

# Multi 9

## CT modular contactors



Modular contactors are not only used in the residential sector but in the commercial sector or in industrial utilities for the control of single or three-phase loads up to 100 A.

They act as an interface between the order giver (e.g. power utility signal, load-shedding device, pushbutton, thermostat, programmable time switch, centralised technical management, ...) and the power circuit for final circuits: lighting, utility motors: ventilation, heat pumps, watering systems, hot water, heating, ovens, climatic chambers...

### Operation

- > with normally open poles (N/O), pole closing is controlled by the presence of voltage on the coil and pole opening by the disappearance of this voltage,
- > with normally closed poles (N/C), the poles are closed with the coil de-energized and open when the coil is fed with power.

### Advantages

A complete range of modular contactors:

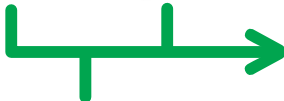
- > 16 to 100 A ratings in single, two, three or four-pole.
- > Closing, opening or mixed poles.
- > Comply with the standards in residential and tertiary applications: EN 61095 and IEC 1095.
- > Silent (< 20 dB).
- > With an adaptable indication auxiliary for 25 to 100 A contactors.
- > With control auxiliaries compatible with the reverser relay range and remote control of the C60 circuit-breaker.
- > Anti-interference filter.
- > With accessories: screw cover, clip-on markers, spacers.
- > Homogenous with the entire Multi 9 offer:
  - matching design,
  - same profile,
  - identical connections.



## The range

time delay  
ATEt

anti-interference  
ACTp



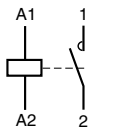
ACTo+f



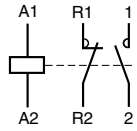
impulse/latched  
control  
ACTc



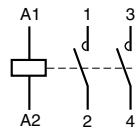
## Schematic diagrams



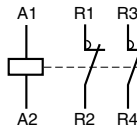
1-pole (1N/O)



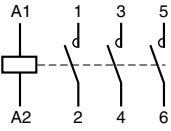
2-pole (1N/C+1N/O)



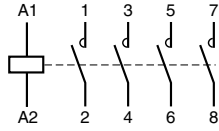
2-pole (2N/O)



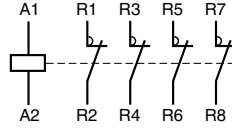
2-pole (2N/C)



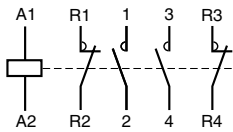
3-pole (3N/O)



4-pole (4N/O)



4-pole (4N/C)



4-pole (2N/C+2N/O)

## Choice table

Number of poles	Power circuit Rating (A)	Power circuit Voltage (V AC)	Width in mod. (of 9mm)	Type of contacts	Control circuit voltage (V AC)	References
1P	25	250	2	1N/O	230/240	15958
2P	16	250	2	1N/C+1N/O	230/240	15956
			2	2N/O	230/240	15957
	25	250	2	2N/O	230/240	15959
			2	2N/O	24	16020
			2	2N/C	230/240	15960
	40	250	4	2N/O	230/240	15966
	63	250	4	2N/O	230/240	15971
100	250	6	2N/O	24	16024	
3P	25	400	4	3N/O	230/240	15977
	40	400	6	3N/O	230/240	15961
	63	400	6	3N/O	230/240	15967
4P	25	400	4	4N/O	230/240	15972
			4	4N/O	24	16022
			4	4N/C	230/240	15962
			4	4N/C	24	16023
	40	400	4	2N/C+2N/O	230/240	15964
			6	4N/O	230/240	15968
	63	400	6	4N/C	230/240	15969
			6	4N/O	230/240	15973
			6	4N/O	24	16025
			6	4N/C	230/240	15974
			6	4N/C	24	16026
			6	2N/C+2N/O	230/240	15975
	100	400	12	4N/O	230/240	15978

Type	Rating (A)	Consumption inrush (VA)	Holding (VA)	Max. power (W)
1P, 2P	16/25	15	3.8	1.1
3P, 4P	16/25	34	4.6	1.6
2P	40/63	34	4.6	1.6
3P, 4P	40/63	53	6.5	2.1
2P	100	53	6.5	2.1
4P	100	106	13	4.2

## Implementation

- > Designed to be installed in modular switch boxes and switchboards.
- > Optimised dimensions: in accordance with the rating and number of poles.
- > Easy symmetrical rail mounting using a two-state latch.
- > Easy connection using grooved tunnel terminals with flap.
- > Mixed +/- socket screws which cannot be lost.
- > Auxiliaries simply clipped on to contactors.

## Specifications

### Electrical specifications

- > Power circuit:
  - rating at 40°C: 16 to 100 A (AC7a category).
- > Control circuit:
  - operating voltage:
    - 24 V AC  $\pm$  10%,
    - 230/240 V AC: -15% +6%,
  - coil frequency: 50 Hz.
- > Electrical endurance:
  - AC1 and AC7a categories:
    - 16 A ratings, 100,000 operations,
    - 25 A ratings, 250,000 operations,
    - 40-63-100 A ratings, 200,000 operations.

### Mechanical specifications

- > Visualisation of contactor state on front panel.
- > Connections:
  - control circuit:
    - rigid cable: 2 x 1.5 mm<sup>2</sup>,
    - flexible cable: 2 x 2.5 mm<sup>2</sup>,
  - power circuit:
    - rigid cable:
      - 6 mm<sup>2</sup> up to 25 A,
      - 25 mm<sup>2</sup> for 40 and 63 A,
      - 50 mm<sup>2</sup> for 100 A.
    - flexible cable:
      - 2 x 2.5 mm<sup>2</sup> up to 25 A,
      - 2 x 10 mm<sup>2</sup> for 40 and 63 A,
      - 6 to 35 mm<sup>2</sup> for 100 A.

## Environment

- > Tropicalisation: treatment 2 (relative humidity: 95% at 55°C).
- > Protection class: IP 201 (front panel: IP 4).
- > Operating temperature: -5°C to +50°C.
- > Storage temperature: -40°C to +70°C.
- > Complies with the strictest regulations and directives in the area of "environmental protection".

Owing to changes in standards and equipment, the characteristics given in the text and images in this document are not binding until they have been confirmed with us.

## Schneider Electric New Zealand Ltd

Customer Care Freecall 0800 652 999

www.schneider-electric.co.nz

© Schneider Electric 2009