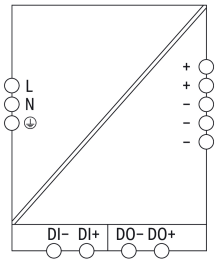
Data Sheet | Item Number: 2787-2144

Power supply; Pro 2; 1-phase; 24 VDC output voltage; 5 A output current; TopBoost + PowerBoost; communication capability

https://www.wago.com/2787-2144



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 $U_{i\,nom}$	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 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 $U_{o\,nom}$	24 VDC (SELV)
Output voltage range	24 … 28 VDC (adjustable)
Default Setting	24 VDC
Nominal output current $I_{o\,nom}$	5 A (24 VDC)
Nominal output power	120 W
Deviation	≤ 1 %
Residual ripple	≤ 70 mV (peak-to-peak)
Current limitation	1.1 x $I_{o\,nom}$ (typ.)
Overload behavior	TopBoost/PowerBoost/Time-limited constant current mode (other overload behaviors can be set)

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Output

PowerBoost	7.5 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	≤ 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 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
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	> 1,000,000 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 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

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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

Material data

Weight	650 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	See instruction leaflet
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	CN
GTIN	4055143907415
Customs tariff number	85044083900

Product Classification

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

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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

Approvals for hazardous areas

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

Declarations of conformity and manufacturer's declarations

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

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2787-2144

Documentation

Manual

Product Manual Power supply; Pro 2; 1-phase; 24 VDC output voltage; 5 A output current	V 1.2.2 18.02.2022	pdf 7997.98 KB	

Bid Text

2787-2144_EUSA	04.07.2019	docx 23.34 KB	
2787-2144_EUSA	04.07.2019	xml 7.90 KB	
ausschreiben.de 2787-2144			

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Instruction Leaflet			
WAGO Pro 2 Power Supplies	V 1.1.0 26.04.2021	pdf 4445.43 KB	

Application Notes

Application Note e!COCKPIT			
e!COCKPIT Application Note WagoAppPower-Supply (a2019012)	1.1.1 06.12.2021	pdf 707.04 KB	

CAD/CAE-Data

CAD data	
2D/3D Models 2787-2144	

CAE data	
EPLAN Data Portal 2787-2144	
ZUKEN Portal 2787-2144	

Runtime Software

Firmware			
2787-2144, Stromversorgung; Pro 2	V 010513 13.10.2021	zip 1087.50 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; communication capability

Item No.: 2789-9015
Communication module; Modbus RTU; RJ45; communication capability

Item No.: 2789-9052
Communication module; Modbus TCP; communication capability

1.1.2 Display Module

Item No.: 2789-9090
Display Module

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1.2 Optional Accessories

1.2.1 Communication

1.2.1.1 Communication cable

Item No.: 750-923
Configuration cable; USB connector; Length: 2.5 m

Item No.: 750-923/000-001
Configuration cable; USB connector; Length: 5 m

1.2.2 Marking

1.2.2.1 Marker

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

1.2.2.2 Marker carrier

Item No.: 2789-1233
Marker carrier; for WMB or marking strips; Length: 33 mm

1.2.2.3 Marking strip

Item No.: 2009-110
Marking strips; for Smart Printer; 50 m on roll; not stretchable; plain; snap-on type; white

1.2.3 Tool

1.2.3.1 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