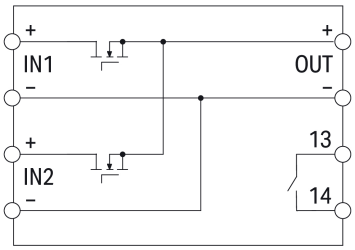
Data Sheet | Item Number: 787-1685

Redundancy Module; 2 x 24 VDC input voltage; 2 x 20 A input current; 24 VDC output voltage; 40 A output current

https://www.wago.com/787-1685





Features:

- Redundancy module with low-loss MOFSET decouples two power supplies.
- For redundant and fail-safe power supply
- Continuous output current: 40 ADC, in any ratio of both inputs (e.g., 20 A / 20 A or 0 A / 40 A)
- Suitable for power supplies with PowerBoost and TopBoost
- Same profile as Classic Power Supplies
- Electrically isolated output voltage (SELV/PELV) per EN 61140/UL 60950-1

Technical data

Input

Nominal input voltage $U_{i\,nom}$	2 x 24 VDC
Input voltage range	2 x 10 … 36 VDC
Nominal mains frequency range	0 Hz
Input current I_i	≤ 40 A (per path); ≤ 40 A (in total)
PowerBoost input	DC 60 A (4 s); DC 50 A (8 s)
TopBoost input	DC 100 A (50 ms)

Output

Nominal output voltage $U_{o\,nom}$	24 VDC
Output voltage range	10 … 36 VDC (U_e - voltage drop)
Voltage drop	≤ 100 mV (Input/output)
Nominal output current $I_{o\,nom}$	40 A (redundancy operation); 40 A (parallel operation)
Nominal output power	960 W
Switching frequency	5 kHz
PowerBoost	120 ADC (4 s); 100 ADC (8 s)
TopBoost	200 ADC (50 ms)

Signaling and Communication

Signaling	1 x IN1 LED (green) 1 x IN2 LED (green) 1 x DC OK signal contact (IN1 and IN2 > 10 VDC)
Operation status indicator	2 x Green LED (U_o > 10 VDC)

Efficiency/Power Losses

Power loss P_l	≤ 1.5 W; ≤ 9.5 W (nominal load)
Efficiency (typ.)	99.5 %

Continued on next page

Circuit Protection

Internal fuse	No

Safety and protection

Isolation voltage (connectors – housing)	0.5 kVDC
Protection class	III
Protection type	IP20; per EN 60529
Reverse voltage protection	Yes
Resistance to reverse feed	≤ 37 VDC
Pollution degree	2
Parallel operation	Yes
Series operation	No
MTBF	> 500,000 h (per IEC 61709)

Connection Data

Connection 1

Connection type	Input/output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 831 Series
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Strip length	13 … 15 mm / 0.51 … 0.59 inches

Connection 2

Connection type	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
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data

Width	42 mm / 1.654 inches
Height	127 mm / 5 inches
Depth from upper-edge of DIN-rail	139.5 mm / 5.421 inches

Mechanical data

Mounting type	DIN-35 rail

Material data

Fire load	0.976 MJ
Weight	450 g

Environmental requirements

Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	-1.5 %/K (> 65 °C)
Climatic category	3K3 (per EN 60721; except for low air pressure)

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Standards and Specifications

Conformity marking	CE
Standards/specifications	EN 61010-1 EN 61010-2-201 EN 61000-6-2 EN 61000-6-3 UL 60950 UL 508 DNV EN 61140

Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143534529
Customs tariff number	85363030888

Product Classification

UNSPSC	39121008
eCl@ss 10.0	27-04-07-01
eCl@ss 9.0	27-04-07-01
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 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc.	UL 508	E255817
UR Underwriters Laboratories Inc.	UL 60950-1	E255815

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00000KT

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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1685

Documentation

Bid Text

787-1685	15.07.2019	xml 6.98 KB
787-1685	15.07.2019	docx 22.66 KB

Instruction Leaflet

Redundanzmodul	20.04.2022	pdf 260.62 KB

CAD/CAE-Data

CAD data

2D/3D Models 787-1685

CAE data

EPLAN Data Portal 787-1685

ZUKEN Portal 787-1685

1 Compatible Products

1.1 Optional Accessories

1.1.1 Marking

1.1.1.1 Marker



Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white



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

1.1.1.2 Marking strip



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



Item No.: 210-831
Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white



Item No.: 210-832
Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white

Continued on next page

1.1.2 Mounting adapter

1.1.2.1 DIN-rail adapter



Item No.: 787-897/000-010
Carrier rail adapter made of zinc die-cast; horizontal mounting of 787-16xx (TS35)

1.1.3 Tool

1.1.3.1 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