

## Automatic capacitor banks with static system

**Description**

The E-series capacitor banks have been designed for power factor correction in networks with fluctuating loads.

The power variations are relatively quick (measured in milliseconds) and the operation is thus carried out by thyristors, which are connected to a voltage controller board, so that the connection and disconnection of the capacitor is carried out with zero voltage difference.

Transients are prevented between the connection and disconnection of the steps, obtaining an immediate response to the load fluctuations.

**Application**

The most common application is with individual loads or in installations where a quick compensation response is needed (for ex., welding units, motors for lifting units, lifts, etc.)

**Technical features**

<b>Electrical features</b>	Operating voltage	400 V (please ask about other voltages)
	Support voltage	440 V (400 V)
	Capacity tolerance	± 10%
<b>Unit made up of</b>	<b>CSB</b> capacitor three-phase measurement	
	Static switching unit on each stage, made up of static contactors (thyristors)	
	Individual protection of each stage by fuses with high cut-off power ( <b>APR</b> ). <b>NH-00</b> series.	
	Two-pole circuit breaker protection for capacitor bank and regulator operations.	
	Reactive energy regulator of the <b>Computer Max fast</b> series.	
	Built-in thermostat on the heatsink for disconnecting the stage in the case of excessive temperatures (+90 °C).	
<b>Add-ons</b>	Manual switch on capacitor bank header	
	Circuit breaker on capacitor bank header	
	Circuit breaker + earth leakage protection on capacitor bank header	
	Forced ventilation unit + thermostat	
	Polycarbonate sheet for protection against direct contacts	
	400 / 230 V autotransformer	
<b>Insulation level</b>	3 / 15 kV	
<b>Discharge resistance</b>	75 V / 3 minutes	
<b>Overload</b>	1.3 times the nominal hold current	
<b>Overvoltage</b>	10%, 8 over 24 hours	
	15%, up to 15 minutes over 24 hours	
	20%, up to 5 minutes over 24 hours	
	30%, up to 1 minute over 24 hours	
<b>Environmental features</b>	Temperature class D	Daily mean: +45 °C Annual mean: +35 °C Maximum: +50 °C Minimum: -25 °C
	Humidity	80% RH
	Altitude	2,000 m
<b>Mechanical features</b>	Protection degree	IP 21
	Colour	RAL 7035 grey RAL 3005 maroon
<b>Assembly conditions</b>	Type of assembly	Vertical
	Ventilation	Natural or forced, in accordance with the options
	Distance between capacitors	At least 2 cm
<b>Standards</b>	<b>CEI 60831-1, CEI 70/7, UNE 20827, UNE 20010, BS 1650, VDE 560</b>	

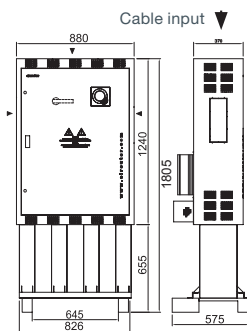
### References

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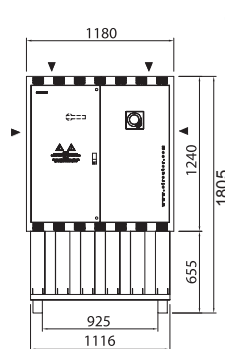
440 V	400 V	Composition	Switch (A)	Cable section (mm <sup>2</sup> )	Weight (kg)	Dimensions (mm) width x height x depth	Type	Code
100	83	(25 + 25 + 50)	200	70	132	880 x 1805 x 575	EMK4-100-440	R47405
125	103	(25 + 50 + 50)	250	95	137	880 x 1805 x 575	EMK4-125-440	R47410
150	124	(3 x 50)	400	120	142	880 x 1805 x 575	EMK4-150-440	R47415
175	147	(25 + 50 + 100)	400	150	147	880 x 1805 x 575	EMK4-175-440	R47420
200	165	(50 + 50 + 100)	400	185	152	880 x 1805 x 575	EMK4-200-440	R47421
250	207	(50 + (2 x 100))	630	240	157	880 x 1805 x 575	EMK4-250-440	R47422
275	227	(25 + 50 + (2 x 100))	630	240	157	880 x 1805 x 575	EMK4-275-440	R47423
300	248	(50 + 50 + (2 x 100))	630	2x120	162	880 x 1805 x 575	EMK4-300-440	R47424
350	289	(50 + (3 x 100))	630	2x150	167	880 x 1805 x 575	EMK4-350-440	R47425
400	331	(4 x 100)	800	2x185	172	880 x 1805 x 575	EMK4-400-440	R47426
400	331	(50 + 50 + (3 x 100))	800	2x185	168	1180 x 1805 x 575	EMK6-400-440	R47431
450	372	(50 + (4 x 100))	800	2x185	174	1180 x 1805 x 575	EMK6-450-440	R47435
500	413	(5 x 100)	1000	2x240	178	1180 x 1805 x 575	EMK6-500-440	R47436
550	455	(50 + (5 x 100))	1000	2x240	182	1180 x 1805 x 575	EMK6-550-440	R47437
600	496	(6 x 100)	1250	2x240	186	1180 x 1805 x 575	EMK6-600-440	R47438
600	496	(50 + 50 + (5 x 100))	1250	2x240	168	1530 x 1805 x 575	EMK8-600-440	R47442
650	537	(50 + (6 x 100))	1250	3x150	179	1530 x 1805 x 575	EMK8-650-440	R47444
700	579	(7 x 100)	1250	3x150	185	1530 x 1805 x 575	EMK8-700-440	R47448
750	620	(50 + (7 x 100))	1600	3x185	195	1530 x 1805 x 575	EMK8-750-440	R47450
800	661	(8 x 100)	1600	3x185	200	1530 x 1805 x 575	EMK8-800-440	R47455
800	661	(50 + 50 + (7 x 100))	1250 / 400	2x240 / 240	335	2360 x 1805 x 575	EMK12-800-440	R47500
850	702	(50 + (8 x 100))	1000 / 630	2x240 / 240	341	2360 x 1805 x 575	EMK12-850-440	R47505
900	744	(9 x 100)	1250 / 630	2x240 / 240	347	2360 x 1805 x 575	EMK12-900-440	R47603
950	785	(50 + (9 x 100))	1000 / 800	2 x 240 / 185	353	2360 x 1805 x 575	EMK12-950-440	R47604
1000	826	(10 x 100)	1250 / 800	2 x 240 / 185	359	2360 x 1805 x 575	EMK12-1000-440	R47605
1050	868	(50 + (10 x 100))	1250 / 800	2x240 / 2x240	362	2360 x 1805 x 575	EMK12-1050-440	R47606
1100	909	(11 x 100)	1250 / 1000	2x240 / 2x240	365	2360 x 1805 x 575	EMK12-1100-440	R47607
1150	950	(50 + (11 x 100))	2 x 1250	2x240 / 2x240	368	2360 x 1805 x 575	EMK12-1150-440	R47608
1200	992	(12 x 100)	2 x 1250	2x240 / 2x240	371	2360 x 1805 x 575	EMK12-1200-440	R47609

### Dimensions

EMK 4



EMK 6



EMK 8

