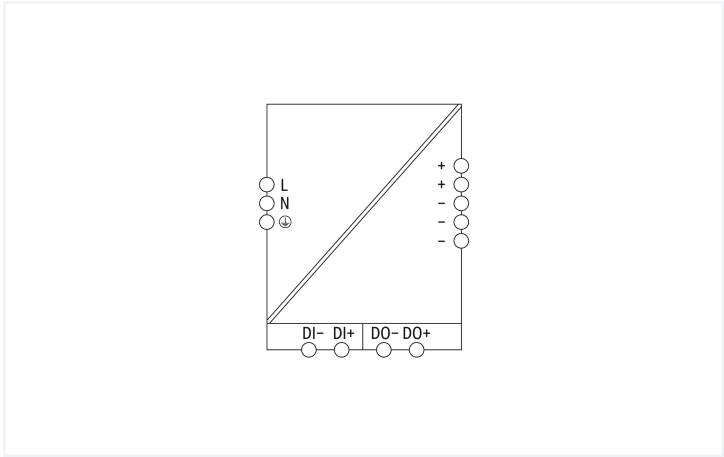


Data Sheet | Item Number: 2787-2144

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		Input	
Phases	1	Mains failure hold-up time	≥ 20 ms (230 VAC)
Nominal input voltage U _{inom}	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		



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	$\leq 1\ %$
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	7.5 ADC (5 s)
TopBoost	Up to 600 %

Efficiency/Power Losses	
Power loss P_l	$\leq 1\ W$ (standby); $\leq 2\ W$ (no load); $\leq 10\ W$ (230 VAC; nominal load)
Efficiency (typ.)	93.8 % (230 VAC; 5 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	$\leq 35\ VDC$
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	$> 1,000,000\ h$ (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

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	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	

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates

General approvals		Declarations of conformity and manufacturer's declarations
EAC EAC 		
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
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	-	-

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 2787-2144	

Documentation

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

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		CAE data	
2D/3D Models 2787-2144		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	



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

1.2.2 Communication

1.2.2.1 Communication cable



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