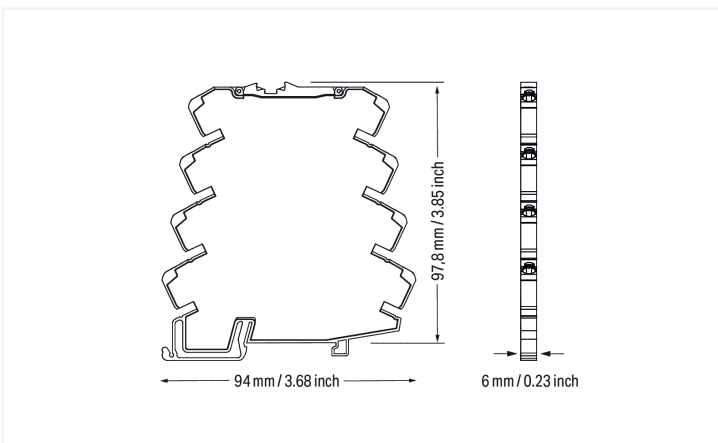
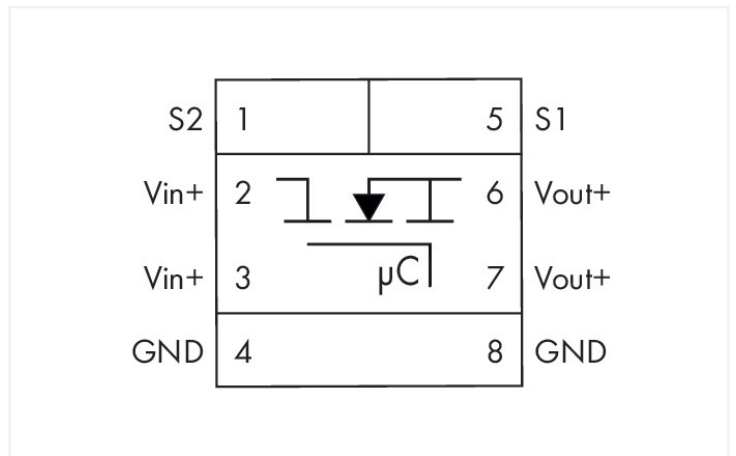
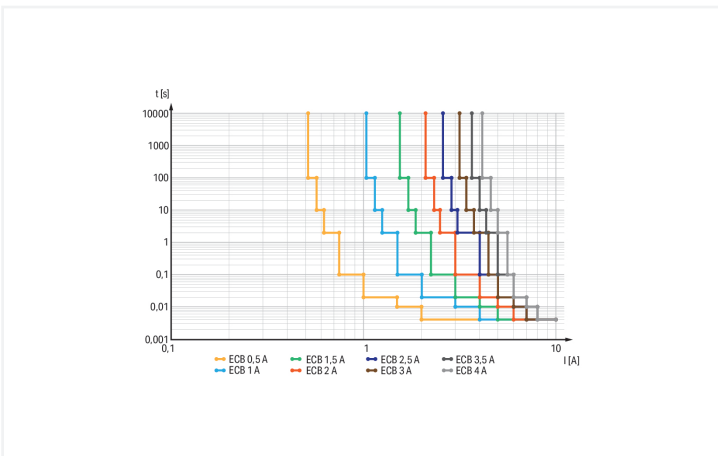
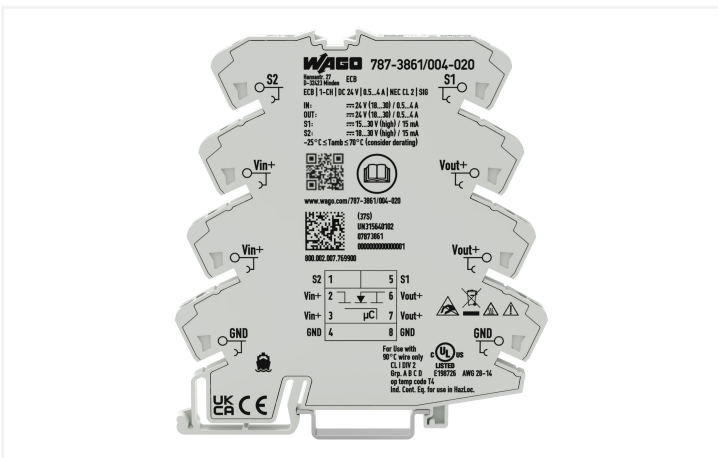
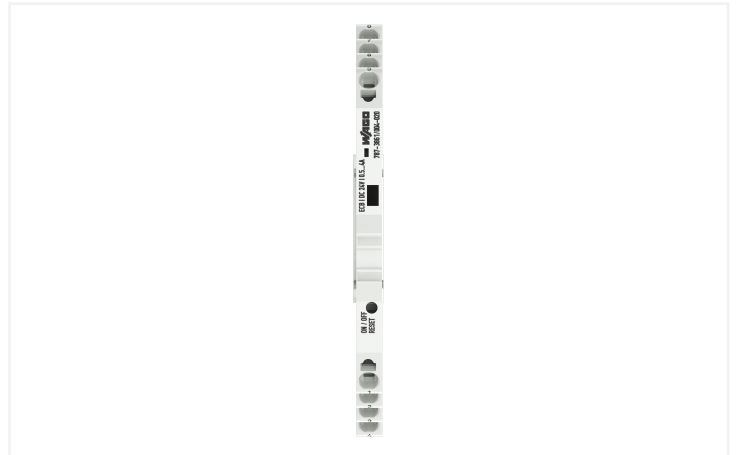


Data Sheet | Item Number: 787-3861/004-020

Electronic circuit breaker; 1-channel; 24 VDC input voltage; adjustable 0.5 ... 4 A; Signal contact

<https://www.wago.com/787-3861/004-020>



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 > 50,000 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. |
|------|---|

Technical data**Input**

| | |
|------------------------------------|---------------|
| Nominal input voltage $U_{i, nom}$ | 24 VDC |
| Input voltage range | 18 ... 30 VDC |

Output

| | |
|-------------------------------------|--|
| Total number of channels (module) | 1 |
| Nominal output voltage $U_{o, nom}$ | 1 x 24 VDC |
| Output voltage range | 18 ... 30 VDC (U_e – voltage drop) |
| Voltage drop | ≤ 40 mV (0.5 A); ≤ 80 mV (1 A); ≤ 120 mV (1.5 A); ≤ 160 mV (2 A); ≤ 200 mV (2.5 A); ≤ 240 mV (3 A); ≤ 280 mV (3.5 A); ≤ 320 mV (4 A) |
| Nominal output current $I_{o, nom}$ | 1 x 0.5 / 1 / 1.5 / 2 / 2.5 / 3 / 3.5 / 4 A (adjustable) |
| Default Setting | DC 0.5 A; switched off |
| Trip time | 10 ms ... 90 s (load-dependent) |
| Switch-on capacity | |
| Switch-on behavior | Time-delayed channel switching (load-dependent, min. 0 ms / max. 500 ms) |
| Current limitation | No |
| Switch-on threshold | DC 20.3 V |

Signaling and communication

| | |
|----------------------------|--|
| Signaling | 1 x Status LED (green/yellow/red) 1 x Signal output (18 ... 30 VDC, max. 0.015 A), default setting: tripped |
| 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_1 | ≤ 0.4 W (no load) |
| Efficiency (typ.) | 98 % |

Circuit protection

| | |
|---------------|-------|
| Internal fuse | T 8 A |
|---------------|-------|

Safety and protection

| | | | |
|--|-------------------------|------|-----------|
| Isolation voltage (connectors – housing) | 1.5 kVDC | MTBF | 807,840 h |
| Protection class | III | | |
| 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 | | |

Insulation coordination (UL)

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

Insulation coordination

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

Connection data

| | |
|------------------------|---|
| Number of jumper slots | 8 |
|------------------------|---|

Connection 1

| | |
|--------------------------------|---|
| 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); 24 ... 14 AWG (1 A / 1.5 A); 22 ... 14 AWG (2 A / 2.5 A); 20 ... 14 AWG (3 A / 3.5 A / 4 A) |

Physical data

| | |
|-----------------------------------|-----------------------|
| Width | 6 mm / 0.236 inches |
| Height | 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 | 0.634 MJ |
| Weight | 55.7 g |

Standards and specifications

| | |
|--------------------------|--|
| Conformity marking | CE; UKCA |
| Standards/specifications | EN 61000-6-2 EN 61000-6-3 UL 61010-2-201 DNV UL 2367 |

Commercial data

| | |
|-----------------------|-------------|
| PU (SPU) | 1 pcs |
| Packaging type | Bag |
| Country of origin | IN |
| Customs tariff number | 85362010900 |

Product Classification

| | |
|----------|----------------------|
| UNSPSC | 39121634 |
| ETIM 9.0 | EC001440 |
| ETIM 8.0 | EC001440 |
| ECCN | NO US CLASSIFICATION |

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) | 182a37ec-835c-4398-8a34-26201cdd647d |
| SCIP notification number (Belgium) | 7be3cd1c-81db-4697-a0e7-4510af4b0fd3 |
| SCIP notification number (Bulgaria) | ace2344b-cece-40e9-838e-5420ff7f06d3 |
| SCIP notification number (Czech Republic) | eb7d500a-09ae-4c68-b0e6-cf5de11bb5a3 |
| SCIP notification number (Denmark) | 2fe76880-4391-4e7f-b43f-312ea576f7ac |
| SCIP notification number (Finland) | 5412f2c7-19e9-475b-820c-724a74597644 |
| SCIP notification number (France) | 1b5214de-93ad-4cba-819d-9eeab6e2f665 |
| SCIP notification number (Germany) | eaba3ebe-87e7-4c03-b934-cf6d6de9d5ad |
| SCIP notification number (Hungary) | b81f3d60-9a87-43f6-9087-58886bf6fc11 |
| SCIP notification number (Italy) | 80f1784f-8ca8-4cda-914f-12cbdee804ee |
| SCIP notification number (Netherlands) | d630cf8b-2fe9-47a8-80dd-96dd379b2c2d |
| SCIP notification number (Poland) | efb9155f-9a6d-451d-9a46-a31631f587ae |
| SCIP notification number (Romania) | a2c30a36-126b-4e67-a159-9409a10010f4 |
| SCIP notification number (Sweden) | 585b6e14-60b3-4a80-b3b2-05e4b69c9b39 |

Approvals / Certificates

General approvals **Declarations of conformity and manufacturer's declarations**



| Approval | Standard | Certificate Name |
|---|----------------|------------------------|
| UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS) | UL 61010-2-201 | UL E175199 Vol.3 Sec.5 |
| UR Underwriters Laboratories Inc. | - | E175199 |

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

Approvals for marine applications



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

Approvals for hazardous areas



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