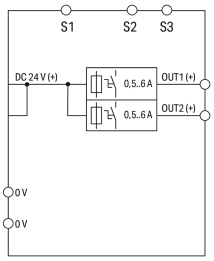
# Data Sheet | Item Number: 787-1662/006-1000

Electronic circuit breaker; 2-channel; 24 VDC input voltage; adjustable 0.5 … 6 A; active current limitation; communication capability

https://www.wago.com/787-1662/006-1000

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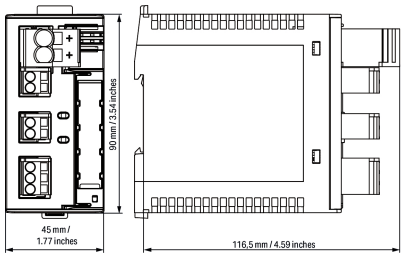


**Features:**

- Space-saving ECB with two channels
- Nominal current: 0.5 … 6 A (adjustable for each channel via sealable selector switch)
- 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 | 18 … 30 VDC |

### Output

| | |
|---|---|
| Total number of channels (module) | 2 |
| Nominal output voltage $U_{o\,nom}$ | 2 x 24 VDC |
| Output voltage range | 18 … 30 VDC ($U_e$ - voltage drop) |
| Voltage drop | ≤ 145 mV (6 A) (Input (+)) |
| Nominal output current $I_{o\,nom}$ | 2 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch) |

## Output

| | |
|---|---|
| Default Setting | DC 6 A; switched on |
| Trip time | 16 ms … 5 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 | 1.7 x $I_{o\,nom}$ (typ.) |

## Signaling and Communication

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

## Efficiency/Power Losses

| | |
|---|---|
| Power loss $P_l$ | ≤ 0.55 W; ≤ 2.5 W (2 x 6 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 | ≤ 35 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 |

## Mechanical data

| | |
|---|---|
| Mounting type | DIN-35 rail |


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## Material data

| | |
|---|---|
| Weight | 170 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<br>EN 61000-6-3<br>UL 508<br>UL 2367<br>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<br>GZO Almaty Standart | TP TC 020/2011 | EAC CoC 03081 |
| UL<br>Underwriters Laboratories Inc. | UL 508 | E255817 |

### Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|---|---|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |


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## Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| DNV<br>DNV GL SE | - | TAA0000281 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance
787-1662/006-1000

### Documentation

**Manual**

| | | |
|---|---|---|
| Product Manual Electronic Circuit Breaker | V 1.0.0 | pdf<br>1248.37 KB |

**Bid Text**

| | | |
|---|---|---|
| 787-1662/006-1000 | 03.07.2019 | xml<br>7.19 KB |
| 787-1662/006-1000 | 02.07.2019 | docx<br>20.50 KB |

**Instruction Leaflet**

| | |
|---|---|
| Elektronische Schutzschalter | pdf<br>671.88 KB |

### Application Notes

**Application Note e!COCKPIT**

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

**Application note SIEMENS**

| | | |
|---|---|---|
| Elektronische Schutzschalter Serie 787 ab FW2.24 (a500371) | 1.0.0<br>14.02.2017 | zip<br>13109.22 KB |

### CAD/CAE-Data

**CAD data**

2D/3D Models
787-1662/006-1000

**CAE data**

EPLAN Data Portal
787-1662/006-1000

WSCAD Universe
787-1662/006-1000


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## Libraries

| Library | | | |
|---|---|---|---|
| Anbindung Stromversorgungen Serie 787 | 1.0.0<br>28.08.2017 | zip<br>340.24 KB | |
| Anbindung Stromversorgungen Serie 787 | 1.3.0<br>14.05.2014 | zip<br>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 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