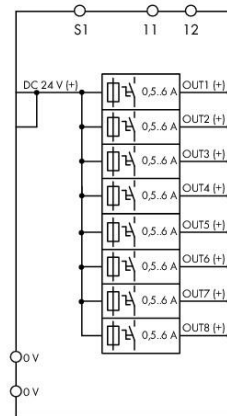


## Data sheet | Item number: 787-1668/006-1054

Electronic circuit breaker; 8-channel; 24 VDC input voltage; adjustable 0.5 ... 6 A; active current limitation; Signal contact; Specialty configuration

[www.wago.com/787-1668/006-1054](http://www.wago.com/787-1668/006-1054)



 Picture differs from the item.

Similar to picture

## Item description

### Features:

- Space-saving ECB with eight channels
- Nominal current: 0.5 ... 6 A (adjustable for each channel via sealable selector switch)

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

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- Active current limitation
- Switch-on capacity > 65000  $\mu$ 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)
- Remote input resets all tripped channels
- Potential-free signal contact 11/12 reports "channel switched off" and "tripped channel" – does not support communication via pulse sequence

## Data

### Technical data

#### Input

|                                          |                |
|------------------------------------------|----------------|
| Nominal input voltage $U_{i\text{ nom}}$ | DC 24 V        |
| Input voltage range                      | DC 18 ... 30 V |

#### Output

|                                           |                                                                                 |
|-------------------------------------------|---------------------------------------------------------------------------------|
| Total number of channels (module)         | 8                                                                               |
| Nominal output voltage $U_{o\text{ nom}}$ | 8 x DC 24 V                                                                     |
| Output voltage range                      | DC 18 ... 30 V ( $U_e$ – voltage drop)                                          |
| Voltage drop                              | $\leq 155$ mV (6 A) (Input (+))                                                 |
| Nominal output current $I_{o\text{ nom}}$ | 8 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch) |
| Default setting                           | DC 0.5 A; switched off                                                          |
| Switch-on capacity                        | > 58000 $\mu$ F per channel                                                     |
| Switch-on behavior                        | Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)          |
| Active current limitation                 | Yes                                                                             |
| Current limitation                        | $1.3 \times I_{o\text{ nom}}$ (typ.)                                            |

### Signaling and communication

|                            |                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------|
| Signaling                  | 8 x LED (green/red/orange)<br>1 x Remote control input (S1)<br>1 x Group signal contact (11; 12) |
| Operation status indicator | Green LED (channel OK)<br>Red LED (tripped channel)                                              |

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Remote input

Reactivation of all tripped channels via 15 ... 30 VDC pulse for min. 500 ms

## Efficiency/power losses

Power loss  $P_I$   $\leq 1.15 \text{ W}; \leq 8.6 \text{ W (8 x 6 A)}$ 

Efficiency (typ.) 99 %

## Circuit protection

Internal fuse T 15 A per channel

## 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  $\leq$  DC 35 V

Pollution degree 2

Transient suppression (primary) Suppressor diode (33 V)

Parallel operation of single channels Not permitted

Series operation No

MTBF &gt; 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 AWGFine-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 2 CAGE CLAMP®

WAGO connector 2 WAGO 721 Series

Solid conductor 2 0.08 ... 2.5 mm<sup>2</sup> / 28 ... 12 AWGFine-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

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

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## 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 |
|---------------|-------------|

## 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                        | 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

|                       |             |
|-----------------------|-------------|
| eCl@ss 10.0           | 27-37-18-02 |
| eCl@ss 9.0            | 27-37-18-02 |
| ETIM 8.0              | EC001440    |
| ETIM 7.0              | EC001440    |
| Recupel Type          |             |
| PU (SPU)              | 1 pcs       |
| Packaging type        | Box         |
| Country of origin     | DE          |
| Customs tariff number | 85363010900 |

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

## Environmental Product Compliance

RoHS Compliance Status

Compliant, No Exemption

## Approvals / Certificates

### General approvals

| Logo                                                                             | Approval                                      | Additional Approval Text | Certificate name                        |
|----------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|-----------------------------------------|
|  | <b>EAC</b><br>Brjansker Zertifizierungsstelle | TP TC 020/2011           | EAC_Certificate_RU_C-DE.AM02.B.00115_19 |
|  | <b>UL</b><br>Underwriters Laboratories Inc.   | UL 508                   | E255817                                 |
|  | <b>UR</b><br>Underwriters Laboratories Inc.   | UL 2367                  | E363438                                 |

### Declarations of conformity and manufacturer's declarations

| Logo                                                                               | Approval                                                  | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------|------------------|
|  | <b>EU-Declaration of Conformity</b><br>WAGO GmbH & Co. KG | -                        | -                |

### Approvals for marine applications

| Logo                                                                               | Approval                | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|-------------------------|--------------------------|------------------|
|  | <b>DNV</b><br>DNV GL SE | -                        | TAA0000281       |

## Optional accessories

### Tool

Operating tool

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

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**Item no.: 210-721**

Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

[www.wago.com/210-721](http://www.wago.com/210-721)



**Item no.: 210-769**

SCREWDRIVER; green

[www.wago.com/210-769](http://www.wago.com/210-769)



**Item no.: 210-720**

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

[www.wago.com/210-720](http://www.wago.com/210-720)

## Mounting adapter

DIN-rail adapter



**Item no.: 787-897/000-010**

Carrier rail adapter made of zinc die-cast; horizontal mounting of 787-16xx (TS35)

[www.wago.com/787-897/000-010](http://www.wago.com/787-897/000-010)

## Marking accessories

Marking strip



**Item no.: 2009-110**

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

[www.wago.com/2009-110](http://www.wago.com/2009-110)



**Item no.: 210-831**

Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white

[www.wago.com/210-831](http://www.wago.com/210-831)



**Item no.: 210-832**

Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white

[www.wago.com/210-832](http://www.wago.com/210-832)

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

[www.wago.com/2009-145](http://www.wago.com/2009-145)



**Item no.: 2009-115**

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

[www.wago.com/2009-115](http://www.wago.com/2009-115)



**Item no.: 248-501**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

[www.wago.com/248-501](http://www.wago.com/248-501)



**Item no.: 793-501**

WMB marking card; as card; not stretchable; plain; snap-on type; white

[www.wago.com/793-501](http://www.wago.com/793-501)

**Item no.: 793-5501**

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

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WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white [www.wago.com/793-5501](http://www.wago.com/793-5501)

## Downloads

### Documentation

#### Bid Text

|                                   |            |                 |          |
|-----------------------------------|------------|-----------------|----------|
| 787-1668/006-1054<br>X81 - Datei  | 2019 Jul 3 | xml<br>7.3 kB   | Download |
| 787-1668/006-1054<br>docx - Datei | 2019 Jul 2 | docx<br>21.4 kB | Download |

#### Instruction Leaflet

|                                                                           |  |               |          |
|---------------------------------------------------------------------------|--|---------------|----------|
| Elektronische Schutzschalter<br>Elektronische Absicherung, DC 24 V / 48 A |  | pdf<br>3.6 MB | Download |
|---------------------------------------------------------------------------|--|---------------|----------|

#### Additional Information

|                                                                                     |                        |               |          |
|-------------------------------------------------------------------------------------|------------------------|---------------|----------|
| Disposal and Recycling<br>Electrical and electronic equipment, Batteries, Packaging | V 1.1.0<br>2022 Aug 18 | pdf<br>2.2 MB | Download |
|-------------------------------------------------------------------------------------|------------------------|---------------|----------|

## CAD/CAE-Data

### CAE data

|                                     |     |          |
|-------------------------------------|-----|----------|
| EPLAN Data Portal 787-1668/006-1054 | URL | Download |
| WSCAD Universe 787-1668/006-1054    | URL | Download |
| ZUKEN Portal 787-1668/006-1054      | URL | Download |
| WSCAD Universe 787-1668/006-1054    | URL | Download |
| EPLAN Data Portal 787-1668/006-1054 | URL | Download |

### CAD data

|                                |     |          |
|--------------------------------|-----|----------|
| 2D/3D Models 787-1668/006-1054 | URL | Download |
|--------------------------------|-----|----------|

### Asset Administration Shell

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

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|                                              |     |          |
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|----------------------------------------------|-----|----------|

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Environmental Product Compliance

Compliance Search

|                                                                                                                                                         |     |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|
| Environmental Product Compliance 787-1668/006-1054                                                                                                      | URL | Download |
| Electronic circuit breaker; 8-channel; 24 VDC input voltage; adjustable 0.5 ... 6 A; active current limitation; Signal contact; Specialty configuration |     |          |

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Installation Notes

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