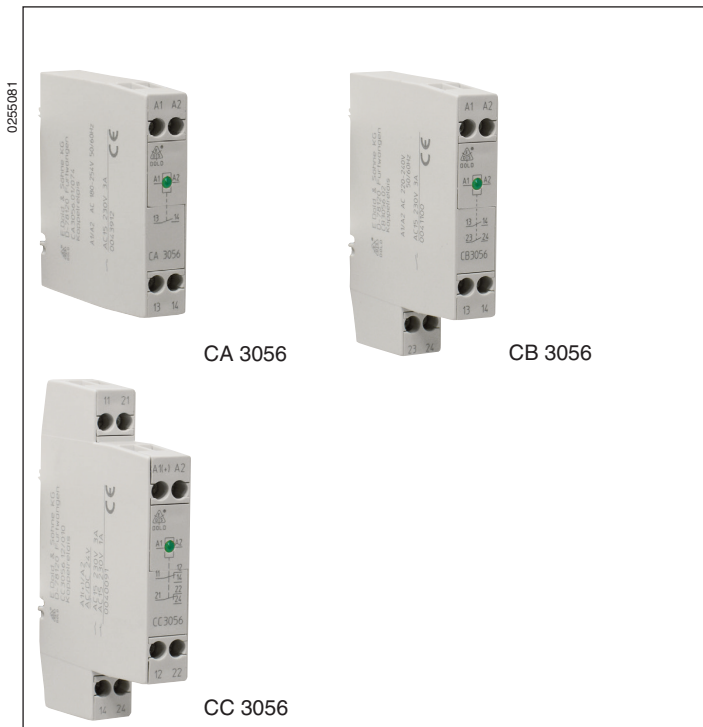


Interface relays Input Interface Relay - Output Interface Relay CA 3056, CB 3056, CC 3056

Translation
of the original instructions



- According to IEC/EN 60947-5-1
- Protective separation acc. to IEC/EN 61140, IEC/EN 60947-1: 6 kV / 2, at CA / CB
- As option goldplated contacts (5 μm Au) to switch low loads
- LED indication
- Optionally with 1 NO contact, 1 NC contact, 1 C/O contact, 2 C/O contacts, 2 NO contacts
- Optionally with MOV on input to achieve higher surge immunity
- Width: 11.5 mm

Approval and Markings



Application

- Link between the control and the power level
- For separating potentials

Indication

LED On, when supply connected

Connection Terminals

| Terminal designation | Signal description |
|----------------------|--------------------------------------|
| A1, A2 | Operating voltage |
| 11 ... 24 | Output contacts see circuit diagrams |

Technical Data

Input

Nominal voltage U_N

CA 3056: DC 24, 48* V
AC 110 ... 130* V, 220 ... 240 V
AC/DC 12 V
CB 3056, CC 3056: AC/DC 24, 48* V
AC 110 ... 130* V, 220 ... 240 V
* on request

Voltage range

CA 3056: DC 90 ... 125 % U_N
(residual ripple < 10 %)
AC 80 ... 110 % U_N
CB 3056, CC 3056: DC 80 ... 110 % U_N
(residual ripple ≥ 10 ... 48 %)

Nominal consumption:

DC 24 V / 0.5 W
AC 230 V / 0.8 VA

Nominal frequency:

50 / 60 Hz

Frequency range:

± 5 %

Output

Contacts

CA 3056.01: 1 NO contact
CA 3056.05: 1 NC contact
CB 3056.11: 1 C/O contact
CB 3056.02: 2 NO contacts
CC 3056.12: 2 C/O contacts

Operate time:

< 10 ms

Release time:

< 20 ms

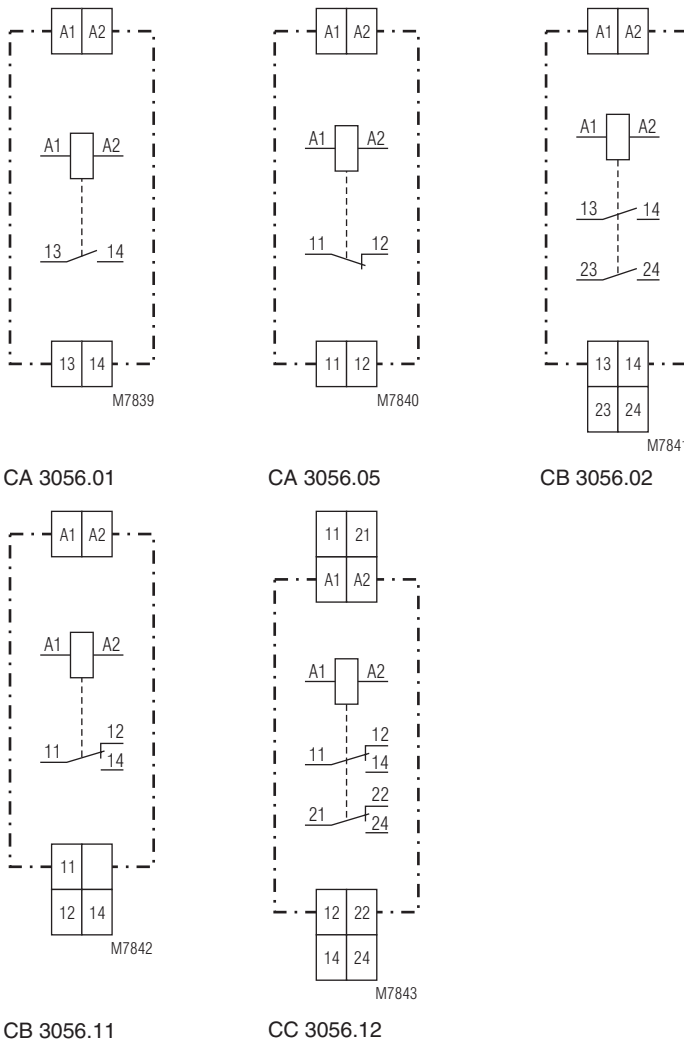
Nominal output voltage:

AC 250 V

Thermal current I_{th} :

5 A (not at CA 3056.01/100)

Circuit Diagrams



Technical Data

Switching capacity

| | | |
|-------------|---|------------------|
| to AC 15 | | |
| NO contact: | 3 A / AC 230 V | IEC/EN 60947-5-1 |
| NC contact: | 1 A / AC 230 V | IEC/EN 60947-5-1 |
| to DC 13 | | |
| NO contact: | 1 A / DC 24 V | IEC/EN 60947-5-1 |
| NC contact: | 1 A / DC 24 V | IEC/EN 60947-5-1 |
| | (not at CA 3056.01/100) | |
| | permissible contact-loading capacity at CA 3056.01/100: 0.1...60 V / 1...300 mA | |

Electrical life

| | | |
|----------------------------|--------------------------------------|------------------|
| to AC 15 at 3 A, AC 230 V: | > 8 x 10 ⁵ switch. cycles | IEC/EN 60947-5-1 |
| | (not at CA 3056.01/100) | |

Permissible switching frequency:

20 switching cycles / s

Short circuit strength

| | | |
|---------------------------------|---|------------------|
| Max. fuse rating: | 6 A gG / gL | IEC/EN 60947-5-1 |
| Mechanische Lebensdauer: | > 30 x 10 ⁶ switching cycles | |

General Data

Nominal operating mode Continuous operation

Temperature range:

Operation: - 25 ... + 60 °C

Storage: - 25 ... + 60 °C

Altitude: < 2000 m

Air gap and creepage distance

Rated insulation voltage: 300 V

Overvoltage category: III

Rated impulse voltage /

pollution degree:

CA 3056, CB 3056:

Input to Output: 6 kV / 2 IEC 60664-1

CC 3056:

Input to Output: 4 kV / 2 IEC 60664-1

EMC

Electrostatic discharge (ESD): 8 kV (air) IEC/EN 61000-4-2

HF irradiation:

80 MHz ... 2.7 GHz: 10 V / m IEC/EN 61000-4-3

Fast transients: 4 kV IEC/EN 61000-4-4

Surge voltages

between

Wires for power supply: 1 kV IEC/EN 61000-4-5

Between wire and ground: 2 kV IEC/EN 61000-4-5

Interference suppression: Limit value class B EN 55011

Degree of protection

Housing: IP 40 IEC/EN 60529

Terminals: IP 20 IEC/EN 60529

Enclosure:

Thermoplastic with VO behaviour according to UL Subject 94

Vibration resistance:

Amplitude 0.35 mm frequency 10 ... 55 Hz, IEC/EN 60068-2-6

20 / 060 / 04 IEC/EN 60068-1

Wire connection DIN 46228-1/-2/-3/-4

Fixed screw terminals

Cross section: 1 x 4 mm² solid or 1 x 2.5 mm² stranded wire with sleeve

Insulation of wires or

sleeve length: 8 mm

Wire fixing Captive plus-minus terminal screws

M3.5 box terminals with wire protection

0,8 Nm

Mounting: DIN rail IEC/EN 60715

Weight:

CA 3056: 45 g

CB 3056: 50 g

CC 3056: 55 g

Dimensions

Width x height x depth

CA 3056: 11.5 x 60 x 62 mm

CB 3056: 11.5 x 75 x 62 mm

CC 3056: 11.5 x 90 x 62 mm

Standard Type

CA 3056.01 AC/DC 24 V 50 / 60 Hz

Article number: 0041412

• Ausgang: 1 NO contact

• Nominal voltage U_N: AC/DC 24 V

• Protective separation acc. to

IEC/EN 61140,

IEC/EN 60947-1: 6 kV / 2

• Width: 11.5 mm

Variants

CA 3056.___ / 1__ ,

CB 3056.___ / 1__ :

CC 3056.___ / 1__ :

CA 3056.___ / __ 1,

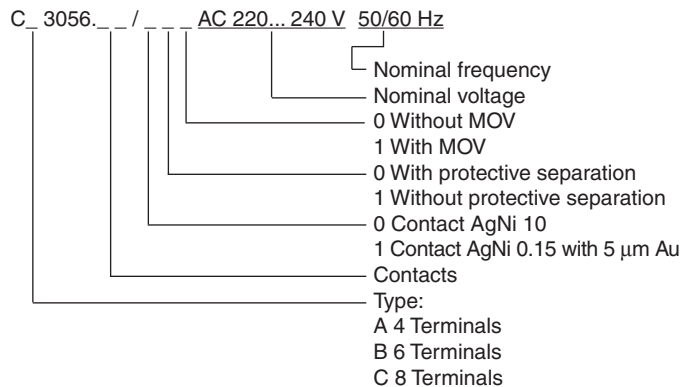
CB 3056.___ / __ 1:

Contact with 5 µm Au

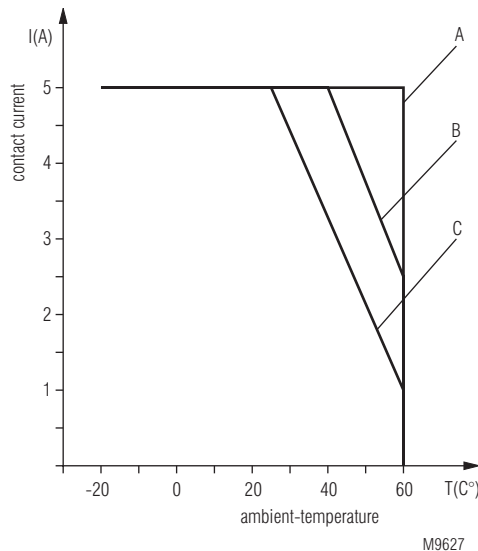
Without protective separation

With MOV on input to achieve higher surge immunity

Ordering example for variants



Characteristic



A = Mounted with 2 cm distance between units
B = Mounted without distance, 1 contact leading current
C = Mounted without distance, 2 contacts leading current

Continuous current limit curve