


CV, Power capacitors for LV

Type	Code	kvar 50 Hz	kvar 60 Hz	Size (mm) width x hei- ght x depth	Use volta- ge (V)	weight (kg)
230 Vac						
CV-23/2,5	[*] R20114.	2.5	3	204x435x75	230	3,30
CV-23/3,75	[*] R20116.	3.75	4.5	204x435x75	230	3,50
CV-23/5	[*] R20118.	5	6	204x435x75	230	3,50
CV-23/7,5	[*] R2011A.	7.5	9	204x435x75	230	3,00
CV-23/10	[*] R2011C.	10	12.5	204x435x75	230	4,30
CV-23/12,5	[*] R2011D.	12.5	15	204x435x75	230	4,50
CV-23/15	[*] R2011E.	15	17.5	204x435x75	230	4,00
400 Vac						
CV-40/2,5	[*] R20134.	2.5	3	204x435x75	400	2,50
CV-40/5	[*] R20138.	5	4.5	204x435x75	400	3,10
CV-40/7,5	[*] R2013A.	7.5	9	204x435x75	400	3,00
CV-40/10	[*] R2013C.	10	12.5	204x435x75	400	3,20
CV-40/12,5	[*] R2013D.	12.5	15	204x435x75	400	3,45
CV-40/15	[*] R2013E.	15	17.5	204x435x75	400	4,20
CV-40/20	[*] R2013F.	20	25	204x435x75	400	4,20
CV-40/25	[*] R2013G.	25	30	204x435x75	400	4,30

Type	Code	kvar 50 Hz	kvar 60 Hz	Size (mm) width x hei- ght x depth	Use volta- ge (V)	weight (kg)
440 Vac						
CV-44/2,5	[*] R20144.	2.5	3	204x435x75	440	3,20
CV-44/5	[*] R20148.	5	4.5	204x435x75	440	3,30
CV-44/7,5	[*] R2014A.	7.5	9	204x435x75	440	3,40
CV-44/10	[*] R2014C.	10	12.5	204x435x75	440	3,30
CV-44/12,5	[*] R2014D.	12.5	15	204x435x75	440	3,30
CV-44/15	[*] R2014E.	15	17.5	204x435x75	440	3,20
CV-44/20	[*] R2014F.	20	25	204x435x75	440	4,60
CV-44/25	[*] R2014G.	25	30	204x435x75	440	4,30
CV-44/30	[*] R2014J.	30	35	204x435x75	440	4,30
460 Vac						
CV-46/2,5	[1] R20154.	2.5	3	204x435x75	460	1,00
CV-46/5	[1] R20158.	5	6	204x435x75	460	1,00
CV-46/7,5	[1] R2015A.	7.5	9	204x435x75	460	3,20
CV-46/10	[1] R2015C.	10	12.5	204x435x75	460	3,10
CV-46/12,5	[1] R2015D.	12.5	15	204x435x75	460	3,90
CV-46/15	[*] R2015E.	15	17.5	204x435x75	460	4,30

CQ, Power capacitors for LV

Type	Code	kvar 50 Hz	kvar 60 Hz	Size (mm) width x hei- ght x depth	Use voltage (V)	weight (kg)
230 Vac						
CQ-23/10	[*] R2031C.	10	12.5	360x520x75	230	6,10
CQ-23/12,5	[*] R2031D.	12.5	15	360x520x75	230	4,90
CQ-23/15	[*] R2031E.	15	17.5	360x520x75	230	4,90
CQ-23/20	[*] R2031F.	20	25	360x520x75	230	6,40
CQ-23/25	[*] R2031G.	25	30	360x520x75	230	7,90
CQ-23/30	[*] R2031H.	30	35	360x520x75	230	7,90
400 Vac						
CQ-40/10	[*] R2033C.	10	12.5	360x520x75	400	5,70
CQ-40/12,5	[*] R2033D.	12.5	15	360x520x75	400	5,51
CQ-40/15	[*] R2033E.	15	17.5	360x520x75	400	5,90
CQ-40/20	[*] R2033F.	20	25	360x520x75	400	6,00
CQ-40/25	[*] R2033G.	25	30	360x520x75	400	6,40
CQ-40/30	[*] R2033H.	30	35	360x520x75	400	7,10
CQ-40/40	[*] R2033J.	40	50	360x520x75	400	8,50
CQ-40/50	[*] R2033K.	50	60	360x520x75	400	8,54
440 Vac						

Type	Code	kvar 50 Hz	kvar 60 Hz	Size (mm) width x hei- ght x depth	Use voltage (V)	weight (kg)
CQ-44/15	[*] R2034E.	15	17.5	360x520x75	440	4,60
CQ-44/20	[*] R2034F.	20	25	360x520x75	440	6,00
CQ-44/25	[*] R2034G.	25	30	360x520x75	440	6,50
CQ-44/30	[*] R2034H.	30	35	360x520x75	440	6,50
CQ-44/40	[*] R2034J.	40	50	360x520x75	440	8,27
CQ-44/50	[*] R2034K.	50	60	360x520x75	440	8,63
460 Vac						
CQ-46/10	[C] R2035C.	10	12.5	360x520x75	460	4,10
CQ-46/12,5	[C] R2035D.	12.5	15	360x520x75	460	4,40
CQ-46/15	[C] R2035E.	15	17.5	360x520x75	460	4,90
CQ-46/20	[C] R2035F.	20	25	360x520x75	460	6,20
CQ-46/25	[C] R2035G.	25	30	360x520x75	460	7,30
CQ-46/30	[C] R2035H.	30	35	360x520x75	460	7,20
CQ-46/40	[C] R2035J.	40	50	360x520x75	460	7,90
CQ-46/50	[C] R2035K.	50	60	360x520x75	460	8,50
CQ-46/60	[C] R2035L.	60	0	360x520x75	460	9,60

CSB-A, Fixed capacitors with automatic protection 50 Hz

Type	Code	400 V kvar	440 V kvar	Cut off power	Aut.Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
CSB-A- 25 - 440	[2] R2473H.	21	25	50 kA	63	16	360x814x196	16,00
CSB-A- 37,5 - 440	[2] R2473G.	31	37.5	50 kA	80	25	360x814x196	13,00
CSB-A- 50 - 440	[2] R2473J.	42	50	50 kA	100	25	360x814x196	15,00
CSB-A- 60 - 440	[2] R2473K.	50	60	50 kA	125	35	360x814x196	18,00
CSB-A- 75 - 440	[2] R2473L.	62	75	50 kA	160	50	360x100x196	21,00
CSB-A- 100 - 440	[2] R2473M.	83	100	50 kA	200	70	360x100x196	22,00
CSB-A- 120 - 440	[2] R2473N.	100	120	50 kA	250	95	360x100x196	28,00



CSB-M, Power capacitors with circuit breaker protection

Type	Code	230 V kvar	Cut off power	Aut.Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
230 Vac, 50 Hz							
CSB-M - 5 - 230	[1] R23718.	5	6 kA	20	6	140x381x280	9,00
CSB-M - 7,5 - 230	[1] R2371A.	7.5	6 kA	32	6	140x381x280	9,20
CSB-M - 10 - 230	[1] R2371C.	10	6 kA	40	10	140x381x280	9,50
CSB-M - 12,5 - 230	[1] R2371D.	12.5	6 kA	50	10	140x381x280	7,00
CSB-M - 15 - 230	[1] R2371E.	15	6 kA	63	16	140x381x280	11,30
CSB-M - 20 - 230	[1] R2371F.	20	10 kA	80	25	140x381x280	11,80
CSB-M - 25 - 230	[1] R2371G.	25	10 kA	100	35	140x381x280	12,00
CSB-M - 30 - 230	[1] R2371H.	30	10 kA	125	50	140x381x280	13,00

Type	Code	400 V kvar	440 V kvar	Cut off power (A)	Aut.Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
440 Vac, 50 Hz								
CSB-M- 5 - 440	[1] R23948.	4	5	6 kA	10	6	140x381x280	5,50
CSB-M- 7,5 - 440	[1] R2394A.	6	7.5	6 kA	16	6	140x381x280	6,00
CSB-M- 10 - 440	[1] R2394C.	8	10	6 kA	20	6	140x381x280	6,00
CSB-M- 12,5 - 440	[*] R2394D.	10	12.5	6 kA	25	6	140x381x280	6,20
CSB-M- 15 - 440	[1] R2394E.	12.5	15	6 kA	32	6	140x381x280	4,90
CSB-M- 20 - 440	[*] R2394F.	17	20	6 kA	40	10	140x381x280	7,20
CSB-M- 25 - 440	[*] R2394G.	21	25	6 kA	50	10	140x381x280	6,90
CSB-M- 30 - 440	[*] R2394H.	25	30	6 kA	63	16	140x381x280	6,80
CSB-M- 37,5 - 440	[*] R2394J.	31	37.5	10 kA	80	25	140x381x280	8,10
CSB-M- 50 - 440	[*] R2394K.	42	50	10 kA	100	35	140x381x280	9,80
CSB-M- 60 - 440	[*] R2394L.	50	60	10 kA	125	50	140x571x280	9,00
CSB-M- 75 - 440	[*] R2394M.	66	75	10 kA	160	50	140x571x280	13,00



CSB-F, Power capacitors with fuse protection

Type	Code	230 V kvar	Cut off power	Fuses (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
230 V, 50 Hz							
CSB-F - 5 - 230	[1] R23618.	5	50 kA	20	6	140x381x280	9,00
CSB-F - 7,5 - 230	[1] R2361A.	7.5	50 kA	35	6	140x381x280	9,20
CSB-F - 10 - 230	[1] R2361C.	10	50 kA	50	10	140x381x280	9,50
CSB-F - 12,5 - 230	[1] R2361D.	12.5	50 kA	63	10	140x381x280	9,50
CSB-F - 15 - 230	[1] R2361E.	15	50 kA	80	16	140x381x280	11,30
CSB-F - 20 - 230	[1] R2361F.	20	50 kA	100	25	140x381x280	11,80
CSB-F - 25 - 230	[1] R2361G.	25	50 kA	125	35	140x381x280	12,00
CSB-F - 30 - 230	[1] R2361H.	30	50 kA	160	50	140x381x280	13,00
CSB-F - 40 - 230	[1] R2361J.	40	50 kA	160	70	140x571x280	14,50

Type	Code	400 V kvar	440 V kvar	Cut off power	Fuses (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
440 V, 50 Hz								
CSB-F- 5 - 440	[1] R23958.	4	5	50 kA	16	6	140x381x280	7,00
CSB-F- 7,5 - 440	[1] R2395A.	6	7.5	50 kA	20	6	140x381x280	7,50
CSB-F- 10 - 440	[1] R2395C.	8	10	50 kA	25	6	140x381x280	7,80
CSB-F- 12,5 - 440	[1] R2395D.	10	12.5	50 kA	35	6	140x381x280	8,10
CSB-F- 15 - 440	[1] R2395E.	12.5	15	50 kA	50	6	140x381x280	8,30
CSB-F- 20 - 440	[1] R2395F.	17	20	50 kA	50	10	140x381x280	8,00
CSB-F- 25 - 440	[1] R2395G.	21	25	50 kA	50	10	140x381x280	8,00
CSB-F- 30 - 440	[1] R2395H.	25	30	120 kA	80	16	140x381x280	8,00
CSB-F- 37,5 - 440	[1] R2395J.	31	37.5	120 kA	100	25	140x381x280	9,22
CSB-F- 50 - 440	[1] R2395K.	42	50	120 kA	125	35	140x381x280	10,00
CSB-F- 60 - 440	[1] R2395L.	50	60	120 kA	160	50	140x571x280	10,00
CSB-F- 75 - 440	[1] R2395P.	63	75	120 kA	160	70	140x571x280	13,00
CSB-F- 100 - 440	[1] R2395Q.	80	100	120 kA	160	70	140x571x280	15,00


OPTIM-FRF, Fixed capacitors with rejection reactance of $p = 7\%$

Type	Code	400 V kvar	440 V kvar	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
OPTIM FRF, fuse protection APR, 440 V, 50 Hz						
OPTIM FRF-25-440	[2] R5X350.	21	25	10	650x1060x420	78,00
OPTIM FRF-37,5-440	[2] R5X370.	31	37.5	16	650x1060x420	82,00
OPTIM FRF-50-440	[2] R5X380.	42	50	25	650x1060x420	85,00
OPTIM FRF-60-440	[2] R5X390.	50	60	35	650x1060x420	90,00
OPTIM FRF-75-440	[2] R5X3A0.	62	75	50	650x1060x420	96,00
OPTIM FRF-100-440	[2] R5X3B0.	83	100	70	650x1060x420	110,00


OPTIM-FRM, Fixed capacitors with rejection reactance of $p = 7\%$

Type	Code	400 V kvar	440 V kvar	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
OPTIM FRM, tripolar automatic protection, 440 V, 50 Hz						
OPTIM FRM-25-440	[2] R5Y350.	21	25	10	650x1060x420	78,00
OPTIM FRM-37,5-440	[2] R5Y370.	31	37.5	16	650x1060x420	82,00
OPTIM FRM-50-440	[2] R5Y380.	42	50	25	650x1060x420	85,00
OPTIM FRM-60-440	[2] R5Y390.	50	60	35	650x1060x420	90,00
OPTIM FRM-75-440	[2] R5Y3A0.	62	75	50	650x1060x420	96,00
OPTIM FRM-100-440	[2] R5Y3B0.	83	100	70	650x1060x420	110,00


CLP-C, CLZ Capacitor with circuit breaker and contactor

Type	Code	440 V kvar	In (A)	Cut off power	IP	Size (mm) width x height x depth
440 Vac / 50Hz						
CLP-C-44/2,5	[C] R22574.	2.5	3.28	6 kA	20	215x490x147
CLP-C-44/3	[C] R22575.	3	3.94	6 kA	20	215x490x147
CLP-C-44/5	[C] R22578.	5	6.57	6 kA	20	215x490x147
CLP-C-44/6,25	[C] R22579.	6.25	8.21	6 kA	20	215x490x147
CLP-C-44/7,5	[C] R2257A.	7.5	9.85	6 kA	20	215x490x147
CLP-C-44/10	[C] R2257C.	10	13	6 kA	20	215x490x147
CLP-C-44/12,5	[C] R2257D.	12.5	16	6 kA	20	215x490x147
CLP-C-44/15	[C] R2257E.	15	20	6 kA	20	215x490x147
CLP-C-44/20	[C] R2257F.	20	26	6 kA	20	215x490x147
CLP-C-44/25	[C] R2257G.	25	33	6 kA	20	215x490x147

CLP, Power capacitor with circuit breaker

Type	Code	440 V kvar	In (A)	Cut off power	IP	Size (mm) width x height x depth
440 Vac / 50Hz						
CLP-44/2,5	[2] R21574.	2.5	3.28	6 kA	20	80x350x85
CLP-44/3	[2] R21575.	3	3.94	6 kA	20	80x350x85
CLP-44/5	[2] R21578.	5	6.57	6 kA	20	80x350x85
CLP-44/6,25	[2] R21579.	6.25	8.21	6 kA	20	80x350x85
CLP-44/7,5	[2] R2157A.	7.5	9.85	6 kA	20	80x350x85

ACF, CSB capacitor with contactor and fuses

Type	Code	230 V kvar	In (A)	Cut off power	Fuses (A)	Cable section (mm2)	Size (mm) width x height x depth	weight (kg)
230 V / 50 Hz								
ACF-20-230	[1] R3S141.	20	50	120 kA	125	25	360x814x196	17,00
ACF-25-230	[1] R3S151.	25	63	120 kA	125	35	360x1004x196	21,00
ACF-30-230	[1] R3S161.	30	75	120 kA	160	50	360x1004x196	22,00
ACF-40-230	[1] R3S181.	40	100	120 kA	160	70	360x1004x196	27,00

Type	Code	400 V kvar	440 V kvar	In (A)	Cut off power	Fuses (A)	Cable section (mm2)	Size (mm) width x height x depth	weight (kg)
440 V / 50 Hz									
ACF-12,5-440	[1] R3S421.	10	12.5	16	120 kA	35	6	360x814x196	12,00
ACF-15-440	[1] R3S431.	12.5	15	20	120 kA	35	10	360x814x196	13,00
ACF-20-440	[1] R3S441.	17	20	26	120 kA	50	10	360x814x196	14,00
ACF-25-440	[1] R3S451.	21	25	33	120 kA	63	10	360x814x196	15,00
ACF-30-440	[1] R3S461.	25	30	39	120 kA	80	16	360x814x196	15,00
ACF-37,5-440	[1] R3S481.	31	37.5	49	120 kA	80	25	360x814x196	17,00
ACF-50-440	[1] R3S491.	42	50	66	120 kA	125	35	360x814x196	21,00
ACF-60-440	[1] R3S4A1.	50	60	79	120 kA	160	50	360x1004x196	22,00
ACF-75-440	[1] R3S4B1.	63	75	99	120 kA	160	70	360x1004x196	24,00
ACF-100-440	[1] R3S4D1.	80	100	131	120 kA	160	70	360x1004x196	29,00

Switch and cable cross-section for installations with Un= 400 V. The installation company must ensure compliance with the low voltage directive at all times, in accordance with the particularities of each installation and type of cable

Supplement selection table to adapt CSB / CFB capacitor height to a capacitor bank equipped with CS / CF capacitors

CS / CF Capacitor TO REPLACE		CSB / CFB NEW capacitor		SP-XXX [*] R2ZZZ	
Total capacitor height (box + terminals) (mm)	Height box capacitor (mm)	Total height of capacitor (box+terminals) (mm)	Capacitor box height (mm)		
390	330	330	270	SP-60	[*] R2ZZZ1
610	550	520	460	SP-90	[*] R2ZZZ2
760	700	610	550	SP-150	[*] R2ZZZ3

Dimensions

CSB / CFB

CLZ-FP

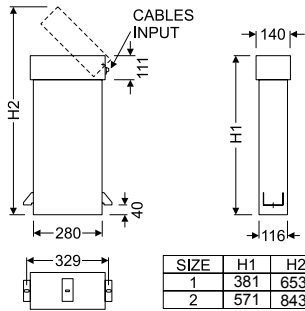
mm	d Ø	h	B	A Ø
85x175	85	175	31	90
85x245	85	245	31	90
100x245	100	245	31	105
116x245	116	245	35	121
136x220	136	220	35	141
136x261	136	261	35	141
136x355	136	355	46	141

CLZ-FPT

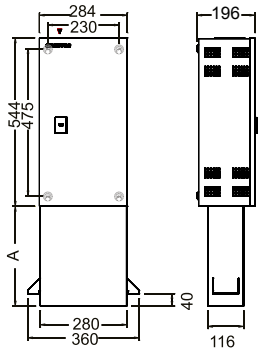
mm	d Ø	h	B	A Ø
63,5x98	63,5	98	13	68,5
63,5x127	63,5	127	13	68,5
63,5x175	63,5	175	13	68,5
63,5x202	63,5	202	13	68,5

Dimensions

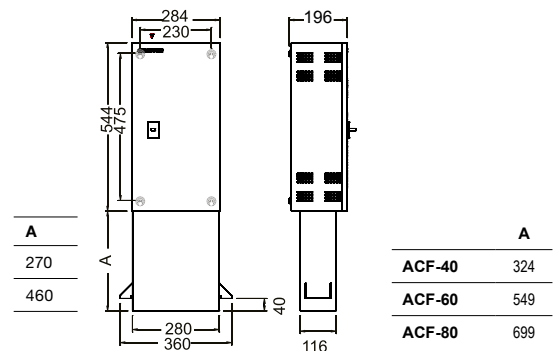
CSB-F / CSB-M



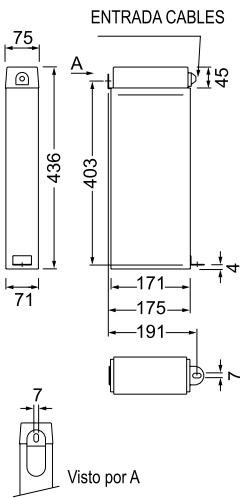
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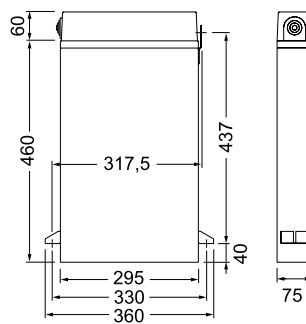
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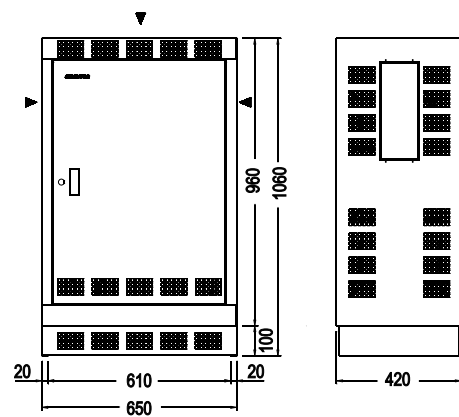
CV



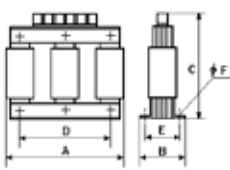
CQ



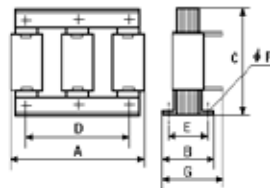
OPTIM FRF / OPTIM FRM



RX / RE



RBX / RBE



Type	A mm	B mm	C mm	D* mm	E* mm	F mm	G mm	kg
RX-5-400	155	90	165	75	70	7	--	5
RX-6,24-400	180	100	190	90	75	7	--	7
RX-10-400	180	100	190	90	75	7	--	7,5
RX-12,5-400	180	110	190	90	85	7	--	8
RX-15-400	180	110	190	90	85	7	--	8,5
RBX-20-400	235	125	165	150	95	9	145	14
RBX-25-400	235	125	165	150	95	9	145	14
RBX-30-400	255	125	200	160	95	9	150	19
RBX-40-400	255	125	200	160	95	9	150	20
RBX-50-400	255	145	220	160	115	9	175	25
RBX-60-400	280	145	240	180	115	9	175	28
RBX-80-400	305	155	235	180	121	11	190	31

Type	A mm	B mm	C mm	D* mm	E* mm	F mm	G mm	kg
RE-05-400	155	92	165	75	70	7	-	6
RE-10-400	180	102	190	90	75	7	-	8
RE-15-400	180	112	190	90	85	7	-	9,5
RE-20-400	180	122	190	90	95	7	-	11,5
RE-25-400	240	122	250	130	90	9	-	17
RE-30-400	240	132	250	130	100	9	-	20,5
RE-40-400	240	147	250	130	115	9	-	25,5
RBE-50-400	310	154	233	160	120	9	185	29
RBE-60-400	338	154	234	180	120	9	185	30
RBE-80-400	338	154	254	180	120	11	190	41

* Distance between fixings

Delivery time: [*] immediate
 [x] working weeks
 [c] consult

Table: Selection of the reactive energy compensation unit

Multiple loads	Slow variations	without harmonics	OPTIM 2 / OPTIM P&P
		with harmonics	OPTIM FR P&P
	Semi-quick variations		OPTIM HYB
		Quick variations	without harmonics
		with harmonics	OPTIM FRE

Table: Selection of the OPTIM






	OPTIM 1	OPTIM 2	OPTIM 3 P&P / 5 P&P	OPTIM 9 P&P / 8 P&P	OPTIM 8L / 14L / 16L
					
Rated voltage	440 V	440 V	440 V	440 V	440 V
Service voltage	400 V	400 V	400 V	400 V	400 V
Power range at rated voltage	2,5 ... 30 kvar	7,5 ... 30 kvar	OPTIM 3: 12,5 ... 62,5 kvar OPTIM 5: 55 ... 150 kvar	OPTIM 9: 165 ... 270 kvar OPTIM 8: 300 ... 480 kvar	OPTIM 8L: 450 a 800 kvar OPTIM 14L: 900 a 1400 kvar OPTIM 16L: 1500 a 1600 kvar
Contactor switching	•	•	•	•	•
No. Steps (maximum)	1	2	3 / 5	9 / 8	8 / 14 / 16
Enclosure	Thermoplastic IP 21	•	–	–	–
	Metallic IP 21	–	–	•	•
Installation (indoor)	•	•	•	•	•
Assembly	Wall-mounted	•	•	–	–
	Floor-mounted	–	–	–	o
Regulator	computer One	•	–	–	–
	computer Two	–	•	–	–
	computer Max P&P	–	–	•	•
	computer Smart III	–	–	Optional	Optional
Capacitor	Cylindrical CLZ	•	•	•	•
Built-in protection	General circuit breaker	•	•	–	–
	APR NH-00 Fuses	–	–	–	•

Table: Recommended capacitor bank power ratings - 7.5 to 105 kvar

kvar	Recommended capacitor bank	Electrical steps (kvar)
7,5 ... 17,5 kvar	OPTIM 3-P&P-17,5-440	7 x 2,5
17,5 ... 31,25 kvar	OPTIM 3-P&P-31,25-440	5 x 6,25
31,25 ... 43,75 kvar	OPTIM 3-P&P-43,75-440	7 x 6,25
43,75 ... 55 kvar	OPTIM 5-P&P-55-440	11 x 5
55 ... 70 kvar	OPTIM 5-P&P-70-440	7 x 10
75 ... 105 kvar	OPTIM 5-P&P-105-440	15 + 3 x 30