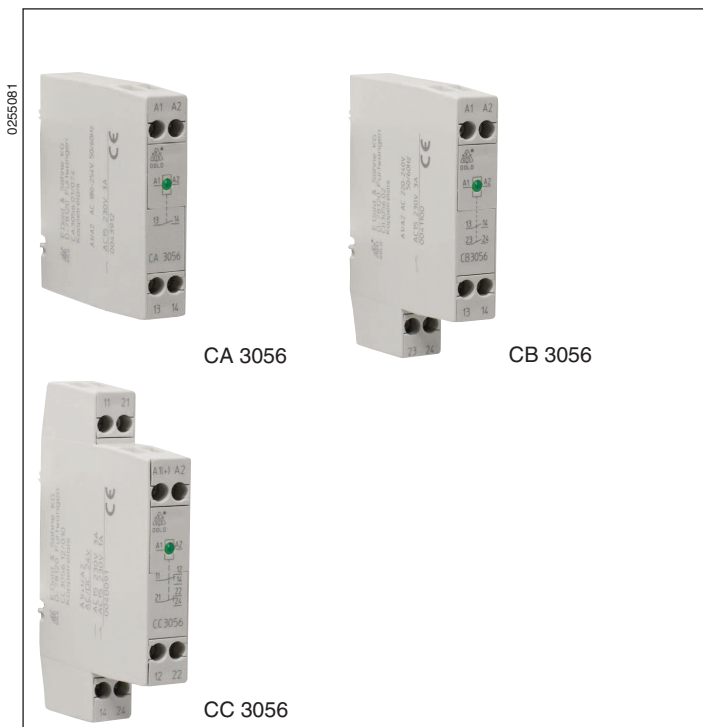


Interface relays

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



- According to IEC/EN 60 947-5-1
- Protective separation acc. to IEC/EN 61 140, IEC/EN 60 947-1: 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 designation
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
DC 80 ... 110 % U_N
(residual ripple \geq 10 ... 48 %)

Nominal consumption:

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

Nominal frequency:

50 / 60 Hz

Frequency range:

\pm 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

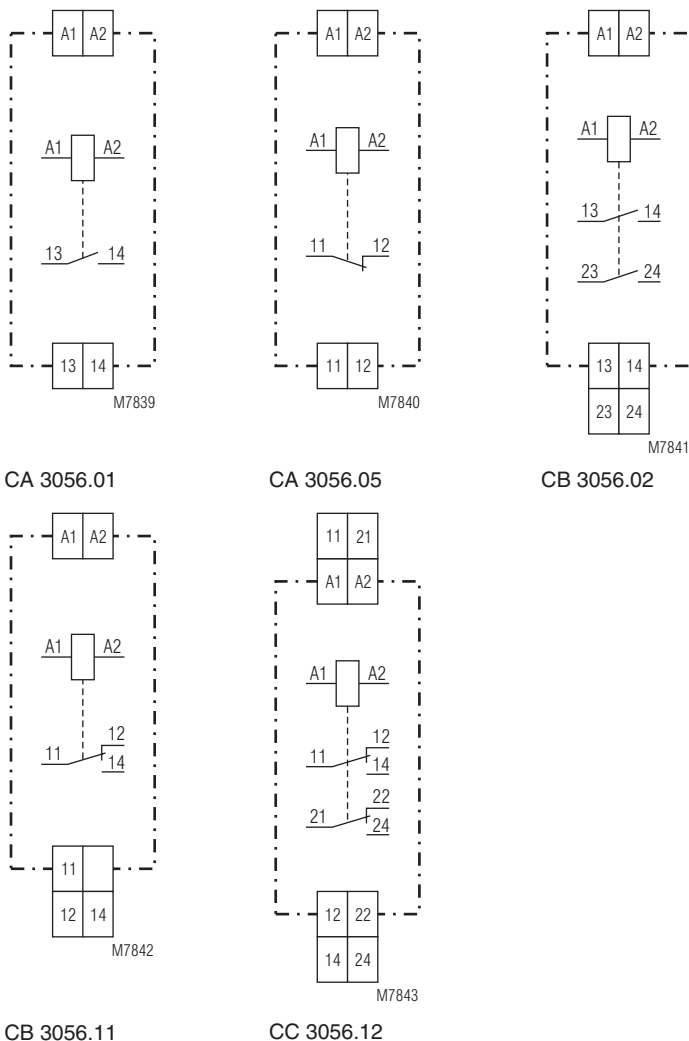
Nominal output voltage:

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 60 947-5-1
NC contact:	1 A / AC 230 V	IEC/EN 60 947-5-1
to DC 13		
NO contact:	1 A / DC 24 V	IEC/EN 60 947-5-1
NC contact:	1 A / DC 24 V	IEC/EN 60 947-5-1
	(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 60 947-5-1
	(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 60 947-5-1

Mechanische Lebensdauer: > 30 x 10⁶ switching cycles

General Data

Nominal operating mode continuous operation

Temperature range:

Operation: - 25 ... + 60 °C

Storage: - 25 ... + 60 °C

Altitude: < 2.000 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 60 664-1

CC 3056:

Input to Output: 4 kV / 2 IEC 60 664-1

EMC

Electrostatic discharge (ESD): 8 kV (air) IEC/EN 61 000-4-2

HF irradiation:

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

Fast transients: 4 kV IEC/EN 61 000-4-4

Surge voltages

between

wires for power supply: 1 kV IEC/EN 61 000-4-5

between wire and ground: 2 kV IEC/EN 61 000-4-5

interference suppression: Limit value class B EN 55 011

Degree of protection

Housing: IP 40 IEC/EN 60 529

Terminals: IP 20 IEC/EN 60 529

Enclosure: thermoplastic with VO behaviour

according to UL Subject 94

Vibration resistance: amplitude 0.35 mm

frequency 10 ... 55 Hz, IEC/EN 60 068-2-6

Climate resistance: 20 / 060 / 04 IEC/EN 60 068-1

Wire connection DIN 46 228-1/-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 60 715

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

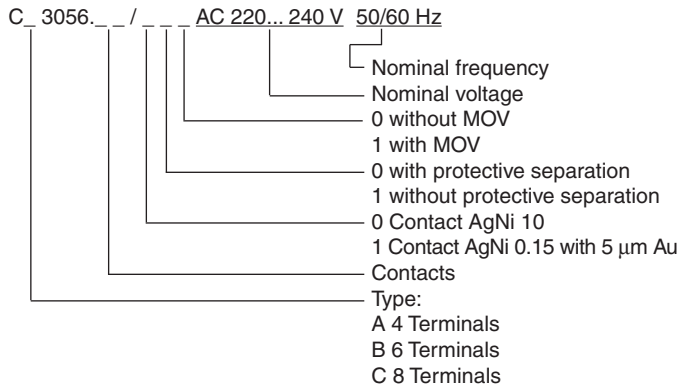
Standard Type

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 61 140,	
IEC/EN 60 947-1:	6 kV / 2
• Width:	11.5 mm

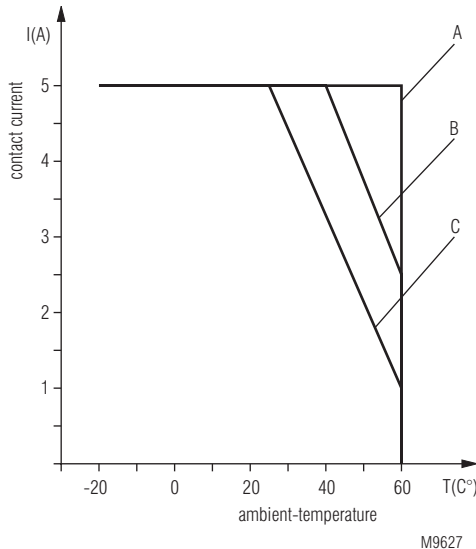
Variants

CA 3056.___ / 1__ ,	
CB 3056.___ / 1__ :	Contact with 5 µm Au
CC 3056.___ / 1__ :	without protective separation
CA 3056.___ / __ 1,	
CB 3056.___ / __ 1:	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