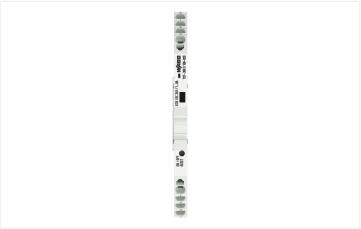
Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 1 ... 8 A; Si-

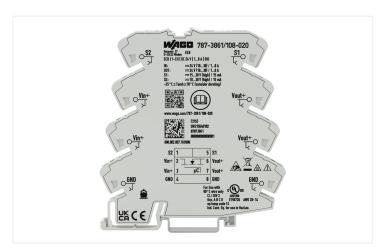
gnal contact

https://www.wago.com/787-3861/108-020

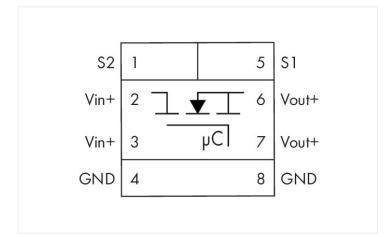


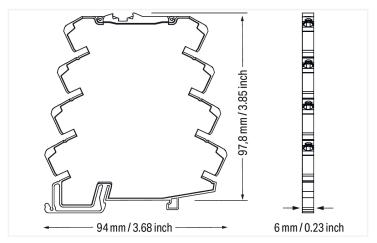




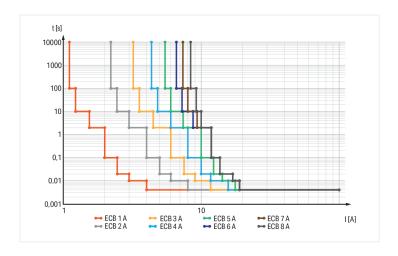












https://www.wago.com/787-3861/108-020



### Features:

- · Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity > 50,000 μF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- · Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation

Notes	
Note	The device is designed for use in SELV circuits.  Depending on the output current, please use the approved minimum conductor cross-sections.



Technical data			
Input		Output	
Nominal input voltage U <sub>i nom</sub>	24 VDC	Total number of channels (module)	1
Input voltage range	18 30 VDC	Nominal output voltage U <sub>o nom</sub>	1 x 24 VDC
		Output voltage range	18 30 VDC (U <sub>e</sub> – voltage drop)
	Voltage drop	≤ 80 mV (1 A); ≤ 160 mV (2 A); ≤ 240 mV (3 A); ≤ 320 mV (4 A); ≤ 150 mV (5 A); ≤ 180 mV (6 A); ≤ 210 mV (7 A); ≤ 240 mV (8 A)	
		Nominal output current I <sub>o nom</sub>	1 x 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 A (adjustable)
		Default Setting	DC 1 A; switched off
	Trip time	10 ms 90 s (load-dependent)	
	Switch-on capacity		
		Switch-on behavior	Time-delayed channel switching (load- dependent, min. 0 ms / max. 500 ms)

Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) 1 x Signal output (18 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK) Red LED (channel switched off)
Remote input	1 x Control input (15 30 VDC (active high); 0 5 VDC (active low); max. 0.015 A)

Efficiency/power losses	
Power loss P <sub>I</sub>	≤ 0.4 W (no load)
Efficiency (typ.)	98 %

Circuit protection	
Internal fuse	T 10 A

Safety and protection	
Isolation voltage (connectors – housing)	1.5 kVDC
Protection class	III
Protection type	IP20; per EN 60529
Reverse voltage protection	No
Transient suppression (primary)	Suppressor diode (33 V)
Parallel operation of single channels	Not permitted
Series operation	No
MTBF	807,840 h

Insulation coordination (UL)		
Overvoltage category	II	
Pollution degree	2	

Insulation coordination	
Overvoltage category	II
Pollution degree	2

# Data Sheet | Item Number: 787-3861/108-020 https://www.wago.com/787-3861/108-020



onnection data			
Number of jumper slots 8	8	Connection 1	
		Connection technology	Push-in CAGE CLAMP®
		WAGO connector	WAGO 857 Series
		Solid conductor	0.08 2.5 mm² / 24 14 AWG
		Fine-stranded conductor	0.34 2.5 mm² / 22 14 AWG
		Strip length	9 10 mm / 0.35 0.39 inches
		Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 14 AWG (0.5 A); 24 14 AWG (1 A); 22 14 AWG (2 A); 20 14 AWG (3 A / 4 A); 18 14 AWG (5 A / 6 A); 16 14 AWG (7 A / 8 A)

Physical data	
Width	6 mm / 0.236 inches
Height	94 mm / 3.701 inches
Depth from upper-edge of DIN-rail	97.8 mm / 3.85 inches

Mechanical data	
Mounting type	DIN-35 rail

Material data	
Fire load	0.634 MJ
Weight	55.7 g

Environmental requirements	
Ambient temperature (operation)	-25 +70 °C
Ambient temperature (storage)	-40 +85 °C
Relative humidity	10 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)

Standards and specifications	
Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2 EN 61000-6-3 UL 61010-2-201 DNV UL 2367

https://www.wago.com/787-3861/108-020



Commercial data	
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	IN
Customs tariff number	85363010000

Product classification	
UNSPSC	39121601
ETIM 9.0	EC001440
ETIM 8.0	EC001440
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
CAS-No.	11120-22-2 1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide Lead silicate
RoHS Compliance Status	Compliant, With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	b32c6b38-8acb-4713-ba41-a31e9089ed9f
SCIP notification number (Belgium)	98ce4f37-7a53-47bb-8e75-f78fe7c0a170
SCIP notification number (Bulgaria)	3a6e9043-eb26-458e-bab1-c3c216570d55
SCIP notification number (Czech Republic)	eb3aca50-2f42-4ff8-a48c-c2689192a43d
SCIP notification number (Denmark)	b71bc243-6a14-4104-8685-4afcaab2d81f
SCIP notification number (Finland)	d5168b8b-dfdd-4732-aaae-3bfaa59ec9f9
SCIP notification number (France)	e8ebf949-b28b-4d9a-9e11-a681e960a351
SCIP notification number (Germany)	96ebdc4a-6d4a-4b95-947c-274f3d488737
SCIP notification number (Hungary)	2a464243-9905-4fff-bc55-2ffd254e9d5e
SCIP notification number (Italy)	30bca2bc-5ac1-4dec-95d0-9582c48d5f74
SCIP notification number (Netherlands)	1edc6ced-04aa-44f5-a4b9-d16e8c935329
SCIP notification number (Poland)	864b9dfe-fa85-40dd-8514-69fa1aca7fe7
SCIP notification number (Romania)	f6023abb-54ce-461f-87bb-20fa6de4be7a
SCIP notification number (Sweden)	2f5c1de5-de39-4215-866a-90168d171204

# Approvals / Certificates

# General approvals



Inc.



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS)	UL 61010-2-201	UL E175199 Vol.3 Sec.5
UR Underwriters Laboratories	-	E175199

# Declarations of conformity and manufacturer's declarations

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

https://www.wago.com/787-3861/108-020



#### Approvals for marine applications



**Certificate Name** Standard Approval

DNV **DNV Germany GmbH**  DNV-CG-0339,Aug.2021

TAA00001D1

Certificate Name Standard Approval UL 121201

Ш **Underwriters Laboratories** Inc. (HAZARDOUS LOCA-

Approvals for hazardous areas

TIONS)

E198726

## **Downloads**

### **Environmental Product Compliance**

Compliance Search

**Environmental Product** Compliance

787-3861/108-020



#### Documentation

Manual

Product Manual Electronic circuit breaker

V 1.0.0 25.03.2024

pdf 7471.95 KB

Instruction Leaflet

V 1.1.1 Electronic Circuit Brea-

11.09.2023

pdf 2491.12 KB

#### CAD/CAE-Data

CAD data

2D/3D Models 787-3861/108-020

# 1 Compatible Products

### 1.1 Optional Accessories

# 1.1.1 Jumper

# 1.1.1.1 Jumper





Jumper; for jumper slot; 10-way; insulated; blue



Item No.: 859-402/000-006

Jumper; for jumper slot; 2-way; insulated; blue



Item No.: 859-402

Item No.: 859-410

ted; light gray

Jumper; for jumper slot; 2-way; insulated; light gray

Jumper; for jumper slot; 10-way; insula-



Jumper; for jumper slot; 3-way; insulated;

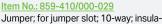
Item No.: 859-410/000-005 Jumper; for jumper slot; 10-way; insula-

ted; red



Item No.: 859-403/000-029

Item No.: 859-402/000-029 Jumper; for jumper slot; 2-way; insulated; yellow



ted; yellow



Item No.: 859-403/000-006

Item No.: 859-404/000-006

Jumper; for jumper slot; 3-way; insulated; blue



Item No.: 859-403

Item No.: 859-404

light gray

Jumper; for jumper slot; 3-way; insulated; light gray

Jumper; for jumper slot; 4-way; insulated;



Item No.: 859-403/000-005

Item No.: 859-404/000-005 Jumper; for jumper slot; 4-way; insulated; red



Jumper; for jumper slot; 3-way; insulated;

Item No.: 859-404/000-029 Jumper; for jumper slot; 4-way; insulated;

Jumper; for jumper slot; 4-way; insulated; blue



Item No.: 859-405/000-006 Jumper; for jumper slot; 5-way; insulated;

blue

Page 7/9 Version 22.05.2025 Continued on next page

yellow

yellow

https://www.wago.com/787-3861/108-020



### 1.1.1.1 Jumper









#### Item No.: 859-405

Jumper; for jumper slot; 5-way; insulated; light gray

#### Item No.: 859-405/000-005

Jumper; for jumper slot; 5-way; insulated;

#### Item No.: 859-405/000-029

Jumper; for jumper slot; 5-way; insulated; yellow

#### Item No.: 859-406/000-006

Jumper; for jumper slot; 6-way; insulated;

Item No.: 859-406 Jumper; for jumper slot; 6-way; insulated; light gray

Item No.: 859-406/000-005 Jumper; for jumper slot; 6-way; insulated;

# Item No.: 859-406/000-029

Jumper; for jumper slot; 6-way; insulated;

## Item No.: 859-407/000-006

Jumper; for jumper slot; 7-way; insulated;



#### Item No.: 859-407

Jumper; for jumper slot; 7-way; insulated; light gray



Jumper; for jumper slot; 7-way; insulated;

Jumper; for jumper slot; 8-way; insulated;

# Item No.: 859-407/000-029

Jumper; for jumper slot; 7-way; insulated; vellow



# Item No.: 859-408/000-006

Jumper; for jumper slot; 8-way; insulated;





Jumper; for jumper slot; 8-way; insulated; light gray



Item No.: 859-407/000-005

# Item No.: 859-408/000-029

Jumper; for jumper slot; 8-way; insulated;



# Item No.: 859-409/000-006

Item No.: 859-409 Jumper; for jumper slot; 9-way; insulated; light gray

#### Item No.: 859-409/000-005

Jumper; for jumper slot; 9-way; insulated;

# Item No.: 859-409/000-029

Jumper; for jumper slot; 9-way; insulated;

Jumper; for jumper slot; 9-way; insulated;

# 1.1.2 Marking

#### 1.1.2.1 Marker

Item No.: 793-5501





WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal mar-



# Item No.: 793-566

WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white



king; snap-on type; white



# Item No.: 793-503

WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white



#### Item No.: 793-504 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white

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.: 793-505

WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white

## Item No.: 793-506

WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; 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; snapon type: white

# 1.1.2.2 Marking strip



### Item No.: 2009-110

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

https://www.wago.com/787-3861/108-020



### 1.1.3 Potential distribution

# 1.1.3.1 Potential distribution module

Item No.: 787-3861/000-1000
Potential distribution module; 1 potential; with 8 clamping points 0V; Conductor cross-section up to 2.5 mm<sup>2</sup>

Item No.: 787-3861/000-2000

Potential distribution module; 1 potential; with 8 clamping points 24V; Conductor cross-section up to 2.5 mm<sup>2</sup>

Item No.: 787-3861/000-3000

Potential distribution module; 2 potentials; with 4 clamping points each (0V / 24V); Conductor cross-section up to 2.5 mm<sup>2</sup>

## 1.1.4 Tool

# 1.1.4.1 Operating tool

Item No.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Subject to changes. Please also observe the further product documentation!

Current addresses can be found at:: www.wago.com

Page 9/9 Version 22.05.2025