

SERIES A

Power Industrial Relays

All-or-Nothing relays designed to switch up to 30A 250V AC1 loads with good reliability and minimum dimensions. Particularly suited for any high power application in heating, air conditioning, UPS, etc

Featuring a clear protective dust cover, printed circuit or 0.25" Faston terminals (6.3x0.8 mm) and thermosetting flame-resistant terminal block. Meeting IEC-UL-CSA standards.



DIELECTRIC STRENGTH

Coil / contacts :	4000 V ⁽¹⁾ RMS
Between adjacent contacts :	2500 V RMS
Between open contacts :	1500 V ⁽²⁾ RMS
Ground / live parts :	2000 V RMS

⁽¹⁾ 16A types only: 3000V RMS

⁽²⁾ 3mm contact-gap types: 2500V RMS

OPERATING TIMES (At Rated Voltage)

Operate (excluding bounces) :	max 10	milliseconds
Release (excluding bounces) :	max 12	milliseconds
Bounces :	max 10	milliseconds

SPECIFICATION

Min. insulation resistance
Pollution degree / voltage
Environmental protection
Enclosure classification
Type of duty
Mechanical life expectancy

Max ops./hour @ no load
Max ops./hour @ rated load
Surrounding operating temp
Storage temperature
Overvoltage category
Impulse withstand voltage
Minimum mounting distance
Mounting position
Weight

2x10³ MΩ @ 500 VDC (all circuits)
3 / 250 VAC (EN 61810-1)
RT I - dust protected (EN 61810-1)
IP40 (EN 60529)
continuous
2x10⁶ operations (30A)
5x10⁶ operations (16/20A)
3000 (AC / DC)
500 (AC / DC)
-40 to +70° C
-40 to +80° C
III
6 KV
10 mm
any
73 grams

AVAILABLE TYPES

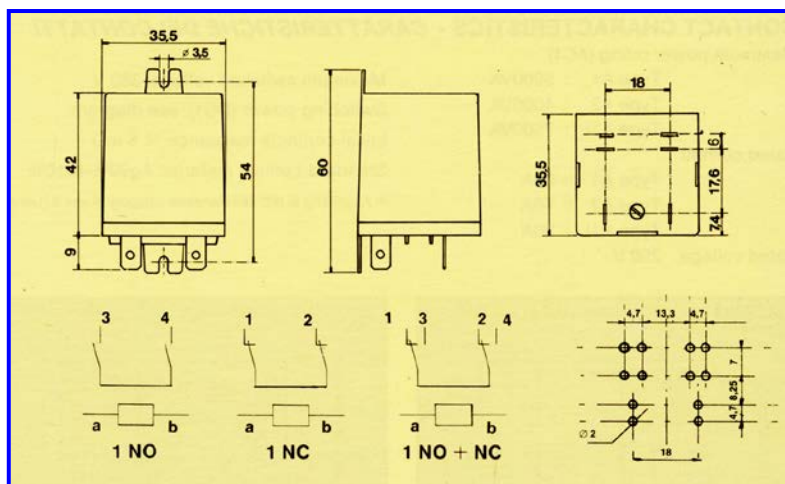
A1 Single pole - Double break contact

Contact types available:

- 1 Normally Open (NO) - **30A-250V AC**
- 1 Normally Closed (NC) - **20A-250V AC**
- 1 NO+NC - **20A-250V AC**

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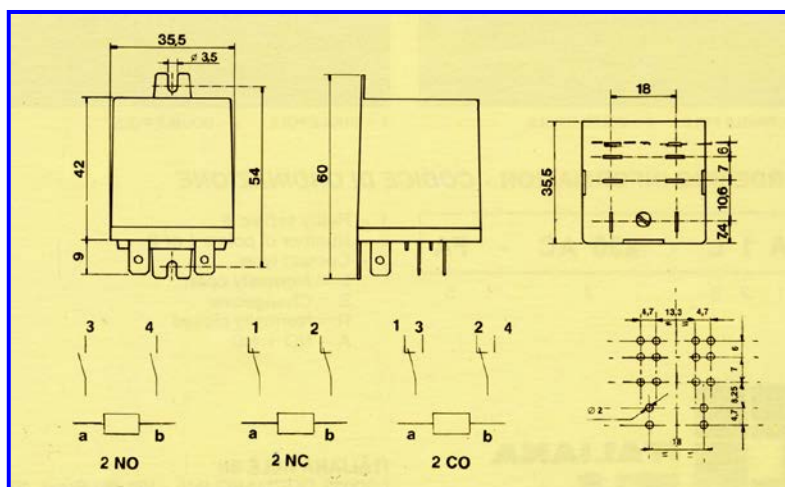
A2 Double pole - 16A-250V AC

Contact types available:

- 2 Normally Open (NO) *
- 2 Normally Closed (NC)
- 2 Changeover (CO) **

* ≥ 3 mm contact-gap (standard)

** ≥ 3 mm contact-gap (available on request for agreed quantities)



APPROVALS



All dimensions in mm

COIL CHARACTERISTICS

DC			AC	
Rated Voltage V	Rated Current mA	Resistance R Ω	Rated Current mA	Resistance R Ω
6	273	22.5	400	5
12	133	90	200	20
24	67	360	100	80
48	33	1440	50	320
110	14	7900	22	1800
230	-	-	10	7700

Coil values at 23°C ambient temperature

Tolerance on R = $\pm 10\%$

Power supply voltage:

AC: 6-12-24-48-110-230V (50-60Hz)

DC: 6-12-24-48-60-110V

Rated power:

1.3W (DC) ; 2.2 VA (AC)

Operating range:

(DC & AC-50Hz): -20% to +10% Vn

(AC-60Hz): -15% to +10% Vn

Minimum hold voltage:

80% of nominal (AC)

60% of nominal (DC)

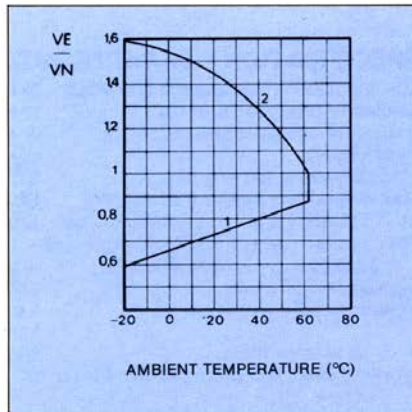
Must release voltage:

15% of nominal (AC)

5% of nominal (DC)

Thermic insulation class of winding
(IEC 317): F (155°C)

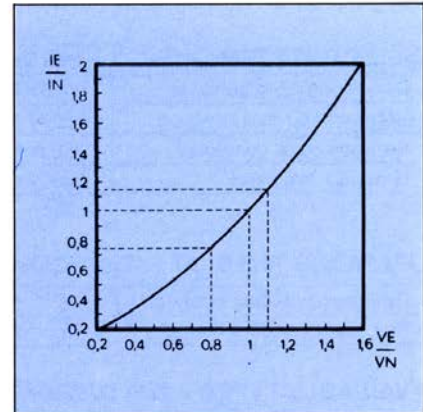
MAX ADMITTED
OPERATING RANGE
(DC) VERSUS
AMBIENT TEMPERATURE



Curve 1: Min. coil operation
voltage at stabilized tempe-
rature
Curve 2: Max. coil operation
voltage at rated load.

VE - Operating voltage
VN - Rated voltage

VARIAZIONE DI POTERE
CONSUMO VERSUS
OPERATING RANGE
(AC - 50 Hz)



IE - Operating current
IN - Rated current

VE - Operating voltage
VN - Rated voltage

CONTACT CHARACTERISTICS

Power rating (AC1) : Type A1-NO 7500 VA

Type A1 5000 VA

Type A2 4000 VA

Rated current : Type A1-NO 30 A

("Resistance only") Type A1 20 A

Type A2 16 A

Max instantaneous current ⁽¹⁾: A1 40A

A2 30A

Min switched load : 1000 mW (10V/10 mA)

Rated voltage : 250VAC

Max switched voltage : 400 VAC

Switching power (DC1) : see diagram

Initial contact resistance ⁽²⁾: max. 50 m Ω

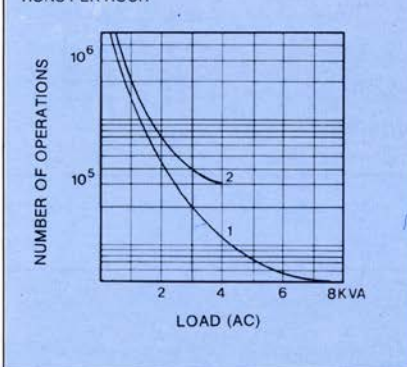
Contact material : Ag90% - Ni10%

⁽¹⁾ Max time = 0.5" - ED = 0.1

⁽²⁾ Contact Category: CC2 (1A-30V) - (EN61810-7)

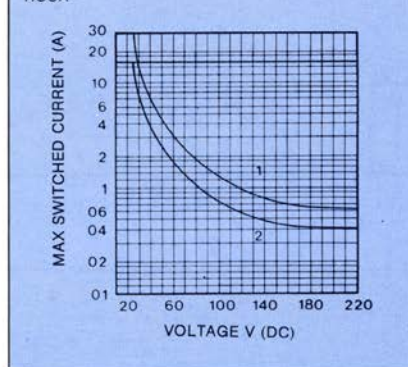
"Only for use with suitably sized, quality
external connections to avoid overheating
of relay terminals"

CONTACT LIFE VERSUS AC1 LOAD AT 500 OPERA-
TIONS PER HOUR



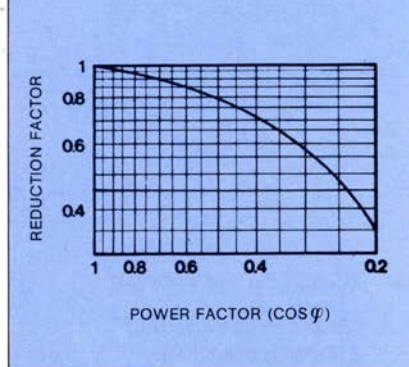
1 = SINGLE POLE 2 = DOUBLE POLE

SWITCHING POWER (DC1) AT 500 OPERATIONS PER
HOUR



1 = SINGLE POLE 2 = DOUBLE POLE

REDUCTION FACTOR FOR INDUCTIVE AC LOAD



ORDERING INFORMATION

A2L - 230 AC - FA

1 2 3 4 5

- Relay Series: A
- Number of poles: 1 or 2
- Contact configuration:
L = 2 Normally Open contacts
S = 2 Changeover contacts
R = 2 Normally Closed contacts
O = 1 Normally Open contact
C = 1 Normally Closed contact
B = 1 NO+NC contact

4 - Coil supply voltage: AC or DC

5 - Connection options:

FA = 0.25" Faston terminals(6.3x0.8mm)

CS = Printed Circuit

AD = Faston + DIN-rail flange