

PFC Systems on mounting plates / Capacitor Modules

Capacitor Modules – detuned



3

C64D-P / C84D-P / C65D-P / C85D-P Capacitor Modules – detuned

Capacitor Modules type C64D-P / C84D-P / C65D-P / C85D-P for installation in standard switchgear systems. Suitable for low-voltage networks with harmonic content.

- Power Range: 25 to 100 kvar per module
- Compact design - up to 5 modules per cabinet
- Ideal for mounting in all common switchgear systems
- Easy and quick mounting with multifunctional rails
- Power Factor Correction Capacitors LKT dry-type with four safety features

Application Recommendations

Capacitor modules type C64D-P, C65D-P, C84D-P and C85D-P are suitable for installation in standard switchgear systems. Additional mounting rails for all common switchgear systems:

- W = 600 mm, T = 400, 500, 600 mm resp.
- W = 800 mm, T = 400, 500, 600 mm

allow an easy and quick installation of complex Power Factor Correction Systems.

Suitable for supply networks with harmonic distortion according to EN 61000-2-4 class 2.

Available in the following versions:

Version	Detuning factor	Resonance frequency
P1	$p = 14 \%$	134 Hz
P7	$p = 7 \%$	189 Hz
P8	$p = 8 \%$	177 Hz
P5	$p = 5.67 \%$	210 Hz

PFC Systems on mounting plates / Capacitor Modules

Capacitor Modules – detuned

Power Range

Compact compensation module ideal for mounting in switchgear systems:

- 25 to 100 kvar

Construction

Sheet steel chassis with mounted power capacitors, contactors and fuses - ideal for mounting in all common switchgear systems.

The module consists of:

- 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
- Low-loss Harmonic Filter Reactors with temperature switches
- Busbar system with bus-mounting fuse base, 3-pole, size NH 00
- Control circuit with female connector (wired connector for connection with terminal strip incl.)

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.

Installation

Specific module rails are required for installation in the switchgear system. Those module rails are available for all common switchgear systems and can be supplied as an optional accessory.

Connection

The network connection can be done either vertically or horizontally. For the horizontal connection one has to connect the cables equipped with the cable lugs to the busbar by using the M12 screws.

A bus connection bracket CU AW-1 for vertical connection is available as an option.

Additional modules can be connected directly via the busbar system.

Technical Data

Design

Sheet steel chassis for installation in switchgear cabinets

C6xD... for cabinets (width = 600 mm)

C8xD... for cabinets (width = 800 mm)

Rated voltage 400 V/50 Hz

Rated voltage 440 V/50 Hz (-P5 to -P8)

of capacitors 480 V/50 Hz (-P1)

Ambient -5 °C to +60 °C

temperature

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

Capacitor Modules – 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]		

Capacitor Modules for installation in switchgear systems with a width of 600 mm, rated mains voltage: 400 V / 50 Hz

Type series: C6xD ...-P1

34-64264	C64D 25-6,25-21-400/480-64-P1	25	6.25	1:1:2	500	300	350	57	00
34-64242	C64D 25-12,5-2-400/480-64-P1	25	12.5	1:1	500	300	350	45	00
34-64243	C64D 25-25-1-400/480-64-P1	25	25	1	500	300	350	49	00
34-65013	C65D 50-50-1-400/480-65-P1	50	50	1	500	300	450		00

Capacitor Modules for installation in switchgear systems with a width of 800 mm, rated mains voltage: 400 V / 50 Hz

Type series: C8xD ...-P1

34-64069	C84D 25-6,25-21-400/480-84-P1	25	6.25	1:1:2	700	300	350	47	00
34-64070	C84D 25-12,5-2-400/480-84-P1	25	12.5	1:1	700	300	350	47	00
34-64039	C84D 25-25-1-400/480-84-P1	25	25	1	700	300	350	51	00
34-64271	C84D 31,25-6,25-12-400/480-84-P1	31.25	6.25	1:2:2	700	300	350	46	00
34-64374	C84D 37,5-6,25-22-400/480-84-P1	37.5	6.25	1:1:2:2	700	300	350	52	00
34-64018	C84D 37,5-12,5-11-400/480-84-P1	37.5	12.5	1:2	700	300	350	45	00
34-64002	C84D 43,75-6,25-111-400/480-84-P1	43.75	6.25	1:2:4	700	300	350	78	00
34-64003	C84D 50-12,5-21-400/480-84-P1	50	12.5	1:1:2	700	300	350	83	00
34-64004	C84D 50-25-2-400/480-84-P1	50	25	1:1	700	300	350	80	00
34-64005	C84D 50-50-1-400/480-84-P1	50	50	1	700	300	350	69	00
34-65011	C85D 75-25-11-400/480-85-P1	75	25	1:2	700	300	450		00
34-64040	C85D 100-50-2-400/480-85-P1	100	50	1:1	700	300	450	118	00

Other rated voltages, frequencies and power ratings on request.

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

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]		

Capacitor Modules for installation in switchgear systems with a width of 600 mm, rated mains voltage: 400 V / 50 Hz

Type series: C6xD ...-P7

34-65138	C65D 25-3,13-211-400/440-65-P7	25	3.13	1:1:2:4	500	300	450	44	00
34-64257	C64D 25-6,25-21-400/440-64-P7	25	6.25	1:1:2	500	300	350	44	00
34-64262	C64D 25-12,5-2-400/440-64-P7	25	12.5	1:1	500	300	350	44	00
34-64245	C64D 25-25-1-400/440-64-P7	25	25	1	500	300	350	33	00
34-64301	C64D 31,25-6,25-12-400/440-64-P7	31.25	6.25	1:2:2	500	300	350	45	00
34-64246	C64D 37,5-12,5-11-400/440-64-P7	37.5	12.5	1:2	500	300	350	44	00
34-64247	C64D 43,75-6,25-111-400/440-64-P7	43.75	6.25	1:2:4	500	300	350	54	00
34-64248	C64D 50-12,5-21-400/440-64-P7	50	12.5	1:1:2	500	300	350	55	00
34-64249	C64D 50-25-2-400/440-64-P7	50	25	1:1	500	300	350	47	00
34-64250	C64D 50-50-1-400/440-64-P7	50	50	1	500	300	350	49	00
34-64261	C65D 75-25-11-400/440-65-P7	75	25	1:2	500	300	450	65	00

PFC Systems on mounting plates / Capacitor Modules

Capacitor Modules – detuned

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

Capacitor Modules for installation in switchgear systems with a width of 800 mm, rated mains voltage: 400 V / 50 Hz

Type series: C8xD ...-P7

34-64071	C84D 25-6,25-21-400/440-84-P7	25	6.25	1:1:2	700	300	350	46	00
34-64072	C84D 25-12,5-2-400/440-84-P7	25	12.5	1:1	700	300	350	46	00
34-64015	C84D 25-25-1-400/440-84-P7	25	25	1	700	300	350	38	00
34-64339	C84D 31,25-6,25-12-400/440-84-P7	31.25	6.25	1:2:2	700	300	350	47	00
34-64303	C84D 34,38-3,13-112-400/440-84-P7	34.38	3.13	1:2:4:4	700	300	350	48	00
34-64211	C84D 37,5-12,5-11-400/440-84-P7	37.5	12.5	1:2	700	300	350	48	00
34-64304	C84D 37,5-6,25-22-400/440-84-P7	37.5	6.25	1:1:2:2	700	300	350	49	00
34-64073	C84D 43,75-6,25-111-400/440-84-P7	43.75	6.25	1:2:4	700	300	350	52	00
34-64305	C84D 46,88-3,13-1111-400/440-84-P7	46.88	3.13	1:2:4:8	700	300	350	57	00
34-64007	C84D 50-6,25-211-400/440-84-P7	50	6.25	1:1:2:4	700	300	350	50	00
34-64008	C84D 50-12,5-21-400/440-84-P7	50	12.5	1:1:2	700	300	350	60	00
34-64009	C84D 50-25-2-400/440-84-P7	50	25	1:1	700	300	350	55	00
34-64010	C84D 50-50-1-400/440-84-P7	50	50	1	700	300	350	52	00
34-64041	C84D 62,5-12,5-12-400/440-84-P7	62.5	12.5	1:2:2	700	300	350	55	00
34-64074	C84D 68,75-6,25-112-400/440-84-P7	68.75	6.25	1:2:4:4	700	300	350	56	00
34-64075	C84D 75-12,5-22-400/440-84-P7	75	12.5	1:1:2:2	700	300	350	59	00
34-64011	C84D 75-25-11-400/440-84-P7	75	25	1:2	700	300	350	71	00
34-64848	C84D 75-12,5-11A-400/440-84-P7	75	12.5	1:2:3	700	300	350	62	00
34-64012	C84D 87,5-12,5-111-400/440-84-P7	87.5	12.5	1:2:4	700	300	350	75	00
34-64648	C85D 100-12,5-211-400/440-85-P7	100	12.5	1:1:2:4	700	300	450	93	00
34-64013	C84D 100-25-21-400/440-84-P7	100	25	1:1:2	700	300	350	90	00
34-64014	C84D 100-50-2-400/440-84-P7	100	50	1:1	700	300	350	84	00

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.).

PFC Systems on mounting plates / Capacitor Modules

Capacitor Modules – detuned

Version: P5 (Detuning factor $p = 5.67\%$)

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

Capacitor Modules for installation in switchgear systems with a width of 800 mm, rated mains voltage: 400 V / 50 Hz

Type series: C8xD ...-P5

34-64969	C84D 25-25-1-400/440-84-P5	25	25	1	700	300	350	58	00
34-64970	C84D 50-50-1-400/440-84-P5	50	50	1	700	300	350	67	00
34-64971	C84D 50-25-2-400/440-84-P5	50	25	1:1	700	300	350	80	00
34-64972	C84D 75-25-11-400/440-84-P5	75	25	1:2	700	300	350	98	00
34-64973	C85D 100-50-2-400/440-85-P5	100	50	1:1	700	300	450	120	00

Other rated voltages, frequencies and power ratings on request.

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

For options and accessory equipment for PFC Systems on mounting plates, module rails, ordering examples and dimensional drawings see page 87 ff.