


DATA CHARTS

rated voltages	230...700 V 50 Hz
design	three phase
tolerance of inductance	- 3 ... + 3 % (mean value across three phases)
terminals	terminal blocks, cable lugs temperature-proof flexible cables available on request
winding material	aluminium band or copper wire
core material	low loss iron sheets
safety device	thermal switch
impregnant	polyester resin Class F
insulation class	class B (higher classes available on request)
protection class	IP00 (indoor mounting)
current linearity	see data charts
permitted harmonic load (continuous operation)	$U_3 = 0.5 \% U_N$ $U_5 = 6 \% U_N$ $U_7 = 5 \% U_N$ $U_{11} = 3.5 \% U_N$ $U_{13} = 3 \% U_N$
insulation voltage winding to core	3 kV
max. relative humidity	95 %
temperature class	see data charts
cooling	natural
altitude	4000 m.a.s.l.
statistical life expectancy	> 200 000 h (permitted failure rate $\leq 3 \%$)
standards	IEC EN 61558-2-20:2011, VDE 0570-2, IEC 60076-6:2007, UL508, C22.2 No.14
approval marks	 for selected types

General
Technical
Data

DATA CHARTS

CE Conformity

All reactors listed in this catalogue comply with the relevant regulations and guidelines of the European Union: 2014/35/EU (Low-Voltage Directive)



This is proven by the technical documentation and compliance with the following standards: IEC EN 61558-2-20:2011, IEC EN 60076-6:2007

DIMENSION DRAWINGS

Dimension Chart

Code	L (mm)	H (mm)	Design A B (mm)	Design B B (mm)	pcs./pallet	pallet height (mm)
A1	155	140	78	-	48	350
A2	155	140	92	85	36	350
B1	190	165	82	87	33	350
B2	190	165	92	97	27	350
B3	190	165	102	107	24	350
B4	190	165	126	131	20	350
C1	240	215	121	112	20	550
C2	240	215	131	122	20	550
C3	240	215	141	132	18	550
C4	240	215	151	142	16	550
C5	240	215	155	146	12	550
D2	300	265	165	139	10	550
D3	300	265	177	152	10	550
D4	300	265	192	167	10	550
D5	300	265	203	178	8	550
F3	300	190	166	-	10	350
F4	300	190	180	155	10	350
F5	300	190	191	166	10	350
F6	300	190	201	175	10	350
G1	240	255	121	112	16	550
G2	240	255	153	144	12	550
H1	420	370	188	190	8	600
I1	300	315	166	141	10	600

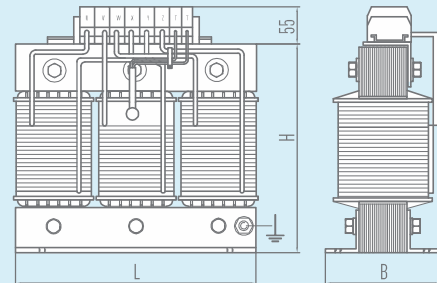
DIMENSION DRAWINGS

Type 1

Connection Type 1



Type 1: Screw terminal block, 10 mm²
Available with copper windings only



DIMENSION DRAWINGS



Connection Type 2

Type 2: Cable lug (tinned copper)
Available with copper or aluminium windings

Type 2

Connection Type 3

Type 3: Flexible cable,
temperature proof up to 140°C,
length: 500 or 800 mm
Available with copper or aluminium windings

Type 3

DIMENSION DRAWINGS

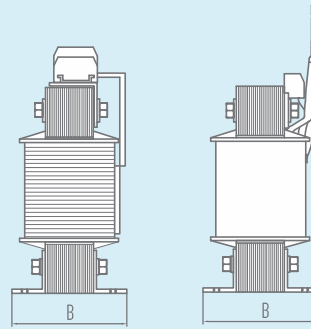
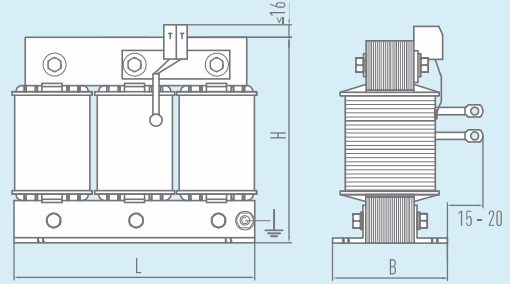


Design A

Mounting Design A



Standard version
with base mounting bracket

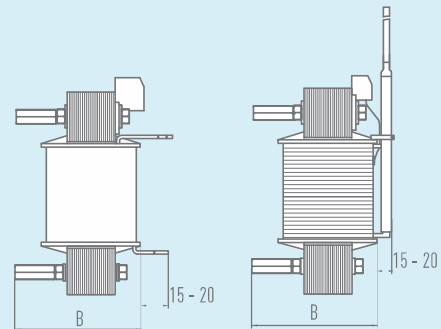
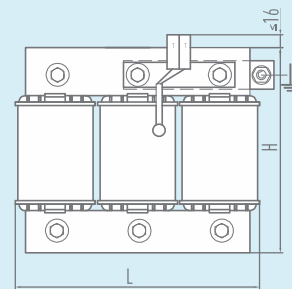


Design B

Mounting Design B



Four threaded bolts (M6i or M8i)
for lateral mounting

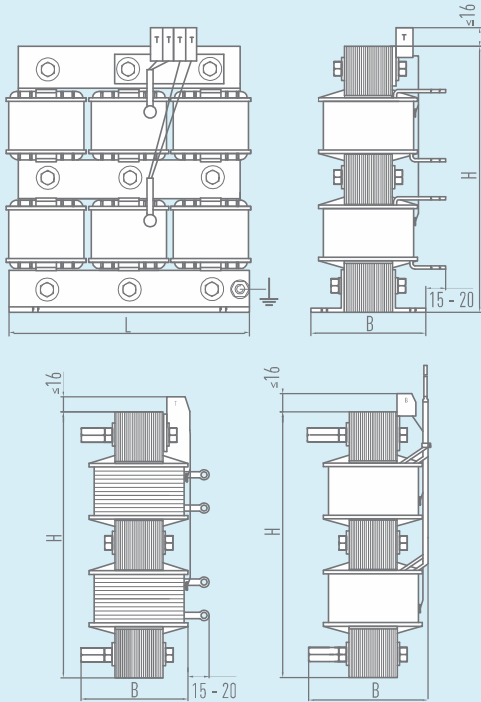


DIMENSION DRAWINGS

Design 2in1

This very compact design combines two partial powers in one unit. They can be operated independently from each other.

Design 2in1



Available terminals: type 2 and 3.
Available designs: A and B.



FK-Dr

NON-ADAPTED RATING (D)

5.67 %, 7 %

for latest edition and updates
check www.powercapacitors.info



*available upon request

Reactors for standard capacitors (non-adapted rating)

Power Output $Q_{LC} (U_N)$ (kvar)	Capacitor C_N (μ F)	type designation FK-Dr ...	winding	L_N (mH)	I_{eff} (A)	Reactor / Drossel				connection / design														
						Temp. class	size (S.pg. 62)	weight (kg)	order code (standard version)	1	2	3	A	B										
U_N 400 V $U_C > 430$ V $p = 7\%$ [189 Hz] $I_{lin} 1.8 I_N$																								
13.4	3 × 82	12.5/400/50/7/D	Cu	3 × 2.88	22.5	T50	B2	8	428.094-40D2A	○	●	○	●	○										
26.9	3 × 166	25/400/50/7/D	Cu	3 × 1.43	45.5	T50	C2	17	444.125-40D2A		●	○	●	○										
26.9	3 × 166	25/400/50/7/D	Al	3 × 1.43	45.5	T50	C4	17	444.326+40D3A		●	○	●	○										
53.8	3 × 332	50/400/50/7/D	Cu	3 × 0.71	91	T50	F5	31	458.259-40D2A		●	○	●	○										
53.8	3 × 332	50/400/50/7/D	Al	3 × 0.71	91	T45	F4	26.4	458.258+40D3A0		●	○	●	○										
U_N 415 V $U_C > 460$ V $p = 7\%$ [189 Hz] $I_{lin} 1.8 I_N$																								
26.9	3 × 154	25/415/50/7/D	Cu	3 × 1.54	43.9	T50	C2	16	444.125-42D2A		●	○	●	○										
26.9	3 × 154	25/415/50/7/D	Al	3 × 1.54	43.9	T50	C4	17	444.326+42D3A0		●	○	●	○										
53.8	3 × 308	50/415/50/7/D	Cu	3 × 0.77	87.8	T50	F5	33	458.259-42D2A		●	○	●	○										
53.8	3 × 308	50/415/50/7/D	Al	3 × 0.77	87.8	T45	F6	30.5	458.260+42D3A		●	○	●	○										
U_N 415 V $U_C > 460$ V $p = 5.67\%$ [210 Hz] $I_{lin} 2.2 I_N$																								
5.7	3 × 33	5.4/415/50/5.67/D	Cu	3 × 5.76	10.4	T50	B1	6	407.093-42B10	●	○	○	●	○										
10.6	3 × 62	10/415/50/5.67/D	Cu	3 × 3.09	19.5	T50	B2	8.5	425.094-42B10	●	○	○	●	○										
13.3	3 × 77	12.5/415/50/5.67/D	Cu	3 × 2.49	24.2	T50	B3	9	428.095-42B10	●	○	○	●	○										
21.2	3 × 123	20/415/50/5.67/D	Cu	3 × 1.55	38.6	T50	C1	15.6	440.125-42B20		●	○	●	○										
26.5	3 × 154	25/415/50/5.67/D	Cu	3 × 1.24	48.4	T50	C3	18.5	444.126-42B20		●	○	●	○										
53	3 × 308	50/415/50/5.67/D	Al	3 × 0.62	96.7	T50	D3	32.6	458.157+42B300		●	○	●	○										
U_N 690 V $U_C > 760$ V $p = 7\%$ [189 Hz] $I_{lin} 1.8 I_N$																								
26.8	3 × 56	25/690/50/7/D	Cu	3 × 4.22	26.5	T50	C2	17.5	444.125-69D2A		●	○	●	○										
53.7	3 × 111	50/690/50/7/D	Cu	3 × 2.12	53	T50	D2	30	458.156+69D3A0		●	○	●	○										
80.6	3 × 168	75/690/50/7/D	Cu	3 × 1.41	80	T55	D5	42	468.160+69D3A0		●		●	○										
107.5	3 × 223	100/690/50/7/D	Al	3 × 1.06	106	T55	H1	68	478.209+69D3A0		●		●	○										
U_N 690 V $U_C > 760$ V $p = 5.67\%$ [210 Hz] $I_{lin} 2.2 I_N$																								
26.5	3 × 56	25/690/50/5.67/D	Cu	3 × 3.42	29.3	T50	C2	16	444.125-69B20		●	○	●	○										
53	3 × 112	50/690/50/5.67/D	Cu	3 × 1.7	58.5	T50	D3	33	458.157-69B20		●	○	●	○										

- standard design
- other available options

Other ratings, linearities and detuning factors are available on request.

DETUNING REACTORS FK-DR D 5.67 %, 7 %

FK-Dr

ADAPTED RATING (D1a)

7 %



*available upon request

Reactors for capacitors with adapted rating

Power Output Q_{LC} (U_N) (kvar)	Capacitor C_N (μ F)	type designation FK-Dr ...	winding	L_N (mH)	I_{eff} (A)	Reactor / Drossel			order code (standard version)	connection / design					
						Temp. class	size (S.pg. 62)	weight (kg)		1	2	3	A	B	
U_N 400 V		$U_c > 430$ V		$p = 7\%$ (189 Hz)		$I_{lin} 1.8 I_N$									
5	3 × 31	5/400/50/7/D1a	Cu	3 × 7.7	8.5	T55	A2	4.5	407.074-4031A0	●	○	○	●	○	
6.25	3 × 39	6.25/400/50/7/D1a	Cu	3 × 6.13	10.6	T55	A2	5	412.074-4031A	●	○	○	●	○	
10	3 × 62	10/400/50/7/D1a	Cu	3 × 3.83	16.9	T55	B1	6.9	425.093-4032A	●	○	○	●	○	
12.5	3 × 77	12.5/400/50/7/D1a	Cu	3 × 3.07	21.2	T55	B2	8.3	428.094-4032A	●	○	○	●	○	
2 × 12.5	2 × 3 × 77	2/12.5/400/50/7/D1a	Cu	2 × 3 × 3.07	21.2	T55	G1	16	428.241-4032A	●	○	○	●	○	
20	3 × 123	20/400/50/7/D1a	Cu	3 × 1.92	33.8	T50	C1	13.5	440.124-4032A		●	○	●	○	
25	3 × 154	25/400/50/7/D1a	Cu	3 × 1.54	42.3	T55	C2	15.4	444.125-4032A		●	○	●	○	
25	3 × 154	25/400/50/7/D1a	Al	3 × 1.54	42.3	T50	C3	17	444.126+4033A		●	○	●	○	
2 × 25	2 × 3 × 154	2/25/400/50/7/D1a	Cu	2 × 3 × 1.54	42.3	T55	G2	26	444.273-4032A		●	○	●	○	
2 × 25	2 × 3 × 154	2/25/400/50/7/D1a	Al	2 × 3 × 1.54	42.3	T55	I1	34.5	444.266+4033A0		●	○	●	○	
30	3 × 185	30/400/50/7/D1a	Al	3 × 1.28	51	T55	F3	21	450.256+4033A0		●	○	●	○	
40	3 × 246	40/400/50/7/D1a	Cu	3 × 0.96	67.6	T55	F4	27	454.258-4032A		●	○	●	○	
40	3 × 246	40/400/50/7/D1a	Al	3 × 0.96	67.6	T55	F4	26	454.258+4033A0		●	○	●	○	
50	3 × 308	50/400/50/7/D1a	Cu	3 × 0.77	84.6	T50	F4	28	458.258-4032A		●	○	●	○	
50	3 × 308	50/400/50/7/D1a	Al	3 × 0.77	84.6	T45	F5	29.5	458.259+4033A		●	○	●	○	
75	3 × 462	75/400/50/7/D1a	Cu	3 × 0.51	127	T45	D4	42	468.159-4032A		●		●	○	
75	3 × 462	75/400/50/7/D1a	Al	3 × 0.51	127	T45	D4	39	468.159+4033A		●		●	○	
100	3 × 616	100/400/50/7/D1a	Al	3 × 0.38	170	T45	D5	45.5	4H0.160+4033A0		●		●	○	
U_N 415 V		$U_c > 450$ V		$p = 7\%$ (189 Hz)		$I_{lin} 1.8 I_N$									
12.5	3 × 71	12.5/415/50/7/D1a	Cu	3 × 3.3	20.4	T55	B2	7.5	428.094-4232A	●	○	○	●	○	
25	3 × 143	25/415/50/7/D1a	Al	3 × 1.65	40.8	T50	C3	17	444.126+4233A		●	○	●	○	
50	3 × 286	50/415/50/7/D1a	Al	3 × 0.83	81.5	T45	F6	30	458.260+4233A		●	○	●	○	
50	3 × 286	50/415/50/7/D1a	Al	3 × 0.83	81.5	T45	F6	28	458.259+4233L0*		●	○	●	○	
75	3 × 429	75/415/50/7/D1a	Al	3 × 0.55	122.4	T45	D4	38	468.159+4233A0		●	○	●	○	
100	3 × 573	100/415/50/7/D1a	Al	3 × 0.41	163	T55	H1	65	4H0.218+4233A0		●		●	○	
U_N 690 V		$U_c > 760$ V		$p = 7\%$ (189 Hz)		$I_{lin} 1.8 I_N$									
25	3 × 52	25/690/50/7/D1a	Cu	3 × 4.57	24.5	T50	B4	16	444.097-6932A0		●	○	●	○	
50	3 × 104	50/690/50/7/D1a	Al	3 × 2.29	49	T55	F5	29	458.259+6933A0		●	○	●	○	
100	3 × 207	100/690/50/7/D1a	Cu	3 × 1.14	98	T55	D4	45	478.159-6932A		●	○	●	○	

*Linearity $1.6 \times I_N$

DETUNING REACTORS FK-DR D1a 7 %



FK-Dr ADAPTED RATING (D1a) 5.67 %, 14 %

for latest edition and updates
check www.powercapacitors.info



*available upon request

Reactors for capacitors with adapted rating

Power Output $Q_{LC} (U_N)$ (kvar)	Capacitor C_N (μ F)	type designation FK-Dr ...	winding	L_N (mH)	I_{eff} (A)	Reactor / Drossel			order code (standard version)	connection / design					
						Temp. class	size (S.pg. 62)	weight (kg)		1	2	3	A	B	
U_N 400 V $U_C > 430$ V $p = 5.67\%$ [210 Hz] $I_{lin} 2.2 I_N$															
12.5	3 × 77	12.5/400/50/5.67/D1a	Cu	3 × 2.49	23.3	T55	B2	9	428.094-40120	●	○	○	●	○	
25	3 × 154	25/400/50/5.67/D1a	Cu	3 × 1.24	47.4	T55	C2	16.5	444.125-40120		●	○	●	○	
25	3 × 154	25/400/50/5.67/D1a	Al	3 × 1.24	47.4	T55	C3	18	444.326+401300		●	○	●	○	
50	3 × 308	50/400/50/5.67/D1a	Al	3 × 0.62	94.2	T50	D3	31	458.157+40130		●	○	●	○	
75	3 × 462	75/400/50/5.67/D1a	Cu	3 × 0.41	140	T50	D4	42	468.159-40120		●	○	○	●	
100	3 × 626	100/400/50/5.67/D1a	Al	3 × 0.31	190	T55	H1	69	4H0.218+401300		●	○	●	○	
U_N 690 V $U_C > 760$ V $p = 5.67\%$ [210 Hz] $I_{lin} 2.2 I_N$															
25	3 × 52	25/690/50/5.67/D1a	Al	3 × 3.70	27.4	T55	C4	18	444.326+691300		●	○	●	○	
50	3 × 104	50/690/50/5.67/D1a	Al	3 × 1.85	54	T55	D4	38	458.159+691300		●	○	●	○	
U_N 400 V $U_C > 465$ V $p = 14\%$ [134 Hz] $I_{lin} 1.6 I_N$															
12.5	3 × 71	12.5/400/50/14/D1a	Cu	3 × 6.66	19.9	T55	C1	14	428.124-4052L		●	○	●	○	
25	3 × 143	25/400/50/14/D1a	Cu	3 × 3.30	40	T55	C5	23	444.127-4052L		●	○	●	○	
25	3 × 143	25/400/50/14/D1a	Al	3 × 3.30	40	T55	F4	23	444.258+4053L		●	○	●	○	
50	3 × 285	50/400/50/14/D1a	Cu	3 × 1.66	80	T50	D3	43	458.157-4052L		●	○	●	○	
50	3 × 285	50/400/50/14/D1a	Al	3 × 1.66	80	T50	D5	43	458.160+4053M0		●	○	○	●	
U_N 690 V $U_C > 800$ V $p = 14\%$ [134 Hz] $I_{lin} 1.6 I_N$															
25	3 × 48	25/690/50/14/D1a	Cu	3 × 9.87	23.2	T50	C4	24	444.127-6952L		●	○	●	○	
50	3 × 98	50/690/50/14/D1a	Cu	3 × 4.93	46.4	T50	D3	40	458.157-6952L0		●	○	●	○	

- standard design
- other available options

Other ratings, linearities and detuning factors are available on request.