-9015

Second Property of the Parket

Item no.: 2789-9052

Communication module; Modbus TCP; communication capability

www.wago.com/2789-9052



Item no.: 2789-9023

Communication module; EtherNet/IP; communication capability

www.wago.com/2789-9023

Communication cable



Item no.: 750-923

Configuration cable; USB connector; Length: 2.5 m

www.wago.com/750-923

Marking accessories

Marking strip



Item no.: 2009-110

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

www.wago.com/2009-110

Marker carrier



Item no.: 2789-1233

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

www.wago.com/2789-1233

Marker



Item no.: 2009-115

 $WMB-In line; for Smart Printer; 1500\ pieces\ on\ roll; stretchable\ 5-5.2\ mm; plain; snap-on\ type; white$ 

www.wago.com/2009-115

Tool

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## Operating tool



Item no.: 210-721

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

www.wago.com/210-721



Item no.: 210-720

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

www.wago.com/210-720

# Downloads Documentation

#### Manual

Product Manual Power supply; Pro 2; 1-phase; 24 VDC output voltage; 5 A output current	V 1.0.0	pdf 8.2 MB	Download
TopBoost + PowerBoost; communication capability	2022 Jul 20		
Bid Text			
2787-2144_EUSA	2019 Jul 4	docx	Download
docx - Datei		23.9 kB	
2787-2144_EUSA	2019 Jul 4	xml	Download
X81 - Datei		8.1 kB	
ausschreiben.de 2787-2144		URL	Download
Instruction Leaflet			
WAGO Pro 2 Power Supplies	V 1.1.0	pdf	Download
1-phase; 24 VDC / 5 A	2021 Apr 26	4.6 MB	
Additional Information			
Disposal and Recycling	V 1.1.0	pdf	Download
Electrical and electronic equipment, Batteries, Packaging	2022 Aug 18	2.2 MB	

#### **Engineering-Software**

## Configuration and Commissioning Software

WAGO Interface Configuration Software G2 FULL 1.00.10.01 exe Download 2022 Jan 20 114.9 MB

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

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The full setup, in addition to the WAGO Interface Configuration Software G2, includes the installation for the Microsoft .NET Framework.

WAGO Interface Configuration Software G2 SMALL

1.00.10.01 exe Download
The full setup only includes the WAGO Interface Configuration Software G2.

31.0 MB

WAGO IO-Link Configurator

WAGO IO-Link Configurator

V5.1.1-6618

ZIP

Download

2022 Feb 16

91.8 MB

WAGO IO-Link Configurator allows configuration, parameterization, operation and monitoring of WAGO IO-Link Masters in the WAGO I/O System 750 and WAGO I/O System Field, and especially of the WAGO IO-Link devices connected to them.

Additionally, WAGO IO-Link Configurator can be used for complete configuration and operation of all IO-Link devices of third-party manufacturers, as long as they comply with the IO-Link specification. A product's process data can be visualized graphically and stored in trend curves. Up to eight elements can be selected for visualization, and the data can be recorded for up to 24 hours.

Device description files for the IO-Link Masters (IOLM) or IO-Link Devices (IODD) can be used to integrate new devices into the tool at any time. Convenient access to the IO-Link user organization's IODDfinder is available for the IODDs. This allows automated, selective download of IODDs when integrating new IO-Link devices. An integrated IODD viewer allows detailed insight into the IODD device description.

WAGO IO-Link Configurator can be used either as a standalone program or integrated into engineering systems with a TCI interface and WAGO-I/O-CHECK.

IO-Link Configurator can also be used to integrate the IO-Link Master (750-657) of the WAGO I/O System 750 Series and to access all the configurator's functions. This is made possible by the WAGO I/O System 750 IO-Link Adapter, which can be retrofitted. The WAGO I/O System 750 IO-Link Adapter requires the current version of WAGO IO-Link Configurator and a current version of WAGO-I/O-CHECK.

In addition, the download file contains the device descriptions for the respective fieldbus systems of the WAGO I/O System Field modules. These are pre-installed in the Configurator setup.

The WAGO IO-Link Configurator license is assigned to the specific PC on which it is installed (a workstation license).

Register now and test our engineering software for 30 days at no cost.

# **Runtime Software**

**Firmware** 

 2787-2144, Stromversorgung; Pro 2
 V 010513
 zip
 Download

 WAGO\_FW2787-2144\_V010513\_W
 2021 Oct 13
 1.1 MB

CAD/CAE-Data

CAD data

2D/3D Models 2787-2144 URL Download

**CAE** data

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ZUKEN Portal 2787-2144 URL Download

EPLAN Data Portal 2787-2144 URL Download

# **Environmental Product Compliance**

**Compliance Search** 

**Environmental Product Compliance 2787-2144** 

URL Download

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#### **Installation Notes**

# **Product family**

Pro 2

Show all products from the family

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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