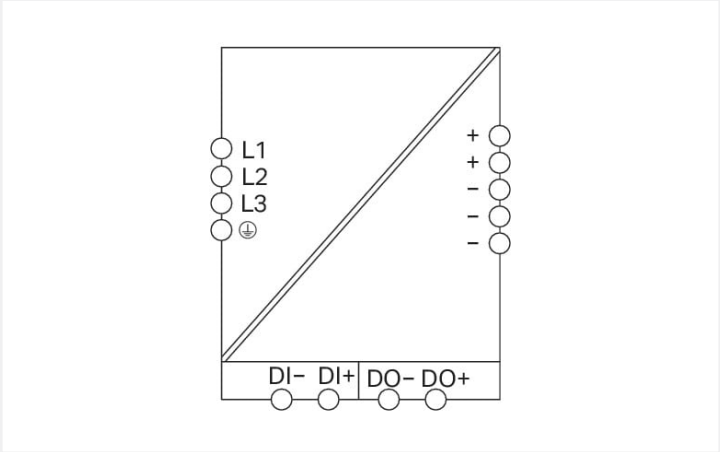
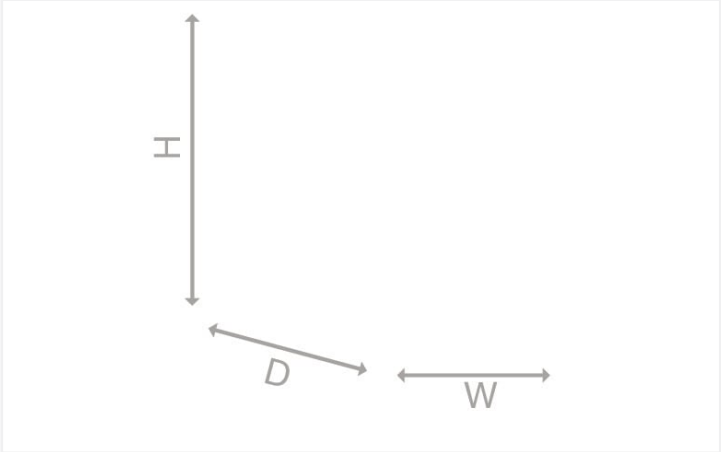
Data Sheet | Item Number: 2787-2358

Power supply; Pro 2; 3-phase; 48 VDC output voltage; 20 A output current; Top-Boost + PowerBoost; communication capability

https://www.wago.com/2787-2358





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	3
Nominal input voltage $U_{i\,nom}$	3 x AC 400 … 500 V (Connection without neutral conductor)
Input voltage range	3 x AC 340 … 550 V
Nominal mains frequency range	50 … 60 Hz
Input current I_i	≤ 3 x 1.6 A (400 VAC; 48 VDC / 20 A)
Inrush current	≤ 15 A (after 1 ms)
Power factor correction (PFC)	active
Mains failure hold-up time	≥ 20 ms (3 x 400 VAC)

Output

Nominal output voltage $U_{o\,nom}$	DC 48 V (SELV)
Output voltage range	DC 48 … 56 V (adjustable)
Default setting	DC 48 V
Nominal output current $I_{o\,nom}$	20 A (48 VDC)
Nominal output power	960 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	DC 30 A (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)
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

Efficiency (typ.)	96 %

Circuit protection

Internal fuse	2 x T 5 A / 500 VAC
Backup fusing (required)	An external DC fuse is required for the DC input voltage.
Backup fusing (recommended)	3 x 16 A (for USA/Canada: 3 x 15 A)

Safety and protection

Isolation voltage (pri.-sec., AC)	3510 V
Isolation voltage (pri.-PE, AC)	2200 V
Isolation voltage (sec.-PE)	DC 0.5 kV
Isolation voltage (sec.-signal)	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
Short-circuit-protected	Yes
Open-circuit-proof	Yes
Parallel operation	Yes
Series operation	Yes
MTBF	> 800,000 h (per IEC 61709)

Connection data

Connection type 1	Input/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	0.25 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm² / 20 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Connection type 2	Output
Connection technology 2	Push-in CAGE CLAMP®
WAGO connector 2	WAGO 831 Series
Solid conductor 2	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor 2	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor; with insulated ferrule 2	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule 2	0.5 … 6 mm²
Strip length 2	13 … 15 mm / 0.51 … 0.59 inches

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Physical data

Width	120 mm / 4.724 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: 169 mm

Mechanical Data

Mounting type	DIN-35 rail

Material Data

Fire load	0 MJ
Weight	2000 g

Environmental requirements

Ambient temperature (operation at U_N)	-25 … +70 °C (Device starts at −40 °C (type-tested))
Surrounding air 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	EN 61010-1 EN 61010-2-201 EN 61204-3 UL 61010-1 UL 61010-2-201

Commercial data

ETIM 8.0	EC002540
ETIM 7.0	EC002540
PU (SPU)	1 pcs
Country of origin	CN
GTIN	4066966155891
Customs tariff number	85044083900

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc.	UL 61010-2-201	UL-US-2145771-0

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 2787-2358

Documentation

Manual

Product Manual Power supply; Pro 2; 3-phase; 48 VDC output voltage; 20 A output current;	V 1.0.1 15.02.2022	pdf 8766.01 KB	

Bid Text

2787-2358	11.05.2022	xml 9.23 KB	
2787-2358	11.05.2022	docx 35.69 KB	

Instruction Leaflet

Power supply; Pro 2; 3-phase; 48 VDC output voltage; 20 A output current;	V 1.0.0 16.12.2021	pdf 4471.35 KB	

CAD/CAE-Data

CAD data

2D/3D Models 2787-2358

1 Compatible Products

1.1 Optional Accessories

1.1.1 Communication

1.1.1.1 Communication module

Item No.: 2789-9023
Communication module; EtherNet/IP; 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 Marking

1.1.2.1 Marker carrier

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