

Data sheet | Item number: 787-1668/106-054

Electronic circuit breaker; 8-channel; 24 VDC input voltage; adjustable 1 ... 6 A; Signal contact; Specialty configuration

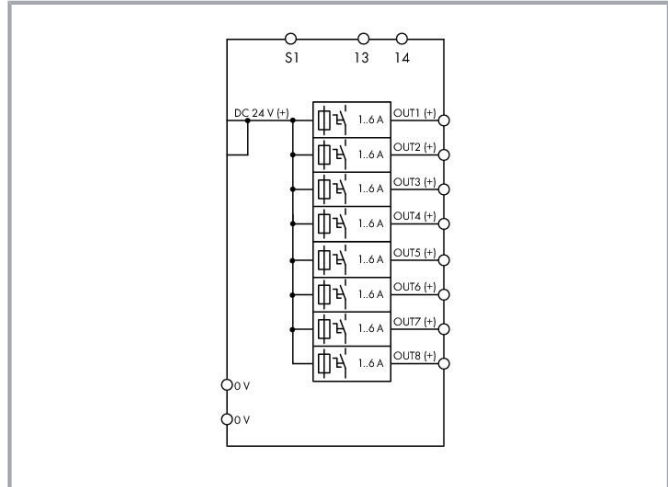


www.wago.com/787-1668/106-054



 Picture differs from the item.

Similar to illustration



Item description

Features:

- Space-saving ECB with eight channels
- Nominal current: 1 ... 6 A (adjustable for each channel via sealable selector switch); Factory preset: 1 A (when switched off)

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

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- Switch-on capacity > 50000 μ 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 13/14 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 | ≤ 120 mV (6 A) (Input (+)) |
| Nominal output current $I_{o\text{nom}}$ | 8 x 1 / 2 / 3 / 4 / 5 / 6 A (adjustable for each channel via selector switch) |
| Default setting | DC 1 A; switched off |
| 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 control input (S1) |
| Operation status indicator | Green LED (channel OK) Red LED (tripped channel) |
| Remote input | Reactivation of all tripped channels via 15 ... 30 VDC pulse for min. 500 ms |

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



Efficiency/power losses

| | |
|-------------------|---|
| Power loss P_l | $\leq 0.84 \text{ W}; \leq 8 \text{ W (8 x 6 A)}$ |
| Efficiency (typ.) | 99 % |

Circuit protection

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

Safety and protection

| | |
|---------------------------------------|-----------------------------|
| Protection class | III |
| Protection type | IP20; per EN 60529 |
| Reverse voltage protection | No |
| 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 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 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 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 inches |

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 |

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



Mechanical Data

| | |
|---------------|-------------|
| Mounting type | DIN-35 rail |
|---------------|-------------|

Material Data

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|-----------|----------|
| Fire load | 0.768 MJ |
|-----------|----------|

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

Environmental requirements

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|---------------------------------|----------------|
| Ambient temperature (operation) | -25 ... +70 °C |
|---------------------------------|----------------|

| | |
|-------------------------------|----------------|
| Ambient temperature (storage) | -25 ... +85 °C |
|-------------------------------|----------------|

| | |
|-------------------|--|
| Relative humidity | 5 ... 96 % (no condensation permissible) |
|-------------------|--|

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|----------|-------------|
| Derating | No derating |
|----------|-------------|

Standards and specifications

| | |
|--------------------|----|
| Conformity marking | CE |
|--------------------|----|

| | |
|--------------------------|-------------------------------------|
| Standards/specifications | EN 61000-6-2 EN 61000-6-3 DNV |
|--------------------------|-------------------------------------|

| | |
|------------------------------------|-------------------|
| Standards/specifications (pending) | UL 508 UL 2367 |
|------------------------------------|-------------------|

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

| | |
|----------|-------|
| PU (SPU) | 1 pcs |
|----------|-------|

| | |
|----------------|-----|
| Packaging type | box |
|----------------|-----|

| | |
|-------------------|----|
| Country of origin | DE |
|-------------------|----|

| | |
|------|---------------|
| GTIN | 4055143380423 |
|------|---------------|

| | |
|-----------------------|-------------|
| Customs tariff number | 85363010900 |
|-----------------------|-------------|


Environmental Product Compliance

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


Approvals / Certificates

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


General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|--|--------------------------|---|
|  | EAC Brjansker Zertifizierungsstelle | TP TC 020/2011 | EAC_Certificate_RU_C-DE.AM02.B.00115_19 |

Declarations of conformity and manufacturer's declarations






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

Approvals for marine applications

| Logo | Approval | Additional Approval Text | Certificate name |
|--|--|--------------------------|------------------|
|  | DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAA0000281 |

Optional accessories

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 |
|  | Item no.: 210-831 Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white | | 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 |
| 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 |
|  | 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 |

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



Item no.: 248-501

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

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



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

Ferrule

Ferrule



Item no.: 216-203

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

www.wago.com/216-203



Item no.: 216-206

Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; blue

www.wago.com/216-206



Item no.: 216-207

Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; gray

www.wago.com/216-207



Item no.: 216-202

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

www.wago.com/216-202



Item no.: 216-204

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

www.wago.com/216-204



Item no.: 216-205

Ferrule; Sleeve for 2.08 mm² / AWG 14; insulated; electro-tin plated; yellow

www.wago.com/216-205



Item no.: 216-208

Ferrule; Sleeve for 6 mm² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

www.wago.com/216-208



Item no.: 216-201

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

www.wago.com/216-201



Item no.: 216-223

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

www.wago.com/216-223



Item no.: 216-241

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

www.wago.com/216-241



Item no.: 216-242

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

www.wago.com/216-242



Item no.: 216-222

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

www.wago.com/216-222



Item no.: 216-221

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

www.wago.com/216-221



Item no.: 216-224

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

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Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; blackwww.wago.com/216-224

| | | |
|---|--|--|
|  | 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; red | 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; black | www.wago.com/216-244 |
|  | 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; red | www.wago.com/216-263 |
|  | 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; blue | www.wago.com/216-246 |
|  | 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; blue | www.wago.com/216-266 |
|  | 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; black | www.wago.com/216-264 |
|  | 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; black | 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; blue | 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; gray | www.wago.com/216-287 |
|  | Item no.: 216-262 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | www.wago.com/216-262 |
|  | 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; yellow | www.wago.com/216-288 |
|  | Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | www.wago.com/216-301 |
|  | Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | www.wago.com/216-321 |
|  | Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise | www.wago.com/216-322 |
|  | Item no.: 216-267 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | www.wago.com/216-267 |
|  | Item no.: 216-302 | www.wago.com/216-302 |

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

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Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise

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

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



Item no.: 210-769

SCREWDRIVER; green

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

Downloads

Documentation

Bid Text

| | | | |
|----------------------------------|------------|-----------------|----------|
| 787-1668/106-054 X81 - Datei | 2019 Jul 4 | xml 7.3 kB | Download |
| 787-1668/106-054 docx - Datei | 2019 Jul 3 | docx 21.0 kB | Download |

Instruction Leaflet

| | | | |
|------------------------------|--|-----------------|----------|
| Elektronische Schutzschalter | | pdf 224.1 kB | Download |
|------------------------------|--|-----------------|----------|

Additional Information

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

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



CAD/CAE-Data

CAE data

| | | |
|------------------------------------|---------------------|--------------------------|
| EPLAN Data Portal 787-1668/106-054 | URL | Download |
| WSCAD Universe 787-1668/106-054 | URL | Download |
| ZUKEN Portal 787-1668/106-054 | URL | Download |
| EPLAN Data Portal 787-1668/106-054 | URL | Download |
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CAD data

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| 2D/3D Models 787-1668/106-054 | URL | Download |
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Environmental Product Compliance

Compliance Search

| | | |
|--|---------------------|--------------------------|
| Environmental Product Compliance 787-1668/106-054 | URL | Download |
| Electronic circuit breaker; 8-channel; 24 VDC input voltage; adjustable 1 ... 6 A; Signal contact; Specialty configuration | | |

Installation Notes

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