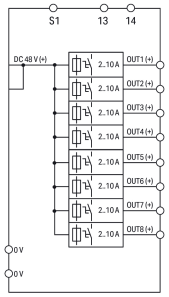
Data Sheet | Item Number: 787-1668/000-250

Electronic circuit breaker; 8-channel; 48 VDC input voltage; adjustable 2 … 10 A; Signal contact

https://www.wago.com/787-1668/000-250





Similar to illustration

Features:

- Space-saving ECB with eight channels
- Nominal current: 2 … 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 23000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (common group signal)
- Remote input resets all tripped channels
- Potential-free signal contact 13 / 14 reports “channel switched off” and “tripped channel” – does not support communication via pulse sequence

Technical data

Input

Nominal input voltage $U_{i\,nom}$	48 VDC
Input voltage range	32 … 58 VDC

Output

Total number of channels (module)	8
Nominal output voltage $U_{o\,nom}$	8 x 48 VDC
Output voltage range	32 … 58 VDC (U_e - voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input (+))
Nominal output current $I_{o\,nom}$	8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch; 70 A (max.) in total)
Default Setting	DC 10 A; switched on
Trip time	16 ms … 100 s (load-dependent)
Switch-on capacity	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No

Signaling and Communication

Signaling	8 x LED (green/red/orange) 1 x Remote control input (S1) 1 x Group signal contact (13; 14)
Operation status indicator	Green LED (channel OK) Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 ... 58 VDC pulse for min. 500 ms

Efficiency/Power Losses

Power loss P_l	≤ 1.3 W; ≤ 20 W (8 x 10 A)
Efficiency (typ.)	99 %

Circuit Protection

Internal fuse	T 15 A per channel

Safety and protection

Isolation voltage (connectors – housing)	0.5 kVDC
Protection class	III
Protection type	IP20; per EN 60529
Reverse voltage protection	No
Resistance to reverse feed	≤ 58 VDC
Pollution degree	2
Transient suppression (primary)	Suppressor diode (68 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	> 500,000 h (per IEC 61709)

Connection Data

Connection 1

Connection type	Input (+)
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	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
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	142.5 mm / 5.61 inches

Mechanical data

Mounting type	DIN-35 rail

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Material data

Fire load	0.76 MJ
Weight	440 g

Environmental requirements

Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	≥ 50 °C (see instruction manual)

Standards and Specifications

Conformity marking	CE
Standards/specifications	EN 61000-6-2 EN 61000-6-3 UL 508 UL 2367 DNV

Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
Customs tariff number	85362010900

Product Classification

UNSPSC	39121601
eCl@ss 10.0	27-37-18-02
eCl@ss 9.0	27-37-18-02
ETIM 9.0	EC001440
ETIM 10.0	EC001440
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 2367	E363438

Declarations of conformity and manufacturer's declarations

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

Continued on next page

Approvals for marine applications

Approval	Standard	Certificate Name
DNV DNV GL SE	-	TAA0000281

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance
787-1668/000-250

Documentation

Bid Text

787-1668/000-250	03.07.2019	xml 7.17 KB
787-1668/000-250	03.07.2019	docx 21.01 KB

Instruction Leaflet

Elektronische Schutzschalter	pdf 572.00 KB

Application Notes

Application Note e!COCKPIT

e!COCKPIT Application Note WagoAppFuse (a2019001)	2021-11-08 06.12.2021	pdf 548.17 KB

CAD/CAE-Data

CAD data

2D/3D Models
787-1668/000-250

CAE data

EPLAN Data Portal
787-1668/000-250

WSCAD Universe
787-1668/000-250

ZUKEN Portal
787-1668/000-250

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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

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



Item No.: 210-769
SCREWDRIVER; green