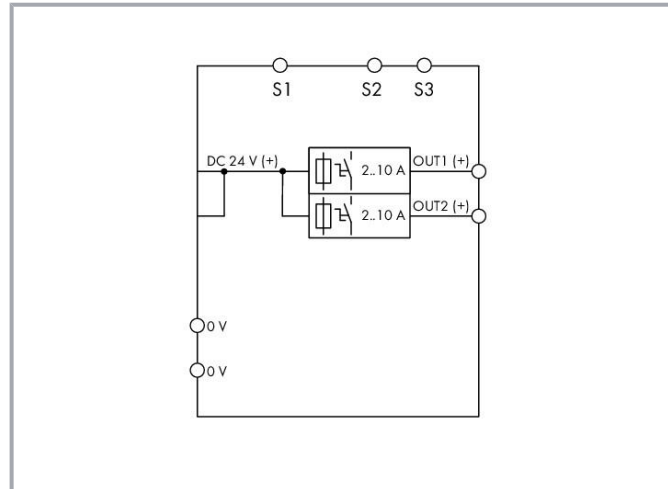


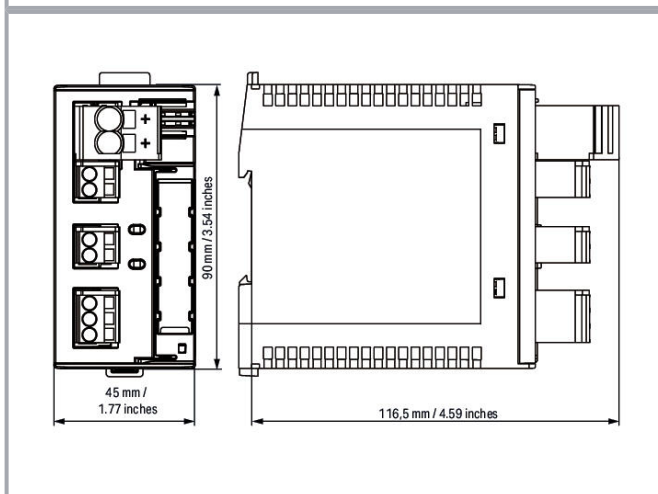
## Data sheet | Item number: 787-1662

Electronic circuit breaker; 2-channel; 24 VDC input voltage; adjustable 2 ...  
10 A; communication capability

[www.wago.com/787-1662](http://www.wago.com/787-1662)



Similar to picture



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

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## Item description

### Features:

- Space-saving ECB with two channels
- Nominal current: 2 ... 10 A (adjustable for each channel via sealable selector switch)
- Switch-on capacity > 50,000  $\mu$ 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

## 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)          | 2                                                                              |
| Nominal output voltage $U_{o \text{ nom}}$ | 2 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 $I_{o \text{ nom}}$ | 2 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) |
| Default setting                            | DC 10 A; switched on                                                           |
| Switch-on capacity                         | > 50000 $\mu$ F per channel                                                    |
| 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 | 2 x LED (green/red/orange)<br>1 x Remote control input (S1) |
|-----------|-------------------------------------------------------------|

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



|                            |                                                                                                                                            |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|                            | 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 $P_I$  | $\leq 0.85 \text{ W}; \leq 5.5 \text{ W (2 x 10 A)}$ |
| 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               | $\leq \text{DC } 35 \text{ V}$ |
| 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 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 type 2       | Input (-); output; signaling        |
| Connection technology 2 | CAGE CLAMP®                         |
| WAGO connector 2        | WAGO 721 Series                     |

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



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

### Material data

|        |       |
|--------|-------|
| Weight | 200 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

|               |                          |
|---------------|--------------------------|
| Product Group | 6 (INTERFACE ELECTRONIC) |
| 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  |                          |
| ECCN          | NO DATA                  |

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



|                       |             |
|-----------------------|-------------|
| PU (SPU)              | 1 pcs       |
| Packaging type        | Box         |
| Country of origin     | DE          |
| Customs tariff number | 85363010900 |

## Environmental Product Compliance

|                        |                         |
|------------------------|-------------------------|
| RoHS Compliance Status | Compliant, No Exemption |
|------------------------|-------------------------|

## Approvals / Certificates

### General approvals

| Logo                                                                               | Approval                             | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|--------------------------------------|--------------------------|------------------|
|    | EAC<br>GZO Almaty Standart           | TP TC 020/2011           | EAC CoC<br>03081 |
|    | UL<br>Underwriters Laboratories Inc. | UL 508                   | E255817          |
|  | UR<br>Underwriters Laboratories Inc. | UL 2367                  | E363438          |

### Declarations of conformity and manufacturer's declarations

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

### Approvals for marine applications

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

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## Optional accessories

### Tool

#### Operating tool



**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)

### 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**

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)

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## Downloads

### Documentation

#### Manual

|                                                                    |         |               |          |
|--------------------------------------------------------------------|---------|---------------|----------|
| Product Manual Electronic Circuit Breaker<br>24 VDC / 2 x 2...10 A | V 1.0.0 | pdf<br>1.3 MB | Download |
|--------------------------------------------------------------------|---------|---------------|----------|

#### Bid Text

|                         |             |               |          |
|-------------------------|-------------|---------------|----------|
| 787-1662<br>X81 - Datei | 2019 年7月3 日 | xml<br>7.2 kB | Download |
|-------------------------|-------------|---------------|----------|

|                          |             |                 |          |
|--------------------------|-------------|-----------------|----------|
| 787-1662<br>docx - Datei | 2019 年7月2 日 | docx<br>20.9 kB | Download |
|--------------------------|-------------|-----------------|----------|

|                          |  |     |          |
|--------------------------|--|-----|----------|
| ausschreiben.de 787-1662 |  | URL | Download |
|--------------------------|--|-----|----------|

#### Instruction Leaflet

|                                                                             |  |                 |          |
|-----------------------------------------------------------------------------|--|-----------------|----------|
| Elektronische Schutzschalter<br>Elektronische Absicherung, DC 24 V / 2x10 A |  | pdf<br>991.9 kB | Download |
|-----------------------------------------------------------------------------|--|-----------------|----------|

#### Additional Information

|                                                                                     |                         |               |          |
|-------------------------------------------------------------------------------------|-------------------------|---------------|----------|
| Disposal and Recycling<br>Electrical and electronic equipment, Batteries, Packaging | V 1.1.0<br>2022 年8月18 日 | pdf<br>2.2 MB | Download |
|-------------------------------------------------------------------------------------|-------------------------|---------------|----------|

## Application Notes

### Application note SIEMENS

|                                                                                                                                                                   |                       |                |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|----------|
| Elektronische Schutzschalter Serie 787 ab FW2.24 (a500371)<br>S7 Bausteine für die Serie 787 (Epsitron, elektronische Schutzschalter und 3 Phasen<br>Netzgeräte). | 1.0.0<br>2017 年2月14 日 | zip<br>13.4 MB | Download |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|----------|

## Libraries

### CoDeSys 3.x Library

|                                                                                    |                            |                |          |
|------------------------------------------------------------------------------------|----------------------------|----------------|----------|
| Libraries for CODESYS V3.x<br>WAGO libraries based on CODESYS V3.x control systems | 2023-03-24<br>2023 年3月24 日 | ZIP<br>64.3 MB | Download |
|------------------------------------------------------------------------------------|----------------------------|----------------|----------|

- WagoAppASi
- WagoAppCanLayer2

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



- WagoAppCom
- WagoAppDALI
- WagoAppDCDriveController
- WagoAppDigitalImpulseInterface
- WagoAppEnOcean
- WagoAppFuse
- WagoAppHART
- WagoAppIOLink
- WagoAppM\_Bus
- WagoAppMP\_Bus
- WagoAppPowerMeasurement
- WagoAppRTC
- WagoAppSMI
- WagoAppSolenoid
- WagoAppStepper
- WagoAppVibrationMonitoring

CODESYS Control Win V3 x64 is used as a test instance in version 3.5.18.20.

## Library

|                                                                                                                                                                                                           |              |          |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|----------|
| Anbindung Stromversorgungen Serie 787                                                                                                                                                                     | 1.0.0        | zip      | Download |
| Die Bibliothek "WagoLib787_02.lib" stellt Funktionsbausteine und Visualisierungen zur Verfügung, mit deren Hilfe die Informationen der WAGO Stromversorgungsmodule der Serie 787 angezeigt werden können. |              |          |          |
|                                                                                                                                                                                                           | 2017 年8月28 日 | 348.4 kB |          |

|                                                                                                                                                                                                           |              |          |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|----------|
| Anbindung Stromversorgungen Serie 787                                                                                                                                                                     | 1.3.0        | zip      | Download |
| Die Bibliothek "WagoLib787_01.lib" stellt Funktionsbausteine und Visualisierungen zur Verfügung, mit deren Hilfe die Informationen der WAGO Stromversorgungsmodule der Serie 787 angezeigt werden können. |              |          |          |
|                                                                                                                                                                                                           | 2014 年5月14 日 | 562.7 kB |          |

## CAD/CAE-Data

### CAD data

|                       |     |          |
|-----------------------|-----|----------|
| 2D/3D Models 787-1662 | URL | Download |
|-----------------------|-----|----------|

### CAE data

|                            |     |          |
|----------------------------|-----|----------|
| EPLAN Data Portal 787-1662 | URL | Download |
|----------------------------|-----|----------|

|                         |     |          |
|-------------------------|-----|----------|
| WSCAD Universe 787-1662 | URL | Download |
|-------------------------|-----|----------|

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|                       |     |          |
|-----------------------|-----|----------|
| ZUKEN Portal 787-1662 | URL | Download |
|-----------------------|-----|----------|

Asset Administration Shell

|                                     |     |          |
|-------------------------------------|-----|----------|
| Asset Administration Shell 787-1662 | URL | Download |
|-------------------------------------|-----|----------|

Environmental Product Compliance

Compliance Search

|                                                                                                              |     |          |
|--------------------------------------------------------------------------------------------------------------|-----|----------|
| Environmental Product Compliance 787-1662                                                                    | URL | Download |
| Electronic circuit breaker; 2-channel; 24 VDC input voltage; adjustable 2 ... 10 A; communication capability |     |          |

Installation Notes

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