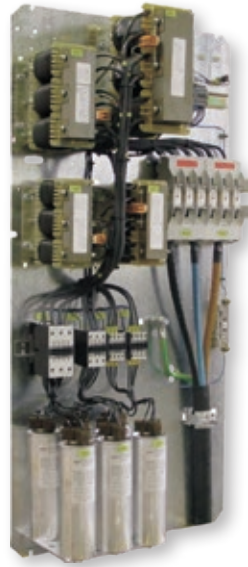


PFC Systems on mounting plates / Capacitor Modules

Power Factor Correction Systems on mounting plates – detuned



3

LSP-P

Power Factor Correction Systems on mounting plates – detuned

Detuned PFC Systems on mounting plates for installation in standard switchboards for low-voltage networks with harmonic content.

- Power range: 17.5 to 100 kvar
- Compact design on a mounting plate
- Ready for connection (without control relay and relay cable)
- Power Factor Correction Capacitors LKT dry-type with four safety features

Application Recommendations

Power Factor Correction Systems on mounting plates type LSP-P are suitable for installation in standard switchboards. Those systems are pre-wired. One only has to connect the Power Factor Correction Relay (not included) to the terminal strip.

They are suitable for supply networks with harmonic distortion according to EN 61000-2-4 class 2. They are available as follows:

Version	Detuning factor	Resonance frequency
P1	$\rho = 14 \%$	134 Hz
P7	$\rho = 7 \%$	189 Hz
P8	$\rho = 8 \%$	177 Hz

PFC Systems on mounting plates / Capacitor Modules

Power Factor Correction Systems on mounting plates – detuned

Power Range

Power Factor Correction System on mounting plate - detuned:

- 17.5 to 100 kvar

Construction

Mounting plate with mounted Power Factor Correction Capacitors, Capacitor Switching Contactors and fuses for installation in switchboards.

The system contains:

- Self-healing LKT type power capacitors with low loss self-healing dielectric made from segmented metallised polypropylene film. Filled with a PCB-free filler. With discharge resistors, as per EN 60831-1 and -2 as well as IEC 60831-1 and -2
- Heavy duty Capacitor Switching Contactors
- Harmonic Filter Reactors with overtemperature switch
- Fuse links, 3-pole, size NH00
- Control terminal strip with control fuse and thermal contact for safety shutdown

Installation Site

The place of installation must comply with the requirements of the ingress protection and ambient temperature concerned.

Regulations

For installation and connection of Power Factor Correction Capacitors in Germany the following regulations must be complied with: VDE 0100, VDE 0105, VDE 0560 Part 46 and VDE 0106 Part 100 (German Association of Electrical Engineers). In other countries the equivalent local regulations must be followed.

Connection

The power cable is connected to the LV NH00 fuse element; The Power Factor Correction Relay (not included) as well as the cable from the current transformer has to be connected to the control terminal strip.

System Expansion

An extension of the system is possible by adding LSPZ-P extension units. This extension unit will be integrated in the existing control circuit via the control cable (supplied with the extension unit).

Technical Data

Rated voltage	400 V/50 Hz
Rated voltage of capacitors	440 V/50 Hz (-P7 and -P8) 480 V/50 Hz (-P1)
Ambient temperature	-5 °C to +60 °C
Humidity	Max. 90 %, no condensation
Standards	EN 60831-1 and -2 IEC 60831-1 and -2 EN 61921 IEC 61921 EN 61439-1 and -2 IEC 61439-1 and 2 UKCA

Important Notes

For further information on power factor correction and harmonics please refer to our "Manual of Power Quality".

PFC Systems on mounting plates / Capacitor Modules

Power Factor Correction Systems on mounting plates – detuned

Version: P1 (Detuning factor $p = 14\%$)

Article- No.	Type	Rated power [kvar]	Step power [kvar]	Switching sequence	Dimensions			Weight (gross) approx. [kg]	Protection IP
					Width [mm]	Height [mm]	Depth [mm]		

Power Factor Correction Systems on mounting plates, rated mains voltage: 400 V / 50 Hz

Type series: LSP ...-3-P1

34-57701	LSP 25-6,25-21-400/480-3-P1	25	6.25	1:1:2	550	1157	240	69	00
34-57702	LSP 31,25-6,25-12-400/480-3-P1	31.25	6.25	1:2:2	550	1157	240	75	00
34-57703	LSP 43,75-6,25-111-400/480-3- P1	43.75	6.25	1:2:4	550	1157	240	84	00
34-57704	LSP 50-6,25-211-400/480-3-P1	50	6.25	1:1:2:4	550	1157	240	98	00
34-57705	LSP 50-12,5-21-400/480-3-P1	50	12.5	1:1:2	550	1157	240	90	00
34-57707	LSP 62,5-12,5-12-400/480-3-P1	62.5	12.5	1:2:2	550	1157	240	105	00
34-57708	LSP 68,75-6,25-112-400/480-3- P1	68.75	6.25	1:2:4:4	550	1157	240	115	00
34-57709	LSP 75-12,5-22-400/480-3-P1	75	12.5	1:1:2:2	550	1157	240	120	00
34-57852	LSP 75-12,5-11A-400/480-3-P1	75	12.5	1:2:3	550	1157	240	123	00
34-57710	LSP 75-25-11-400/480-3-P1	75	25	1:2	550	1157	240	121	00
34-57711	LSP 87,5-12,5-111-400/480-3-P1	87.5	12.5	1:2:4	550	1157	240	126	00
34-57781	LSP 100-16,67-11A-400/480-3-P1	100	16.67	1:2:3	550	1157	240	143	00

Power Factor Correction Systems, extension units on mounting plates, rated mains voltage: 400 V / 50 Hz

Type series: LSPZ ...-3-P1

34-57900	LSPZ 50-50-1-400/480-3-P1	50	50	1	550	1157	240	83	00
34-57901	LSPZ 75-25-11-400/440-3-P1	75	25	1:2	550	1157	240	87	00

Other rated voltages, frequencies and power ratings on request.

Recommended supply lead cross sections: please refer to the technical annex (page 137 ff.).

PFC Systems on mounting plates / Capacitor Modules

Power Factor Correction Systems on mounting plates – detuned

Version: P7 (Detuning factor $p = 7\%$)

Article- No.	Type	Rated power [kvar]	Step power [kvar]	Switching sequence	Dimensions			Weight (gross) approx. [kg]	Protection IP
					Width [mm]	Height [mm]	Depth [mm]		

Power Factor Correction Systems on mounting plates, rated mains voltage: 400 V / 50 Hz

Type series: LSP ...-3-P7

34-57712	LSP 17,5-2,5-111-400/440-3-P7	17.5	2.5	1:2:4	550	1157	240	51	00
34-57713	LSP 25-5-12-400/440-3-P7	25	5	1:2:2	550	1157	240	57	00
34-57714	LSP 25-6,25-21-400/440-3-P7	25	6.25	1:1:2	550	1157	240	54	00
34-57715	LSP 30-5-11A-400/440-3-P7	30	5	1:2:3	550	1157	240	61	00
34-57716	LSP 31,25-6,25-12-400/440-3-P7	31.25	6.25	1:2:2	550	1157	240	59	00
34-57717	LSP 43,75-6,25-111-400/440-3- P7	43.75	6.25	1:2:4	550	1157	240	64	00
34-57718	LSP 50-6,25-211-400/440-3-P7	50	6.25	1:1:2:4	550	1157	240	72	00
34-57719	LSP 50-12,5-21-400/440-3-P7	50	12.5	1:1:2	550	1157	240	70	00
34-57721	LSP 52,5-7,5-111-400/440-3-P7	52.5	7.5	1:2:4	550	1157	240	79	00
34-57722	LSP 60-10-11A-400/440-3-P7	60	10	1:2:3	550	1157	240	79	00
34-57723	LSP 62,5-12,5-12-400/440-3-P7	62.5	12.5	1:2:2	550	1157	240	77	00
34-57724	LSP 68,75-6,25-112-400/440-3- P7	68.75	6.25	1:2:4:4	550	1157	240	82	00
34-57853	LSP 75-12,5-11A-400/440-3-P7	75	12.5	1:2:3	550	1157	240	88	00
34-57725	LSP 75-12,5-22-400/440-3-P7	75	12.5	1:1:2:2	550	1157	240	86	00
34-57726	LSP 75-25-11-400/440-3-P7	75	25	1:2	550	1157	240	87	00
34-57727	LSP 87,5-12,5-111-400/440-3-P7	87.5	12.5	1:2:4	550	1157	240	89	00
34-57728	LSP 93,75-6,25-1111-400/440-3-P7	93.75	6.25	1:2:4:8	550	1157	240	96	00
34-57729	LSP 100-12,5-211-400/440-3-P7	100	12.5	1:1:2:4	550	1157	240	102	00
34-57730	LSP 100-50-2-400/440-3-P7	100	50	1:1	550	1157	240	105	00
34-57780	LSP 100-16,67-11A-400/440-3-P7	100	16.67	1:2:3	550	1157	240	102	00
34-57768	LSP 100-25-21-400/440-3-P7	100	25	1:1:2	550	1157	240	104	00

Power Factor Correction Systems, extension units on mounting plates, rated mains voltage: 400 V / 50 Hz

Type series: LSPZ ...-3-P7

34-57902	LSPZ 50-50-1-400/440-3-P7	50	50	1	550	1157	240	65	20
34-57903	LSPZ 60-30-2-400/440-3-P7	60	30	1:1	550	1157	240	78	20
34-57904	LSPZ 75-25-11-400/440-3-P7	75	25	1:2	550	1157	240	102	20
34-57905	LSPZ 90-30-3-400/440-3-P7	90	30	1:1:1	550	1157	240	102	20
34-57906	LSPZ 100-50-2-400/440-3-P7	100	50	1:1	550	1157	240	99	20

Versions with an 8 % choke factor are available with the same corrective power and configuration of the capacitance stages.

Other rated voltages, frequencies and power ratings on request.

Recommended supply lead cross sections: please refer to the technical annex (page 137 ff.).