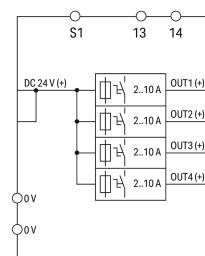


Data Sheet | Item Number: 787-1664/000-054
Electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 2 ... 10 A; Signal contact; Specialty configuration

<https://www.wago.com/787-1664/000-054>



The technical drawing consists of two parts:

- Front View (Left):** A detailed cross-section of the enclosure. It shows internal components including a power supply unit at the top, a main circuit board with various chips and connectors in the center, and another component at the bottom. The overall height is labeled as 60 mm / 2.34 inches.
- Side View (Right):** A perspective view of the enclosure from the side. It shows the depth of the device. The width is labeled as 45 mm / 1.77 inches.

Below the side view, there is a dimension line indicating the length of the enclosure: 116.5 mm / 4.59 inches.

- Space-saving ECB with four channels
- Nominal current: 2 ... 10 A (adjustable for each channel via sealable selector switch); Factory preset: 2 A (when switched off)
- Switch-on capacity > 50000 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 and switched off message (common group signal) via isolated contact, ports 13 / 14
- Remote input resets all tripped channels

Input	
Nominal input voltage $U_{i\ nom}$	24 VDC
Input voltage range	18 ... 30 VDC

Output	
Total number of channels (module)	4
Nominal output voltage $U_{o\ nom}$	4 x 24 VDC
Output voltage range	18 ... 30 VDC (U_e - voltage drop)
Voltage drop	≤ 200 mV (10 A) (Input +)
Nominal output current $I_{o\ nom}$	4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	DC 2 A; switched off
Trip time	16 ms ... 100 s (load-dependent)



Output	
Switch-on capacity	
Switch-on behavior	Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)
Active current limitation	No
Current limitation	No

Signaling and Communication	
Signaling	4 x LED (green/red/orange) 1 x Remote control input (S1) 1 x Group signal contact (13; 14)
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

Efficiency/Power Losses	
Power loss P _I	≤ 0.84 W; ≤ 10 W (4 x 10 A)
Efficiency (typ.)	99 %

Circuit Protection	
Internal fuse	T 15 A per channel

Safety and protection	
Isolation voltage (connectors – housing)	0.5 kVDC
Protection class	III
Protection type	IP20; per EN 60529
Reverse voltage protection	No
Resistance to reverse feed	≤ 35 VDC
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 1		Connection 2	
Connection type	Input (+)	Connection type	Input (-); output; signaling
Connection technology	Push-in CAGE CLAMP®	Connection technology	CAGE CLAMP®
WAGO connector	WAGO 831 Series	WAGO connector	WAGO 721 Series
Solid conductor	0.5 ... 10 mm² / 20 ... 8 AWG	Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Fine-stranded conductor	0.5 ... 10 mm² / 20 ... 8 AWG	Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Strip length	13 ... 15 mm / 0.51 ... 0.59 inches	Strip length	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

Material data		
Fire load		0.657 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		
PU (SPU)		1 pcs
Packaging type		Box
Country of origin		PL
Customs tariff number		85363030888

Product Classification		
UNSPSC		39121601
eCl@ss 10.0		27-37-18-02
eCl@ss 9.0		27-37-18-02
ETIM 9.0		EC001440
ETIM 10.0		EC001440
ECCN		NO US CLASSIFICATION

Environmental Product Compliance		
RoHS Compliance Status		Compliant, No Exemption

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
		
Approval	Standard	Certificate Name
EAC	TP TC 020/2011	EAC CoC 03081
GZO Almaty Standart		
Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity 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 787-1664/000-054

Documentation

Bid Text
787-1664/000-054
03.07.2019
xml 6.88 KB
↓
787-1664/000-054
02.07.2019
docx 20.58 KB
↓

Instruction Leaflet
Elektronische Schutzschalter
pdf 590.18 KB
↓

Application Notes

Application Note e!COCKPIT
e!COCKPIT Application Note WagoAppFuse (a2019001)
2021-11-08 06.12.2021
pdf 548.17 KB
↓

CAD/CAE-Data

CAD data
2D/3D Models 787-1664/000-054
↓

CAE data
EPLAN Data Portal 787-1664/000-054
↓
WSCAD Universe 787-1664/000-054
↓
ZUKEN Portal 787-1664/000-054
↓

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