


OPTIM P&P, Automatic capacitor banks, 2.5 to 1600 kvar

Type	Code	400 V kvar	440 V kvar	Composition	Aut.Switch (A)	Man. Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
OPTIM 1, automatic capacitor bank with reactive relay. Requires one measuring transformer - MC series 250 mA (see Measuring current Transformers)									
OPTIM 1-2,5-440	[*] R3Q631EN00000	2	2.5	1 x 2,5	-	Included	6	215x500x166	4,10
OPTIM 1-5-440	[*] R3Q641EN00000	4	5	1 x 5	-	Included	6	215x500x166	4,65
OPTIM 1-6,25-440	[*] R3Q651EN00000	5	6.25	1 x 6,25	-	Included	6	215x500x166	4,70
OPTIM 1-10-440	[*] R3Q671EN00000	8	10	1 x 10	-	Included	6	215x500x166	4,80
OPTIM 1-12,5-440	[*] R3Q681EN00000	10	12.5	1 x 12,5	-	Included	6	215x500x166	4,80
OPTIM 1-15-440	[*] R3Q691EN00000	12.5	15	1 x 15	-	Included	6	215x500x166	5,10
OPTIM 1A-18,2-440	[*] R3Q6E1EN00000	15	18.2	1 x 18,2	-	Included	6	270x500x166	6,10
OPTIM 1A-25-440	[*] R3Q6F1EN00000	20	25	1 x 25	-	Included	10	270x500x166	7,00
OPTIM 1A-30-440	[*] R3Q6D1EN00000	25	30	1 x 30	-	Included	10	270x500x166	7,00
OPTIM 2, automatic capacitor banks with regulator without display. Requires one measuring transformer - MC series 250 mA (see Measuring current Transformers)									
OPTIM 2-7,5-440	[*] R3Q761EN00000	6.25	7.5	2,5 + 5	-	Included	6	362x500x166	7,30
OPTIM 2-10,5-440	[1] R3Q771EN00000	8.5	10.5	3 + 7,5	-	Included	6	362x500x166	7,00
OPTIM 2-12,5-440	[*] R3Q781EN00000	10	12.5	5 + 7,5	-	Included	6	362x500x166	7,00
OPTIM 2-17,5-440	[1] R3Q7E1EN00000	14	17.5	5 + 12,5	-	Included	6	362x500x166	8,22
OPTIM 2-20-440	[1] R3Q7F1EN00000	16.5	20	7,5 + 12,5	-	Included	6	362x500x166	8,00
OPTIM 2-22,5-440	[*] R3Q7G1EN00000	18.5	22.5	7,5 + 15	-	Included	6	362x500x166	8,00
OPTIM 2-25-440	[1] R3Q7H1EN00000	21	25	10 + 15	-	Included	10	362x500x166	8,00
OPTIM 2-30-440	[1] R3Q7J1EN00000	25	30	15 + 15	-	Included	10	362x500x166	8,70
OPTIM 3 P&P, automatic capacitor banks with computer Max P&P regulator									
OPTIM 3 P&P-12,5-440	[*] R3L110.	10	12.5	2,5+5+5	-	Included	6	400x600x260	18,00
OPTIM 3 P&P-17,5-440	[*] R3L120.	14	17.5	2,5+5+10	-	Included	6	400x600x260	18,00
OPTIM 3 P&P-25-440	[*] R3L130.	20	25	5+10+10	-	Included	10	400x600x260	18,00
OPTIM 3 P&P-31,25-440	[*] R3L140.	26	31.25	6,25+12,5+12,5	-	Included	10	400x600x260	18,00
OPTIM 3 P&P-37,5-440	[*] R3L150.	31.25	37.5	7,5+15+15	-	Included	16	400x600x260	18,00
OPTIM 3 P&P-43,75-440	[*] R3L160.	36	43.75	6,25+12,5+25	-	Included	25	400x600x260	18,00
OPTIM 3 P&P-52,5-440	[1] R3L170.	43	52.5	7,5+15+30	-	Included	25	400x600x260	20,00
OPTIM 3 P&P-62,5-440	[1] R3L180.	51	62.5	12,5+25+25	-	Included	35	400x600x260	25,00
OPTIM 5 P&P, automatic capacitor banks with computer Max P&P regulator									
OPTIM 5 P&P-55-440	[*] R3L210.	45	55	5+10+20+20	125	200	35	600x740x260	29,00
OPTIM 5 P&P-70-440	[*] R3L220.	58	70	10+3x20	125	200	50	600x740x260	31,00
OPTIM 5 P&P-90-440	[1] R3L230.	74	90	15+15+30+30	200	200	70	600x740x260	31,00
OPTIM 5 P&P-105-440	[*] R3L240.	87	105	15+30+30+30	200	200	70	600x740x260	31,00
OPTIM 5 P&P-135-440	[1] R3L250.	112	135	15+30+30+30+30	250	250	95	600x740x260	45,00
OPTIM 5 P&P-150-440	[1] R3L260.	124	150	30+30+30+30+30	250	250	120	600x740x260	39,00
OPTIM 9 P&P, automatic capacitor banks with computer Max P&P regulator. Built-in power supply autotransformer									
OPTIM 9 P&P-165-440	[*] R3L310.	136	165	15+5x30	400	400	120	700x1350x440	81,00
OPTIM 9 P&P-195-440	[1] R3L320.	161	195	15+6x30	400	400	150	700x1350x440	86,00
OPTIM 9 P&P-225-440	[*] R3L330.	186	225	15+7x30	400	400	185	700x1350x440	92,00
OPTIM 9 P&P-255-440	[1] R3L340.	211	255	15+8x30	630	630	240	700x1350x440	98,00
OPTIM 9 P&P-270-440	[1] R3L350.	223	270	9x30	630	630	240	700x1350x440	100,00
OPTIM 8 P&P, automatic capacitor banks with computer Max P&P regulator. Built-in power supply autotransformer									
OPTIM 8 P&P-300-440	[1] R3L410.	248	300	2x30+4x60	630	630	2x150	1000x1750x440	126,00
OPTIM 8 P&P-330-440	[1] R3L420.	273	330	30+5x60	630	630	2x150	1000x1750x440	128,00
OPTIM 8 P&P-390-440	[1] R3L430.	322	390	30+6x60	800	800	2x185	1000x1750x440	135,00
OPTIM 8 P&P-450-440	[1] R3L440.	372	450	30+7x60	800	800	2x240	1000x1750x440	142,00
OPTIM 8 P&P-480-440	[1] R3L450.	396	480	8x60	1000	1000	2x240	1000x1750x440	163,00
OPTIM 8L P&P, automatic capacitor banks with computer Max P&P regulator. Built-in power supply autotransformer									
OPTIM 8L P&P-550-440	[1] R35L10.	454	550	50+5x100	1000	1000	2x240	1200x1900x650	234,00
OPTIM 8L P&P-650-440	[1] R35L20.	537	650	50+6x100	1250	1600	3x150	1200x1900x650	255,00
OPTIM 8L P&P-750-440	[1] R35L30.	620	750	50+7x100	1600	1600	3x185	1200x1900x650	280,00
OPTIM 8L P&P-800-440	[1] R35L40.	661	800	8x100	1600	1600	3x185	1200x1900x650	290,00
OPTIM 14L P&P, automatic capacitor banks with computer Max P&P regulator. Built-in power supply autotransformer									
OPTIM 14L P&P-900-440	[2] R36L10.	743	900	2X50+8x100	1250+400	1600+400	3x150/185	2100x1900x650	435,00
OPTIM 14L P&P-950-440	[2] R36L20.	785	950	50+9x100	1600+400	1600+400	3x185/185	2100x1900x650	445,00
OPTIM 14L P&P-1050-440	[2] R36L30.	867	1050	50+10x100	1600+630	1600+630	3x185/240	2100x1900x650	470,00
OPTIM 14L P&P-1150-440	[2] R36L40.	950	1150	50+11x100	1600+1000	1600+1000	3x185/2x150	2100x1900x650	495,00
OPTIM 14L P&P-1200-440	[2] R36L50.	991	1200	12x100	1600+800	1600+800	3x185/2x185	2100x1900x650	505,00
OPTIM 14L P&P-1300-440	[2] R36L60.	1074	1300	100+6x200	1250+1250	1600+1600	3x185/2x240	2100x1900x650	535,00
OPTIM 14L P&P-1400-440	[2] R36L70.	1156	1400	100+100+6x200	1600+1250	1600+1600	3x185/3x120	2100x1900x650	560,00
OPTIM 16L P&P-1500-440	[2] R37L30.	1239	1500	100+7x200	1600+1600	1600+1600	3x185/3x150	2400x1900x650	570,00
OPTIM 16L P&P-1600-440	[2] R37L40.	1322	1600	100+100+7x200	1600+1600	1600+1600	3x185/3x185	2400x1900x650	580,00

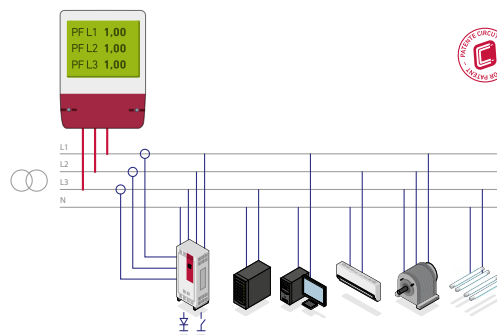
Switch and cable cross-section for installations with Un= 400 V. The installation company must ensure compliance with the low voltage directive at all times, in accordance with the characteristics of each installation and type of cable.

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

OPTIM HYB, Semi-fast hybrid automatic capacitor banks with phase-by-phase compensation for unbalanced networks

OPTIM HYB

	Rated voltage	3 x 440 V + 1 x 254 V
	Power range at rated voltage (50 Hz)	90...540 kvar
	switching	Contactor + thyristor
	No. Steps (maximum)	6 + 9
	Enclosure	Metallic IP 21
	Installation	Indoor
	Assembly	floor-mounted
	Regulator	Computer HYB
	Capacitor	Cylindrique CLZ
	Built-in protection	Circuit breaker for step



OPTIM HYB, Semi-fast hybrid automatic capacitor banks with phase-by-phase compensation for unbalanced networks

Type	Code	400 V kvar	440 V kvar	Composition 230V/50Hz (Single-phase)	Composition 400V/50Hz (Three-phase)	Man. Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
OPTIM HYB1-90-440	[C] R4E103.	75	90	(3 x 2 x 5) +	(3 x 15)	Included	1 x 95	685x970x340	67,00
OPTIM HYB1-110-440	[C] R4E104.	90	110	(3 x 2 x 5) +	(4 x 15)	Included	1 x 95	685x970x340	60,00
OPTIM HYB2-160-440	[C] R4E105.	135	165	(3 x 3 x 5) +	(3 x 30)	Included	1 x 120	800x1840x640	146,00
OPTIM HYB2-200-440	[C] R4E106.	165	200	(3 x 3 x 5) +	(4 x 30)	Included	1 x 185	800x1840x640	152,00
OPTIM HYB2-270-440	[C] R4E108.	225	270	(3 x 3 x 5) +	(6 x 30)	Included	1 x 240	800x1840x640	181,00
OPTIM HYB2-325-440	[C] R4E113.	270	325	(3 x 3 x 10) +	(3 x 60)	Included	2 x 150	800x1840x640	229,00
OPTIM HYB3-400-440	[C] R4E114.	330	400	(3 x 3 x 10) +	(4 x 60)	Included	2 x 240	1000x1840x640	304,00
OPTIM HYB3-470-440	[C] R4E115.	390	470	(3 x 3 x 10) +	(5 x 60)	Included	2 x 240	1000x1840x640	325,00
OPTIM HYB3-540-440	[C] R4E116.	450	540	(3 x 3 x 10) +	(6 x 60)	Included	2 x 240	1000x1840x640	336,00

Table: selection capacitor banks with rejection filters

	OPTIM FRM /OPTIM FRF	OPTIM FRS P&P	OPTIM FR P&P
Rated voltage	440 V	440 V	440 V
Service voltage	400 V	400 V	400 V
Power range at rated voltage (50 Hz)	25... 100 kvar	31,25 ... 120 kvar	OPTIM FR4 P&P: 150 a 400 kvar OPTIM FR6 P&P: 400 a 600 kvar OPTIM FR8 P&P: 600 a 800 kvar OPTIM FR10 P&P: 800 a 1000 kvar OPTIM FR12 P&P: 1050 a 1200 kvar
Contactor switching	-	•	•
No. Steps (maximum)	1	4	4 / 6 / 8 / 10 / 12
Enclosure	Metallic IP 21	•	•
Installation (indoor)	•	•	•
Assembly (floor-mounted)	•	•	•
Regulator	Computer Max P&P	•	•
	Computer Smart III	-	Optional
Capacitor	Cylindrical CLZ	•	•
Reactors tuned to 189 Hz (ask if you require other tuning values)	•	•	•
Built-in protection	General circuit breaker	Depending on type	•
	APR NH-00 Fuses	Depending on type	-
Autotransformer for aux. supply	-	•	•



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

Mounted on a metal cabinet. Floor mounted

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%

Mounted on a metal cabinet. Floor mounted

Type	Code	400 V kvar	440 V kvar	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
OPTIM FRM, automatic tricolor 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

See CFB capacitor and RX /RBX reactor components in the Low Voltage Capacitor and Reactor Section



OPTIM FR P&P, Automatic capacitor banks with rejection filters (contactors switching)

Type	Code	400 V kvar	440 V kvar	Composition	Aut.Switch (A)	Man. Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
OPTIM FRS P&P									
OPTIM FRS-P&P-31,25-440	[2] R54R64.	26	31.25	6,25 + 2 x 12,5	-	-	10	800x1200x500	102,00
OPTIM FRS-P&P-43,75-440	[2] R54R74.	36	43.75	6,25 + 12,5 + 25	-	-	25	800x1200x500	108,00
OPTIM FRS-P&P-62,5-440	[2] R54R81.	52	62.5	12,5 + 2 x 25	-	-	35	800x1200x500	115,00
OPTIM FRS-P&P-90-440	[2] R54R88.	74	90	2 x 15 + 2 x 30	-	-	70	800x1200x500	133,00
OPTIM FRS-P&P-105-440	[2] R54R92.	87	105	15 + 3 x 30	-	-	70	800x1200x500	138,00
OPTIM FRS-P&P-120-440	[2] R54R95.	99	120	4 x 30	-	-	95	800x1200x500	143,00
OPTIM FR4 P&P									
OPTIM FR4-P&P-150-440	[2] R54S24.	125	150	30 + 2 x 60	400	400	95	900x1900x650	220,00
OPTIM FR4-P&P-175-440	[2] R54S25.	145	175	25 + 50 + 100	400	400	120	900x1900x650	225,00
OPTIM FR4-P&P-200-440	[2] R54S28.	165	200	50 + 50 + 100	400	400	150	900x1900x650	235,00
OPTIM FR4-P&P-250-440	[2] R54S29.	207	250	50 + 2 x 100	630	630	185	900x1900x650	250,00
OPTIM FR4-P&P-300-440	[2] R54S30.	248	300	50 + 50 + 2 x 100	630	630	240	900x1900x650	290,00
OPTIM FR4-P&P-350-440	[2] R54S32.	289	350	50 + 3 x 100	630	630	2x150	900x1900x650	310,00
OPTIM FR4-P&P-400-440	[2] R54S34.	331	400	4 x 100	800	800	2x150	900x1900x650	335,00
OPTIM FR6 P&P									
OPTIM FR6-P&P-400-440	[2] R54T25.	331	400	50 + 50 + 3 x 100	800	800	2x185	1200x1900x650	370,00
OPTIM FR6-P&P-450-440	[2] R54T30.	372	450	50 + 4 x 100	800	800	2x185	1200x1900x650	400,00
OPTIM FR6-P&P-500-440	[2] R54T35.	413	500	5 x 100	1000	1000	2x240	1200x1900x650	440,00
OPTIM FR6-P&P-550-440	[2] R54T40.	455	550	50 + 5 x 100	1000	1000	2x240	1200x1900x650	465,00
OPTIM FR6-P&P-600-440	[2] R54T45.	496	600	6 x 100	1250	1600	2x240	1200x1900x650	490,00
OPTIM FR8 P&P									
OPTIM FR8-P&P-600-440	[2] R54U36.	496	600	50 + 50 + 5 x 100	1250	1600	2x240	1500x1900x650	525,00
OPTIM FR8-P&P-650-440	[2] R54U38.	537	650	50 + 6 x 100	1250	1600	3x150	1500x1900x650	504,00
OPTIM FR8-P&P-700-440	[2] R54U40.	579	700	7 x 100	1250	1600	3x150	1500x1900x650	555,00
OPTIM FR8-P&P-750-440	[2] R54U42.	620	750	50 + 7 x 100	1600	1600	3x185	1500x1900x650	580,00
OPTIM FR8-P&P-800-440	[2] R54U44.	661	800	8 x 100	1600	1600	3x185	1500x1900x650	605,00
OPTIM FR10 P&P									
OPTIM FR10-P&P-800-440	[2] R54V25.	661	800	8 x 100	1250+400	1600+400	2x240/ 240	2100x1900x650	695,00
OPTIM FR10-P&P-850-440	[2] R54V30.	702	850	50 + 8 x 100	1000+630	1000+630	2x240/ 240	2100x1900x650	735,00
OPTIM FR10-P&P-900-440	[2] R54V35.	744	900	9 x 100	1250+630	1600+630	2x240/ 240	2100x1900x650	775,00
OPTIM FR10-P&P-950-440	[2] R54V40.	785	950	50 + 9 x 100	1000+800	1000+800	2x240/ 2x185	2100x1900x650	800,00
OPTIM FR10-P&P-1000-440	[2] R54V45.	826	1000	10 x 100	1250+800	1600+800	2x240/ 2x185	2100x1900x650	825,00
OPTIM FR12-P&P-1050-440	[2] R54W50.	868	1050	50 + 10 x 100	1250+800	1600+800	2x240/ 2x240	2400x1900x650	890,00
OPTIM FR12-P&P-1100-440	[2] R54W55.	909	1100	11 x 100	1250+1000	1600+1000	2x240/ 2x240	2400x1900x650	930,00
OPTIM FR12-P&P-1150-440	[2] R54W60.	950	1150	50 + 11 x 100	2x1250	2x1600	2x240/ 2x240	2400x1900x650	955,00
OPTIM FR12-P&P-1200-440	[2] R54W65.	992	1200	12 x 100	2x1250	2x1600	2x240/ 2x240	2400x1900x650	980,00

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.

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



CODIFICATION TABLE

Code		Internal code						Delivery time	
R	3	X	X	X	0	0	X		
					↑	↑	↑		
Options	Standard (*)				0			-	
	Autotransformer for aux. supply				1			-	
	Fan				2			-	
	Policarbonate				3			-	
	Autotransf. + Fan				4			-	
	Autotransf. + Policarbonate				5			-	
	Policarbonate + Fan				6			-	
	Autotransf. +Policarbonate + Fan				7			-	
Regulator	Standard						0	-	
	computer SMART III 6						S	-	
	computer SMART III 12						T	-	
Switch	without switch						0	-	
	Manual switch 200 A						3	-	
	Manual switch 250A						4	-	
	Manual switch 400 A						5	-	
	Manual switch 630 A						6	-	
	Manual switch 800 A						7	-	
	Manual switch 1000 A						8	-	
	Manual switch 1600 A						9	-	
	Automatic switch 63 A							A	-
	Automatic switch 125 A							B	-
	Automatic switch 160 A / 200 A							C	-
	Automatic switch 250A							D	-
	Automatic switch 400 A							E	-
	Automatic switch 630 A							F	-
	Automatic switch 800 A							G	-
	Automatic switch 1000 A							H	-
	Automatic switch 1250 A							I	-
	Automatic switch 1600 A							J	-
	Automatic switch 63 A + Earth leakage							K	-
	Automatic switch 125 A + Earth leakage							L	-
	Automatic switch 160 A + Earth leakage							M	-
	Automatic switch 250 A + Earth leakage							N	-
	Automatic switch 400 A + Earth leakage							O	-
	Automatic switch 630 A + Earth leakage							P	-
	Automatic switch 800 A + Earth leakage							Q	-
Automatic switch 1000 A + Earth leakage							R	-	
Automatic switch 1250 A + Earth leakage							S	-	
Automatic switch 1600 A + Earth leakage							T	-	

Choose the regulator that is most suited to your needs	<p align="center">computer MAX Plug&Play Series</p> <p align="center">Performance, accuracy and technology at the best price</p> <ul style="list-style-type: none"> • Simple and intuitive installation and programming • Test functions • High-accuracy regulation • Basic electrical parameter measurement • Built-in alarms 	<p align="center">computer <i>smart</i> III Optional</p> <p align="center">All-in-one three-phase regulator and analyzer A new concept in compensation</p> <ul style="list-style-type: none"> • Measures and compensates over three phases, • Carries out the functions of a powerful power analyzer. • Easy to use • Serial communications • built-in leakage control system • Plug & Play • AUTO-ON-OFF function • Safety and maintenance
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SVG, Static reactive power generator

50 / 60 Hz, reactive power compensation



Type	Code	System	Q (kvar)	Phase current	EMI filter	Size (mm) width x height x depth	wei- ght (kg)
Wall-mounted cabinet							
SVG-3WS-30k-480	[2] R7NSTB.	3 wires, 230...480 V	30	44	0	435x600x257	31,00
SVG-3WF-30k-480	[2] R7NST3.	3 wires, 230...480 V	30	44	1	435x710x257	32,00
Floor-mounted cabinet							
SVG-3WF-100k-480	[2] R7NST5.	3 wires, 230...480 V	100	145	1	600x1836x822	
SVG-3WF-200k-480	[2] R7NST7.	3 wires, 230...480 V	200	290	1	600x1836x822	
SVG-3WM-100k-480	[] R7NSTM.	3 wires, 230...480 V	100	145	0	435x-x257	-

Please contact our technical department for networks with high THD(V) levels

Table: Selection of automatic capacitor banks with a static contactor
OPTIM EMS-C
OPTIM EMK


Rated voltage		440 V	440 V
Power range at rated voltage (50 Hz)		18,75...120 kvar	OPTIM EMK4: 175...400 kvar OPTIM EMK6: 400...600 kvar OPTIM EMK8: 600...800 kvar OPTIM EMK10: 850...1000 kvar OPTIM EMK12: 1050...1200 kvar
Thyristor operation		•	•
No. Steps (maximum)		8	4 / 6 / 8 / 10 / 12
Enclosure	Metallic IP 21	•	•
Installation (indoor)		•	•
Assembly	Wall-mounted	•	-
	Floor-mounted	-	•
Regulator	computer Max Fast	•	•
	computer Smart III Fast	-	Optional
Capacitor	Cilindric CLZ	•	•
Built-in protection	General circuit breaker	•	-
	APR NH-00 Fuse	-	•

OPTIM EMS, Automatic capacitor banks with static contactor


Type	Code	400 V kvar	440 V kvar	Composition	Man.Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	wei- ght (kg)
OPTIM EMS-C-18,75-440	[C] R4A300.	15.5	18.75	(6,25 + 12,5)	Included	1 x 6	545x710x220	29,00
OPTIM EMS-C-31,25-440	[C] R4A304.	26	31.25	(6,25 + 2 x 12,5)	Included	1 x 16	545x710x220	33,00
OPTIM EMS-C-43,75-440	[C] R4A309.	36	43.75	(6,25 + 12,5 + 25)	Included	1 x 25	545x710x220	34,00
OPTIM EMS-C-68,75-440	[C] R4A318.	57	68.75	(6,25 + 12,5 + 2 x 25)	Included	1 x 50	545x710x220	38,00
OPTIM EMS-C-82,50-440	[C] R4A321.	68	82.5	(7,5 + 15 + 2 x 30)	Included	1 x 70	545x710x220	39,00
OPTIM EMS-C-105-440	[C] R4A330.	87	105	(15 + 3 x 30)	Included	1 x 70	545x710x220	40,00
OPTIM EMS-C-120-440	[C] R4A336.	99	120	(4 x 30)	Included	1 x 95	545x710x220	41,00

Switch and cable cross-section recommended for installations with Un= 400 V. Installers must confirm that this meets everything established in the Low Voltage Directive according to the special characteristics of each installation and cable type, completely relieving CIRCUTOR S.A. of all breaches of the pertinent regulations as a result of an incorrect choice of the type and cross-section of the cabling.

OPTIM EMK, Automatic capacitor banks with static contactor

Type	Code	400 V kvar	440 V kvar	Composition	Aut.Switch (A)	Man. Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
OPTIM EMk4									
OPTIM EMK4-175-440	[2] R46420.	147	175	25 + 50 + 100	400	400	120	900x1900x650	170,00
OPTIM EMK4-250-440	[2] R46422.	207	250	50 + 2x100	630	630	185	900x1900x650	183,00
OPTIM EMK4-300-440	[2] R46424.	248	300	50 + 50 + 2x100	630	630	240	900x1900x650	208,00
OPTIM EMK4-350-440	[2] R46425.	289	350	50 + 3x100	630	630	240	900x1900x650	217,00
OPTIM EMK4-400-440	[2] R46426.	331	400	4x100	800	800	240	900x1900x650	231,00
OPTIM EMk6									
OPTIM EMK6-400-440	[2] R46431.	331	400	50 + 50 + 3x100	800	800	2x185	1200x1900x650	262,00
OPTIM EMK6-450-440	[2] R46435.	372	450	50 + 4x100	800	800	2x185	1200x1900x650	281,00
OPTIM EMK6-550-440	[2] R46437.	455	550	50 + 5x100	1000	1000	2x240	1200x1900x650	320,00
OPTIM EMK6-600-440	[2] R46438.	496	600	6x100	1250	1600	2x240	1200x1900x650	334,00
OPTIM EMk8									
OPTIM EMK8-600-440	[2] R46442.	496	600	50 + 50 + 5x100	1250	1600	2x240	1500x1900x650	365,00
OPTIM EMK8-650-440	[2] R46444.	537	650	50 + 6x100	1250	1600	3x150	1500x1900x650	384,00
OPTIM EMK8-750-440	[2] R46450.	620	750	50 + 7x100	1600	1600	3x185	1500x1900x650	359,00
OPTIM EMK8-800-440	[2] R46455.	661	800	8x100	1600	1600	2x240 / 240	1500x1900x650	373,00
OPTIM EMk10									
OPTIM EMK10-850-440	[2] R46505.	702	850	50 + 8x100	1250+250	1600+250	2x240 / 240	2100x1900x650	512,00
OPTIM EMK10-950-440	[2] R46604.	785	950	50 + 9x100	1250+400	1600+400	2x240 / 2x185	2100x1900x650	551,00
OPTIM EMK10-1000-440	[2] R46605.	826	1000	10x100	1600+400	1600+400	2x240 / 2x185	2100x1900x650	565,00
OPTIM EMK12-1050-440	[2] R46606.	868	1050	50 + 10x100	1250+800	1600+800	2x240 / 2x240	2400x1900x650	615,00
OPTIM EMK12-1150-440	[2] R46608.	950	1150	50 + 11x100	2x1250	2x1600	2x240 / 2x240	2400x1900x650	654,00
OPTIM EMK12-1200-440	[2] R46609.	992	1200	12x100	2x1250	2x1600	2x240 / 2x240	2400x1900x650	668,00

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.



EMF-EMB, Three-phase static switching units for 6-terminal capacitors

Type	Code	400 V kvar	Size (mm) width x height x depth	weight (kg)
With fuses, serie EMF				
EMF-40/400	[2] R41133.	40	177x485x268	10,50
EMF 60/400	[2] R41136.	60	177x485x268	10,50
EMF-80/400	[2] R41137.	80	177x485x268	10,50

Type	Code	400 V kvar	Size (mm) width x height x depth	weight (kg)
With terminal, serie EMB				
EMB-40/400	[1] R41233.	40	177x485x268	10,00
EMB-60/400	[1] R41236.	60	177x485x268	10,00
EMB-80/400	[1] R41237.	80	177x485x268	10,00



CPC3i, Zero-crossing control board (for EMF / EMB modules)

Type	Code	Vac	Control	Size (mm) width x height x depth
CPCb-230/400	[1] R4Z111.	230 / 400	Three-phase	230x110x40
CPC3i - 4T	[1] R4Z661.	230 / 400	Three-phase	230x110x40
CPC3i - 6T	[1] R4Z664.	690	Three-phase	230x110x40



EMB-2PH, Three-phase static switching units for 3-terminal capacitors

Type	Code	230 V kvar	400 V kvar	Size (mm) width x height x depth	weight (kg)
EMB-2PH-25-400	[1] R41321.	12.5	25	200x220x200	5,10
EMB-2PH-50-400	[1] R41323.	27.5	50	200x220x200	5,90
EMB-2PH-80-400	[1] R41325.	45	80	200x220x200	4,00
cover-EMB-2PH	[1] R41329.	-	-	-x-x-	-

Maximum operating voltage: 3 x 440 Vac (415 Vac with detuned reactors) Polycarbonate cover for EMB-2PH



Table: Selection of Static automatic capacitor banks with rejection filters

	OPTIM FRES	OPTIM FRE
		
Rated voltage	440 V	440 V
Service voltage	400 V	400 V
Power range at rated voltage (50 Hz)	31,25 a 120 kvar	OPTIM FRE4: 150 ... 400 kvar OPTIM FRE6: 400 ... 600 kvar OPTIM FRE8: 600 ... 800 kvar OPTIM FRE10: 800 ... 1000 kvar OPTIM FRE12: 1050 ... 1200 kvar
Thyristor operation	•	•
No. Steps (maximum)	4	4 / 6 / 8 / 10 / 12
Enclosure	Metallic IP 21	
Installation (indoor)	•	•
Assembly (floor-mounted)	•	•
Regulator	Computer Max F-12DC Computer Smart Fast III-12DC	• Optional
Capacitor	Cylindrical CLZ	
Reactors tuned to 189 Hz (please ask about other tuning values)	•	•
Built-in protection	General circuit breaker APR NH-00 Fuses	•

OPTIM FRE, Automatic capacitor banks with rejection filters (static contactor)

Optional installation of a mains switch, f resonance =189 Hz

Type	Code	400 V kvar	440 V kvar	Composition	Aut.Switch (A)	Man. Switch (A)	Cable section (mm ²)	Size (mm) width x height x depth	weight (kg)
FRES									
OPTIM FRES-31,25-440	[2] R64R64.	26	31.25	6,25 + 2 x 12,5	-	Included	10	800x1200x500	102,00
OPTIM FRES-43,75-440	[2] R64R74.	36	43.75	6,25 + 12,5 + 25	-	Included	25	800x1200x500	108,00
OPTIM FRES-62,5-440	[2] R64R81.	52	62.5	12,5 + 2 x 25	-	Included	35	800x1200x500	115,00
OPTIM FRES-90-440	[2] R64R88.	74	90	2 x 15 + 2 x 30	-	Included	70	800x1200x500	133,00
OPTIM FRES-105-440	[2] R64R92.	87	105	15 + 3 x 30	-	Included	70	800x1200x500	138,00
OPTIM FRES-120-440	[2] R64R95.	99	120	4 x 30	-	Included	95	800x1200x500	143,00
FRE4									
OPTIM FRE4-150-440	[2] R64E24.	125	150	30 + 2 x 60	400	400	95	900x1900x650	220,00
OPTIM FRE4-175-440	[2] R64E25.	145	175	25 + 50 + 100	400	400	120	900x1900x650	225,00
OPTIM FRE4-200-440	[2] R64E28.	165	200	50 + 50 + 100	400	400	150	900x1900x650	235,00
OPTIM FRE4-250-440	[2] R64E29.	207	250	50 + 2 x 100	630	630	185	900x1900x650	250,00
OPTIM FRE4-300-440	[2] R64E30.	248	300	50 + 50 + 2 x 100	630	630	240	900x1900x650	290,00
OPTIM FRE4-350-440	[2] R64E32.	289	350	50 + 3 x 100	630	630	240	900x1900x650	310,00
OPTIM FRE4-400-440	[2] R64E34.	331	400	4 x 100	800	800	240	900x1900x650	335,00
FRE6									
OPTIM FRE6-400-440	[2] R64J25.	331	400	50 + 50 + 3 x 100	800	800	2x185	1200x1900x650	370,00
OPTIM FRE6-450-440	[2] R64J30.	372	450	50 + 4 x 100	800	800	2x185	1200x1900x650	400,00
OPTIM FRE6-500-440	[2] R64J35.	413	500	5 x 100	1000	1000	2x240	1200x1900x650	440,00
OPTIM FRE6-550-440	[2] R64J40.	455	550	50 + 5 x 100	1000	1000	2x240	1200x1900x650	465,00
OPTIM FRE6-600-440	[2] R64J45.	496	600	6 x 100	1250	1600	2x240	1200x1900x650	490,00
FRE8									
OPTIM FRE8-600-440	[2] R64K36.	496	600	50 + 50 + 5 x 100	1250	1600	2x240	1500x1900x650	525,00
OPTIM FRE8-650-440	[2] R64K38.	537	650	50 + 6 x 100	1600	1600	3x150	1500x1900x650	540,00
OPTIM FRE8-700-440	[2] R64K40.	579	700	7 x 100	1600	1600	3x150	1500x1900x650	555,00
OPTIM FRE8-750-440	[2] R64K42.	620	750	50 + 7 x 100	1600	1600	3x185	1500x1900x650	580,00
OPTIM FRE8-800-440	[2] R64K44.	661	800	8 x 100	1600	1600	3x185	1500x1900x650	605,00
FRE10									
OPTIM FRE10-800-440	[2] R64C25.	661	800	8 x 100	1250+400	1600+400	2x240 / 240	2100x1900x650	695,00
OPTIM FRE10-850-440	[2] R64C30.	702	850	50 + 8 x 100	1000+630	1000+630	2x240 / 240	2100x1900x650	735,00
OPTIM FRE10-900-440	[2] R64C35.	744	900	9 x 100	1250+630	1600+630	2x240 / 240	2100x1900x650	775,00
OPTIM FRE10-950-440	[2] R64C40.	785	950	50 + 9 x 100	1000+800	1000+800	2x240 / 2x185	2100x1900x650	800,00
OPTIM FRE10-1000-440	[2] R64C45.	826	1000	10 x 100	1250+800	1600+800	2x240 / 2x185	2100x1900x650	825,00
OPTIM FRE12-1050-440	[2] R64L50.	868	1050	50 + 10 x 100	1250+800	1600+800	2x240 / 2x240	2400x1900x650	890,00
OPTIM FRE12-1100-440	[2] R64L55.	909	1100	11 x 100	1250+1000	1600+1000	2x240 / 2x240	2400x1900x650	930,00
OPTIM FRE12-1150-440	[2] R64L60.	950	1150	50 + 11 x 100	2x1250	2x1600	2x240 / 2x240	2400x1900x650	955,00
OPTIM FRE12-1200-440	[2] R64L65.	992	1200	12 x 100	2x1250	2x1600	2x240 / 2x240	2400x1900x650	980,00

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.

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

<p>Choose the regulator that is most suited to your needs</p>	<p>computer MAX-F (Series) for EMK computer MAX-F 12 VDC (Series) for OPTIM EMS-C & OPTIM FRES / FRE</p>	<p>computer SMART FAST III 12 VDC (Optional) for OPTIM FRES / FRE</p>
	<p>Performance, accuracy and technology at the best price</p> <ul style="list-style-type: none"> > Simple and intuitive installation and programming > Test functions > High-accuracy regulation > Basic electrical parameter measurement > Built-in alarms 	<p>Regulation, measurement and protection within your reach</p> <ul style="list-style-type: none"> > Built-in power analyzer > Plug & Play > Serial communications > AUTO-ON-OFF function > Open programming > Built-in leakage control > Safety and maintenance

CODIFICATION TABLE

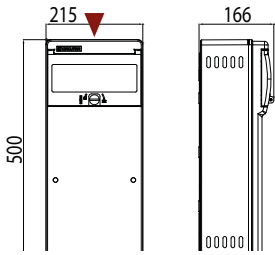
OPTIM EMK, OPTIM FRE

Code	Internal Code	
R	X X X X X 0 0 X X X	
Options	Standard (*)	0
	Fan	2
	Polycarbonate	3
	Polycarbonate + Fan	6
Choose the most suitable regulator for your needs	Standard	0
	computer Smart III 6f / f-12Vdc	9
	computer smart III 12f / f-12Vdc	D
Switch	Without switch	0
	Manual switch 200 A	3
	Manual switch 250A	4
	Manual switch 400 A	5
	Manual switch 630 A	6
	Manual switch 800 A	7
	Manual switch 1000 A	8
	Manual switch 1600 A	9
	Automatic switch 63 A	A
	Automatic switch 125 A	B
	Automatic switch 160 / 200 A	C
	Automatic switch 250A	D
	Automatic switch 400 A	E
	Automatic switch 630 A	F
	Automatic switch 800 A	G
	Automatic switch 1000 A	H
	Automatic switch 1250 A	I
	Automatic switch 1600 A	J
	Automatic switch 63 A + earth leakage	K
	Automatic switch 125 A + earth leakage	L
	Automatic switch 160 / 200 A + earth leakage	M
	Automatic switch 250 A + earth leakage	N
	Automatic switch 400 A + earth leakage	O
	Automatic switch 630 A + earth leakage	P
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	Automatic switch 1000 A + earth leakage	R
	Automatic switch 1250 A + earth leakage	S
	Automatic switch 1600 A + earth leakage	T

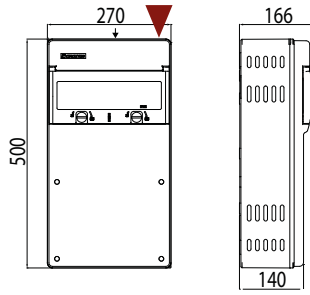
(*) Only in EMK series. With communications, earth leakage current and capacitor current
 Accessories not available for EMS-C series

Dimensions

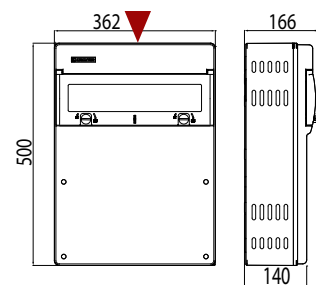
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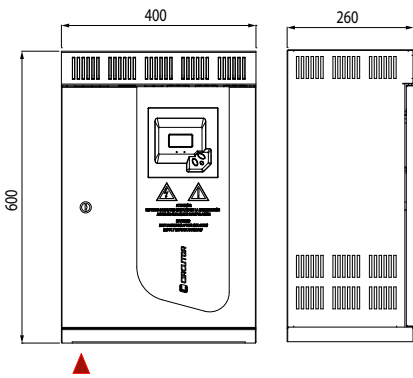
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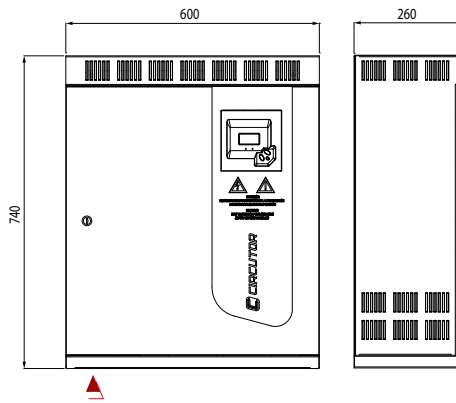
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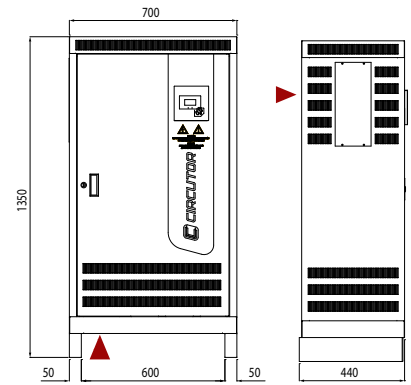
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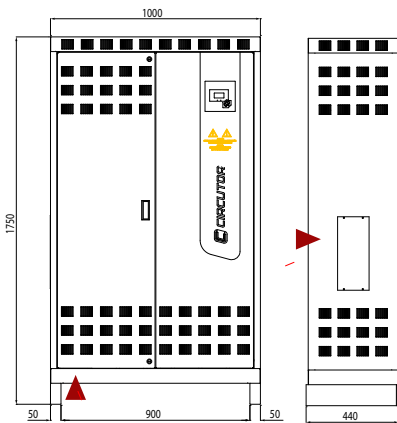
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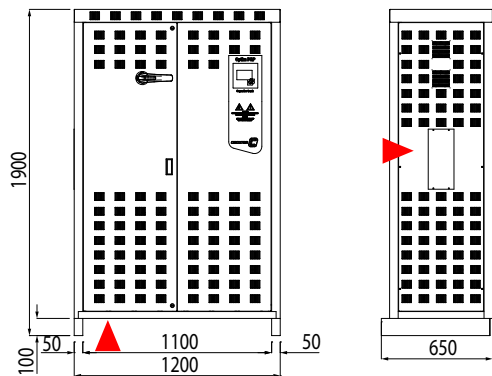
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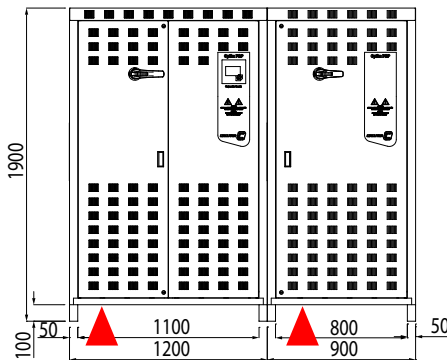
OPTIM 8



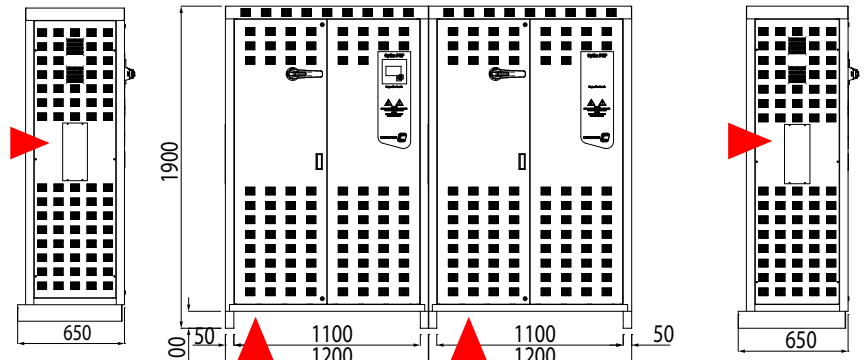
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OPTIM 14L



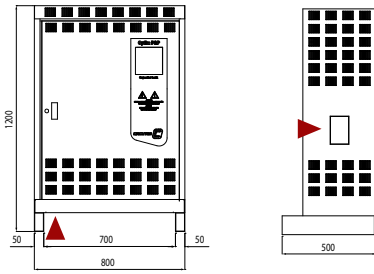
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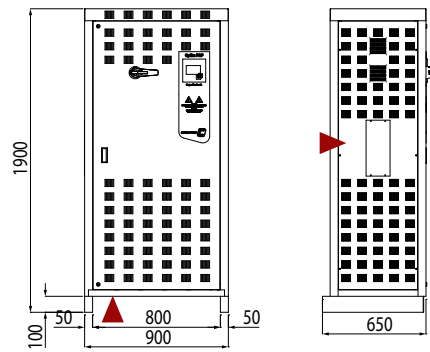
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Dimensions

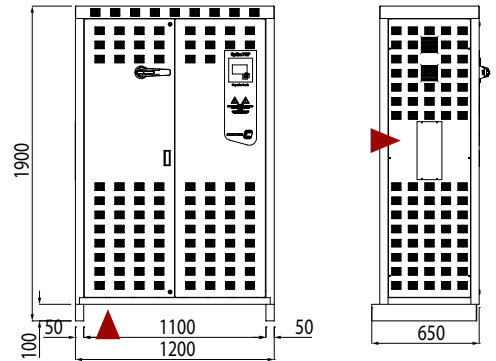
OPTIM FRS



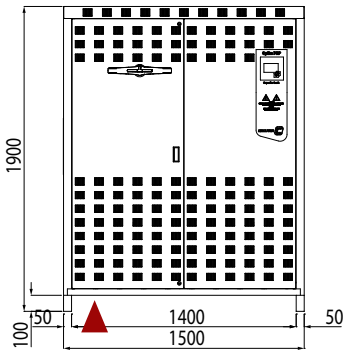
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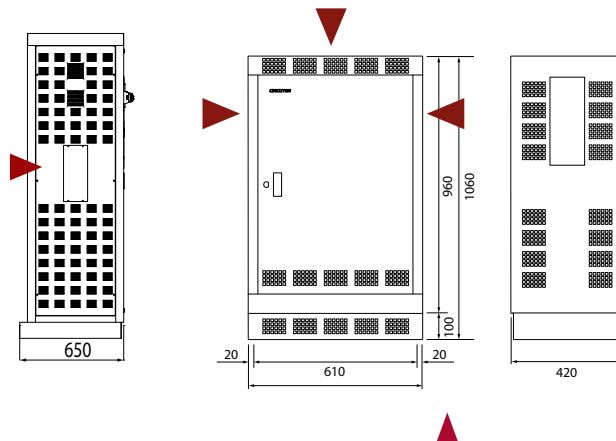
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OPTIM EMK₈ / OPTIM FR₈ / OPTIM FRE₈



FRF / FRM



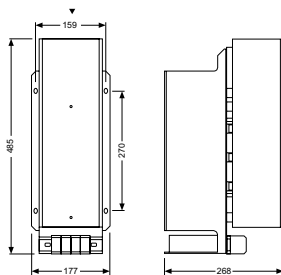
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OPTIM FR10 = OPTIM FR4 + OPTIM FR6. / Ancho: OPTIM FR4+ OPTIM FR6+100 mm

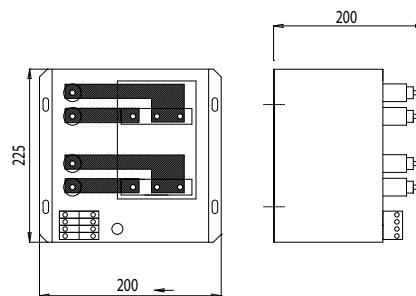
OPTIM EMK₁₂ / OPTIM FR₁₂ / OPTIM FRE₁₂

OPTIM FR12 = 2 x OPTIM FR6. / Ancho= 2 x OPTIM FR6+100 mm

EMB / EMF

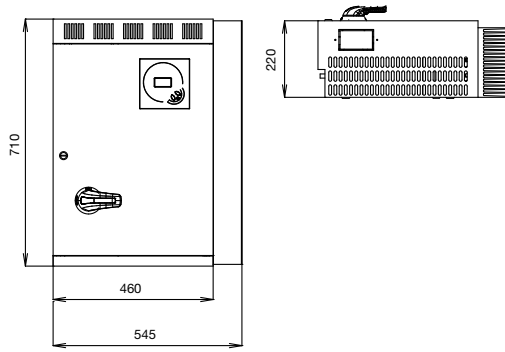


EMB-2PH

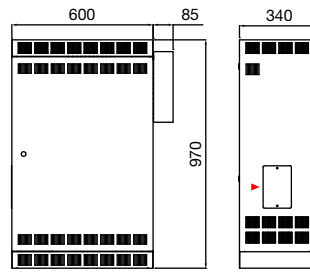


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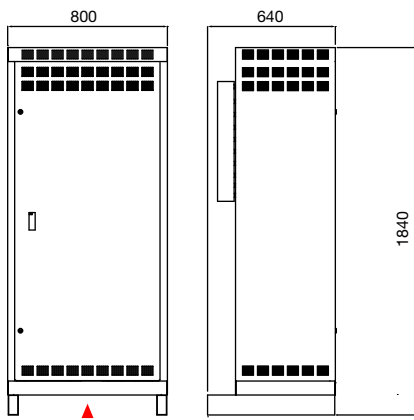
Optim EMS-C



OPTIM HYB 1



OPTIM HYB 2



OPTIM HYB 3

