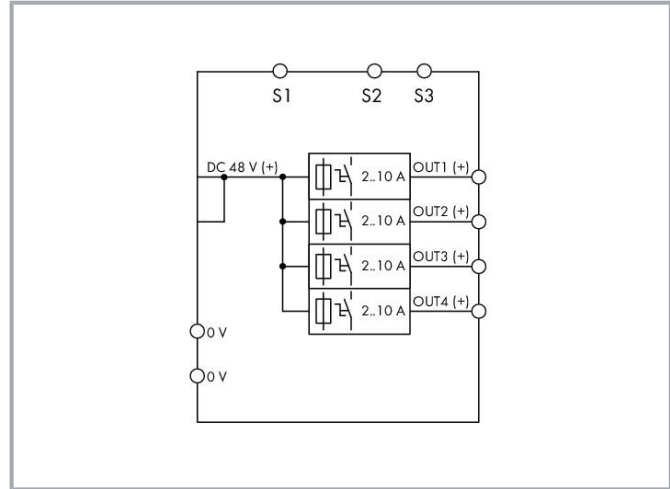


Data sheet | Item number: 787-1664/000-200

Electronic circuit breaker; 4-channel; 48 VDC input voltage; adjustable 2 ...
10 A; communication capability

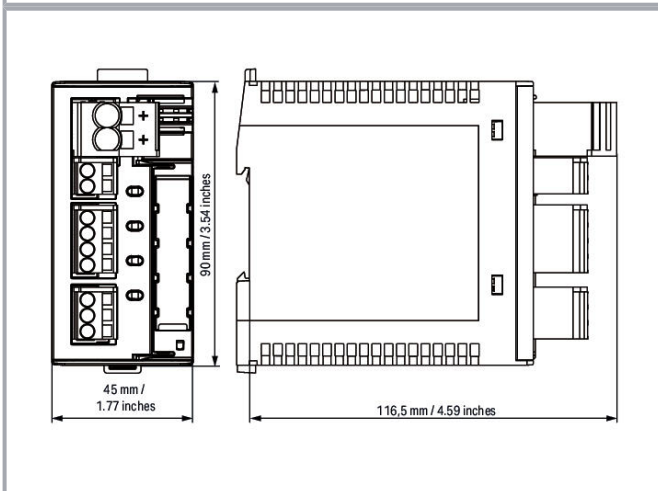


www.wago.com/787-1664/000-200



i Picture differs from the item.

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 > 23000 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

Data

Technical data

Input

Nominal input voltage $U_{i\text{nom}}$	DC 48 V
Input voltage range	DC 32 ... 58 V

Output

Total number of channels (module)	4
Nominal output voltage $U_{o\text{nom}}$	4 x DC 48 V
Output voltage range	DC 32 ... 58 V (U_e - voltage drop)
Voltage drop	≤ 175 mV (10 A) (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	> 23000 μ F per channel at 48 VDC, 2.5 mm ² cable cross section and 2.5 m cable length
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	no

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

Signaling and Communication

Signaling	4 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 ... 58 VDC pulse for min. 500 ms Switching on/off any number of channels via pulse sequence

Efficiency/power losses

Power loss P_l	$\leq 0.84 \text{ W}; \leq 8 \text{ W (4 x 10 A)}$
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 (68 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®

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



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

Mechanical Data

Mounting type	DIN-35 rail
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Material Data

Fire load	0.651 MJ
Weight	170 g

Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient 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 61000-6-2 EN 61000-6-3 UL 508 UL 2367 DNV

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

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Packaging type	box
Country of origin	DE
GTIN	4055143318884
Customs tariff number	85363010900

Environmental Product Compliance


RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates


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

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

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



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

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




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

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






Marking accessories

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

Marking strip

	<p>Item no.: 2009-110 Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white</p>	www.wago.com/2009-110
	<p>Item no.: 210-831 Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white</p>	www.wago.com/210-831
	<p>Item no.: 210-832 Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white</p>	www.wago.com/210-832

Marker

	<p>Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>	www.wago.com/2009-145
	<p>Item no.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>	www.wago.com/2009-115
	<p>Item no.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	www.wago.com/248-501
	<p>Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white</p>	www.wago.com/793-501
	<p>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</p>	www.wago.com/793-5501

Downloads

Documentation

Bid Text

787-1664/000-200 X81 - Datei	2019 Jul 3	xml 7.4 kB	Download
787-1664/000-200 docx - Datei	2019 Jul 2	docx 21.5 kB	Download

Instruction Leaflet

Elektronische Schutzschalter Elektronische Absicherung, DC 48 V / 4x10 A	pdf 605.5 kB	Download
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Additional Information

Disposal and Recycling

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

Libraries

CoDeSys 3.x Library

Libraries for CODESYS V3.x	2023-04-26	ZIP	Download
WAGO libraries based on CODESYS V3.x control systems	2023 Apr 26	89.6 MB	

- WagoAppASi
- WagoAppCanLayer2
- WagoAppCom
- WagoAppDALI
- WagoAppDCDriveController
- WagoAppDigitalImpulseInterface
- WagoAppEnOcean
- WagoAppFuse
- WagoAppHART
- WagoAppIOLink
- WagoAppM_Bus
- WagoAppMP_Bus
- WagoAppPowerMeasurement
- WagoAppRTC
- WagoAppSMI
- WagoAppSolenoid
- WagoAppStepper
- WagoAppVibrationMonitoring

CODESYS Control Win V3 x64 is used as a test instance in version 3.5.18.20.

Library

Anbindung Stromversorgungen Serie 787	1.0.0	zip	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.	2017 Aug 28	348.4 kB	

Anbindung Stromversorgungen Serie 787	1.3.0	zip	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.	2014 May 14	562.7 kB	

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CAD/CAE-Data

CAE data

EPLAN Data Portal 787-1664/000-200	URL	Download
WSCAD Universe 787-1664/000-200	URL	Download
ZUKEN Portal 787-1664/000-200	URL	Download
EPLAN Data Portal 787-1664/000-200	URL	Download
WSCAD Universe 787-1664/000-200	URL	Download

CAD data

2D/3D Models 787-1664/000-200	URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1664/000-200 Electronic circuit breaker; 4-channel; 48 VDC input voltage; adjustable 2 ... 10 A; communication capability	URL	Download
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Installation Notes

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