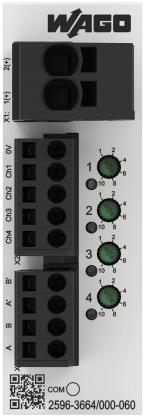
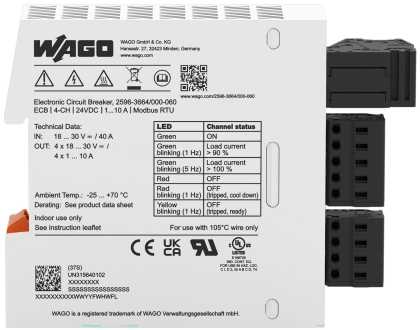
# Data Sheet | Item Number: 2596-3664/000-060

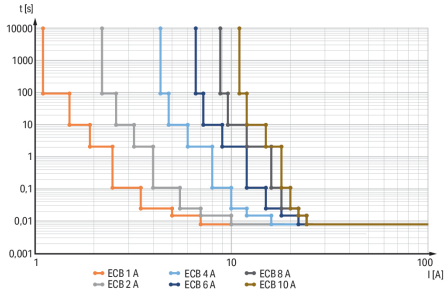
Electronic circuit breaker; 4-channel; 24 VDC input voltage; adjustable 1 … 10 A; Modbus RTU

https://www.wago.com/2596-3664/000-060

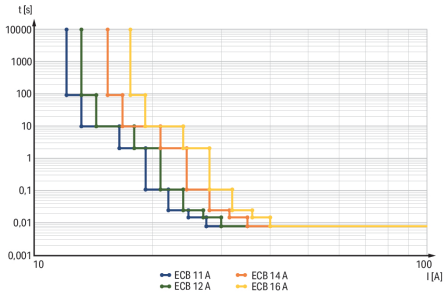


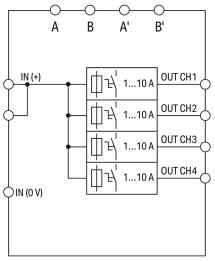







Tripping characteristic “Normal mode”




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 RS-485 Modbus RTU
- 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)<br>1 x COM LED (red/green)<br>2 x RS-485 interface (A, B)<br>2 x RS-485 interface (A', B' for daisy-chain out) |
| Operation status indicator | Green LED (channel OK)<br>Red LED (tripped channel) |
| Communications | Modbus RTU |
| Remote input | Switching any number of channels on/off via Modbus RTU |
| Number of devices (max.) | 32 |
| Cable length (max.) | 1200 m |
| Signal type | RS-485 |
| Transmission rate | 4.8 … 230.4 kBd (19200 baud (default setting)) |

### 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 |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## 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<br>EN 61000-6-3<br>UL 61010-2-201<br>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<br>Underwriters Laboratories Inc. (ORDINARY LOCATIONS) | UL 61010-2-201 | E175199 |
| UL<br>Underwriters Laboratories Inc. (ORDINARY LOCATIONS) | - | E175199 |

### Declarations of conformity and manufacturer's declarations

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

### Approvals for hazardous areas

| Approval | Standard | Certificate Name |
|---|---|---|
| UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 2596-3664/000-060


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## Documentation

### Manual

| | | | |
|---|---|---|---|
| Product manual Electronic WAGO Circuit Breakers | 4809753099 \| 3 \| en-US \| 2026-03-31 10:57 02.04.2026 | pdf 2372.92 KB | |

### Instruction Leaflet

| | | | |
|---|---|---|---|
| Elektronischer Schutzschalter; 4-kanalig; | V 2.0.0 30.03.2026 | pdf 1085.45 KB | |

## Application Notes

### Application note SIEMENS

| | | | |
|---|---|---|---|
| Electronic Circuit Breakers 2596 Series (aXXXX-XX) | 1.0.0.0 24.08.2026 | zip 1412.17 KB | |

## CAD/CAE-Data

### CAD data

2D/3D Models
2596-3664/000-060

## 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