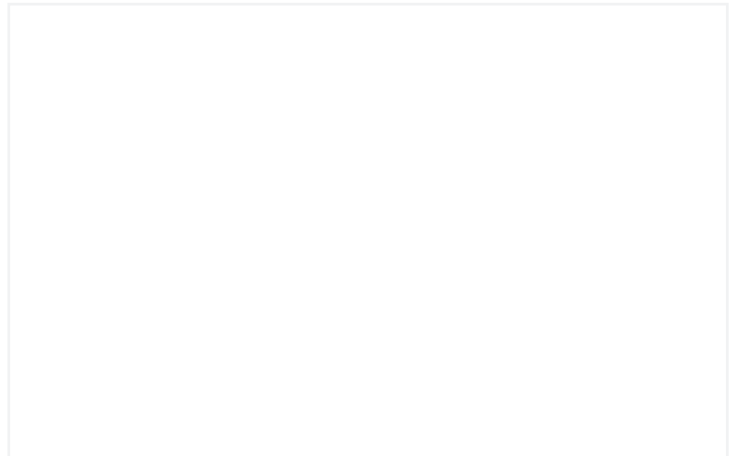
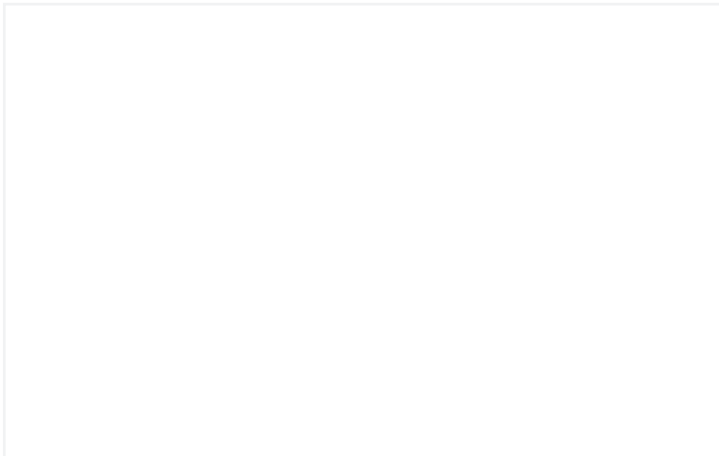
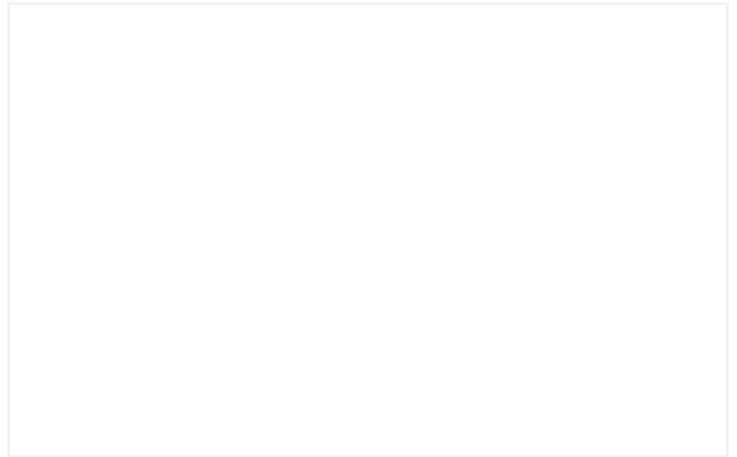
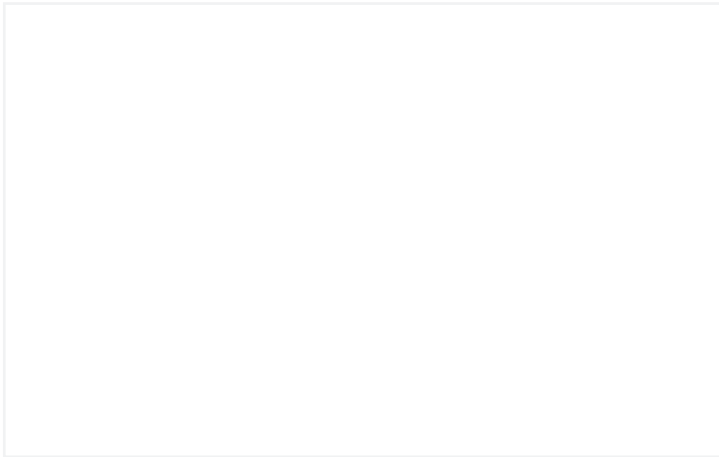
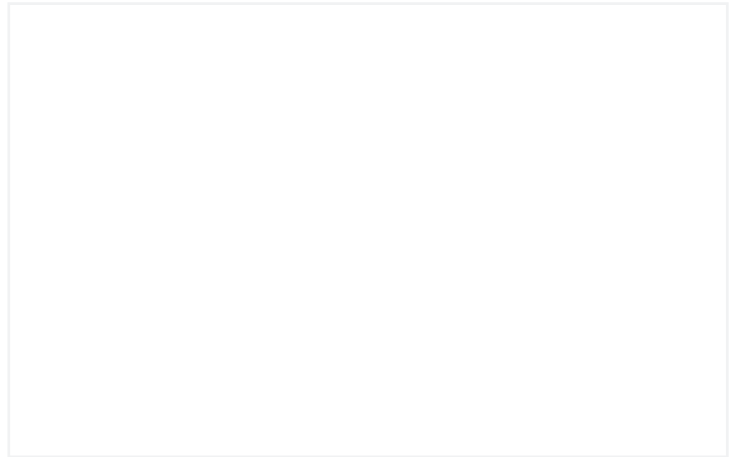
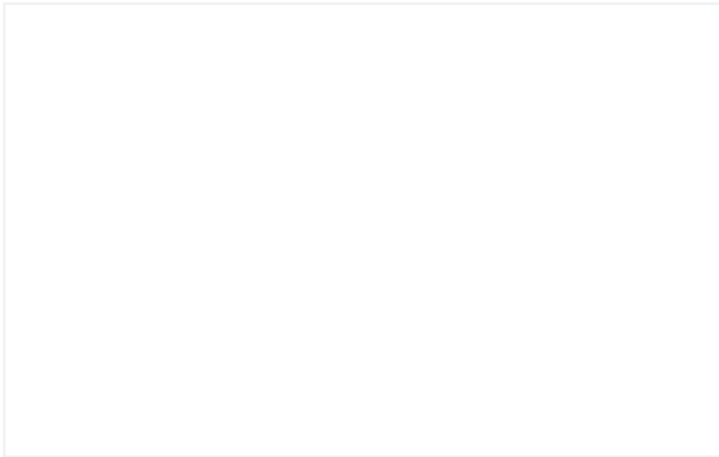


Data Sheet | Item Number: 787-3861/050-1000

Electronic circuit breaker; 1-channel; 24 VDC input voltage; 0.5 A; NEC Class 2; Signal contact

<https://www.wago.com/787-3861/050-1000>



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 < 5,000 μ F
- 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: 26 AWG (0.5 A) |
|------|---|

Technical data

| Input | | Output | |
|---|----------------|--|--|
| Nominal input voltage $U_{i, \text{nom}}$ | DC 24 V | Total number of channels (module) | 1 |
| Input voltage range | DC 18 ... 30 V | Nominal output voltage $U_{o, \text{nom}}$ | 1 x DC 24 V |
| | | Output voltage range | DC 18 ... 30 V (U_e - voltage drop) |
| | | Voltage drop | ≤ 40 mV |
| | | Nominal output current $I_{o, \text{nom}}$ | 1 x 0.5 A (fixed setting) |
| | | Default Setting | switched off |
| | | Trip time | 4 ms ... 100 s (load-dependent) |
| | | Switch-on capacity | |
| | | Switch-on behavior | Time-delayed channel switching (load-dependent, min. 0 ms/max. 500 ms) |
| | | Current limitation | No |

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_i | ≤ 0.4 W (no load) |
| Efficiency (typ.) | 96 % |

Circuit protection

| | |
|---------------|-------|
| Internal fuse | T 4 A |
|---------------|-------|

Safety and protection

| | | Insulation coordination (UL) | |
|--|-------------------------|------------------------------|----|
| Isolation voltage (connectors – housing) | DC 1.5 kV | Overvoltage category | II |
| Protection class | III | Pollution degree | 2 |
| 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 | 1,168,394 h | | |

Insulation coordination

| | |
|----------------------|----|
| Overvoltage category | II |
| Pollution degree | 2 |

Connection data

| | |
|--------------------------------|---|
| Number of jumper slots | 8 |
| Connection technology | Push-in CAGE CLAMP® |
| WAGO connector | WAGO 857 Series |
| Solid conductor | 0.08 ... 2.5 mm ² / 26 ... 14 AWG |
| Fine-stranded conductor | 0.34 ... 2.5 mm ² / 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) |

Physical data

| | |
|-----------------------------------|-----------------------|
| Width | 6 mm / 0.236 inches |
| Height | 94 mm / 3.701 inches |
| Depth | 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 | 0.631 MJ |
| Weight | 55.6 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 1310 (NEC Class 2) UL 2367 |

Commercial data

| | |
|-----------------------|-------------|
| ETIM 9.0 | EC001440 |
| ETIM 8.0 | EC001440 |
| PU (SPU) | 1 pcs |
| Packaging type | Bag |
| Country of origin | IN |
| Customs tariff number | 85363010900 |

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) | 24e753d8-e92c-4dd1-8f44-291c22790dbe |
| SCIP notification number (Belgium) | a3a486a0-6aa9-4a6a-9f97-4c9ae50f4549 |
| SCIP notification number (Bulgaria) | 023fb22e-8ca1-4565-9012-b1e2845be79b |
| SCIP notification number (Czech Republic) | 78145795-59ba-4765-a65d-2f15c896aac5 |
| SCIP notification number (Denmark) | d2e8599d-0b42-469b-aa4b-8250887fd1e4 |
| SCIP notification number (Finland) | a9415819-e0cb-41e7-b540-d66f134f87c2 |
| SCIP notification number (France) | 89f46946-4f4b-4ddf-8ae1-738ad2dfcfa3 |
| SCIP notification number (Germany) | 49c59e8f-764e-42d9-a6ef-b3c07542769a |
| SCIP notification number (Hungary) | 410310e5-087e-4f84-9f6b-08a174f07839 |
| SCIP notification number (Italy) | e2b26cb0-6785-4cf2-be42-2ad5402a0919 |
| SCIP notification number (Netherlands) | aa967410-4dbf-40f9-b870-9162d2f25bf4 |
| SCIP notification number (Poland) | 6d76d5f7-7a40-4bc6-8975-88f3945ddb3 |
| SCIP notification number (Romania) | 29ac3998-dfbb-4adb-bfa5-5b77641722e6 |
| SCIP notification number (Sweden) | 53913ed9-45a0-4bc6-8a8f-212e0d5dee32 |

Approvals / Certificates

General approvals

Declarations of conformity and manufacturer's declarations



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

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

Approvals for marine applications

Approvals for hazardous areas



| Approval | Standard | Certificate Name |
|-------------------------|-----------------------|------------------|
| DNV DNV Germany GmbH | DNV-CG-0339, Aug.2021 | TAA00001D1 |

| Approval | Standard | Certificate Name |
|--|-----------|------------------|
| UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 |

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance
787-3861/050-1000



Documentation

Manual

Product Manual Elec-
tronic circuit breaker

V 1.0.0
25.03.2024

pdf
6893.60 KB



Instruction Leaflet

Electronic Circuit Brea-
ker

V 1.1.1
11.09.2023

pdf
2491.12 KB



CAD/CAE-Data

CAD data

2D/3D Models
787-3861/050-1000



1 Compatible Products

1.1 Optional Accessories

1.1.1 Jumper

1.1.1.1 Jumper



[Item No.: 859-410/000-006](#)

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



[Item No.: 859-410](#)

Jumper; for jumper slot; 10-way; insula-
ted; light gray



[Item No.: 859-410/000-005](#)

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



[Item No.: 859-410/000-029](#)

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



[Item No.: 859-402/000-006](#)

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



[Item No.: 859-402](#)

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



[Item No.: 859-402/000-029](#)

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



[Item No.: 859-403/000-006](#)

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



[Item No.: 859-403](#)

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



[Item No.: 859-403/000-005](#)

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



[Item No.: 859-403/000-029](#)

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



[Item No.: 859-404/000-006](#)

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



[Item No.: 859-404](#)

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



[Item No.: 859-404/000-005](#)

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



[Item No.: 859-404/000-029](#)

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



[Item No.: 859-405/000-006](#)

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



[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;
red



[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;
blue



[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;
red



[Item No.: 859-406/000-029](#)

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



[Item No.: 859-407/000-006](#)

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

1.1.1.1 Jumper



Item No.: 859-407
Jumper; for jumper slot; 7-way; insulated; light gray



Item No.: 859-407/000-005
Jumper; for jumper slot; 7-way; insulated; red



Item No.: 859-407/000-029
Jumper; for jumper slot; 7-way; insulated; yellow



Item No.: 859-408/000-006
Jumper; for jumper slot; 8-way; insulated; blue



Item No.: 859-408
Jumper; for jumper slot; 8-way; insulated; light gray



Item No.: 859-408/000-005
Jumper; for jumper slot; 8-way; insulated; red



Item No.: 859-408/000-029
Jumper; for jumper slot; 8-way; insulated; yellow



Item No.: 859-409/000-006
Jumper; for jumper slot; 9-way; insulated; blue



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; red



Item No.: 859-409/000-029
Jumper; for jumper slot; 9-way; insulated; yellow

1.1.2 Marking

1.1.2.1 Marker



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.: 793-502
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-566
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; 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



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; snap-on 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

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 mm²

Item No.: 787-3861/000-2000
Potential distribution module; 1 potential; with 8 clamping points 24V; Conductor cross-section up to 2.5 mm²

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 mm²

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