RCL

Capacitor banks for COMAR switchboard type G9E

The RCL series drawers are designed for our **G9E-type** cabinets. Inside each drawer are assembled triads of single-phase capacitors. The versions shown in the catalogue are all equipped with blocking inductors, for applications with a high level of current harmonic distortion.

PERFORMANCE DATA

Tolerance on capacitance	-5% / +10
Rated frequency	50 Hz
Power supply	Three-phase + earth
Voltage overload	1.1 Un (max. 8 hrs. per 24)
Safety System	Overpressure device Thermal probe (reactor)
Auxiliary circuits	230 Vac

HARMONIC CONTENT

RCL-AAR/138:	THD(I)max. = 100 % THD(U)max. = 6%.	in the grid in the grid
RCL-AAR/D20	THD(I)max. = 100 % THD(U)max. = 20 %	in the grid in the grid

TECHNICAL DATA

Rack
Made of galvanised sheet steel.

Ventilation
Not present. By the installer/assembler.

Installation
Indoor, in enclosure not exposed to direct sunlight.

Protection degree
IP 00.

Fuses
The capacitive banks are protected by fuses. The protection of the power circuits (fuses NH-00 curve gG) involves the use of high breaking capacity fuses (100kA).

Contactors
3-phase Class AC6-b contactor suitable for switching capacitive loads.

Capacitors
Single-phase capacitors made of self-healing metallised polypropylene (MKP), equipped with over-pressure device and discharge resistor. Impregnated with PCBs-free vegetable oil. Delta connection. Continuous duty type.
- nominal voltage / max. voltage
- **AAR/138**: 500 Vac / 550 Vac
- **AAR/D20:** 550 Vac / 600 Vac
- overvoltage: 1.1 x Un (8h / 24h)
- current overload: 1.3 x In
- capacitance tolerance: -5% / +10%.

Tuning reactors
For AAR/D20 series:
- Tuning frequency: 189 Hz (p = 7%)
- Power losses: 6 W / kvar (AVG)

For AAR/138 series:
- Tuning frequency: 138 Hz (p = 14%)
- Power losses: 6.5 W / kvar (AVG)

Thermal category
All equipped with temperature probe to shut-down the bank in case of overtemperature

Working temperature

QUALITY AND TESTING

Regulations
IEC / EN 60831-1/2. EN 61921.

European Directives
Low voltage: 2014/35/EC; Electromagnetic compatibility: 2014/30/EC.

Testing
100 % of equipment undergoes visual inspection, insulation testing, phase-to-phase and phase-to-ground, power testing checks

STANDARD CONFIGURATIONS

Note

- The power rating is expressed at 400 V - 50 Hz.
- Capacitor banks must be protected by a disconnection and protection device and earthed. (in charge of installer)
- The racks are available in different series, for applications with different current harmonic content or different voltage harmonic content (series with inductances), permissible on capacitors.
- Dimension 'L' refers to the overall depth, taking the contactor into account.

With tuning reactor (and 130°C temperature probe, N.C.):

RCL-AAR/138: THD(I)max. = 100% in the network
THD(U)max. = 6% in the network

RCL-AAR/D20: THD(I)max. = 100% in the network
THD(U)max. = 20% in the network

Code	Type	Qn (kvar)	In (A)	bank power (kvar)	Dimensions A x B x L x H (mm)	Weight (kg)
8831402250900	RCL-AAR/138	25	36	25	732 x 375 x 480 x 300	35
8831402500900	RCL-AAR/138	50	72	50	732 x 375 x 480 x 300	43
8831403050900	RCL-AAR/138	50	72	2x25	732 x 375 x 480 x 300	68
8831402750900	RCL-AAR/138	75	108	75	732 x 375 x 480 x 300	60
8901402250720	RCL-AAR/D20	25	36	25	732 x 375 x 480 x 300	44
8901402500720	RCL-AAR/D20	50	72	50	732 x 375 x 480 x 300	70
8901403050720	RCL-AAR/D20	50	72	2x25	732 x 375 x 480 x 300	74
8901402750720	RCL-AAR/D20	75	108	75	732 x 375 x 480 x 300	85