ITALIANA RELÈ

Product SPECIFICATION SHEET

ACDC DYNAMICS
www.acdc.co.za

D2 & D4

All-or-Nothing relays offering very high performance and compact size. Design includes a clear protective dust cover. Contact rating ranges from 6 to 12 Amps, depending upon contact configuration (up to four pole, changeover).

Variations available include a printed circuit and a solder/plug-in type, with AC or DC rated coils. A complete range of sockets is available for the plug-in types (see exclusive literature).

Specification

Insulation resistance @ 500 VDC	(all circuits)	>10.000 Mohm
Insulation group (VDE 110)	(2 pole type)	I Group C - 250 VAC
	(4 pole type)	I Group B - 250 VAC
Pollution degree / Insulation voltage	(2 pole type)	3 / 250 VAC (EN 61810-1)
	(4 pole type)	2 / 250 VAC (EN 61810-1)
Environmental protection	(EN 61810-1)	RT I (dust protected)
Enclosure classification	(EN 60529)	IP40
Mechanical life expectancy	(AC / DC)	20 milion operations
Electrical life expectancy	(AC / DC)	100,000 operations
Max operating frequency @ no load	(AC / DC)	18,000 operations /hour
Max operating frequency @ rated load	(AC / DC)	1,200 operations /hour
Surrounding ambient temperature	(AC)	- 25... + 55° C
	(DC)	- 40... + 70° C
Storage temperature	(AC / DC)	- 40... + 85° C
Vibration resistance	(10-150 Hz)	5g
Shock resistance	(NO / NC)	10g / 5g
Min. creepage distance (coil-contacts)	(2 / 4 pole)	4 mm / 3.2 mm
Min. insulation clearance (coil-contacts)	(2 / 4 pole)	2.5 mm / 1.6 mm
Overvoltage class	(2 / 4 pole)	III / II
Impulse withstand voltage peak	(2 / 4 pole)	4 / 2,5 KV
Type of duty		continuous
Minimum mounting distance on PCB		5 mm
Max soldering time		5 sec.
Max soldering temperature		270° C
Mounting position		any
Weight	(approx.)	35 grams

Proof Voltage & Times

DIELECTRIC STRENGTH		OPERATING TIMES	@ Rated Voltage	
Coil / contacts	2.500V RMS	Operate (+ bounces)	max 13	milliseconds
Adjacnt contacts	2.500V(*) RMS	Release (+ bounces)	max 8	milliseconds
Open contacts	1.500V RMS	Bounces	max 7	milliseconds
Ground / live parts	2.000V RMS			

(*) 4 pole = 2,000V RMS

BRANCH CONTACT DETAILS

Johannesburg	010 202 3300
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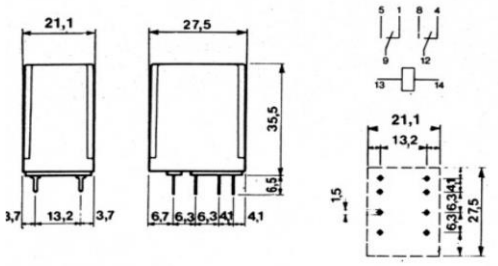
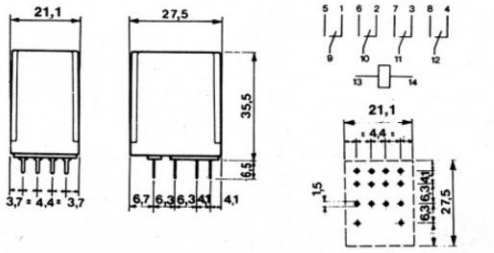


D2N - 2 pole changeover - 12A-250V AC
- plug-in/solder terminals (2.2x0.5 mm)

D2P - 2 pole changeover - 10A-250V AC
- printed circuit terminals (1x0.5 mm)

Push-to-test & Turn-to-lock button and flag indicator fitted as standard.
Cadmium-free contact material (Ag-Ni).
Special versions fitted with gold-plated contacts, LED indicator, ground bolt or fixing tabs available on request for agreed minimum quantities.



D4N - 4 pole changeover - 6A-250V AC
- plug-in/solder terminals (2.2x0.5 mm)

D4P - 4 pole changeover - 6A-250V AC
- printed circuit terminals (1x0.5 mm)

Push-to-test & Turn-to-lock button and flag indicator fitted as standard.
Cadmium-free contact material (Ag-Ni).
Special versions fitted with gold-plated contacts, LED indicator, ground bolt or fixing tabs available on request for agreed minimum quantities.

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	150	40	260	240	10
12	75	160	130	120	40
24	38	640	65	60	160
48	18	2600	33	30	640
60	15	4000	-	-	-
110	8,1	13600	14	13	3450
125	7,1	16000	-	-	-
220	4,1	54000	-	-	-
230	-	-	7	6,5	16100
(*) Resistance values @ 23° C		Tolerance on R and I:	+/- 10%		

Supply voltages:
6-12-24-48-110-230 VAC (50-60Hz) / 6-12-24-48-60-110-125-220 VDC
Rated power:
1.6 VA @ 50Hz (AC) / 1.4 VA @ 60Hz (AC) / 0.9 W (DC)
Operating range:
- 20%... + 10% (DC & AC-50Hz) / - 15%... + 10% (AC-60Hz)
Minimum hold voltage:
> 80% Vn (AC & DC)
Must release voltage:
< 20% Vn (AC) / < 10% Vn (DC)
Thermic insulation class of winding (IEC 317):
F (155°C)

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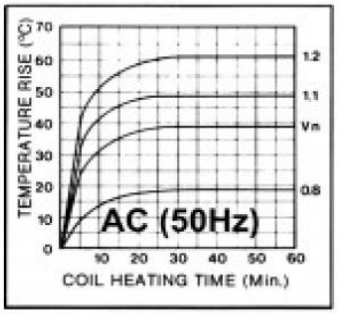
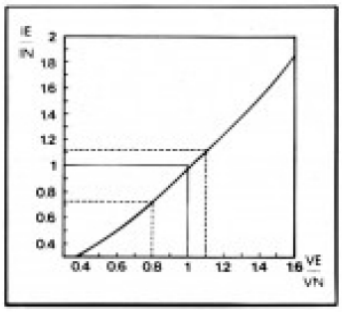


Temperature rise Vs. operating voltage

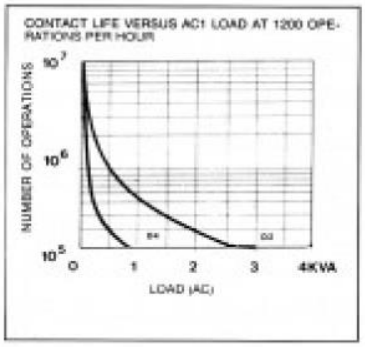


Power variation Vs. operating voltage (AC - 50/60Hz)
IE = operating current
IN = rated current
VE = operating voltage
VN = rated voltage

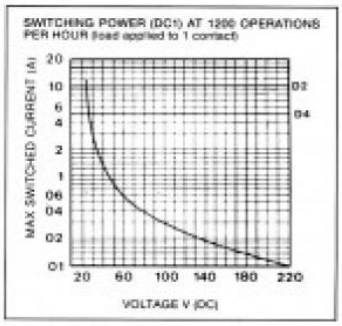
Contact Data

Power rating (AC1)	(tipo D2)	3 KVA (*)	Rated voltage	250 VAC
	(tipo D4)	1.5 KVA	Max Voltage	400 VAC
Rated current	(tipo D2)	12 A (*)	Minimum voltage	5 VAC
("Resistance only")	(tipo D4)	6 A	Switching power (DC1)	see diagram
Max istant. current (**)	(tipo D2)	24 A	Min. switched load	300 mW
	(tipo D4)	12 A	Min. switched current	5 mA
Single-phase motor load (***)	(tipo D2)	1/3 HP	Initial resistance (****)	Max. 100 milliohm
	(tipo D4)	1/10 HP	Standard material	Ag90%-Ni10%

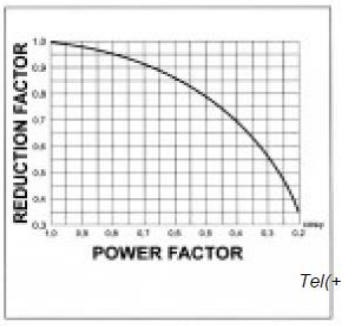
(*) PCB subtype = 10A - 2.5 KVA
(**) Maximum admitted time 0.5 seconds - ED = 0.1
(***) Cosphi 0.7 - 250VAC Max
(****) Contact category (EN 61810-7): CC2 (1A-30V)



Contact life Vs. AC1 load @ 1200 ops. per hour



Switching power (DC1) @ 1200 ops.per hour



Reduction factor for inductive AC loads

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