

Data sheet | Item number: 787-1668

electronic circuit breaker; 8-channel; 24 VDC input voltage; adjustable 2 ...
10 A; communication capability

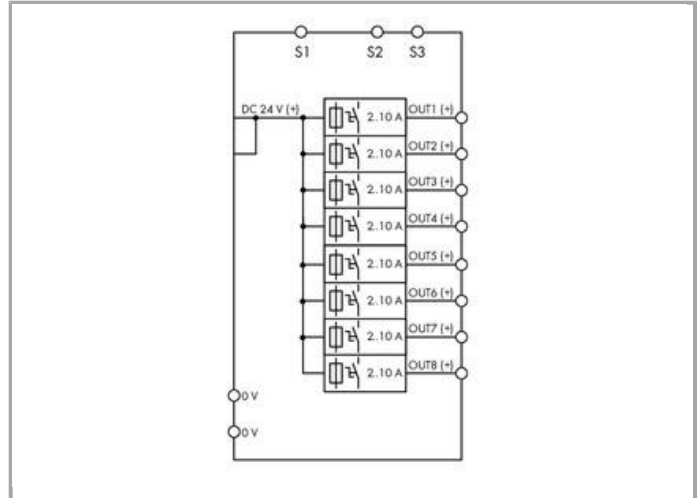


www.wago.com/787-1668



Similar to picture

RoHS Compliant BOMcheck.net



Item description

Features:

- Space-saving ECB with eight channels
- 2–10 A nominal current, adjustable for each channel via sealable selector switch
- Switch-on capacity > 50000 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

Data

Technical Data

Input

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

Output

| | |
|--|--|
| Total number of channels (module) | 8 |
| Nominal output voltage $U_{o \text{ nom}}$ | 8 x 24 VDC |
| Output voltage range | 18 ... 30 VDC (U_i – voltage drop) |
| Voltage drop | ≤ 200 mV (10 A) |
| Nominal output current $I_{o \text{ nom}}$ | 8 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) |
| Factory preset | 10 ADC; switched on |
| Trip time | 16 ms ... 100 s (Load-dependent) |
| Switch-on capacity | > 50000 μ F per channel |
| Switch-on behavior | Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s) |
| Active Current Limitation | no |

Signaling and communication

| | |
|----------------------------|--|
| Signaling | 8 x LED (green/red/orange) 1 x remote input (S1) 2 x active signal output (S2, S3) |
| Operation status indicator | LED green (channel OK) LED red (tripped channel) |
| Remote input | Reactivation of all tripped channels via 15 ... 30 VDC pulse for min. 500 ms. Switching on/off any number of channels via pulse sequence. |

Efficiency/Power losses:

| | |
|------------------|----------------------------------|
| Power loss P_v | 1.3 W (no load); 20 W (8 x 10 A) |
| Efficiency | 99 % |

**Fuse protection:**

| | |
|---------------|--------------------|
| Internal fuse | T 15 A per channel |
|---------------|--------------------|

Safety and protection:

| | |
|---|-----------------------------|
| Insulation voltage (connectors-housing) | 0.5 kV DC |
| Protection class | III |
| Degree of protection | IP20 (per EN 60529) |
| Reverse voltage protection | No |
| Feedback voltage | ≤ 35VDC |
| Transient protection, primary | Suppressor diode, 33 V |
| Parallel operation of single channels | Not permitted |
| Series connection | No |
| MTBF | > 500,000 h (per IEC 61709) |

Connection data

| | |
|-----------------------------|--|
| Connection type (1) | Input (+) |
| Connection technology | Push-in CAGE CLAMP® |
| WAGO terminal | WAGO 831 Series |
| Solid conductor | 0.5 ... 10 mm ² / 20 ... 8 AWG |
| Fine-stranded conductor | 0.5 ... 10 mm ² / 20 ... 8 AWG |
| Strip length | 13 ... 15 mm / 0.51 ... 0.59 Inch |
| Connection type (2) | Input (-), output, signaling |
| Connection technology 2 | CAGE CLAMP® |
| WAGO terminal 2 | WAGO 721 Series |
| Solid conductor (2) | 0.08 ... 2.5 mm ² / 28 ... 12 AWG |
| Fine-stranded conductor (2) | 0.08 ... 2.5 mm ² / 28 ... 12 AWG |
| Strip length (2) | 8 ... 9 mm / 0.31 ... 0.35 Inch |

Geometrical Data

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|---------------------------------------|----------------------|
| Width | 42 mm / 1.654 inch |
| Height | 127 mm / 5 inch |
| Length from upper-edge of DIN-35 rail | 142.5 mm / 5.61 inch |

Mechanical data

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|------------------|------------------------|
| Type of mounting | DIN-35 rail (EN 60715) |
|------------------|------------------------|

Material Data

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|--------|-------|
| Weight | 440 g |
|--------|-------|

Environmental Requirements

| | |
|---|--|
| Surrounding air (operating) temperature | -25 ... 70 °C |
| Surrounding air (storage) temperature | -25 ... 85 °C |
| Relative humidity | 5 ... 96 % (no condensation permissible) |
| Derating | ≥ 50 °C: see instruction manual |
| Pollution degree | 2 |

Standards and specifications


| | |
|--------------------------|---|
| Conformity marking | CE |
| Standards/specifications | UL 508; UL 2367; GL; EN 60950; EN 61000-6-2; EN 61000-6-3 |

Commercial data

| | |
|--------------------|---------------------------|
| Country of origin | DE |
| GTIN | 4050821502593 |
| Customs Tariff No. | 85363010900 |
| Product Group | 6 (Interface Electronics) |

Approvals / Certificates

Ship Approvals




| Logo | Approval | Certificate name |
|--|--------------------------|------------------|
|  | GL Germanischer Lloyd | 61888-14HH |











UL-Approvals










| Logo | Approval | Certificate name |
|--|----------------------------------|------------------|
|  | UL UL Multiple Listing UL LLC | E363438 |

Compatible products








ferrule

















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|--|--|--|
|  | Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / AWG 22; insulated; electro-tin plated | www.wago.com/216-201 |
|  | Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / AWG 20; insulated; electro-tin plated | www.wago.com/216-202 |
|  | Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated | www.wago.com/216-203 |

| | | |
|--|--|--|
|  | Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated | www.wago.com/216-204 |
|  | Item no.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated | www.wago.com/216-205 |
|  | Item no.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated | www.wago.com/216-206 |
|  | Item no.: 216-207 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated | www.wago.com/216-207 |
|  | Item no.: 216-208 Ferrule; Sleeve for 6 mm ² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-208 |
|  | Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / AWG 22; insulated; electro-tin plated | www.wago.com/216-221 |
|  | Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / AWG 20; insulated; electro-tin plated | www.wago.com/216-222 |
|  | Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated | www.wago.com/216-223 |
|  | Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated | www.wago.com/216-224 |
|  | Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / AWG 22; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-241 |
|  | Item no.: 216-242 Ferrule; Sleeve for 0.75 mm ² / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-242 |
|  | Item no.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-243 |
|  | Item no.: 216-244 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-244 |
|  | Item no.: 216-246 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-246 |
|  | Item no.: 216-262 Ferrule; Sleeve for 0.75 mm ² / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-262 |
|  | Item no.: 216-263 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-263 |
|  | Item no.: 216-264 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-264 |
|  | Item no.: 216-266 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-266 |
| | Item no.: 216-267 | |

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|---|---|--|
|  | Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-267 |
|  | Item no.: 216-284 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-284 |
|  | Item no.: 216-286 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-286 |
|  | Item no.: 216-287 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-287 |
|  | Item no.: 216-288 Ferrule; Sleeve for 6 mm ² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | www.wago.com/216-288 |
|  | Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated | www.wago.com/216-301 |
|  | Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / AWG 24; insulated; electro-tin plated | www.wago.com/216-302 |
|  | Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated | www.wago.com/216-321 |
|  | Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / AWG 24; insulated; electro-tin plated | www.wago.com/216-322 |

Marking accessories

| | | |
|--|---|--|
|  | Item no.: 2009-110 Marking strips; on reel; not stretchable; plain; snap-on type | www.wago.com/2009-110 |
|  | Item no.: 2009-115 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-115 |
|  | Item no.: 2009-115/000-002 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-115/000-002 |
|  | Item no.: 2009-115/000-006 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-115/000-006 |
|  | Item no.: 2009-115/000-007 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-115/000-007 |
|  | Item no.: 2009-115/000-012 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-115/000-012 |
|  | Item no.: 2009-115/000-017 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-115/000-017 |

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|  | Item no.: 2009-115/000-023 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-115/000-023 |
|  | Item no.: 2009-115/000-024 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-115/000-024 |
|  | Item no.: 2009-135 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-135 |
|  | Item no.: 2009-145 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-145 |
|  | Item no.: 2009-145/000-002 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-145/000-002 |
|  | Item no.: 2009-145/000-005 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-145/000-005 |
|  | Item no.: 2009-145/000-006 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-145/000-006 |
|  | Item no.: 2009-145/000-007 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-145/000-007 |
|  | Item no.: 2009-145/000-012 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-145/000-012 |
|  | Item no.: 2009-145/000-023 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-145/000-023 |
|  | Item no.: 2009-145/000-024 Mini-WSB Inline; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | www.wago.com/2009-145/000-024 |
|  | Item no.: 210-831 Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive | www.wago.com/210-831 |
|  | Item no.: 210-832 Marking strips; on reel; 3 mm wide; plain; Self-adhesive | www.wago.com/210-832 |
|  | Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card | www.wago.com/248-501 |
|  | Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type | www.wago.com/248-501/000-002 |
|  | Item no.: 248-501/000-005 Mini-WSB marking card; as card; plain; snap-on type | www.wago.com/248-501/000-005 |



Item no.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/248-501/000-006



Item no.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/248-501/000-007



Item no.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/248-501/000-012



Item no.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/248-501/000-017



Item no.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/248-501/000-023



Item no.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501



Item no.: 793-501/000-002
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-002



Item no.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-005



Item no.: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-006



Item no.: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-007



Item no.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-012



Item no.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-017



Item no.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-023



Item no.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type

www.wago.com/793-501/000-024



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 www.wago.com/793-5501



Item no.: 793-5501/000-002

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-002



Item no.: 793-5501/000-005

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-005



Item no.: 793-5501/000-006

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-006



Item no.: 793-5501/000-007

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-007



Item no.: 793-5501/000-012

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-012



Item no.: 793-5501/000-014

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-014



Item no.: 793-5501/000-017

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-017



Item no.: 793-5501/000-023

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-023



Item no.: 793-5501/000-024

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

www.wago.com/793-5501/000-024

tools



Item no.: 210-720

Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm

www.wago.com/210-720



Item no.: 210-721

Operating tool with partially insulated shaft; Type 3, blade (5.5 x 0.8) mm

www.wago.com/210-721

Downloads

Documentation

Manual

EPSITRON® Electronic Circuit Breaker

Mar 21, 2014

Download

24 VDC / 8 x 2...10 A

1.4 MB

Bid Text

787-1668



| | | | |
|--------------------------|--------------|----------------|----------|
| Stromversorgung EPSITRON | Jan 14, 2016 | DOC 34.8 kB | Download |
|--------------------------|--------------|----------------|----------|

Instruction Leaflet

| | | | |
|--|-------------|-----------------|----------|
| EPSITRON Electronic Circuit Breaker Electronic Circuit Breaker, 24 VDC / 8 x 10 A | Feb 3, 2016 | PDF 419.6 kB | Download |
|--|-------------|-----------------|----------|

Additional Information

| | | | |
|--|--------------|----------|----------|
| Disposal; Electrical and electronic equipment, Packaging | Oct 15, 2018 | 265.8 kB | Download |
|--|--------------|----------|----------|

Application Notes

Application Note CoDeSys 2.3

| | | | |
|---|-----------------------|----------------|----------|
| S7 Function Blocks for 787 Series (EPSITRON, Electronic Circuit Breakers with CRC and 3-Phase Power Supplies) | 1.0.0 Feb 14, 2017 | ZIP 13.4 MB | Download |
| S7 function blocks for the 787 Series (Epsitron, electronic circuit breakers and 3-phase power supplies). | | | |

| | | | |
|---|-----------------------|----------------|----------|
| S7 Function Blocks for 787 Series | 2.0.0 Nov 26, 2015 | ZIP 11.0 MB | Download |
| S7 function blocks for the 787 Series (Epsitron, electronic circuit breakers and 3-phase power supplies). | | | |

Libraries

CoDeSys 3.x Library

| | | | |
|--|--------------|---------------|----------|
| Libraries for CODESYS V3.x WAGO libraries based on CODESYS V3.x control systems | Jun 28, 2018 | ZIP 1.2 MB | Download |
| <ul style="list-style-type: none"> ■ - WAGOAppFuse | | | |
| "CODESYS Control Win V3" is used as a test instance in version 3.5.11.10. | | | |

Library

| | | | |
|---|---------------------|-----------------|----------|
| Connection of 787 Series power supplies | 2.0 Feb 22, 2018 | ZIP 348.4 kB | Download |
| The WagoLib787_02.lib library makes function blocks and visualization objects available which can be used to display information from the WAGO 787 Series power supply modules. | | | |

| | | | |
|---|-----------------------|-----------------|----------|
| Connection of 787 Series power supplies | 1.2.0 Aug 20, 2014 | ZIP 562.7 kB | Download |
| The WagoLib787_01.lib library makes function blocks and visualization objects available which can be used to display information from the WAGO 787 Series power supply modules. | | | |



smartDATA

CAD data

3D Download 787-1668

URL

Download

Subject to changes.