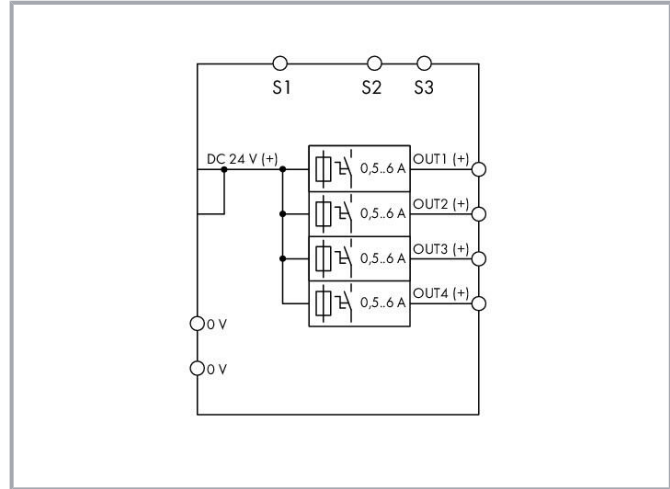


Data sheet | Item number: 787-1664/006-1000

Electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 0.5 ... 6 A; active current limitation; communication capability

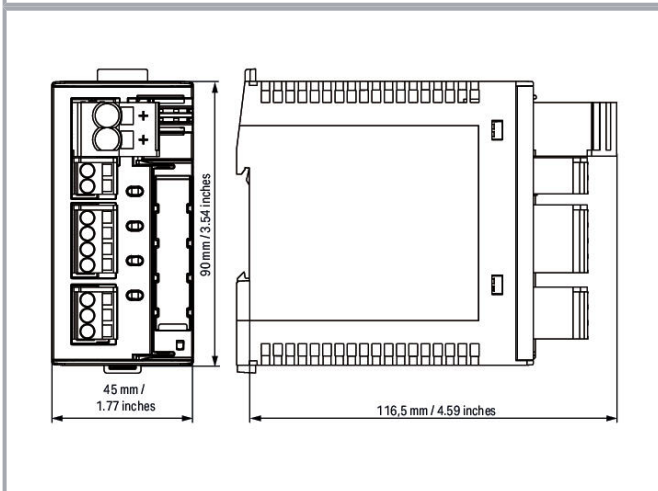


www.wago.com/787-1664/006-1000



i Picture differs from the item.

Similar to illustration



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Item description

Features:

- Space-saving ECB with four channels
- Nominal current: 0.5 ... 6 A (adjustable for each channel via sealable selector switch)
- Active current limitation
- Switch-on capacity > 65000 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_e – voltage drop)
Voltage drop	\leq 145 mV (6 A) (Input (+))
Nominal output current $I_{o\text{nom}}$	4 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch)
Default setting	DC 6 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	$1.7 \times I_{o\text{nom}}$ (typ.)

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

Efficiency/power losses

Power loss P_l	≤ 0.77 W; ≤ 4.3 W (4 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

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



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

Weight	170 g
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Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-25 ... +85 °C
Relative humidity	5 ... 96 % (no condensation permissible)
Derating	No derating

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
Packaging type	box
Country of origin	DE

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





GTIN	4050821848318
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
	UL Underwriters Laboratories Inc.	UL 508	E255817

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

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


	<p>Item no.: 210-721 Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured</p>	www.wago.com/210-721
	<p>Item no.: 210-769 SCREWDRIVER; green</p>	www.wago.com/210-769
	<p>Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured</p>	www.wago.com/210-720
Ferrule		
Ferrule		
	<p>Item no.: 216-203 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red</p>	www.wago.com/216-203
	<p>Item no.: 216-206 Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; blue</p>	www.wago.com/216-206
	<p>Item no.: 216-207 Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; gray</p>	www.wago.com/216-207
	<p>Item no.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray</p>	www.wago.com/216-202
	<p>Item no.: 216-204 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black</p>	www.wago.com/216-204
	<p>Item no.: 216-205 Ferrule; Sleeve for 2.08 mm² / AWG 14; insulated; electro-tin plated; yellow</p>	www.wago.com/216-205
	<p>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</p>	www.wago.com/216-208
	<p>Item no.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white</p>	www.wago.com/216-201
	<p>Item no.: 216-223 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red</p>	www.wago.com/216-223
	<p>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</p>	www.wago.com/216-241
	<p>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</p>	www.wago.com/216-242
	<p>Item no.: 216-222 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray</p>	www.wago.com/216-222
	<p>Item no.: 216-221</p>	

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	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 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;	www.wago.com/216-267


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acc. to DIN 46228, Part 4/09.90; gray


	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	www.wago.com/216-302
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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
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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
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	Item no.: 210-832 Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white	www.wago.com/210-832
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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
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	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
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	Item no.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/248-501
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	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/793-501
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	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
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Downloads

Documentation

Manual

Product Manual Electronic Circuit Breaker 24 VDC / 4 x 2...10 A	V 1.1.0	pdf 1.3 MB	Download
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Bid Text

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Instruction Leaflet

Elektronische Schutzschalter Elektronische Absicherung, DC 24 V / 4x6 A		pdf 688.0 kB	Download
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Additional Information

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

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CAD/CAE-Data

CAE data

EPLAN Data Portal 787-1664/006-1000		URL	Download
WSCAD Universe 787-1664/006-1000		URL	Download
ZUKEN Portal 787-1664/006-1000		URL	Download
WSCAD Universe 787-1664/006-1000		URL	Download
EPLAN Data Portal 787-1664/006-1000		URL	Download

CAD data

2D/3D Models 787-1664/006-1000		URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1664/006-1000 Electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 0.5 ... 6 A; active current limitation; communication capability		URL	Download
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Installation Notes

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