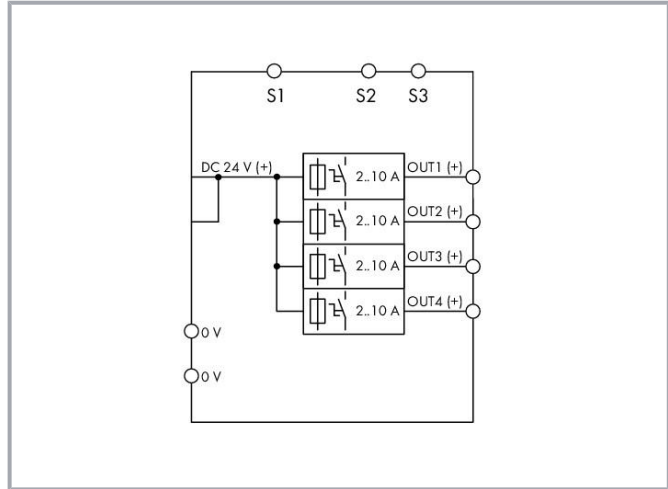


Data sheet | Item number: 787-1664

Electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 2 ...
10 A; communication capability; 10,00 mm²



www.wago.com/787-1664



Similar to illustration

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

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Item description

Features:

- Space-saving ECB with four channels
- Nominal current: 2 ... 10 A (adjustable for each channel via sealable selector switch)
- 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)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

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



Data

Technical data

| | |
|--|--|
| Nominal input voltage $U_{i\text{nom}}$ | DC 24 V |
| Input voltage range | DC 18 ... 30 V |
| Power loss P_I | ≤ 0.84 W (No load); ≤ 10 W (4 x 10 A) |
| Efficiency (typ.) | 99 % |
| Total number of channels (module) | 4 |
| Nominal output voltage $U_{o\text{nom}}$ | 4 x DC 24 V |
| Output voltage range | DC 18 ... 30 V (U_e - voltage drop) |
| Voltage drop | ≤ 200 mV (Input (+)) |
| Nominal output current $I_{o\text{nom}}$ | 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) |
| Default setting | DC 10 A; switched on |
| Trip time | 16 ms ... 100 s (Load-dependent) |
| Switch-on capacity | > 50000 μF per channel |
| Switch-on behavior | Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s) |
| Active current limitation | no |
| 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 DC 35 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) |
| Internal fuse | T 15 A per channel |
| Signaling | 4 x LED (green/red/orange) 1 x Remote control input (S1) 2 x Active signal output (S2; S3) |
| 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 Switching on/off any number of channels via pulse sequence |

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



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 inch |
| Connection type 2 | Input (-); Output; Signaling |
| Connection technology 2 | CAGE CLAMP® |
| WAGO Connector 2 | WAGO 2606 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 |

Physical data

| | |
|-----------------------------------|-----------------------|
| Width | 45 mm / 1.772 inch |
| Height | 90 mm / 3.543 inch |
| Depth from upper edge of DIN-rail | 115.5 mm / 4.547 inch |

Mechanical data

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

Material data

| | |
|--------|-------|
| Weight | 170 g |
|--------|-------|

Environmental requirements

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

Standards and specifications

| | |
|--------------------------|--------------------------|
| Conformity marking | CE |
| Standards/Specifications | EN 60950 EN 61000-6-2 |

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EN 61000-6-3
 UL 508
 UL 2367
 DNV GL

Commercial data



| | |
|-----------------------|---------------------------|
| Product Group | 6 (Interface Electronics) |
| PU (SPU) | 1 Stück |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4050821502609 |
| Customs tariff number | 85363010900 |

Approvals / Certificates

Ship Approvals



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

UL-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---|--------------------------|------------------|
|  | UL Underwriters Laboratories Inc. | UL 508 | E255817 |
|  | UL Underwriters Laboratories Inc. | UL 2367 | E363438 |

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 |
|  | Item no.: 210-769 SCREWDRIVER; green | www.wago.com/210-769 |

















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**Item no.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

www.wago.com/210-720**Ferrule**

Ferrule

| | | |
|---|--|--|
|  | Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red | www.wago.com/216-203 |
|  | Item no.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; blue | www.wago.com/216-206 |
|  | Item no.: 216-207 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated; gray | www.wago.com/216-207 |
|  | Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray | www.wago.com/216-202 |
|  | Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black | www.wago.com/216-204 |
|  | Item no.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated; yellow | www.wago.com/216-205 |
|  | 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; yellow | www.wago.com/216-208 |
|  | Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white | www.wago.com/216-201 |
|  | Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red | www.wago.com/216-223 |
|  | Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 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 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | www.wago.com/216-242 |
|  | Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray | www.wago.com/216-222 |
|  | Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white | www.wago.com/216-221 |
|  | Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black | www.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 | www.wago.com/216-244 |

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

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crimped; acc. to DIN 46228, Part 4/09.90; black

| | | |
|---|--|--|
|  | 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; green | 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 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green | www.wago.com/216-302 |

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

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

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

Downloads

Documentation

Manual

| | | | |
|---|---------|---------------|----------|
| Electronic Circuit Breaker 24 VDC / 4 x 2...10 A | V 1.1.0 | pdf 1.3 MB | Download |
|---|---------|---------------|----------|

Bid Text

| | | | |
|--------------------------|-------------|-----------------|----------|
| 787-1664 X81 - Datei | Jul 3, 2019 | xml 7.1 kB | Download |
| 787-1664 docx - Datei | Jul 2, 2019 | docx 20.9 kB | Download |

Instruction Leaflet

| | | |
|---|-----------------|----------|
| Elektronische Schutzschalter Elektronische Absicherung, DC 24 V / 4x10 A | pdf 991.9 kB | Download |
|---|-----------------|----------|

Additional Information

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Disposal; Electrical and electronic equipment, Packaging

V 1.0.0

pdf
265.8 kB

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Libraries

CoDeSys 3.x Library

| | | | |
|--|----------------------------|----------------|----------|
| Libraries for CODESYS V3.x | 2021-06-15 Jun 15, 2021 | ZIP 60.8 MB | Download |
| WAGO libraries based on CODESYS V3.x control systems | | | |
| <ul style="list-style-type: none"> ■ WagoAppASi ■ WagoAppCanLayer2 ■ WagoAppCom ■ WagoAppDALI ■ WagoAppDCDriveController ■ WagoAppDigitalImpulseInterface ■ WagoAppEnOcean ■ WagoAppFuse ■ WagoAppHART ■ WagoAppIOLink ■ WagoAppM_Bus ■ WagoAppPowerMeasurement ■ WagoAppRTC ■ WagoAppSolenoid ■ WagoAppStepper ■ WagoAppVibrationMonitoring | | | |

"CODESYS Control Win V3" is used as a test instance in version 3.5.16.40.

Library

| | | | |
|---|-----------------------|-----------------|----------|
| Anbindung Stromversorgungen Serie 787 | 1.0.0 Aug 28, 2017 | zip 348.4 kB | 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. | | | |
| Anbindung Stromversorgungen Serie 787 | 1.3.0 May 14, 2014 | zip 562.7 kB | 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. | | | |

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CAD/CAE-Data

CAD data

| | | |
|-----------------------|---------------------|--------------------------|
| 2D/3D Models 787-1664 | URL | Download |
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CAE data

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| EPLAN Data Portal 787-1664 | URL | Download |
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| WSCAD Universe 787-1664 | URL | Download |
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| ZUKEN Portal 787-1664 | URL | Download |
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Environmental Product Compliance

Compliance Search

| | | |
|---|---------------------|--------------------------|
| Environmental Product Compliance 787-1664 | URL | Download |
|---|---------------------|--------------------------|

Electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 2 ... 10 A; communication capability; 10,00 mm²

Installation Notes

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