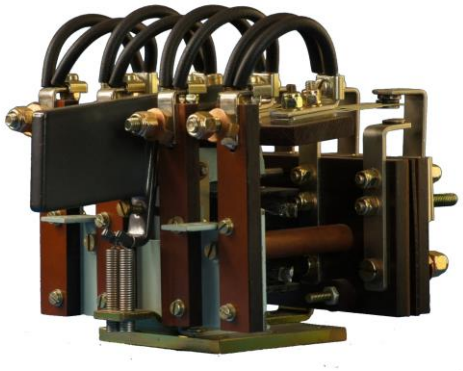
C & S Controls Ltd.
22 Upland Road,
Bexleyheath,
Kent, DA7 4NR.

Tel: +44 (0)208 304 4882
Fax: +44 (0)208 301 1938
Email: sales@candscontrolsltd.com
Web: www.candscontrolsltd.com

CO3 Heavy Duty Relay

A versatile heavy duty open framed relay for applications where a shock resistance is required.

- Relay coils up to 650V 50Hz or 250VDC supported.
- Current and 60 Hz operate coils available.
- Combination of up to 4 changeover heavy duty contacts.
- Plus up to 4 auxiliary changeover contacts.



1. Description

The relay design incorporates a laminated core and a laminated armature mounted on a stainless steel shaft with oilite bearings. Main contact and coil connections are via wiring terminals mounted on the terminal board assemblies. Auxiliary contact connections are via solder terminals. Relays are supplied with mounting brackets as standard; special version for MOD variants (details available on request).

2. Technical

2.1 Main Contacts

Up to 4 make, break or changeover, heavy duty contacts rated at 15 amps 240VAC or 1 amp 240VDC non-inductive. Silver contacts are fitted as standard, alternative materials are available. For switching DC loads magnetic blow-outs (MBO) are recommended; refer to DC switching graph for details. When using silver/tungsten contacts in parallel to switch AC inductive loads it is normal practice to configure the outer pair of tungsten contacts to make before and break after the silver inner contacts. In this configuration the tungsten contacts provide the inductive load switching, protecting the inner silver current carrying contacts. When using silver/tungsten contacts in this configuration the contact combination is limited to 2 sets of make or break contacts.

2.2 Auxiliary Contacts

The relay can be equipped with a maximum of 4 sets of auxiliary contacts; make, break and changeover contact sets are available. Silver contacts are fitted as standard, rated at 6 amps 250 VAC or 50VDC resistive loads; alternative materials are available.

2.3 Coils

The power consumption will vary between 10VA and 22VA or 3 and 6 watts dependent on the number and type of contact arrangements fitted; with a maximum of 24VA and 8 watts. All coils are vacuum impregnated.

Voltage tolerance: AC -15% to +10%
DC -20% to +10%

Current operated relays are adjusted to operate by the specified current.

2.4 Operate Times (typical)

	DC	AC
Operate:	50ms	20ms
Release:	20ms	12ms

2.5 Life Expectancy

Mechanical: greater than 10^7
Contact*: greater than 10^6
*Anticipated life expectancy on full load, is dependent on type and magnitude of load and frequency of operation.

2.6 Insulation

2000 VAC 50Hz RMS for 1 minute.

2.7 Nominal Temperature Range.

-10°C to +40°C. In certain applications this can be increased to +70°C.

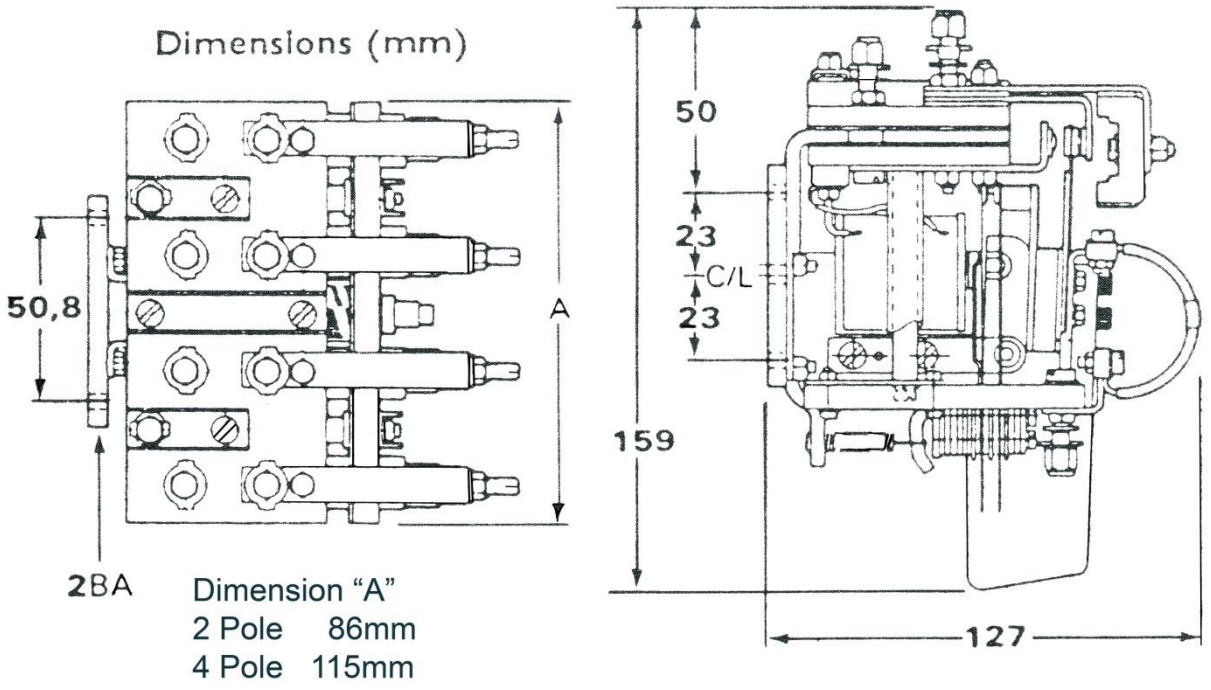
2.8 Weight

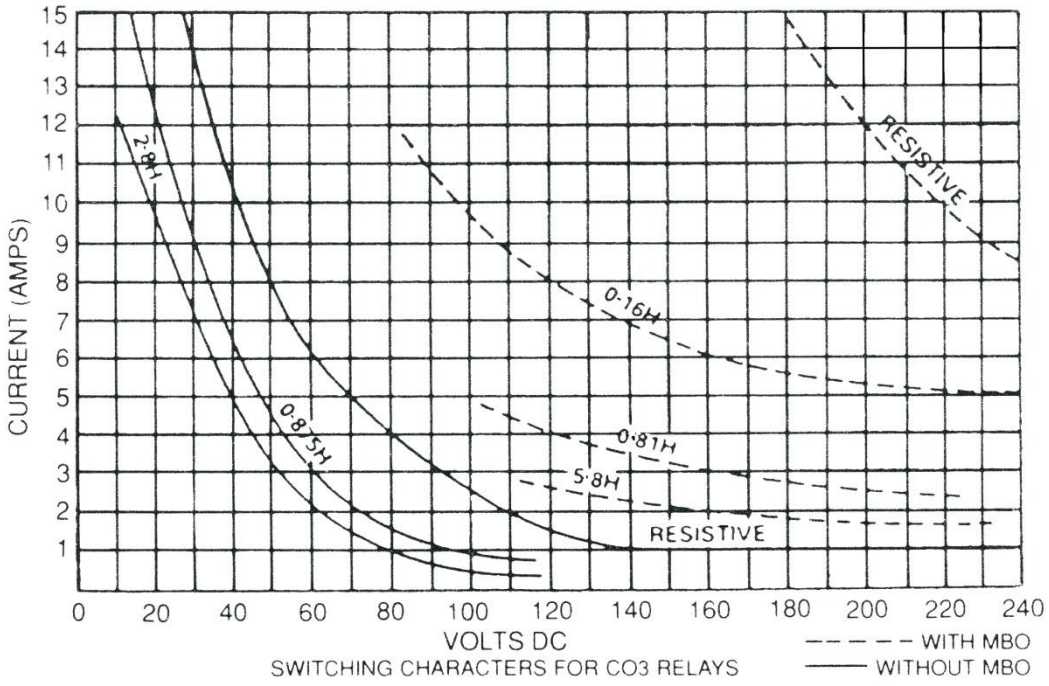
Approximately 900-1300 grams.

2.9 MOD Approved Relays

Special versions are available to meet MOD requirements including types to withstand high shock levels. Contact Sales for details.

3. Diagrams


Dimensions (mm)
50,8
A
2BA
Dimension "A"
2 Pole 86mm
4 Pole 115mm
50
23
C/L
23
159
127


CURRENT (AMPS)
VOLTS DC
2·8H
0·875H
0·16H
0·81H
5·8H
RESISTIVE
RESISTIVE
WITH MBO
WITHOUT MBO
SWITCHING CHARACTERS FOR CO3 RELAYS