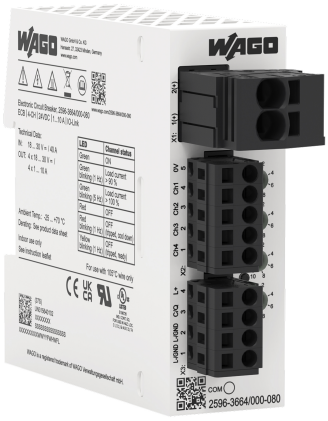
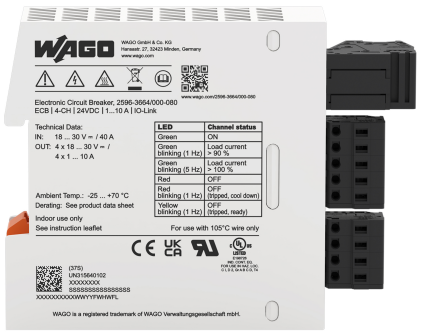
Data Sheet | Item Number: 2596-3664/000-080

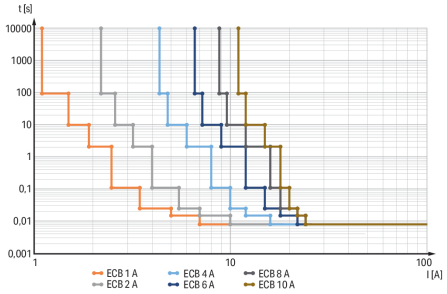
Electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 1 … 10 A; IO-Link

https://www.wago.com/2596-3664/000-080

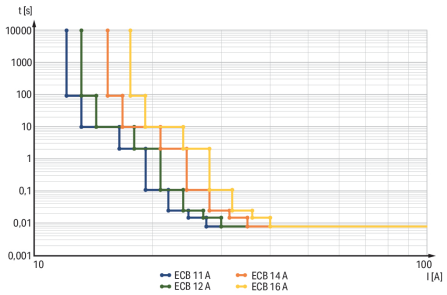


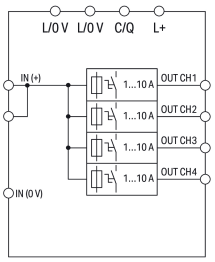






Tripping characteristic “Normal mode”





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

- Status, configuration and control for each specific channel via IO-Link
- Configuration port for use with intuitive IF-Config 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 IO-Link interface
Operation status indicator	Green LED (channel OK) Red LED (channel switched off)
Communications	IO-Link
Remote input	Switching on/off any number of channels via IO-Link interface
IO-Link version	1.1
Bit transfer	38.4 kbit/s (COM2)

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

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

Continued on next page

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

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

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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 2596-3664/000-080		

Documentation

Manual

Product manual Electronic WAGO Circuit Breakers	4810035467 | 3 | en-US | 2026-03-31 10:57 02.04.2026	pdf 2081.38 KB	

Instruction Leaflet

Elektronischer Schutzschalter; 4-kanalig;	V 2.0.0 30.03.2026	pdf 1083.05 KB	

Application Notes

Application note SIEMENS

Electronic Circuit Breakers 2596 Series (aXXXX-XX)	1.0.0.0 24.08.2026	zip 32192.11 KB	

Continued on next page

CAD/CAE-Data

CAD data

2D/3D Models
2596-3664/000-080

Libraries

Device Description File

IODD 2596-3664/000-080	V1.0.2 19.11.2025	zip 57.88 KB	

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