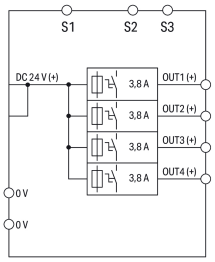
Data Sheet | Item Number: 787-1664/004-1000

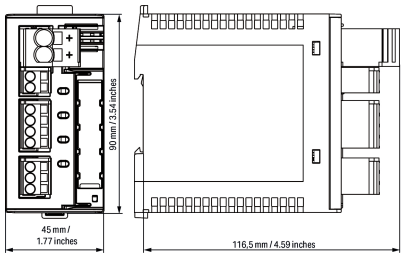
Electronic circuit breaker; 4-channel; 24 VDC input voltage; 3.8 A; active current limitation; NEC Class 2; communication capability

https://www.wago.com/787-1664/004-1000





Similar to illustration



Features:

- Space-saving ECB with four channels
- Nominal current is fixed at 3.8 A for each channel
- Each output complies with NEC Class 2
- Active current limitation
- Switch-on capacity > 65000 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 (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Technical data

Input

Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	20 … 28.8 VDC

Output

Total number of channels (module)	4
Nominal output voltage $U_{o\,nom}$	4 x 24 VDC
Output voltage range	20 … 28.8 VDC (U_e - voltage drop)
Voltage drop	≤ 150 mV (3.8 A) (Input (+))

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Output

Nominal output current $I_{o\,nom}$	4 x 3.8 A (Fixed setting; NEC Class 2 at 20 … 24 VDC); 4 x 3.2 A (NEC Class 2 at 28 VDC)
Default Setting	DC 3.8 A; switched on
Trip time	16 ms … 4.7 s (load-dependent)
Switch-on capacity	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	Yes
Current limitation	3.8 A (3.2 A at U_o > 25 VDC); LPS per NEC Class 2

Signaling and Communication

Signaling	4 x LED (green/red/orange) 1 x Remote control input (S1) 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK) Red LED (tripped channel)
Remote input	Reactivation of all tripped channels via 15 … 30 VDC pulse for min. 500 ms Switching on/off any number of channels via pulse sequence

Efficiency/Power Losses

Power loss P_l	≤ 0.82 W; ≤ 3.1 W (4 x 3.8 A)
Efficiency (typ.)	99 %

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	No
Resistance to reverse feed	≤ 28.8 VDC
Pollution degree	2
Transient suppression (primary)	Suppressor diode (33 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	45 mm / 1.772 inches
Height	90 mm / 3.543 inches
Depth from upper-edge of DIN-rail	115.5 mm / 4.547 inches

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Mechanical data

Mounting type	DIN-35 rail

Material data

Fire load	0.586 MJ
Weight	205 g

Environmental requirements

Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)
Derating	No derating

Standards and Specifications

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

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

Declarations of conformity and manufacturer's declarations

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

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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1664/004-1000	

Documentation

Bid Text

787-1664/004-1000	03.07.2019	xml 7.38 KB	
787-1664/004-1000	02.07.2019	docx 21.06 KB	

Instruction Leaflet

Elektronische Schutzschalter	pdf 609.67 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 787-1664/004-1000

CAE data

EPLAN Data Portal 787-1664/004-1000
WSCAD Universe 787-1664/004-1000
ZUKEN Portal 787-1664/004-1000

Libraries

Library

Anbindung Stromversorgungen Serie 787	1.0.0 28.08.2017	zip 340.24 KB	
Anbindung Stromversorgungen Serie 787	1.3.0 14.05.2014	zip 549.48 KB	

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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 Tool

1.1.2.1 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