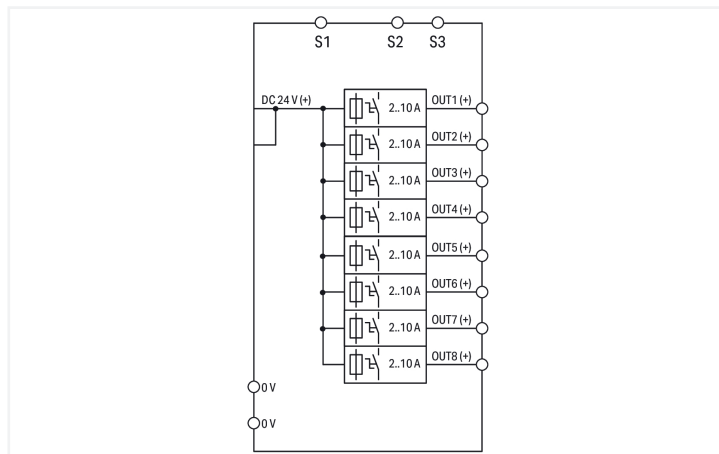


# Data Sheet | Item Number: 787-1668

Electronic circuit breaker; 8-channel; 24 VDC input voltage; adjustable 2 ... 10 A; communication capability; 10,00 mm<sup>2</sup>

<https://www.wago.com/787-1668>



## Features:

- Space-saving ECB with eight channels
- Nominal current: 2 ... 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50000  $\mu$ F 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 $U_{i, nom}$	DC 24 V
Input voltage range	DC 18 ... 30 V

### Output

Total number of channels (module)	8
Nominal output voltage $U_{o, nom}$	8 x DC 24 V
Output voltage range	DC 18 ... 30 V ( $U_e$ - voltage drop)
Voltage drop	$\leq 200$ 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)
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) 2 x Active signal output (S2; S3)
Operation status indicator	Green LED (channel OK) Red LED (tripped channel)
Remote input	Switching on/off any number of channels via pulse sequence Reactivation of all tripped channels via 15 ... 30 VDC pulse for min. 500 ms

## Efficiency/power losses

Power loss $P_i$	$\leq 1.3$ W; $\leq 20$ W (8 x 10 A)
Efficiency (typ.)	99 %

### Circuit protection

Internal fuse	T 15 A per channel
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### Safety and protection

Isolation voltage (connectors – housing)	DC 0.5 kV
Protection class	III
Protection type	IP20; per EN 60529
Reverse voltage protection	No
Resistance to reverse feed	≤ DC 35 V
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 type 1	Input (+)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 831 Series
Solid conductor	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Strip length	13 ... 15 mm / 0.51 ... 0.59 inches
Connection type 2	Input (-); output; signaling
Connection technology	CAGE CLAMP®
WAGO connector 2	WAGO 721 Series
Solid conductor 2	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor 2	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Strip length 2	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	0.768 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

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-37-18-02
eCl@ss 9.0	27-37-18-02
ETIM 9.0	EC001440
ETIM 8.0	EC001440
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
Customs tariff number	85363010900

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### 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 Confor- mity WAGO GmbH & Co. KG	-	-

### Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV GL SE	-	TAA0000281

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 787-1668



## Documentation

### Manual

Product Manual br/ Electronic Circuit Breaker

V 1.1.0

pdf

1320.16 KB



### Bid Text

787-1668

03.07.2019

xml

7.08 KB



787-1668

03.07.2019

docx

20.44 KB



ausschreiben.de  
787-1668



### Instruction Leaflet

Elektronische Schutzschalter

pdf

409.78 KB



## CAD/CAE-Data

### CAD data

2D/3D Models  
787-1668



### CAE data

EPLAN Data Portal  
787-1668



WSCAD Universe  
787-1668



ZUKEN Portal  
787-1668



## 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



## 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