RCM

Capacitor banks for COMAR switchboard types G6E and G8E



The **RCM** series banks are designed for our **G6E** and **G8E** type cabinets. Inside each rack are assembled triads of single-phase capacitors. Versions with blocking inductors (AAR/... series) are available for high levels of harmonic current 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)
Connection	M8 bolt on the fuse holder
Auxiliary circuits	230 Vac

HARMONIC CONTENT

	THD(I) max	THD(Ic) max.
RCM-B15:	15%	50%
RCM-B35:	25%	70%
RCM-B50:	35%	80%
RCM-DMP-FTV	40%	90%

Resonance NOT ADMITTED

with detuning reactor	p=	THD(U) max	THD(I) max
RCM-AAR/100	7%	3%	100%
RCM-AAR/600	7%	6%	100%
RCM-AAR/6	7%	10%	100%
RCM-AAR/D20	7%	20%	100%
RCM-AAR/138	14%	6%	100%

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 (SH) metallised polypropylene (MKP) Over pressure safety device PCB-free vegetable oil impregnation Continuous service Current overload: 1.3 x In Dissipation losses: ≤0.4 W/kvar Discharge resistor (75V within 3') Delta connection. Overvoltage: 1.1 x Un (8h / 24h) Capacitance tollerance: -5% / +10% Temperature category: -25 / D rated voltage / max. voltage - B15: 415 Vac / 450 Vac - B35: 450 Vac / 500 Vac - B50: 500 Vac / 550 Vac - AAR/100, AAR/600: 500 Vac / 550 Vac - DMP-FTV, AAR/6, AAR/138, AAR/D20: 550 Vac / 600 Vac
Tuning reactors	AAR/100 - AAR/600 – AAR/6 - AAR/D20: • Tuning frequency: 189 Hz (p = 7%) • Power losses: 6 W / kvar (AVG) AAR/138: • Tuning frequency: 138 Hz (p = 14%) • Power losses: 6.5 W / kvar (AVG) Reactors are equipped with temperature probe to shut down the bank in case of overtemperature
Working temperature	-5°C / +40°C

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

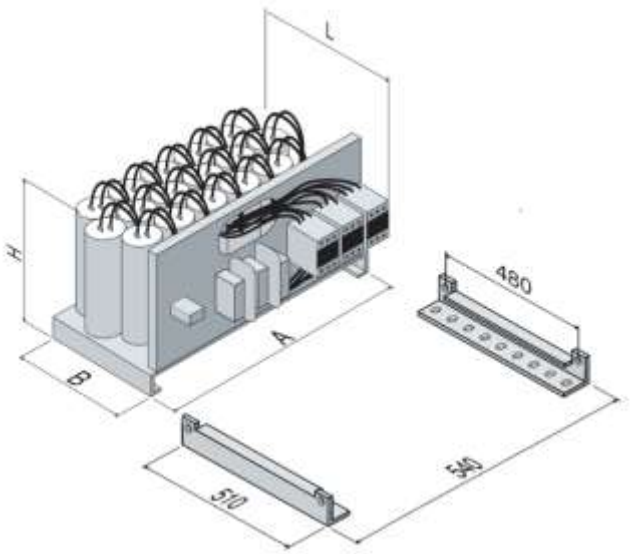
STANDARD CONFIGURATIONS

Without tuning reactor: Qn expressed at Un=415V

Serie								
RCM-B15	RCM-B35	RCM-B50	RCM-DMP-FTV	Qn	In	Step power	Dimension	Weight
Code	Code	Code	Cod	(kvar)	(A)	(kvar)	A x B x L x H (mm)	(kg)
8701412500420	8791412500440	8721412500450	8771412500500	50	70	50	532 x 375 x 480 x 300	15
8701413050420	8791413050440	8721413050450	8771413050500	50	70	2x25	532 x 375 x 480 x 300	18
8701412750420	8791412750440	8721412750450	8771412750500	75	104	75	532 x 375 x 480 x 300	20
8701413075420	8791413075440	8721413075450	8771413075500	75	104	25+50	532 x 375 x 480 x 300	23
8701413100420	8791413100440	8721413100450	8771413100500	100	139	2x50	532 x 375 x 480 x 300	25
8701413150420	8791413150440	8721413150450	8771413150500	150	209	2x75	532 x 375 x 480 x 300	29
8701414015420	8791414015440	8721414015450	8771414015500	150	209	25+50+75	532 x 375 x 480 x 300	30

With tuning reactor Qn expressed at Un=400V

Code	Type	Qn (kvar)	In (A)	bank power (kvar)	Dimensions H x B x W x H (mm)	Weight (kg)
8731402125750	RCM-AAR/100	12,5	18	12,5	532 x 375 x 480 x 300	24
8731402250750	RCM-AAR/100	25	36	25	532 x 375 x 480 x 300	30
8731402500750	RCM-AAR/100	50	72	50	532 x 375 x 480 x 300	44
8731403050750	RCM-AAR/100	50	72	2x25	532 x 375 x 480 x 300	64
8731402750750	RCM-AAR/100	75	108	75	532 x 375 x 480 x 300	56
8731403075750	RCM-AAR/100	75	108	25+50	532 x 375 x 480 x 300	69
8831402125700	RCM-AAR/138	12,5	18	12,5	532 x 375 x 480 x 300	26
8831402225700	RCM-AAR/138	25	36	25	532 x 375 x 480 x 300	33
8831402500700	RCM-AAR/138	50	72	50	532 x 375 x 480 x 300	45
8741402125650	RCM-AAR/600	12,5	18	12,5	532 x 375 x 480 x 300	26
8741402225650	RCM-AAR/600	25	36	25	532 x 375 x 480 x 300	34
8741402500650	RCM-AAR/600	50	72	50	532 x 375 x 480 x 300	46
8741403050650	RCM-AAR/600	50	72	2x25	532 x 375 x 480 x 300	56
8741403075650	RCM-AAR/600	75	108	75	532 x 375 x 480 x 300	68
8741402125130	RCM-AAR/6	12,5	18	12,5	532 x 375 x 480 x 300	25
8741402250130	RCM-AAR/6	25	36	25	532 x 375 x 480 x 300	38
8741402500130	RCM-AAR/6	50	72	50	532 x 375 x 480 x 300	50
8901402250620	RCM-AAR/D20	25	36	25	532 x 375 x 480 x 300	34
8901402500620	RCM-AAR/D20	50	72	50	532 x 375 x 480 x 300	46



- 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.