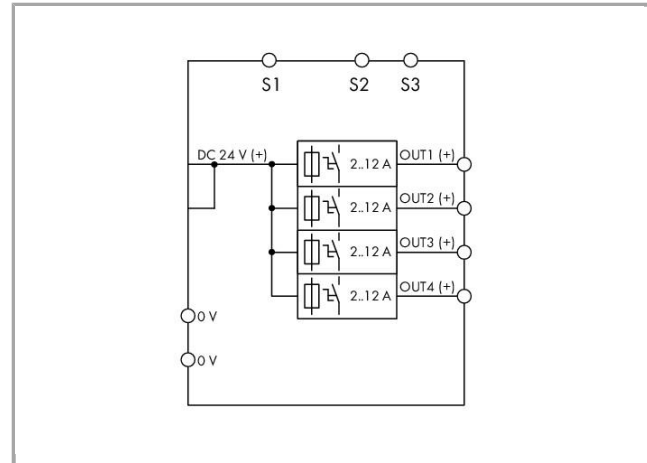


Data sheet | Item number: 787-1664/212-1000

electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 2 ...
12 A; active current limitation; communication capability

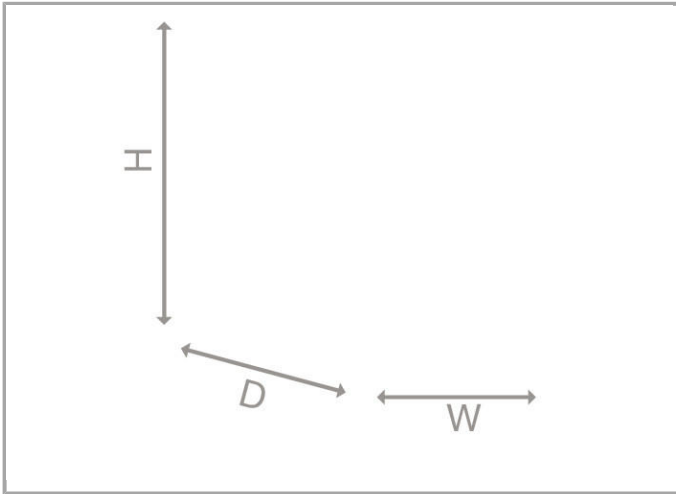


787-1664/212-1000



Similar to picture

[BOMcheck.net](https://www.bomcheck.net)



Item description

Features:

- Space-saving ECB with four channels
- 2–12 A nominal current, adjustable for each channel via sealable selector switch
- Active current limitation
- 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

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)	4
Nominal output voltage $U_{o \text{ nom}}$	4 x DC 24 V
Output voltage range	DC 18 ... 30 V (U_i – voltage drop)
Voltage drop	\leq 240 mV (Input (+))
Nominal output current $I_{o \text{ nom}}$	4 x 2 / 4 / 6 / 8 / 10 / 12 A (adjustable for each channel via selector switch)



Factory preset	DC 12 A; switched on
Trip time	16 ms ... 5 s (Load-dependent)
Switch-on capacity	> 65000 μ F per channel
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active Current Limitation	yes
Current limitation	$1.7 \times I_{o\ nom}$ typ.

Signaling and communication

Signaling	4 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	≤ 0.77 W (no load); ≤ 12.3 W (4 x 12 A)
Efficiency	99 %

Fuse protection:

Internal fuse	T 15 A per channel
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Safety and protection:

Insulation voltage (connectors-housing)	DC 0.5 kV
Protection class	III
Protection class	IP20 (per EN 60529)
Reverse voltage protection	No
Feedback voltage	\leq DC 35 V
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
Strip length (2)	8 ... 9 mm / 0.31 ... 0.35 inch

Geometrical Data

Width	45 mm / 1.772 inch
Height	90 mm / 3.543 inch
Length from upper-edge of DIN-35 rail	115.5 mm / 4.547 inch

Mechanical data

Type of mounting	DIN-35 rail (EN 60715)
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Material Data

Weight	170 g
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Environmental Requirements

Surrounding air (operating) temperature	-25 ... 70 °C
Surrounding air (storage) temperature	-25 ... 85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	No derating
Pollution degree	2

Standards and specifications


Conformity marking	1
Standards/specifications	UL 508; UL 2367; GL*; EN 60950; EN 61000-6-2; EN 61000-6-3 (*pending)

Commercial data



Country of origin	DE
GTIN	4055143319973
Customs Tariff No.	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 UL International Germany GmbH	UL 60950-1	E363438
	UL Underwriters Laboratories Inc.	UL 508	E255817

















Compatible products
















ferrule







	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated	216-201
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated	216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated	216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated	216-204
	Item no.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated	216-205
	Item no.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated	216-206
	Item no.: 216-207 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated	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	216-208
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated	216-221

	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated	216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated	216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated	216-224
	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	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	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	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	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	216-246
	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	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	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	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	216-266
	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	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	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	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	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	216-288
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated	216-301

	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated	216-302
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated	216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated	216-322
Marking accessories		
	Item no.: 2009-110 Marking strips; on reel; not stretchable; plain; snap-on type	2009-110
	Item no.: 2009-115 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115
	Item no.: 2009-115/000-002 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	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	2009-115 /000-006
	Item no.: 2009-115/000-007 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	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	2009-115 /000-012
	Item no.: 2009-115/000-017 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-017
	Item no.: 2009-115/000-023 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	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	2009-115 /000-024
	Item no.: 2009-135 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-135
	Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145
	Item no.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-002
	Item no.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-145 /000-005

	Item no.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-006	2009-145
	Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-007	2009-145
	Item no.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-012	2009-145
	Item no.: 2009-145/000-023 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-023	2009-145
	Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-024	2009-145
	Item no.: 210-831 Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive		210-831
	Item no.: 210-832 Marking strips; on reel; 3 mm wide; plain; Self-adhesive		210-832
	Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card		248-501
	Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-002	248-501
	Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-005	248-501
	Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-006	248-501
	Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-007	248-501
	Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-012	248-501
	Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-017	248-501
	Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-023	248-501
	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type		793-501

	Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-002
	Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-005
	Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-006
	Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-007
	Item no.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-012
	Item no.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-017
	Item no.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type	793-501 /000-023
	Item no.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type	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	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	793-5501 /000-002
	Item no.: 793-5501/000-005 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-005
	Item no.: 793-5501/000-006 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-006
	Item no.: 793-5501/000-007 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-007
	Item no.: 793-5501/000-012 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-012
	Item no.: 793-5501/000-014 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-014

	Item no.: 793-5501/000-017 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-017
	Item no.: 793-5501/000-023 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-023
	Item no.: 793-5501/000-024 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	793-5501 /000-024
tools		
	Item no.: 210-720 Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm	210-720
	Item no.: 210-721 Operating tool with partially insulated shaft; Type 3, blade (5.5 x 0.8) mm	210-721
	Item no.: 210-769 SCREWDRIVER	210-769

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787-1664/212-1000 Stromversorgung EPSITRON	Jan 14, 2016	doc 37.4 kB	Download
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Instruction Leaflet

EPSITRON Electronic Circuit Breakers Electronic Circuit Breaker, 24 VDC / 48 A		pdf 688.0 kB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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Libraries**CoDeSys 3.x Library**

Libraries for CODESYS V3.x WAGO libraries based on CODESYS V3.x control systems	Feb 26, 2019	ZIP 17.4 MB	Download
<ul style="list-style-type: none"> ■ - WagoAppASi ■ - WagoAppCanLayer2 ■ - WagoAppCom ■ - WagoAppDALI 			



- - WagoAppDCDriveController
- - WagoAppDigitalImpulseInterface
- - WagoAppFuse
- - WagoAppIOLink
- - WagoAppPowerMeasurement
- - WagoAppSolenoid
- - WagoAppStepper
- - WagoAppVibrationMonitoring

"CODESYS Control Win V3" is used as a test instance in version 3.5.11.10.

Library

Connection of 787 Series power supplies	V1.0.0	zip	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.	Aug 28, 2017	348.4 kB	

Connection of 787 Series power supplies	V1.3.0	zip	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.	May 14, 2014	562.7 kB	

Subject to changes.
