

# Low voltage power capacitors



## TCLZ,,IP 54 covers for CLZ-FP

Type	Code	Cover (opc.)
TCLZ-FP85	[*] R29911.	1
TCLZ-FP116	[*] R29917.	2
TCLZ-FP100	[*] R29918.	7

## CLZ-FP-M, Single-phase tubular power capacitor

230 V, con regleta de conexión

Type	Code	230 V kvar	240 V kvar	Hz	dia.x alt. (mm)	weight (kg)	Cover (opc.)
CLZ-FP-M-23/2,5	[1] R205C4.	2.5	2.7	50	85 x 245	0,62	1
CLZ-FP-M-23/5	[1] R205C8.	5	5.4	50	85 x 245	1,20	1
CLZ-FP-M-23/7,5	[1] R205CM.	7.5	8.2	50	116 x 245	1,28	2
CLZ-FP-M-23/10	[1] R205CN.	10	10.9	50	116 x 245	2,00	2

## CLZ-FP HD, Tubular power capacitor

Type	Code	220 V kvar	230 V kvar	Hz	dia.x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Faston terminal, Un = 3 x 230 V / 50 Hz								
CLZ-FPT-23/1,25-HD	[C] R2H511.	1.15	1.25	50	63,5 x 127	0,44	-	F
CLZ-FPT-23/2,5-HD	[C] R2H812.	2.3	2.5	50	63,5 x 175	0,60	-	F
Terminal block, Un = 3 x 230 V / 50 Hz								
CLZ-FP-23/5-HD	[C] R2H516.	4.6	5	50	85 x 175	0,81	1	A
CLZ-FP-23/6,25-HD	[C] R2H517.	5.7	6.25	50	85 x 245	1,00	1	A
CLZ-FP-23/7,5-HD	[C] R2H518.	6.8	7.5	50	85 x 245	1,07	1	A
CLZ-FP-23/10-HD	[C] R2H51B.	9.15	10	50	100 x 245	1,38	7	A
CLZ-FP-23/12,5-HD	[C] R2H51D.	11.4	12.5	50	100 x 245	1,60	7	A
CLZ-FP-23/15-HD	[C] R2H51E.	13.75	15	50	116 x 245	1,94	2	B
Type	Code	400 V kvar	440 V kvar	Hz	dia.x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Faston terminal, Un = 3 x 440 V / 50 Hz								
CLZ-FPT-44/1,25-HD	[C] R2H541.	1	1.25	50	63,5 x 98	0,36	-	F
CLZ-FPT-44/2,5-HD	[*] R2H542.	2	2.5	50	63,5 x 127	0,44	-	F
CLZ-FPT-44/3-HD	[C] R2H543.	2.5	3	50	63,5 x 127	0,46	-	F
CLZ-FPT-44/3,75-HD	[C] R2H544.	3	3.75	50	63,5 x 127	0,47	-	F
CLZ-FPT-44/5-HD	[*] R2H546.	4	5	50	63,5 x 175	0,62	-	F
CLZ-FPT-44/6,25-HD	[*] R2H547.	5	6.25	50	63,5 x 175	0,62	-	F
CLZ-FPT-44/7,5-HD	[*] R2H848.	6.25	7.5	50	63,5 x 202	0,71	-	F
Terminal block, Un = 3 x 440 V / 50 Hz								
CLZ-FP-44/10-HD	[*] R2H54B.	8	10	50	85 x 245	0,90	1	A
CLZ-FP-44/12,5-HD	[*] R2H54D.	10	12.5	50	85 x 245	1,01	1	A
CLZ-FP-44/15-HD	[*] R2H54E.	12.5	15	50	85 x 245	1,09	1	A
CLZ-FP-44/18,2-HD	[C] R2H54G.	15	18.2	50	100 x 245	1,38	7	A
CLZ-FP-44/20-HD	[*] R2H54J.	16	20	50	100 x 245	1,46	7	A
CLZ-FP-44/25-HD	[*] R2H54L.	20	25	50	100 x 245	1,69	7	B
CLZ-FP-44/30-HD	[*] R2H54N.	25	30	50	116 x 245	1,99	2	B
CLZ-FP-44/28-HD	[C] R2H54M.	23	28	50	116 x 245	1,92	2	B
CLZ-FP-44/40-HD	[C] R2H54R.	32	40	50	136 x 261	5,00	-	B
CLZ-FP-44/50-HD	[*] R2H54S.	40	50	50	136 x 355	5,18	-	C
Type	Code	440 V kvar	460 V kvar	Hz	dia.x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Faston terminal, Un = 3 x 460 V / 50 Hz								
CLZ-FPT-46/6,25-HD	[*] R2H857.	5.7	6.25	50	63,5 x 202	0,70	-	F
Terminal block, Un = 3 x 460 V / 50 Hz								
CLZ-FP-46/12,5-HD	[*] R2H55D.	11.4	12.5	50	85 x 245	1,10	1	A
CLZ-FP-46/15-HD	[*] R2H55E.	13.7	15	50	85 x 245	1,27	1	A
CLZ-FP-46/19-HD	[*] R2H55H.	17.4	19	50	100 x 245	1,53	7	A
CLZ-FP-46/25-HD	[*] R2H55L.	22.9	25	50	116 x 245	2,03	2	B
CLZ-FP-46/30-HD	[*] R2H55N.	27.4	30	50	136 x 220	2,45	-	B
CLZ-FP-46/33.3-HD	[C] R2H55P.	30.5	33.3	50	136 x 261	3,20	-	B

All models are of the inert gas type, except for those with a 63.5 mm diameter and 136x355 mm size. The dimensions (dxh) are shown for the tube only. Please consult the dimensions drawing at the end of this section for more information about the actual dimensions. Terminal: maximum cross-section of type A cables: 16 mm<sup>2</sup>, type B: 25 mm<sup>2</sup>, type C: 35 mm<sup>2</sup>, F: Faston 6.3x0.8 mm and 12 A maximum current

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



## CLZ-FP HD, Tubular power capacitor

Type	Code	460 V kvar	480 V kvar	Hz	dia. x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Faston terminal, Un = 3 x 460 V / 50 Hz								
CLZ-FPT-48/2,5-HD	[C] R2H862.	2.3	2.5	50	63,5 x 127	0,90	-	F
CLZ-FPT-48/5-HD	[C] R2H866.	4.6	5	50	63,5 x 175	1,10	-	F
CLZ-FPT-48/7,5-HD	[C] R2H868.	6.9	7.5	50	63,5 x 202	1,30	-	F
Terminal block, Un = 3 x 480 V / 50 Hz								
CLZ-FP-48/10-HD	[C] R2H56B.	9.2	10	50	85 x 245	0,93	1	A
CLZ-FP-48/12,5-HD	[C] R2H56D.	11.5	12.5	50	85 x 245	1,07	1	A
CLZ-FP-48/15-HD	[C] R2H56E.	13.8	15	50	85 x 245	1,18	1	A
CLZ-FP-48/20-HD	[C] R2H56J.	18.4	20	50	100 x 245	1,53	7	A
CLZ-FP-48/25-HD	[C] R2H56L.	23	25	50	116 x 245	1,90	2	B
CLZ-FP-48/30-HD	[C] R2H56N.	27.6	30	50	116 x 245	2,15	2	B
CLZ-FP-48/40-HD	[C] R2H56R.	36.75	40	50	136 x 261	2,90	-	B
Type	Code	500 V kvar	525 V kvar	Hz	dia. x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Faston terminal, Un = 3 x 525 V / 50 Hz								
CLZ-FPT-52/2,5-HD	[C] R2H872.	2.3	2.5	50	63,5 x 127	0,70	-	F
CLZ-FPT-52/3-HD	[C] R2H873.	2.7	3	50	63,5 x 127	0,70	-	F
CLZ-FPT-52/4-HD	[C] R2H875.	3.6	4	50	63,5 x 175	0,70	-	F
CLZ-FPT-52/5-HD	[*] R2H876.	4.5	5	50	63,5 x 175	0,61	-	F
CLZ-FPT-52/6,25-HD	[C] R2H877.	5.7	6.25	50	63,5 x 202	0,72	-	F
CLZ-FPT-52/7,5-HD	[C] R2H878.	6.8	7.5	50	63,5 x 202	0,90	-	F
Terminal block, Un = 3 x 525 V / 50 Hz								
CLZ-FP-52/8-HD	[C] R2H579.	7.25	8	50	85 x 175	0,86	1	A
CLZ-FP-52/10-HD	[*] R2H57B.	9.1	10	50	85 x 245	0,99	1	A
CLZ-FP-52/12,5-HD	[*] R2H57D.	11.3	12.5	50	85 x 245	1,13	1	A
CLZ-FP-52/15-HD	[*] R2H57E.	13.6	15	50	85 x 245	1,20	1	A
CLZ-FP-52/20-HD	[*] R2H57J.	18.15	20	50	100 x 245	1,62	7	A
CLZ-FP-52/25-HD	[*] R2H57L.	22.7	25	50	116 x 245	1,63	2	B
CLZ-FP-52/30-HD	[*] R2H57N.	27.2	30	50	116 x 245	2,18	2	B
CLZ-FP-52/40-HD	[C] R2H57R.	36.3	40	50	136 x 261	2,80	-	B
CLZ-FP-52/50-HD	[C] R2H57S.	45.4	50	50	136 x 355	5,24	-	C
Type	Code	660 V kvar	690 V kvar	Hz	dia. x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Faston terminal, Un = 3 x 690 V / 50 Hz								
CLZ-FPT-69/2,5-HD	[C] R2H892.	2.3	2.5	50	63,5 x 127	0,70	-	F
CLZ-FPT-69/5-HD	[C] R2H896.	4.6	5	50	63,5 x 175	0,80	-	F
Terminal block, Un = 3 x 690 V / 50 Hz								
CLZ-FP-69/7,5-HD	[C] R2H598.	6.9	7.5	50	85 x 175	0,95	1	A
CLZ-FP-69/10-HD	[C] R2H59B.	9.15	10	50	85 x 245	1,00	1	A
CLZ-FP-69/12,5-HD	[C] R2H59D.	11.4	12.5	50	85 x 245	1,10	1	A
CLZ-FP-69/15-HD	[C] R2H59E.	13.7	15	50	85 x 245	1,20	1	A
CLZ-FP-69/20-HD	[C] R2H59J.	18.3	20	50	100 x 245	1,70	7	A
CLZ-FP-69/25-HD	[C] R2H59L.	22.9	25	50	116 x 245	1,90	2	B
CLZ-FP-69/30-HD	[C] R2H59N.	27.5	30	50	136 x 220	3,30	-	B
CLZ-FP-69/40-HD	[C] R2H59R.	36.6	40	50	136 x 355	5,00	-	C
CLZ-FP-69/50-HD	[C] R2H59S.	45.75	50	50	136 x 355	5,50	-	C

All models are of the inert gas type, except for those with a 63.5 mm diameter and 136x355 mm size. The dimensions (dxh) are shown for the tube only. Please consult the dimensions drawing at the end of this section for more information about the actual dimensions. Terminal: maximum cross-section of type A cables: 16 mm<sup>2</sup>, type B: 25 mm<sup>2</sup>, type C: 35 mm<sup>2</sup>, F: Faston 6.3x0.8 mm and 12 A maximum current


**CLZ-FP-60 HD, Three-phase tubular power capacitor, 60 Hz**

Type	Code	230 V kvar	240 V kvar	Hz	dia. x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Un = 3 x 240 V / 60 Hz								
CLZ-FPT-24/2,5-60Hz-HD	[C] R2H622.	2.3	2.5	60	63,5 x 127	0,57	-	F
CLZ-FP-24/5-60Hz-HD	[C] R2H626.	4.6	5	60	85 x 175	0,85	1	A
CLZ-FP-24/6,25-60Hz-HD	[C] R2H627.	5.75	6.25	60	85 x 175	0,84	1	A
CLZ-FP-24/7,5-60Hz-HD	[C] R2H628.	6.9	7.5	60	85 x 245	0,96	1	A
CLZ-FP-24/10-60Hz-HD	[C] R2H62B.	9.2	10	60	85 x 245	1,06	1	A
CLZ-FP-24/12,5-60Hz-HD	[C] R2H62D.	11.5	12.5	60	85 x 245	1,25	1	A
CLZ-FP-24/15-60Hz-HD	[C] R2H62E.	13.8	15	60	100 x 245	1,51	7	A

Type	Code	400 V kvar	440 V kvar	Hz	dia. x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Un = 3 x 440 V / 60 Hz								
CLZ-FPT-44/1,25-60Hz-HD	[C] R2H641.	1	1.25	60	63,5 x 98	0,37	-	F
CLZ-FPT-44/2,5-60Hz-HD	[C] R2H642.	2.1	2.5	60	63,5 x 127	0,44	-	F
CLZ-FPT-44/3-60Hz-HD	[C] R2H643.	2.5	3	60	63,5 x 127	0,44	-	F
CLZ-FPT-44/3,75-60Hz-HD	[C] R2H644.	3.1	3.75	60	63,5 x 127	0,44	-	F
CLZ-FPT-44/5-60Hz-HD	[C] R2H646.	4.15	5	60	63,5 x 127	0,44	-	F
CLZ-FP-44/6,25-60Hz-HD	[C] R2H647.	5.2	6.25	60	85 x 175	0,67	1	A
CLZ-FP-44/7,5-60Hz-HD	[C] R2H648.	6.2	7.5	60	85 x 175	0,75	1	A
CLZ-FP-44/10-60Hz-HD	[C] R2H64B.	8.3	10	60	85 x 175	0,87	1	A
CLZ-FP-44/12,5-60Hz-HD	[C] R2H64D.	10.3	12.5	60	85 x 245	0,90	1	A
CLZ-FP-44/15-60Hz-HD	[C] R2H64E.	12.4	15	60	85 x 245	0,98	1	A
CLZ-FP-44/20-60Hz-HD	[C] R2H64J.	16.5	20	60	85 x 245	1,14	1	A
CLZ-FP-44/25-60Hz-HD	[C] R2H64L.	20.7	25	60	100 x 245	1,46	7	A
CLZ-FP-44/30-60Hz-HD	[C] R2H64N.	24.8	30	60	116 x 245	1,78	2	B
CLZ-FP-44/40-60Hz-HD	[C] R2H64R.	33.1	40	60	136 x 220	2,38	2	B
CLZ-FP-44/50-60Hz-HD	[C] R2H64S.	41.3	50	60	136 x 355	5,10	-	C

Type	Code	460 V kvar	480 V kvar	Hz	dia. x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Un = 3 x 480 V / 60 Hz								
CLZ-FPT-48/2,5-60Hz-HD	[C] R2H762.	2.3	2.5	60	63,5 x 127	0,47	-	F
CLZ-FPT-48/5-60Hz-HD	[C] R2H766.	4.6	5	60	63,5 x 175	0,62	-	F
CLZ-FPT-48/6,25-60Hz-HD	[C] R2H767.	5.75	6.25	60	63,5 x 175	0,90	-	F
CLZ-FPT-48/7,5-60Hz-HD	[C] R2H768.	6.9	7.5	60	63,5 x 175	0,61	-	F
CLZ-FP-48/10-60Hz-HD	[C] R2H66B.	9.2	10	60	85 x 175	0,85	1	A
CLZ-FP-48/12,5-60Hz-HD	[C] R2H66D.	11.5	12.5	60	85 x 245	0,97	1	A
CLZ-FP-48/15-60Hz-HD	[C] R2H66E.	13.8	15	60	85 x 245	1,07	1	A
CLZ-FP-48/20-60Hz-HD	[C] R2H66J.	18.4	20	60	100 x 245	1,32	7	A
CLZ-FP-48/25-60Hz-HD	[C] R2H66L.	23	25	60	100 x 245	1,57	2	B
CLZ-FP-48/30-60Hz-HD	[C] R2H66N.	27.6	30	60	116 x 245	1,86	2	B
CLZ-FP-48/40-60Hz-HD	[C] R2H66R.	36.75	40	60	136 x 220	2,430,00	-	B
CLZ-FP-48/50-60Hz-HD	[C] R2H66S.	46	50	60	136 x 355	5,00	-	C

Type	Code	480 V kvar	525 V kvar	Hz	dia. x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Un = 3 x 525 V / 60 Hz								
CLZ-FPT-52/2,5-60Hz-HD	[C] R2H772.	2.1	2.5	60	63,5 x 127	0,45	-	F
CLZ-FPT-52/5-60Hz-HD	[C] R2H776.	4.2	5	60	63,5 x 175	0,90	-	F
CLZ-FPT-52/6,25-60Hz-HD	[C] R2H777.	5.2	6.25	60	63,5 x 175	1,10	-	F
CLZ-FPT-52/7,5-60Hz-HD	[C] R2H778.	6.25	7.5	60	63,5 x 202	0,33	-	F
CLZ-FP-52/8,5-60Hz-HD	[C] R2H67A.	7.1	8.5	60	85 x 175	0,85	1	A
CLZ-FP-52/10-60Hz-HD	[C] R2H67B.	8.4	10	60	85 x 175	0,91	1	A
CLZ-FP-52/11,5-60Hz-HD	[C] R2H67C.	9.6	11.5	60	85 x 245	0,97	1	A
CLZ-FP-52/12,5-60Hz-HD	[C] R2H67D.	10.5	12.5	60	85 x 245	0,99	1	A
CLZ-FP-52/15-60Hz-HD	[C] R2H67E.	12.5	15	60	85 x 245	1,11	1	A
CLZ-FP-52/17-60Hz-HD	[C] R2H67I.	14.2	17	60	85 x 245	1,17	1	A
CLZ-FP-52/20-60Hz-HD	[C] R2H67J.	16.7	20	60	100 x 245	1,45	7	A
CLZ-FP-52/22,5-60Hz-HD	[C] R2H67K.	18.8	22.5	60	100 x 245	1,50	7	A
CLZ-FP-52/25-60Hz-HD	[C] R2H67L.	20.9	25	60	100 x 245	1,66	7	A
CLZ-FP-52/30-60Hz-HD	[C] R2H67N.	25	30	60	116 x 245	1,95	2	B
CLZ-FP-52/34-60Hz-HD	[C] R2H67P.	28.4	34	60	116 x 245	2,13	2	B
CLZ-FP-52/40-60Hz-HD	[C] R2H67R.	33.4	40	60	136 x 261	5,00	-	B

All models are of the inert gas type, except for those with a 63.5 mm diameter and 136x355 mm size. The dimensions (dxh) are shown for the tube only. Please consult the dimensions drawing at the end of this section for more information about the actual dimensions. Terminal: maximum cross-section of type A cables: 16 mm<sup>2</sup>, type B: 25 mm<sup>2</sup>, type C: 35 mm<sup>2</sup>, F: Faston 6.3x0.8 mm and 12 A maximum current

**CLZ-FP-60 HD, Three-phase tubular power capacitor, 60 Hz**

Type	Code	Hz	dia.x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Un = 3 x 600 V / 60 Hz						
CLZ-FP-60/2,5-60Hz-HD	[C] R2H782.	60	63,5 x 127	0,70	-	F
CLZ-FPT-60/5-60Hz-HD	[C] R2H786.	60	63,5 x 175	0,80	-	F
CLZ-FPT-60/6,25-60Hz-HD	[C] R2H787.	60	63,5 x 175	0,90	-	F
CLZ-FPT-60/7,5-60Hz-HD	[C] R2H788.	60	63,5 x 175	1,00	-	F
CLZ-FP-60/10-60Hz-HD	[C] R2H68A.	60	85 x 175	1,10	1	A
CLZ-FP-60/12,5-60Hz-HD	[C] R2H68B.	60	85 x 245	1,20	1	A
CLZ-FP-60/15-60Hz-HD	[C] R2H68E.	60	85 x 245	1,30	1	A
CLZ-FP-60/17,5-60Hz-HD	[C] R2H68I.	60	85 x 245	1,25	1	A
CLZ-FP-60/20-60Hz-HD	[C] R2H68J.	60	100 x 245	1,90	7	A
CLZ-FP-60/21-60Hz-HD	[C] R2H68K.	60	100 x 245	1,60	7	A
CLZ-FP-60/25-60Hz-HD	[C] R2H68L.	60	100 x 245	2,20	7	A
CLZ-FP-60/30-60Hz-HD	[C] R2H68N.	60	116 x 245	2,40	2	B
CLZ-FP-60/34,5-60Hz-HD	[C] R2H68P.	60	116 x 245	2,60	2	B

Type	Code	660 V kvar	690 V kvar	Hz	dia.x alt. (mm)	weight (kg)	Cover (opc.)	Terminal
Un = 3 x 690 V / 60 Hz								
CLZ-FPT-69/2,5-60Hz-HD	[C] R2H792.	2.3	2.5	60	63,5 x 127	0,50	-	F
CLZ-FPT-69/5-60Hz-HD	[C] R2H796.	4.6	5	60	63,5 x 175	1,00	-	F
CLZ-FPT-69/7,5-60Hz-HD	[C] R2H798.	6.9	7.5	60	63,5 x 202	1,10	-	F
CLZ-FP-69/10-60Hz-HD	[C] R2H69B.	9.15	10	60	85 x 245	1,10	1	A
CLZ-FP-69/12,5-60Hz-HD	[C] R2H69D.	11.4	12.5	60	85 x 245	1,20	1	A
CLZ-FP-69/15-60Hz-HD	[C] R2H69E.	13.7	15	60	85 x 245	1,40	1	A
CLZ-FP-69/20-60Hz-HD	[C] R2H69J.	18.3	20	60	100 x 245	2,00	7	A
CLZ-FP-69/25-60Hz-HD	[C] R2H69L.	22.9	25	60	116 x 245	1,76	2	B
CLZ-FP-69/30-60Hz-HD	[C] R2H69N.	27.5	30	60	116 x 245	2,50	2	B
CLZ-FP-69/40-60Hz-HD	[C] R2H69R.	36.6	40	60	136 x 220	3,80	-	B
CLZ-FP-69/50-60Hz-HD	[C] R2H69S.	45.75	50	60	136 x 355	5,00	-	C

All models are of the inert gas type, except for those with a 63.5 mm diameter and 136x355 mm size. The dimensions (dxh) are shown for the tube only. Please consult the dimensions drawing at the end of this section for more information about the actual dimensions. Terminal: maximum cross-section of type A cables: 16 mm<sup>2</sup>, type B: 25 mm<sup>2</sup>, type C: 35 mm<sup>2</sup>, F: Faston 6.3x0.8 mm and 12 A maximum current

**CMC B, Contactors**

Type	Code	220 V kvar	240 V kvar	480 V kvar	660 V kvar	690 V kvar	200-240V kvar	400-440-480 V kvar	500-550V kvar	660-690V kvar	Hz	Coil voltage (Vac)	weight (kg)
CMC 7.5 B	[C] R281A5.	5	5	7.5	11	11	5	7.5	9	11	50/60	230	0,28
CMC 12 B	[C] R281A6.	6.7	6.7	12.5	18	18	6.7	12.5	15	18	50/60	230	0,32
CMC 20 B	[C] R281A4.	11	11	20	30	30	11	20	24	30	50/60	230	0,38
CMC 32 B	[C] R281A8.	14	14	25	35	35	14	25	30	35	50/60	230	0,47
CMC 40 B	[C] R281A1.	20	20	30	40	40	20	30	35	40	50/60	230	0,60
CMC 75 B	[C] R281A9.	29	29	50	70	70	29	50	60	70	50/60	230	1,00
CMC 85 B	[C] R281A3.	32	32	60	80	80	32	60	70	80	50/60	230	0,85
CMC 150 B	[C] R281AD.	45	45	80	115	115	45	80	100	115	50/60	230	2,40

**RD, Fast discharging resistors**

Type	Code	Impedance (Ω)	Dissipated power (w)
RD-25 2X1500	[1] R3Z210.	2 x 1500	10
RD-60 2X1000	[*] R3Z220.	2 x 1000	10
RD-100 2X1000	[*] R3Z230.	2 x 1000	15

**IR, current limiting impedances**

Type	Code	Cable section (mm <sup>2</sup> )
IR-6	[*] R3Z310.	6
IR-10	[*] R3Z320.	10
IR-25	[*] R3Z330.	25
IR-35	[*] R3Z340.	35
IR-50	[*] R3Z350.	50

**ELEB, CSB coils**

Type	Code	Use voltage (V)	μF
ELEB10100PCA	[1] R213A8.	230	100
ELEB10150PCA	[1] R213AE.	230	150
ELEB14055PCA	[1] R2139D.	400/440/690(*)	55
ELEB14069PCA	[1] R2139H.	400/440/690(*)	69
ELEB14082PCA	[1] R2139R.	400/440/690(*)	82

Type	Code	Use voltage (V)	μF
ELEB18027PCA	[1] R2137T.	460	27.4
ELEB18035PCA	[1] R2137A.	460	35
ELEB18050PCA	[1] R2137P.	460	50
ELEB20019PCA	[1] R2138D.	480/525/550	19.2
ELEB20038PCA	[1] R2138G.	480/525/550	38.4

**CSB, Power capacitors for LV**

Type	Code	kvar 50 Hz	kvar 60 Hz	Size (mm) width x height x depth	weight (kg)
<b>230 Vac</b>					
CSB-23/10	[*] R2321C.	10	12.5	359x330x120	6,37
CSB-23/12,5	[2] R2321D.	12.5	15	360x330x120	3,30
CSB-23/15	[*] R2321E.	15	17.5	360x330x120	6,00
CSB-23/20	[*] R2321F.	20	25	360x330x120	6,80
CSB-23/25	[2] R2321G.	25	30	360x330x120	7,90
CSB-23/30	[2] R2321H.	30	35	360x330x120	8,00
CSB-23/40	[*] R2321J.	40	50	360x520x120	12,00
CSB-23/50	[*] R2321K.	50	60	360x520x120	12,00
<b>400 Vac</b>					
CSB-40/15	[*] R2323E.	15	17.5	360x330x120	5,76
CSB-40/20	[*] R2323F.	20	25	360x330x120	6,01
CSB-40/25	[*] R2323G.	25	30	360x330x120	5,68
CSB-40/30	[*] R2323H.	30	35	360x330x120	6,70
CSB-40/40	[*] R2323J.	40	50	360x330x120	7,70
CSB-40/50	[*] R2323K.	50	60	360x330x120	7,60
CSB-40/60	[*] R2323L.	60	70	360x520x120	10,80
CSB-40/80	[*] R2323Q.	80	95	360x520x120	12,85
CSB-40/100	[*] R2323R.	100	120	360x520x120	13,50
<b>440 Vac</b>					
CSB-44/15	[*] R2324E.	15	17.5	360x330x120	4,70
CSB-44/20	[*] R2324F.	20	25	360x330x120	4,90
CSB-44/25	[2] R2324G.	25	30	360x330x120	5,90
CSB-44/30	[*] R2324H.	30	35	360x330x120	5,60
CSB-44/40	[*] R2324J.	40	50	360x330x120	7,00
CSB-44/50	[*] R2324K.	50	60	360x330x120	7,80
CSB-44/60	[*] R2324L.	60	70	360x330x120	7,30
CSB-44/80	[*] R2324Q.	80	95	360x520x120	11,80
CSB-44/100	[*] R2324R.	100	120	360x520x120	12,90
<b>460 Vac</b>					
CSB-46/15	[2] R2325E.	15	17.5	360x330x120	6,00
CSB-46/20	[*] R2325F.	20	25	360x330x120	6,11
CSB-46/25	[2] R2325G.	25	30	360x330x120	6,90
CSB-46/30	[*] R2325H.	30	35	360x330x120	6,95
CSB-46/40	[*] R2325J.	40	50	360x330x120	7,60
CSB-46/50	[*] R2325K.	50	60	360x520x120	8,20
CSB-46/60	[*] R2325L.	60	70	360x520x120	11,40
CSB-46/80	[*] R2325Q.	80	95	360x520x120	13,00
CSB-46/100	[*] R2325R.	100	120	360x610x120	16,00

Type	Code	kvar 50 Hz	kvar 60 Hz	Size (mm) width x height x depth	weight (kg)
<b>480 Vac</b>					
CSB-48/10	[C] R277AC.	8	10	360x330x120	2,80
CSB-48/15	[C] R277AE.	12.5	15	360x330x120	7,10
CSB-48/20	[C] R277AF.	16.7	20	360x330x120	3,50
CSB-48/25	[C] R277AG.	20.8	25	360x330x120	4,20
CSB-48/30	[C] R277AH.	25	30	360x330x120	4,20
CSB-48/40	[C] R277AJ.	33.3	40	360x330x120	5,00
CSB-48/50	[C] R277AK.	41.7	50	360x520x120	6,80
CSB-48/60	[C] R277AL.	50	60	360x520x120	7,50
<b>525 Vac</b>					
CSB-52/10	[C] R2326C.	10	12.5	360x330x120	2,60
CSB-52/15	[C] R2326E.	15	17.5	360x330x120	3,30
CSB-52/20	[C] R2326F.	20	25	360x330x120	3,30
CSB-52/25	[C] R2326G.	25	30	360x330x120	7,10
CSB-52/30	[C] R2326H.	30	35	360x330x120	13,00
CSB-52/40	[C] R2326J.	40	50	360x330x120	8,50
CSB-52/50	[C] R2326K.	50	60	360x520x120	10,80
CSB-52/60	[C] R2326L.	60	70	360x520x120	11,70
CSB-52/70	[C] R2326M.	70	85	360x520x120	12,00
<b>690 Vac</b>					
CSB-69/10	[3] R232BC.	10	12.5	360x330x120	2,60
CSB-69/15	[3] R232BE.	15	17.5	360x330x120	3,30
CSB-69/20	[3] R232BF.	20	25	360x330x120	5,00
CSB-69/25	[3] R232BG.	25	30	360x330x120	3,30
CSB-69/30	[3] R232BH.	30	35	360x330x120	4,20
CSB-69/40	[3] R232BJ.	40	50	360x330x120	5,00
CSB-69/50	[3] R232BK.	50	60	360x330x120	8,10
CSB-69/60	[3] R232BL.	60	70	360x520x120	13,80
CSB-69/80	[3] R232BQ.	80	95	360x520x120	11,00
CSB-69/100	[3] R232BR.	100	0	360x520x120	9,00
<b>1100 Vac for LV networks</b>					
CSB-110/10	[1] R2327C.	10	12	360x330x120	3,50
CSB-110/20	[1] R2327F.	20	24	360x330x120	5,00
CSB-110/30	[1] R2327H.	30	36	360x330x120	7,00
CSB-110/40	[1] R2327J.	40	48	360x520x120	11,80
CSB-110/50	[1] R2327K.	50	60	360x520x120	16,00
CSB-110/60	[1] R2327L.	60	72	360x520x120	14,10
CSB-110/70	[1] R2327M.	70	84	360x610x120	12,00

**CSB-2V, Power capacitors for LV dual voltage**

Type	Code	kvar 50 Hz	kvar 60 Hz	Size (mm) width x height x depth	weight (kg)
<b>230 / 400 Vac</b>					
CSB-2340/5	[2] R23288.	5	6	360x330x120	5,10
CSB-2340/7,5	[2] R2328A.	7.5	9	360x330x120	3,90
CSB-2340/10	[2] R2328C.	10	12.5	360x330x120	3,90
CSB-2340/12,5	[2] R2328D.	12.5	15	360x330x120	3,90
CSB-2340/15	[2] R2328E.	15	17.5	360x330x120	4,60
CSB-2340/20	[2] R2328F.	20	25	360x330x120	4,60
CSB-2340/25	[2] R2328G.	25	30	360x330x120	4,60
CSB-2340/30	[2] R2328H.	30	35	360x330x120	6,20
CSB-2340/40	[2] R2328J.	40	50	360x520x120	8,30

Type	Code	kvar 50 Hz	kvar 60 Hz	Size (mm) width x height x depth	weight (kg)
<b>400 / 690 Vac</b>					
CSB-4069/5	[2] R23298.	5	6	360x330x120	3,30
CSB-4069/7,5	[2] R2329A.	7.5	9	360x330x120	4,10
CSB-4069/10	[2] R2329C.	10	12.5	360x330x120	3,90
CSB-4069/12,5	[2] R2329D.	12.5	15	360x330x120	3,90
CSB-4069/15	[*] R2329E.	15	17.5	360x330x120	6,40
CSB-4069/20	[2] R2329F.	20	25	360x330x120	6,10
CSB-4069/25	[*] R2329G.	25	30	360x330x120	7,00
CSB-4069/30	[*] R2329H.	30	35	360x330x120	7,00
CSB-4069/40	[*] R2329J.	40	50	360x330x120	8,10
CSB-4069/50	[*] R2329K.	50	60	360x330x120	8,00
CSB-4069/60	[*] R2329L.	60	70	360x520x120	11,00
CSB-4069/75	[2] R2329P.	75	90	360x520x120	10,50
CSB-4069/80	[*] R2329Q.	80	96	360x520x120	13,00

Dual voltage capacitors are used for fixed compensation purposes in motors

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



## CFB, Power capacitors for harmonic filtering (for OPTIM FR)

Type	Code	230 V kvar	For reactor	Size (mm) width xheight xdepth	weight (kg)
CFB 260					
CFB-26/6,3	[1] R2412A.	5	RX-5-230	360x330x120	2,60
CFB-26/12,5	[1] R2412D.	10	RX-10-230	360x330x120	3,30
CFB-26/18	[1] R2412E.	15	RBX-15-230	360x330x120	3,30
CFB-26/25	[1] R2412G.	20	RBX-20-230	360x330x120	4,20
CFB-26/30	[1] R2412H.	25	RBX-25-230	360x330x120	5,00
CFB-26/37	[1] R2412J.	30	RBX-30-230	360x330x120	5,00
CFB-26/48	[1] R2412K.	40	RBX-40-230	360x520x120	7,30
CFB-26/60	[1] R2412L.	50	RBX-50-230	360x520x120	8,20

Type	Code	400 V kvar	440 V kvar	For reactor	Size (mm) width xheight xdepth	weight (kg)
CFB 460						
CFB-46/6	[1] R2415A.	5	6.25	RX-6,25-460	360x330x120	3,30
CFB-46/12,5	[1] R2415D.	10	12.5	RX-10-400 / 12,5-460	360x330x120	6,00
CFB-46/15	[1] R2415E.	12.5	15	RX-12,5-400 / 15-460	360x330x120	3,90
CFB-46/19	[1] R2415F.	15	18.5	RX-15-400 / 19-460	360x330x120	5,80
CFB-46/25	[1] R2415G.	20	25	RBX-20-400 / 25-460	360x330x120	6,80
CFB-46/30	[1] R2415H.	25	30	RBX-25-400 / 30-460	360x330x120	6,80
CFB-46/37	[1] R2415J.	30	40	RBX-30-400 / 37-460	360x330x120	7,60
CFB-46/50	[*] R2415K.	40	50	RBX-40-400 / 50-460	360x520x120	10,50
CFB-46/62	[*] R2415L.	50	60	RBX-50-400 / 62-460	360x520x120	11,00
CFB-46/74	[*] R2415P.	60	75	RBX-60-400 / 74-460	360x520x120	12,90
CFB-46/100	[*] R2415R.	80	100	RBX-80-400 / 100-460	360x610x120	16,10

Type	Code	690 V kvar	For reactor	Size (mm) width xheight xdepth	weight (kg)
CFB 790					
CFB-79/6	[C] R241DA.	5	RE-5-400 / 6-460	360x330x120	2,60
CFB-79/12,5	[C] R241DD.	10	RE-10-400 / 12,5-460	360x330x120	2,60
CFB-79/19	[C] R241DF.	15	RE-15-400 / 19-460	360x330x120	3,30
CFB-79/25	[C] R241DG.	20	RE-20-400 / 25-460	360x330x120	6,10
CFB-79/30	[C] R241DH.	25	RE-25-400 / 30-460	360x330x120	7,00
CFB-79/37	[C] R241DI.	30	RE-30-400 / 37-460	360x330x120	7,00
CFB-79/50	[C] R241DK.	40	RE-40-400 / 50-460	360x520x120	11,00
CFB-79/62	[C] R241DL.	50	RBE-50-400 / 62-460	360x520x120	13,00
CFB-79/74	[C] R241DP.	60	RBE-60-400 / 74-460	360x520x120	14,00
CFB-79/100	[C] R241DR.	80	RBE-80-400 / 100-460	360x610x120	15,00

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			
Total capacitor height (box + terminals) (mm)	Height box capacitor (mm)	Total heigh of capacitor (box+terminals) (mm)	Capacitor box height (mm)		
390	330	330	270	SP-60	[*] R2ZZZ1
610	550	520	460	SP-90	[*] R2ZZZZ
760	700	610	550	P-150	[*] R2ZZZZ3




**RX / RBX, Reactors III for detuned filters**

Type	Code	400 V kvar	440 V kvar	Hz	For capacitor	In (A)	L(mH)	Losses	Size (mm) width x height x depth	weight (kg)
400 Vac, 50 Hz, f resonance = 189 Hz / p= 7%										
RX-5-400	[*] P72110.	5	-	50	CLZ-FP-46/6,25 - CFB-46/6	7,6	7.66	25	155x165x92	4,00
RX-6,25-400	[*] P72112.	6.25	-	50	CLZ-FP-52/10 - CFB-46/7,75	10	6.12	36	180x190x100	7,10
RX-10-400	[*] P72115.	10	-	50	CLZ-FP-46/12,5 - CFB-46/12,5	15,5	3.83	50	180x190x100	6,30
RX-12,5-400	[*] P72117.	12.5	-	50	CLZ-FP-46/15 - CFB-46/15	19	3.06	53	180x192x110	9,00
RX-15-400	[*] P72120.	15	-	50	CLZ-FP-46/19 - CFB-46/19	23	2.55	57	180x190x110	10,00
RBX-20-400	[*] P72125.	20	-	50	CLZ-FP-46/25 - CFB-46/25	30	1.92	69	235x165x125	23,00
RBX-25-400	[*] P72130.	25	-	50	CLZ-FP-46/30 - CFB-46/30	37	1.53	106	235x165x125	12,00
RBX-30-400	[*] P72135.	30	-	50	2 x CLZ-FP-46/19 - CFB-46/37	45	1.27	102	255x200x125	16,50
RBX-40-400	[*] P72140.	40	-	50	2 x CLZ-FP-46/25 - CFB-46/50	60	0.95	137	255x200x125	17,00
RBX-50-400	[*] P72145.	50	-	50	2 x CLZ-FP-46/30 - CFB-46/62	75	0.76	153	255x220x145	22,00
RBX-60-400	[*] P72150.	60	-	50	3 x CLZ-FP-46/25 - CFB-46/74	90	0.63	168	280x240x145	27,20
RBX-80-400	[*] P72155.	80	-	50	3 x CLZ-FP-46/33,3 - CFB-46/100	120	0.47	246	305x235x155	37,00
400 Vac, 50 Hz, f resonance = 134 Hz / p= 14%										
RX-5-400-14%	[C] P71021.	5	-	50	CLZ-FP-52/7,5-HD - CFB-52/7,5	-	16.31	-	-	-
RX-10-400-14%	[C] P71022.	10	-	50	CLZ-FP-52/15-HD - CFB-52/15	-	8.15	-	-	-
RX-12,5-400-14%	[C] P71023.	12.5	-	50	CLZ-FP-52/20-HD - CFB-52/19	-	6.52	-	-	-
RX-15-400-14%	[C] P71024.	15	-	50	CLZ-FP-52/25-HD - CFB-52/23	-	5.43	-	-	-
RX-20-400-14%	[C] P71025.	20	-	50	CLZ-FP-52/30-HD - CFB-52/30	-	4.07	-	-	-
RBX-25-400-14%	[C] P72330.	25	-	50	CLZ-FP-52/12,5-HD + CLZ-FP-52/30-HD - CFB-52/38	-	3.26	-	-	-
RBX-30-400-14%	[C] P72335.	30	-	50	CLZ-FP-52/25-HD + CLZ-FP-52/20-HD - CFB-52/46	-	2.71	-	-	-
RBX-40-400-14%	[C] P72340.	40	-	50	2 x CLZ-FP-52/30-HD - CFB-52/60,5	-	2.03	-	-	-
RBX-50-400-14%	[C] P72345.	50	-	50	3 x CLZ-FP-52/25-HD - CFB-52/76	-	1.63	-	-	-
RBX-60-400-14%	[C] P72350.	60	-	50	3 x CLZ-FP-52/30-HD - CFB-52/91	-	1.35	-	-	-
400 Vac, 50 Hz, f resonance = 210 Hz / p= 5,67%										
RX-5-400-5,67%	[C] P72210.	-	5	50	CLZ-FP-46/6,25-HD - CFB-46/6	-	6.11	-	-	-
RX-6,25-400-5,67%	[C] P72212.	-	6.25	50	CLZ-FP-52/10-HD - CFB-46/7,75	-	4.88	-	-	-
RX-10-400-5,67%	[C] P72215.	-	10	50	CLZ-FP-46/12,5-HD - CFB-46/12,5	-	3.05	-	-	-
RX-12,5-400-5,67%	[C] P72217.	-	12.5	50	CLZ-FP-46/15-HD - CFB-46/15	-	2.44	-	-	-
RX-15-400-5,67%	[C] P72220.	-	15	50	CLZ-FP-46/19-HD - CFB-46/19	-	2.04	-	-	-
RBX-20-400-5,67%	[C] P72225.	-	20	50	CLZ-FP-46/25-HD - CFB-46/25	-	1.53	-	-	-
RBX-25-400-5,67%	[C] P72230.	-	25	50	CLZ-FP-46/30-HD - CFB-46/30	-	1.22	-	-	-
RBX-30-400-5,67%	[C] P72235.	-	30	50	2 x CLZ-FP-46/19-HD - CFB-46/37	-	1.02	-	-	-
RBX-40-400-5,67%	[C] P72240.	-	40	50	2 x CLZ-FP-46/25-HD - CFB-46/50	-	0.76	-	-	-
RBX-50-400-5,67%	[C] P72245.	-	50	50	2 x CLZ-FP-46/30-HD - CFB-46/62	-	0.61	-	-	-
RBX-60-400-5,67%	[C] P72250.	-	60	50	3 x CLZ-FP-46/25-HD - CFB-46/74	-	0.51	-	-	-
RBX-80-400-5,67%	[C] P72255.	-	80	50	4 x CLZ-FP-46/25-HD - CFB-46/100	-	0.38	-	-	-

**RX / RBX-60Hz, Reactors III for detuned filters**

Type	Code	480 V kvar	Hz	For capacitor	L(mH)
480 Vac, 60 Hz, f resonance = 227 Hz / p= 7%					
RX-7,5-480-60 Hz-7%	[C] P721130017000	7.5	60	CLZ-FP-52/8,5-60Hz-HD -	6.12
RX-10-480-60Hz-7%	[C] P721150017000	10	60	CLZ-FP-52/11,5-60Hz-HD -	4.58
RX-12,5-480-60 Hz-7%	[C] P721170017000	12.5	60	CLZ-FP-52/15-60Hz-HD -	3.66
RX-15-480-60 Hz-7%	[C] P721200017000	15	60	CLZ-FP-52/17-60Hz-HD -	3.06
RBX-20-480-60Hz-7%	[C] P721250017000	20	60	CLZ-FP-52/22,5-60Hz-HD -	2.29
RBX-25-480-60 Hz-7%	[C] P721300017000	25	60	CLZ-FP-52/30-60Hz-HD -	1.83
RBX-30-480-60 Hz-7%	[C] P721350017000	30	60	CLZ-FP-52/34-60Hz-HD -	1.53
RBX-40-480-60Hz-7%	[C] P721400017000	40	60	2 x CLZ-FP-52/22,5-60Hz-HD -	1.15
RBX-50-480-60 Hz-7%	[C] P721450017000	50	60	2 x CLZ-FP-52/30 -60Hz-HD -	0.92
RBX-60-480-60 Hz-7%	[C] P721500017000	60	60	2 x CLZ-FP-52/34-60Hz-HD -	0.76
RBX-80-480-60Hz-7%	[C] P721550017000	80	60	3 x CLZ-FP-52/30-60Hz-HD -	0.58
480 Vac, 60 Hz, f resonance = 160 Hz / p= 14%					
RX-12,5-480-60Hz-14%	[C] P721170017300.	12.5	60	CLZ-FP-60/17,5-60Hz-HD -	7.81
RX-15-480-60Hz-14%	[C] P721200017300.	15	60	CLZ-FP-60/21-60Hz-HD -	6.52
RX-25-480-60Hz-14%	[C] P721300017300.	25	60	CLZ-FP-60/34,5-60Hz-HD -	3.91
RBX-30-480-60Hz-14%	[C] P721350017300.	30	60	2 x CLZ-FP-60/21-60Hz-HD -	3.26
RBX-50-480-60Hz-14%	[C] P721450017300.	50	60	2 x CLZ-FP-60/34,5-60Hz-HD -	1.95

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



**CFB, Power capacitors for harmonic filtering (for OPTIM FR)**

Type	Code	400 V kvar	440 V kvar	For reactor	Size (mm) width x height x depth	weight (kg)
CFB 460						
CFB-46/6	[1] R2415A.	5	6.25	RX-6,25-460	360x330x120	3,30
CFB-46/12,5	[1] R2415D.	10	12.5	RX-10-400 / 12,5-460	360x330x120	6,00
CFB-46/15	[1] R2415E.	12.5	15	RX-12,5-400 / 15-460	360x330x120	3,90
CFB-46/19	[1] R2415F.	15	18.5	RX-15-400 / 19-460	360x330x120	5,80
CFB-46/25	[1] R2415G.	20	25	RBX-20-400 / 25-460	360x330x120	6,80
CFB-46/30	[1] R2415H.	25	30	RBX-25-400 / 30-460	360x330x120	6,80
CFB-46/37	[1] R2415J.	30	40	RBX-30-400 / 37-460	360x330x120	7,60
CFB-46/50	[*] R2415K.	40	50	RBX-40-400 / 50-460	360x520x120	10,50
CFB-46/62	[*] R2415L.	50	60	RBX-50-400 / 62-460	360x520x120	11,00
CFB-46/74	[*] R2415P.	60	75	RBX-60-400 / 74-460	360x520x120	12,90
CFB-46/100	[*] R2415R.	80	100	RBX-80-400 / 100-460	360x610x120	16,10

Type	Code	230 V kvar	For reactor	Size (mm) width x height x depth	weight (kg)
CFB 260					
CFB-26/6,3	[1] R2412A.	5	RX-5-230	360x330x120	2,60
CFB-26/12,5	[1] R2412D.	10	RX-10-230	360x330x120	3,30
CFB-26/18	[1] R2412E.	15	RBX-15-230	360x330x120	3,30
CFB-26/25	[1] R2412G.	20	RBX-20-230	360x330x120	4,20
CFB-26/30	[1] R2412H.	25	RBX-25-230	360x330x120	5,00
CFB-26/37	[1] R2412J.	30	RBX-30-230	360x330x120	5,00
CFB-26/48	[1] R2412K.	40	RBX-40-230	360x520x120	7,30
CFB-26/60	[1] R2412L.	50	RBX-50-230	360x520x120	8,20

**RE-RBE, Reactors III for detuned static filters with FRE static switching**

For capacitors with 6 terminals



Type	Code	400 V kvar	Hz	For capacitor	In (A)	L(mH)	Losses	Size (mm) width x height x depth	weight (kg)
400 V, 50 Hz, f resonance = 189 Hz / p= 7%									
RE-5-400	[4] P70210.	5	50	CFB 46 / 6-6B	5 A	23.67	25	92x165x155	6,00
RE-10-400	[4] P70215.	10	50	CFB 46 / 12,5-6B	9 A	11.27	50	102x190x180	8,00
RE-15-400	[4] P70220.	15	50	CFB 46 / 19-6B	13 A	7.5	57	112x190x180	9,50
RE-20-400	[4] P70225.	20	50	CFB 46 / 25-6B	17 A	5.68	76	122x190x180	11,50
RE-25-400	[4] P70230.	25	50	CFB 46 / 30-6B	21 A	4.68	90	122x250x240	17,00
RE-30-400	[4] P70235.	30	50	CFB 46 / 37-6B	26 A	3.84	120	132x250x240	20,50
RE-40-400	[4] P70240.	40	50	CFB 46 / 50-6B	35 A	2.84	145	147x250x240	24,00
RBE-50-400	[4] P70245.	50	50	CFB 46 / 62-6B	42 A	2.29	185	154x233x310	29,00
RBE-60-400	[4] P70250.	60	50	CFB 46 / 74-6B	51 A	1.89	205	154x234x338	30,00
RBE-80-400	[4] P70255.	80	50	CFB 46 / 100-6B	68 A	1.42	235	154x254x338	38,00

**CODIFICATION TABLE**

RX, RBX, RE, RBE

Code	Internal code		
P 7 X X X X 0 0 X X X			
		↑	Delivery time
Frequency	Standard (50 Hz)	0	=
	60 Hz	1	C
Voltage	Standard (400 V <sub>c.a.</sub> )	0	-
	230 V <sub>c.a.</sub>	1	C
	Other voltages	C	C
factor P %	Standard (7 %)	0	-
	6 %	1	C
	12,5 %	2	C
	14 %	3	C




**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)
<b>230 Vac</b>						
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
<b>400 Vac</b>						
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)
<b>440 Vac</b>						
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
<b>460 Vac</b>						
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)
<b>230 Vac</b>						
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
<b>400 Vac</b>						
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
<b>440 Vac</b>						

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
<b>460 Vac</b>						
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 <sup>2</sup> )	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 (mm2)	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 (mm2)	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 (mm2)	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 (mm2)	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 <sup>2</sup> )	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 <sup>2</sup> )	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 (mm <sup>2</sup> )	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 (mm <sup>2</sup> )	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			
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**

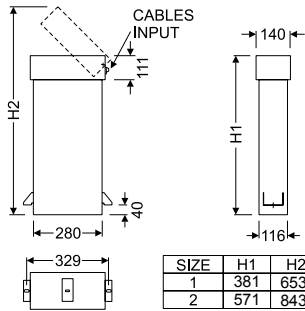
mm	d Ø	h	B	A Ø
85x175	85	175	31	90
85x245	85	245	31	90
100x245	100	245	31	105
116x245	116	245	35	121
136x220	136	220	35	141
136x261	136	261	35	141
136x355	136	355	46	141

**CLZ-FPT**

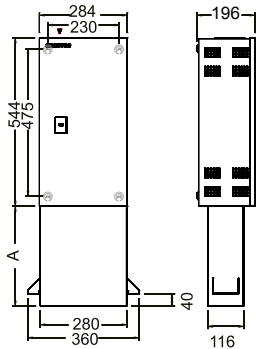
mm	d Ø	h	B	A Ø
63,5x98	63,5	98	13	68,5
63,5x127	63,5	127	13	68,5
63,5x175	63,5	175	13	68,5
63,5x202	63,5	202	13	68,5

**Dimensions**

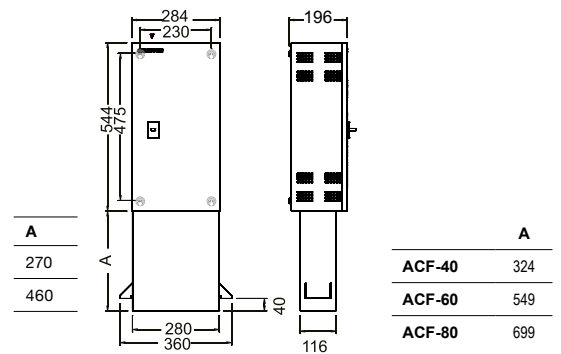
**CSB-F / CSB-M**



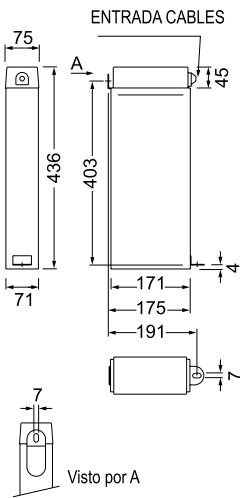
**CSB-A**



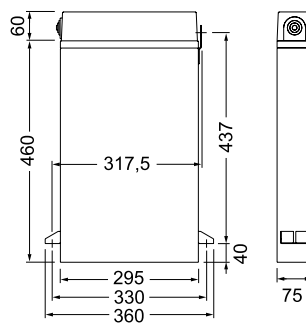
**ACF**



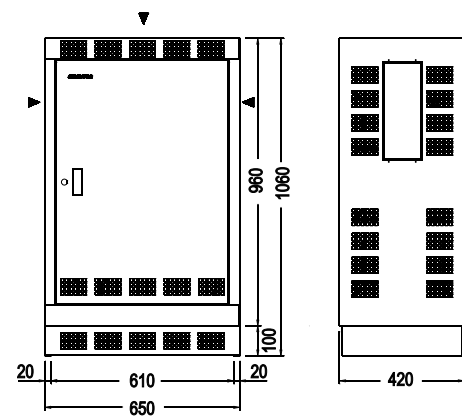
**CV**



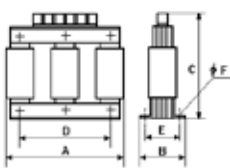
**CQ**



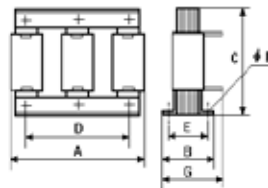
**OPTIM FRF / OPTIM FRM**



**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	<b>OPTIM 2 / OPTIM P&amp;P</b>
		with harmonics	<b>OPTIM FR P&amp;P</b>
	Semi-quick variations		<b>OPTIM HYB</b>
		Quick variations	without harmonics
		with harmonics	<b>OPTIM FRE</b>

**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	<b>OPTIM 3:</b> 12,5 ... 62,5 kvar <b>OPTIM 5:</b> 55 ... 150 kvar	<b>OPTIM 9:</b> 165 ... 270 kvar <b>OPTIM 8:</b> 300 ... 480 kvar	<b>OPTIM 8L:</b> 450 a 800 kvar <b>OPTIM 14L:</b> 900 a 1400 kvar <b>OPTIM 16L:</b> 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	<b>computer One</b>	•	–	–	–
	<b>computer Two</b>	–	•	–	–
	<b>computer Max P&amp;P</b>	–	–	•	•
	<b>computer Smart III</b>	–	–	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	<b>OPTIM 3-P&amp;P-17,5-440</b>	7 x 2,5
17,5 ... 31,25 kvar	<b>OPTIM 3-P&amp;P-31,25-440</b>	5 x 6,25
31,25 ... 43,75 kvar	<b>OPTIM 3-P&amp;P-43,75-440</b>	7 x 6,25
43,75 ... 55 kvar	<b>OPTIM 5-P&amp;P-55-440</b>	11 x 5
55 ... 70 kvar	<b>OPTIM 5-P&amp;P-70-440</b>	7 x 10
75 ... 105 kvar	<b>OPTIM 5-P&amp;P-105-440</b>	15 + 3 x 30