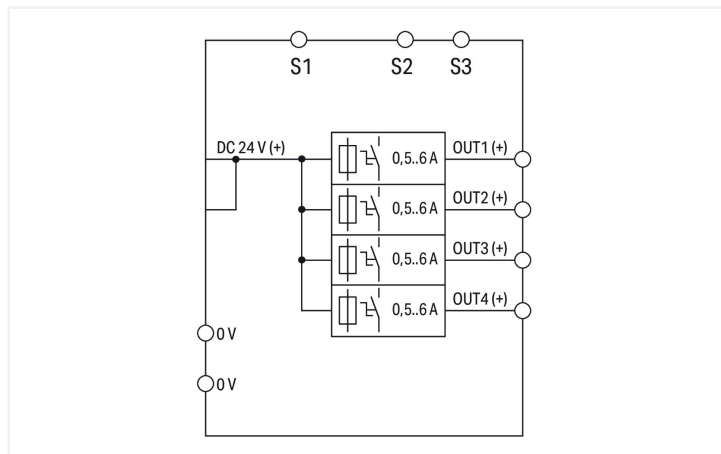


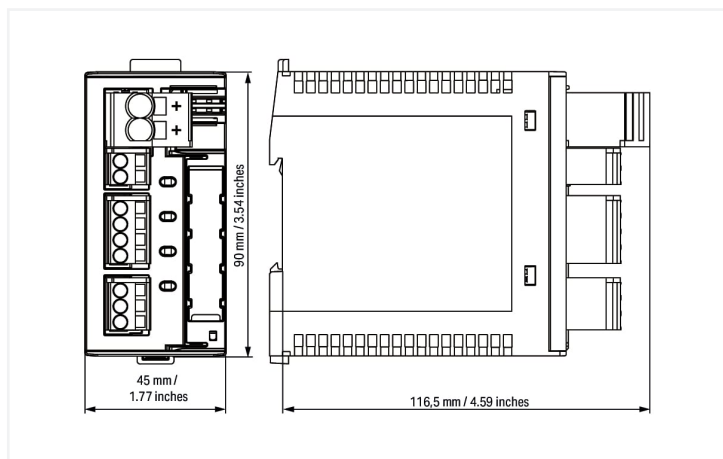
# Data Sheet | Item Number: 787-1664/006-1000

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

<https://www.wago.com/787-1664/006-1000>



Similar to illustration



## 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 µF 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

## Technical data

### Input

Nominal input voltage $U_{i, nom}$	DC 24 V
Input voltage range	DC 18 ... 30 V

### Output

Total number of channels (module)	4
Nominal output voltage $U_{o, nom}$	4 x DC 24 V
Output voltage range	DC 18 ... 30 V ( $U_e$ - voltage drop)
Voltage drop	≤ 145 mV (6 A) (Input (+))
Nominal output current $I_{o, nom}$	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	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)

### Output

Active current limitation	Yes
Current limitation	$1.7 \times I_{o\text{ nom}}$ (typ.)

### Signaling and communication

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	Switching on/off any number of channels via pulse sequence Reactivation of all tripped channels via 15 ... 30 VDC pulse for min. 500 ms

### Efficiency/power losses

Power loss $P_i$	$\leq 0.77 \text{ W}; \leq 4.3 \text{ W (4 x 6 A)}$
Efficiency (typ.)	99 %

### Circuit protection

Internal fuse	T 15 A per channel
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### Safety and protection

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	$\leq \text{DC } 35 \text{ V}$
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)

### Connection data

Connection type 1	Input (+)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 831 Series
Solid conductor	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor	0.5 ... 10 mm <sup>2</sup> / 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 <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor 2	0.08 ... 2.5 mm <sup>2</sup> / 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 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	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 9.0	EC001440
ETIM 8.0	EC001440
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
Customs tariff number	85363010900

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc.	UL 508	E255817

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV GL SE	-	TAA0000281

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-1664/006-1000	↓
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Documentation

Manual

Product Manual Electronic Circuit Breaker	V 1.1.0	pdf 1278.57 KB	↓
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Bid Text

787-1664/006-1000	03.07.2019	xml 7.14 KB	↓
787-1664/006-1000	02.07.2019	docx 20.46 KB	↓

Instruction Leaflet

Elektronische Schutzschalter	pdf 671.88 KB	↓
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CAD/CAE-Data

CAD data

2D/3D Models 787-1664/006-1000	↓
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CAE data

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

Libraries

Library

Anbindung Stromversorgungen Serie 787	1.0.0 28.08.2017	zip 340.24 KB	↓
Anbindung Stromversorgungen Serie 787	1.3.0 14.05.2014	zip 549.48 KB	↓

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Marking

##### 1.1.1.1 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

**Item No.: 248-501**

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

**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

**Item No.: 793-501**

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



**Item No.: 2009-115**

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

##### 1.1.1.2 Marking strip



**Item No.: 2009-110**

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

**Item No.: 210-831**

Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white

**Item No.: 210-832**

Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white

### 1.1.2 Tool

#### 1.1.2.1 Operating tool



**Item No.: 210-720**

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

**Item No.: 210-721**

Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

**Item No.: 210-769**

SCREWDRIVER; green