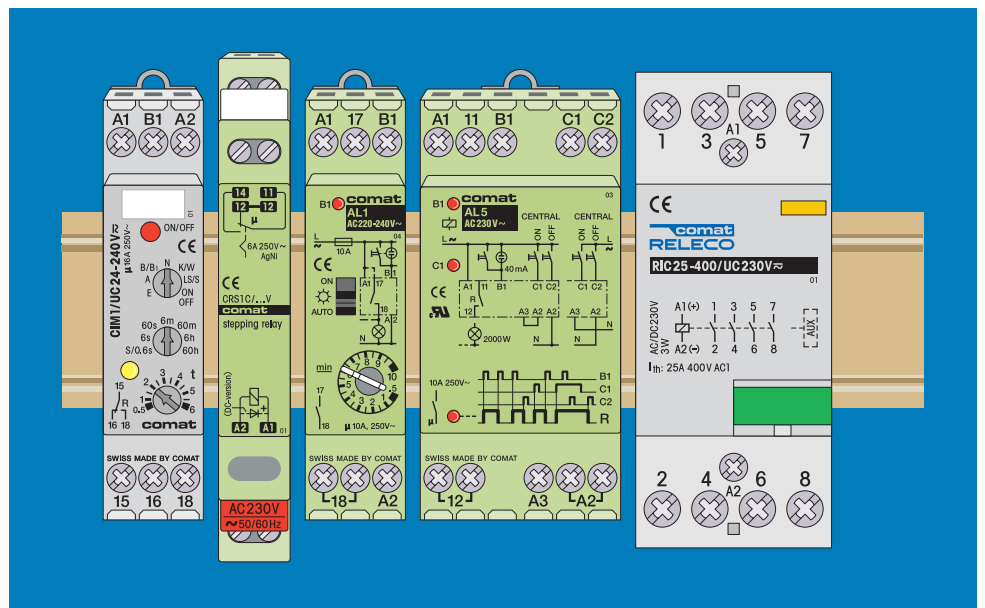


Installation Relays

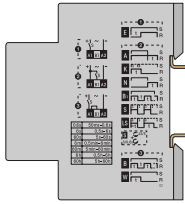


DIN

- Power Relays
- Step-on Step-off Relays
- Staircase Lighting Timers
- Power Step-on Step-off Relays
- Installation Contactors

Type: AS1

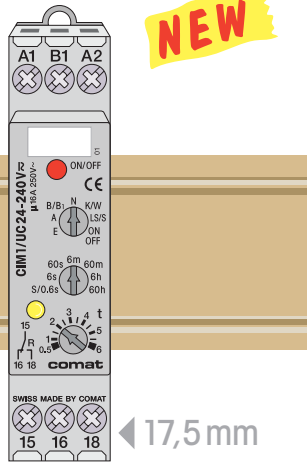
No longer available substituted by CIM1



Step-On Step-Off Relays



NEW



17,5 mm

Step-On Step-off Relay

- with integrated LED display
- no external wiring required
- Mounting on DIN rail TS35

Test voltage: \square 2000V

Tamb. operation/storage: -20...+60/-40...+85°C
Railway version up to -46°

Time Range



I MAX
μI MIN

CIM1

Step-On Step-Off Relay/
Staircase Lighting Timer

and 7 additional time functions including ON/OFF manual switch for maintenance purpose.
LED status display and integrated test switch.

0,6 s - 60 h

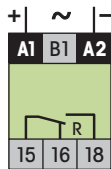
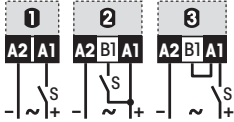
16 A 250 V ~

10 mA 12 V

E-1 Triggering
Function (page 4)



Triggering



Data at Tamb = 20°C

- Contact material
- Switching current/voltage
- Switching power AC1 // DC1
- Switching cycles mech.
- Operating voltage
- Power consumption AC/DC
- Triggering delay / release time
- Glow lamp load

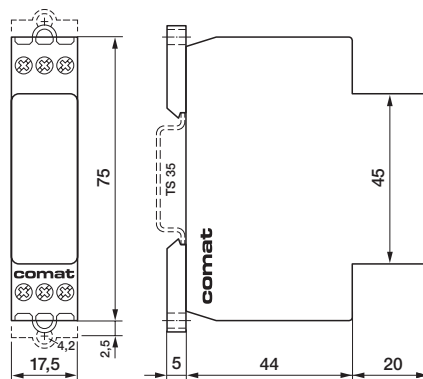
- AgNi
- 16 A 250 V
- 4000VA // 384 V
- 30 x 10⁶
- AC ±20% / DC ±20%
- 1,2 VA, 430 mW
- 10 ms / 10 ms
- ≤ 10 mA



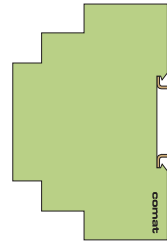
CIM1/UC24-240V

Ordering example

Step-on step-off relay
CIM1/UC24-240V



Step-On Step-Off Relays



13 mm

Step-On Step-Off Relay

- with integrated LED display
- no external wiring required
- Mounting on DIN rail TS35

Test voltage: \square 2000V

Tamb. operation/storage: -20...+60/-40...+85°C



I MAX
μI MIN

CRS1C

Step-On Step-Off Relay

- 13 mm series
- 1 x CO for permanente drive
- supply failure protected
- Integrated LED and coil wiring

6 A 250 V ~

10 mA 12 V

Data at Tamb = 20°C

- Contact material
- Switching current/voltage
- Switching power AC1 // DC1
- Switching cycles mech.
- Operating voltage
- Power consumption
- Triggering delay / release time

- AgNi
- 15 A/20 ms
- 1500VA // ...180W
- DC: 10 x 10⁶; DC ≥ 15%
- AC ±15% / DC ±15%
- 2 VA 1,5 W
- Recommended triggering time ≥ 50 ms



AC ~
50/60 Hz

CRS1C/AC230V

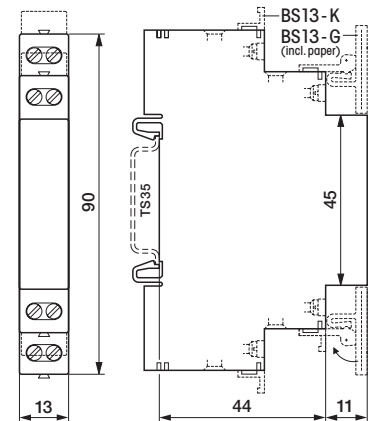


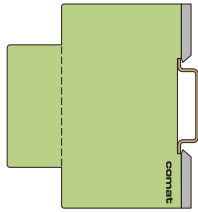
DC =
≤ 10%

CRS1C/DC24V

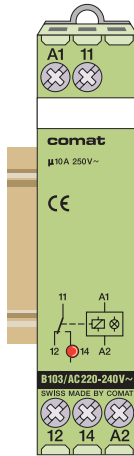
Ordering example

Step-on step-off relay
CRS1C/AC230V

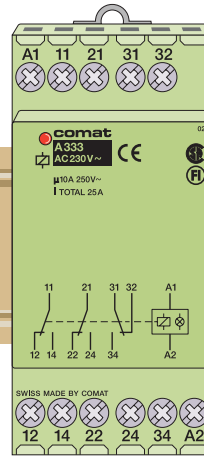
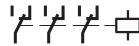




Power Relays



Power Relays



Power Relays

- with mechanical output status
- A333 with DIN 45 mm cap dimension

Test voltage: \square 2000V / 2000V

T_{amb.} operation/storage: -20...+60/-40...+85°C

B103

Power Relay

- 1 pole power relay with free-wheeling diode and reverse polarity protection
- Integrated LED position indicator

A333

Power Relay

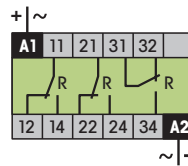
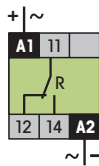
- 1 pole power relay with free-wheeling diode and reverse polarity protection
- Integrated LED position indicator



10A 250V~
10mA 12V

10A 250V~
10mA 10V

Connection lay out (top/bottom)



Data at T_{amb} = 20°C

- Contact material
- Switching power AC1 // DC1
- Peak inrush current
- Switching cycles mech./elec. (AC1)
- Operating voltage AC 50Hz/DC
- Power consumption AC/DC
- Triggering delay / release time

Ag Cdo
2200VA // ≤150W (DC)
16A
2x 10⁷
AC ±15% / DC ±15%
2VA, 1,5W
20ms / 12ms

Ag Cdo
1500VA // ≤300W (DC)
30A
2x 10⁷
0,8...1,1Un
2,2VA, 1,2W
18ms / 10ms

AC ~
50/60Hz

220-240, 110-127
B103/AC ... V

230, 110, 48, 24
A333/AC ... V

DC =
≤10%

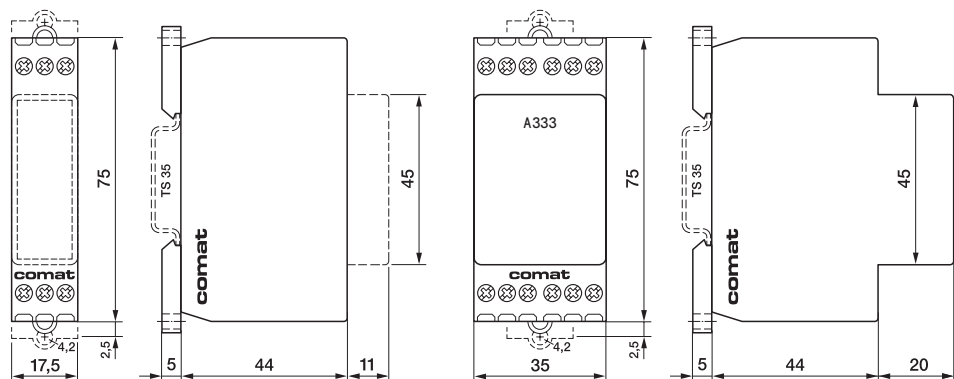
48, 24, 12
A333/DC ... V

UC ~
50/60Hz/∞

48, 24, 8-12
B103/UC ... V

Ordering example

Power Relay
B103/AC220-240V



Staircase Lighting Timers



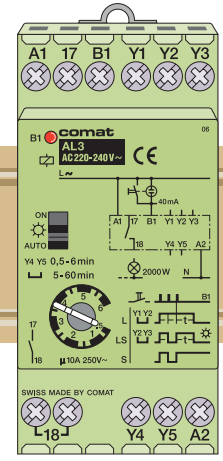
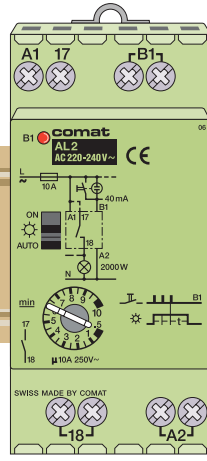
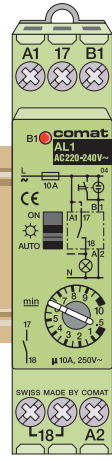
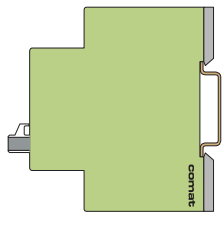
Staircase Lighting Timers



Staircase Lighting Timers



120A PEAK



Staircase Lighting Timers

- Trigger status indication
- Manual-Auto switch

Test voltage: 2500V

T_{amb.} operation/storage: -45...+60 / -45...+85°C

Time Range

CE UL

I MAX
μ MIN

AL1

Staircase Lighting Timers

- For small to medium-sized installations
- Single contact 10A, 250V~
- 30s-10min running time, infinitely adjustable
- subsequent time operation from zero
- Manual ON

30s-10min

10A 250V~

10mA 12V

AL2

Staircase Lighting Timers

- With special contact for high lamp loads
- 120A special early make contact
- Glow lamp load with AC
- 30s-10min running time, infinitely adjustable
- subsequent time operation from zero
- Manual ON

30s-10min

10A 250V~ (120A peak)

10mA 12V

AL3

Staircase Lighting Timers

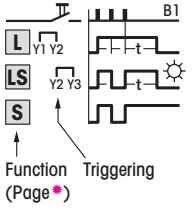
- With stepping switch functions LS and S
- 120A special early make contact
- Glow lamp load with AC
- 30s-1h running time, infinitely adjustable
- subsequent time operation from zero
- Manual ON

30s-60min

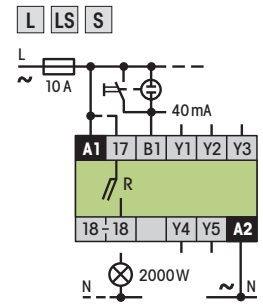
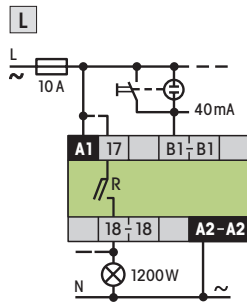
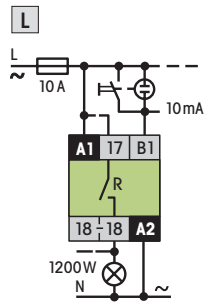
10A 250V~ (120A peak)

10mA 12V

Function/Triggering



Function Triggering (Page 8)



Data at T_{amb} = 20°C

Contact material
Switching power AC1 // DC1
Peak inrush current
Switching cycles mech./elec. (AC1)

Operating voltage AC50Hz/DC
Power consumption AC/DC
Triggering delay / release time
Glow lamp load

W+AgSnO₂
2200VA // ≤440W (DC)
120A/20ms
3x 10⁷
0,85...1,1Un
2,5VA
50ms / ≤300ms
≤10mA

W+AgSnO₂
2200VA // ≤440W (DC)
120A/20ms
3x 10⁷
0,85...1,1Un
2,5VA
50ms / ≤300ms
≤40mA

W+AgSnO₂
2200VA // ≤440W (DC)
120A/20ms
3x 10⁷
0,85...1,1Un
2,5VA, 1,5W
60ms / ≤300ms
≤40mA

AC ~
50/60Hz

220-240, 110-127

AL1/AC ... V

220-240, 110-127

AL2/AC ... V

220-240, 110-127, 48-60

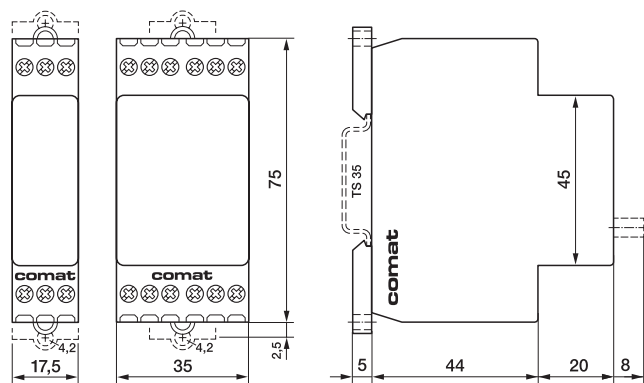
AL3/AC ... V

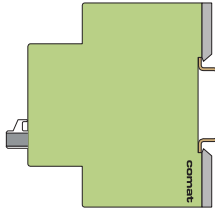
UC ~
50/60Hz

24
AL3/UC ... V

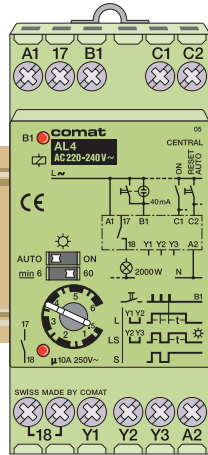
Ordering example

Staircase Lighting Timer
AL1/AC 220-240V

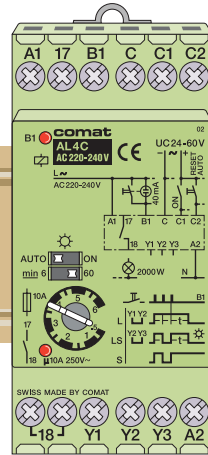




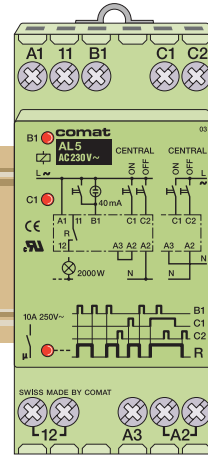
Staircase Lighting Timers for central control



Staircase Lighting Timers for central control



Power Step-on Step-off Relay for central control



120 A PEAK

Staircase Lighting Timers

- Trigger status indication
- Electronic switch position indication

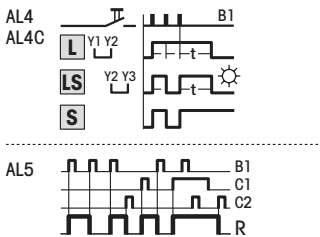
Test voltage: \square 2500V / 1500V /

T_{amb.} operation/storage:
-20...+60 / -40...+85°C

Time Range

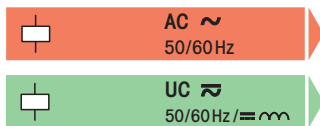


Function (Page 4) / Triggering



Data at T_{amb.} = 20°C

- Contact material
- Switching power AC1 // DC1
- Peak inrush current
- Switching cycles mech./elec. (AC1)
- Operating voltage AC50Hz/DC
- Power consumption AC/DC
- Triggering delay / release time
- Glow lamp load



AL4

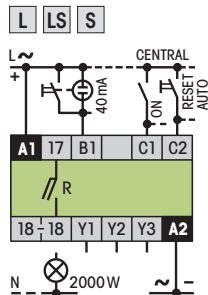
Staircase Lighting Timers

- Two-way lighting control on-off, stepping switch
- 120A special early make contact
- AC supply for glow lamp
- 30s-1h running time, infinitely adjustable
- subsequent time operation from zero
- Manual ON

30s-60 min

10A 250V ~ (120A peak)

10mA 12V



AL4C

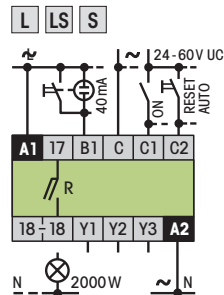
Staircase Lighting Timers

- Two-way lighting control on-off, stepping switch
- 120A special early make contact
- AC supply for glow lamp
- 30s-1h running time, infinitely adjustable
- subsequent time operation from zero
- Manual ON

0,5s-60 min

10A 250V ~ (120A peak)

10mA 12V



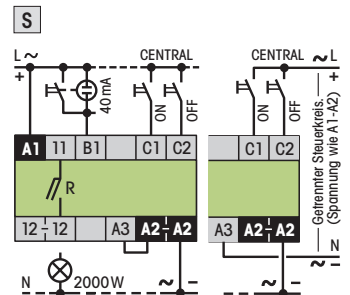
AL5

Power Step-on Step-off Relay

- Stepping switch funct. S
- Central ON-OFF
- 120A special early make contact
- Output status
- Neon lamps by AC control (Push button illumination up to 40mA for glow lamps resp. LED's)

10A 250V ~ (120A peak)

10mA 12V



W+AgSnO₂
2200VA // ≤ 440W (DC)
120A/20ms
3x 10⁷

0,85...1,1Un
≤ 2,5VA, 1,5W
≤ 60ms/≤ 300ms
≤ 40mA

220-240, 110-127, 48-60

AL4/AC ... V

24

AL4/UC ... V

W+AgSnO₂
2200VA // ≤ 440W (DC)
120A/20ms
3x 10⁷

0,85...1,1Un
≤ 2,5VA
≤ 60ms/≤ 300ms
≤ 40mA

220-240, 110-127

AL4C/AC ... V

W+AgSnO₂
2200VA // ≤ 440W (DC)
120A/20ms
3x 10⁷

0,85...1,1Un
≤ 2,5VA, 1,5W
≤ 60ms/≤ 300ms
≤ 40mA

230, 48-60

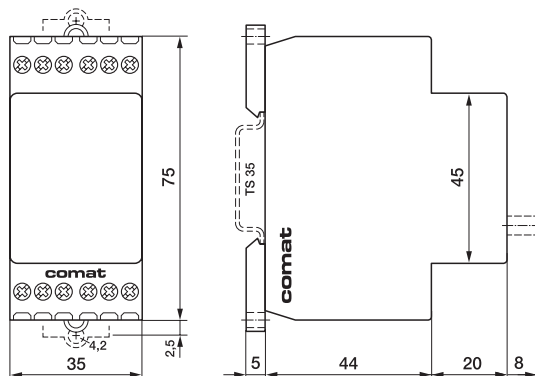
AL5/AC ... V

24

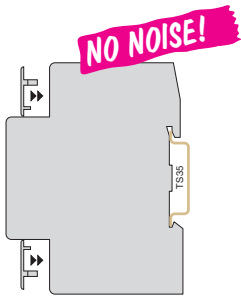
AL3/UC ... V

Ordering example

Staircase Lighting Timer
AL4/AC 220-240V

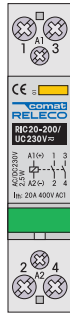


comat
RIC DIN
Miniature Contactor



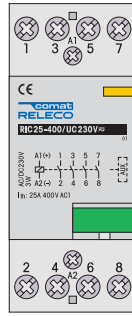
Contactor 20A

2 NO or 2 NC or 1 NO/1 NC



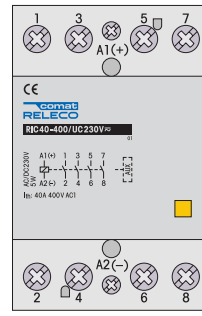
Contactor 25A

4 NO or 4 NC or 2 NO/2 NC



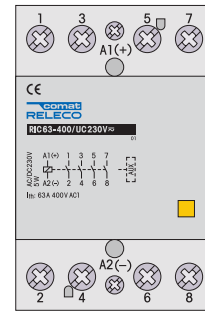
Contactor 40A

4 NO or 4 NC or 2 NO/2 NC



Contactor 63A

4 NO or 2 NO/2 NC



AUX Block
2 NO or 2 NC or 1 NO/1 NC



AC/DC Installation Contactors
No noise!

- All contacts doublemake/ doublebreak
- Mechanical status display

Test voltage: 4 kV/3
T_{amb.} operation/storage: -20...+55/-30...+80°C



RIC 20

Contactor 20A
Contactor with 2 NO or 2 NC or 1 NO+1 NC contacts. UC (AC/DC) versions are noise free and do not need external freewheeling circuits. No coil inrush overcurrent. Sealing cover optional.

20A 400V~
10mA 24V

RIC 25

Contactor 25A
Contactor with 4 NO or 4 NC or 2 NO+2 NC contacts. UC (AC/DC) versions are noise free and do not need external freewheeling circuits. No coil inrush overcurrent. Sealing cover optional.

25A 400V~
10mA 24V

RIC 40

Contactor 40A
Contactor with 4 NO or 4 NC or 2 NO+2 NC contacts. UC (AC/DC) versions are noise free and do not need external freewheeling circuits. No coil inrush overcurrent. Sealing cover optional.

40A 400V~
10mA 24V

RIC 63

Contactor 63A
Contactor with 4 NO or 2 NO+2 NC contacts. UC (AC/DC) versions are noise free and do not need external freewheeling circuits. No coil inrush overcurrent. Sealing cover optional.

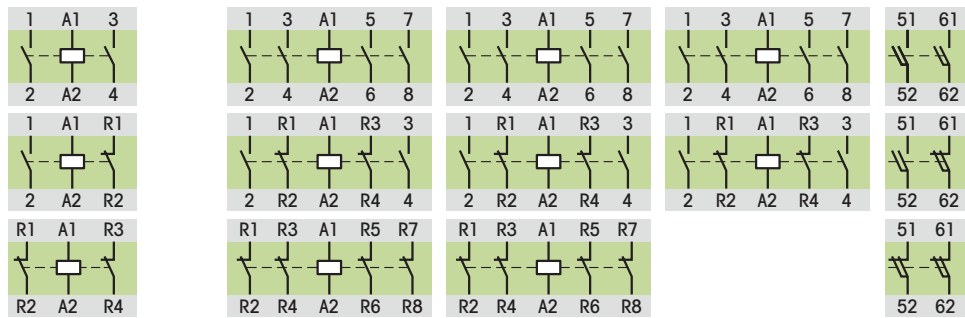
63A 400V~
10mA 24V

RIC-AUX

Auxiliary
Contactblock with 2 NO or 2 NC or 1 NO+1 NC contacts. For signalling and control applications up to 6A with crown twin contacts. For all RIC contactors.

6A 400V~
5mA 24V

Connection lay out (top/bottom)



Data at T_{amb} = 20°C

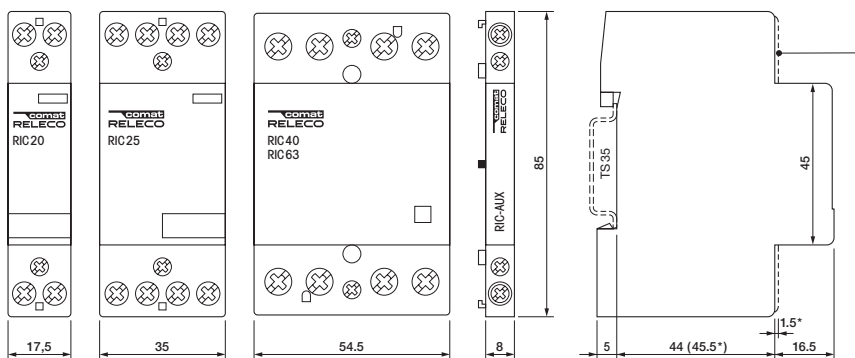
	RIC 20	RIC 25	RIC 40	RIC 63	RIC-AUX
Contact material	AgNi	AgNi	AgSnO ₂	AgSnO ₂	AgNi
Switching current I _{TH}	20A	25A	40A	63A	6A
Switching voltage	400V	400V	400V	400V	400V
Switching power AC3	1,3kW/230V	2,2kW/400V	5,5kW/400V	8,5kW/230V	-
Switching power AC1/AC7a	4kW/230V	16kW/400V	26kW/400V	40kW/400V	-
Op Frequenz max. cycle/hr	600	600	120	120	600
Electrical life cycles AC1	2x10 ⁵	2x10 ⁵	1x10 ⁵	1x10 ⁵	2x10 ⁵
Coil voltage range	0,85 - 1,1 Un	0,85 - 1,1 Un	0,85 - 1,1 Un	0,85 - 1,1 Un	-
Power consumption	2,5W	3W	5W	5W	-
Operate / release time typ.	20ms // 20ms	10ms // 50ms	20ms // 35ms	20ms // 35ms	- // -

UC	RIC 20	RIC 25	RIC 40	RIC 63	RIC-AUX
~ 50/60Hz / =	RIC20-200/UC ... V	RIC25-400/UC ... V	RIC40-400/UC ... V	RIC63-400/UC ... V	RIC-AUX20
~ 50/60Hz / =	RIC20-110/UC ... V	RIC25-220/UC ... V	RIC40-220/UC ... V	RIC63-220/UC ... V	RIC-AUX11
~ 50/60Hz / =	RIC20-020/UC ... V	RIC25-040/UC ... V	RIC40-040/UC ... V		RIC-AUX02

RIC20 RIC25-63

Ordering example

- Installation contactor
RIC25-400/UC230V
- Aux block
RIC-AUX20
- Sealing cover
RIC-SEAL20



*Option
Sealing cover
Type: RIC-SEAL20
RIC-SEAL25
RIC-SEAL40-63



Kühn Controls AG

Notes:

You want more information about this product, please call us: tel: +49 (0)7082-940000 or send us a fax: +49 (0)7082-940001, or email: sales@kuehn-controls.de or visit our Website: www.kuehn-controls.de