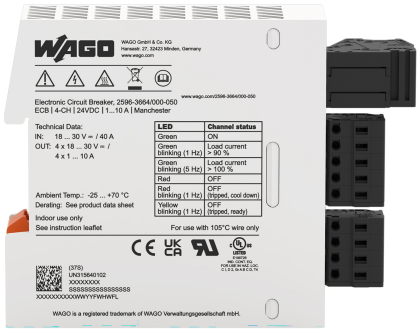
Data Sheet | Item Number: 2596-3664/000-050

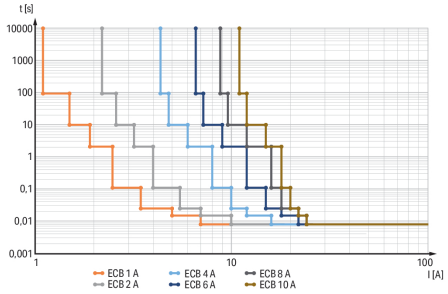
Electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 1 … 10 A; Manchester

https://www.wago.com/2596-3664/000-050

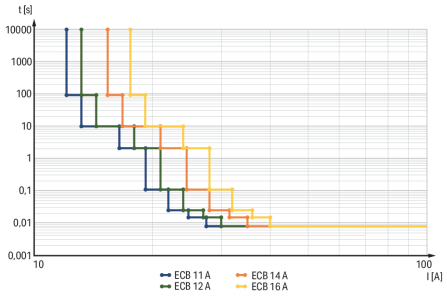


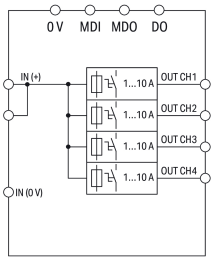






Tripping characteristic “Normal mode”





Tripping characteristic “Parallel mode”

Features:

- Space-saving ECB with four channels
- Nominal current: 1 … 10 A (adjustable for each channel via rotary selector switch, software, or communication interface)
- Switch-on capacity > 50,000 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
- Configuration port for use with intuitive interface configuration software

Technical data

Input

Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	18 … 30 VDC
Input current I_i	≤ 40 A

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	≤ 250 mV (Input (+))
Nominal output current $I_{o\,nom}$	4 x 1 / 2 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch)
Default Setting	C (Communication); switched off
Trip time	7 ms … 90 s (load-dependent)
Switch-on capacity	
Switch-on behavior	Sequential switching per channel (load-dependent, min. 50 ms / max. 250 ms)
Active current limitation	No
Switch-on threshold	DC 20.3 V

Signaling and Communication

Signaling	4 x Status LED (green/red/orange) 1 x COM LED (red/green) 1 x Remote control input MDI (pulse sequence) 1 x Active signal output MDO (pulse sequence) 1 x Active signal output DO (group message)
Operation status indicator	Green LED (channel OK) Red LED (channel switched off)
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_l	≤ 0.84 W; ≤ 10 W (4 x 10 A)
Efficiency (typ.)	98 %

Circuit Protection

Internal fuse	T 12 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	Permissible
Series operation	No

Continued on next page

Connection Data

Connection 1

Connection type	Input (+)
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 831 Series
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Strip length	13 … 15 mm / 0.51 … 0.59 inches

Connection 2

Connection type	Input (-); output; signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 721 Series
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data

Width	32 mm / 1.26 inches
Height	95 mm / 3.74 inches
Depth from upper-edge of DIN-rail	117.5 mm / 4.626 inches

Mechanical data

Mounting type	DIN-35 rail

Material data

Color	light gray
Insulation material (main housing)	Polycarbonate (PC)
Fire load	2.242 MJ
Weight	157.7 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; UKCA
Standards/specifications	EN 61000-6-2 EN 61000-6-3 UL 61010-2-201 UL 2367

Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	IN
Customs tariff number	85362010900

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Product Classification

UNSPSC	39121601
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

Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for hazardous areas

Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2596-3664/000-050

Continued on next page

Documentation

Manual

Product manual Electronic WAGO Circuit Breakers	4809317131 | 2 | en-US | 2026-03-31 08:57 02.04.2026	pdf 1992.53 KB	

Instruction Leaflet

Elektronischer Schutzschalter; 4-kanalig;	V 2.0.0 30.03.2026	pdf 1075.82 KB	

Application Notes

Application note SIEMENS

Electronic Circuit Breakers 2596 Series (aXXXX-XX)	1.0.0.0 24.08.2026	zip 1739.87 KB	

CAD/CAE-Data

CAD data

2D/3D Models
2596-3664/000-050

Libraries

Library

WAGO-CoDeSys-V3.5 - V1.0.1.0	V3.5 - V1.0.1.0 11.05.2026	zip 7280.94 KB	

1 Compatible Products

1.1 Optional Accessories

1.1.1 Communication

1.1.1.1 Communication cable



Item No.: 750-923
Configuration cable; USB connector; Length: 2.5 m



Item No.: 750-923/000-001
Configuration cable; USB connector; Length: 5 m

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