

Relè Series E

Relè Miniatura



All-or-Nothing relays ideally suited for any electronic appliances demanding very compact design and low power consumption.

Design includes a protective dust cover and a complete range of contact configurations, single or double pole, with ratings up to 16A and a complete range of DC and AC coil supply voltages.

Terminations are for printed circuit board mounting, either directly or via appropriate sockets, for applications requiring "plug-in" serviceability or maintenance.

Specification

Insulation resistance @ 500 VDC	(all circuits)	>100 Mohm
Pollution degree / Insulation voltage	(EN 61810-1)	3 / 250 VAC
Environmental protection	(EN 61810-1)	RT II (flux tight)
Enclosure classification	(EN 60529)	IP40
Mechanical life expectancy		10 milion operations
Max operating frequency @ no load		18,000 ops./ hour
Max operating frequency @ rated load		3,600 ops./ hour
Surrounding ambient temperature		- 40... + 70° C
Storage temperature		- 55... + 80° C
Vibration resistance	(10-55 Hz)	10 g
Shock resistance	(11 ms)	10 g
Minimum creepage distance / Air gap	(coil-contact)	8 / 8 mm
Overvoltage class		III
Impulse withstand voltage peak		6 KV
Type of duty		continuous
Mounting position		any
Weight		17 grams

Environmental compatibility
(European Directive 2011/65/EU)



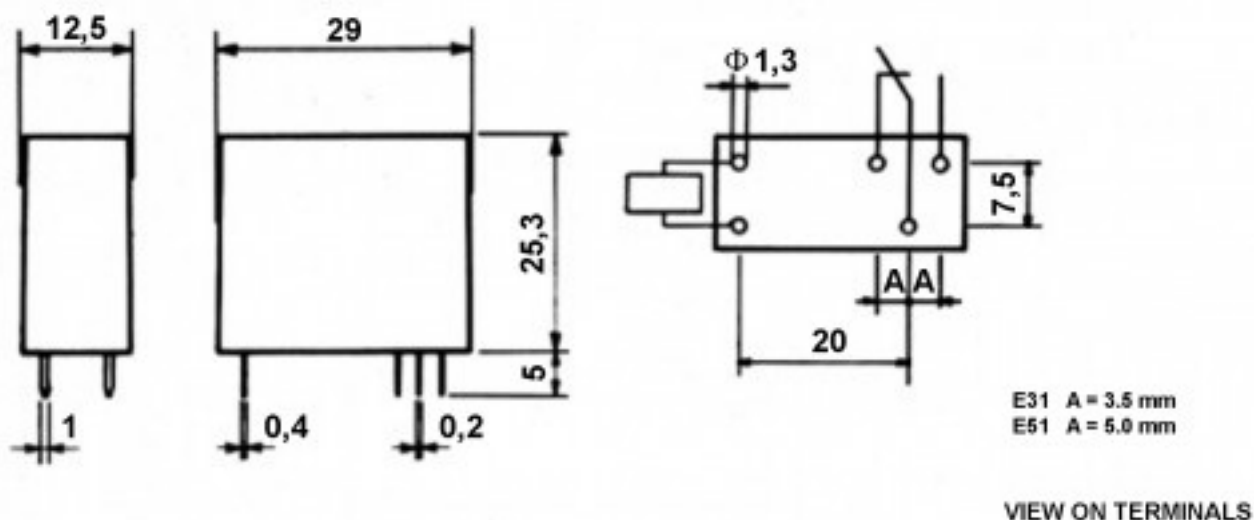
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Proof Voltage & Times

DIELECTRIC STRENGTH		OPERATING TIMES	@ Rated Voltage	
Coil / contacts	5.000V RMS	Operate (+ bounces)	max 20	milliseconds
Adjacnt contacts	4.000V RMS	Release (+ bounces)	max 10	milliseconds
Open contacts	1.000V RMS	Bounces	max 5	milliseconds
Ground / live parts	(insulated ground)			

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Available Types

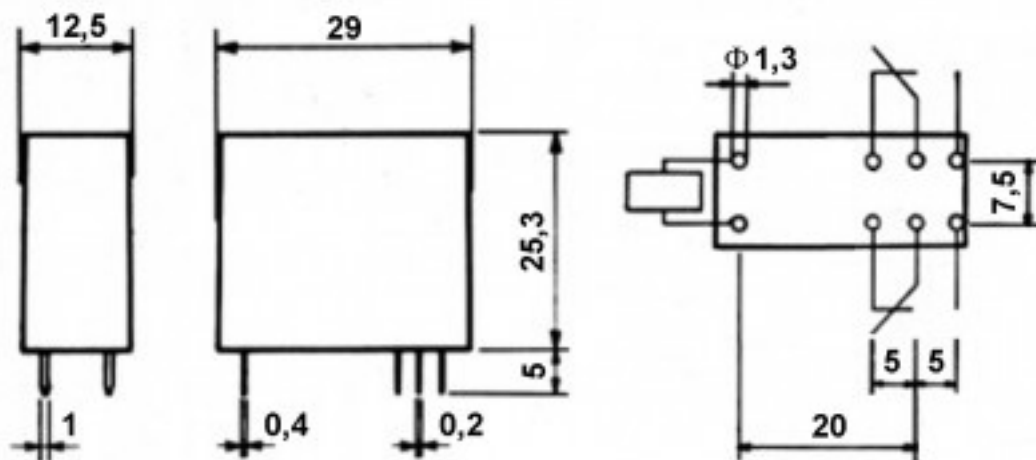


E31 - 10A-240V AC - 3.5 mm pin spacing
E51 - 10A-240V AC - 5 mm pin spacing

Single Pole changeover contact
Printed circuit terminations
Standard contact material Ag-CdO 10%

Normally open or gold plated contacts versions are available on request for agreed quantities.

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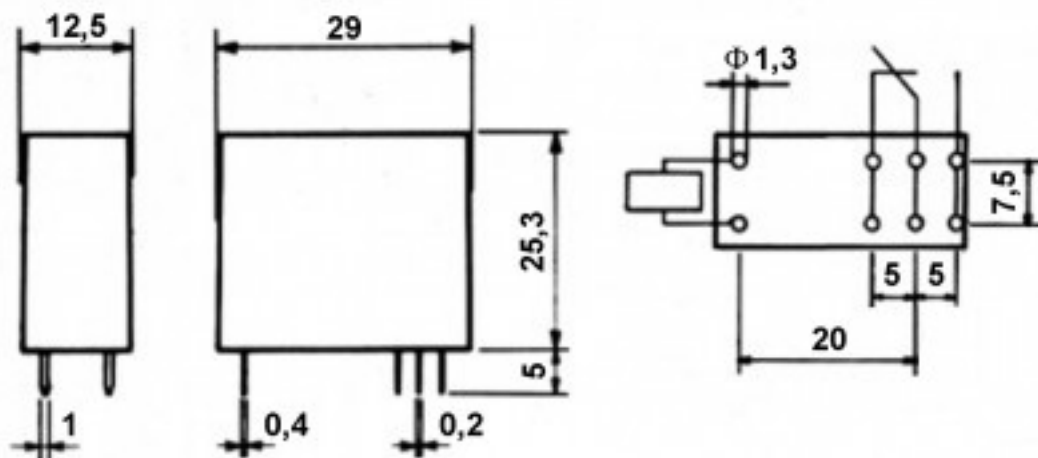
VIEW ON TERMINALS

E52 - 5A-240V AC - 5 mm pin spacing

2 Pole changeover contacts
Printed circuit terminations
Standard contact material Ag-CdO 10%

Normally open or gold plated contacts versions are available on request for agreed quantities.

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VIEW ON TERMINALS

E61 - 16A-240V AC - 5 mm pin spacing

Single pole changeover contact
Printed circuit terminations
Standard contact material Ag-CdO 10%

Normally open or gold plated contacts versions are available on request for agreed quantities.

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Coil Data

Nominal Voltage	Direct	Current	Alternating	Current	
	Current I	Resistance R (*)	Current I (50Hz)	Current I (60Hz)	Resistance R (*)
V	mA	ohm	mA	mA	ohm
6	88	68	-	-	-
12	44	270	100	86	60
24	22	1080	50	43	250
48	11	4340	25	21	980
110	4,8	22830	11	9	5500
230	-	-	5,8	5	22000
(*) Resistance values @ 23° C		Tolerance on R and I:	+/-10%		

Supply voltages:

6-12-24-48-110 VDC

12-24-48-110-220 VAC

Rated power:

0.53 W (DC)

1.2 VA (AC)

Operating range:

- 25%... + 10% (DC)

- 20%... + 10% (AC)

Minimum hold voltage:

> 70% Vn (DC)

> 80% Vn (AC)

Must release voltage:

< 10% Vn (AC/DC)

Thermic insulation class of winding (IEC 317):

F (155°C)

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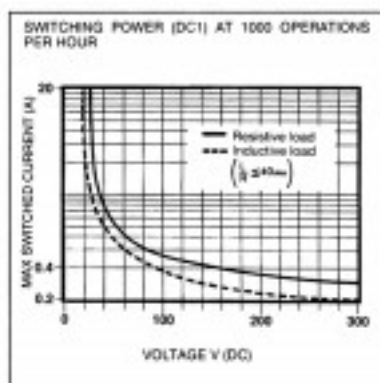
Contact Data

	E31-51	E52	E61
Power rating (AC1)	2,400 VA	1,200 VA	3,840 VA
Rated current (cosphi 1)	10 A	5 A	16 A
Max istant. current (*)	15 A	7 A	25 A
Single-phase motor load (**)	1/3 HP	1/6 HP	1/2 HP
Rated voltage	240 VAC	240 VAC	240 VAC
Max switched voltage	240 VAC	240 VAC	240 VAC
Minimum voltage	24 VAC	24 VAC	24 VAC
Switching power (DC1)	see diagram	see diagram	see diagram
Min. switched load	2.4 W	2.4 W	2.4 W
Min. switched current	100 mA	100 mA	100 mA
Initial resistance (***)	Max 100 milliohm	Max 100 milliohm	Max 100 milliohm
Standard material	Ag90%-CdO10%	Ag90%-CdO10%	Ag90%-CdO10%

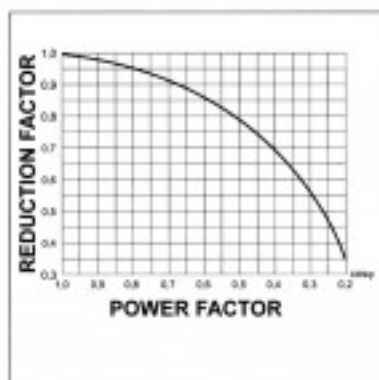
(*) Maximum admitted time 0.5 seconds - ED = 0.1

(**) Cosphi 0.7 - 250VAC Max

(***) Contact category (EN 61810-7): CC2 (1A-30V)

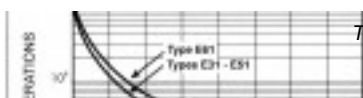


Switching power (DC1)
@ 1000 operations per hour



Reduction factor for
inductive AC loads

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Contact life Vs. AC1 load
@ 1000 operations per hour

Types E31-E51 / E52 / E61

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Approvals

