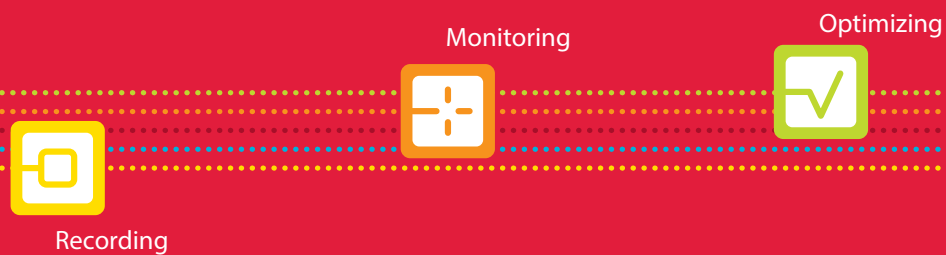
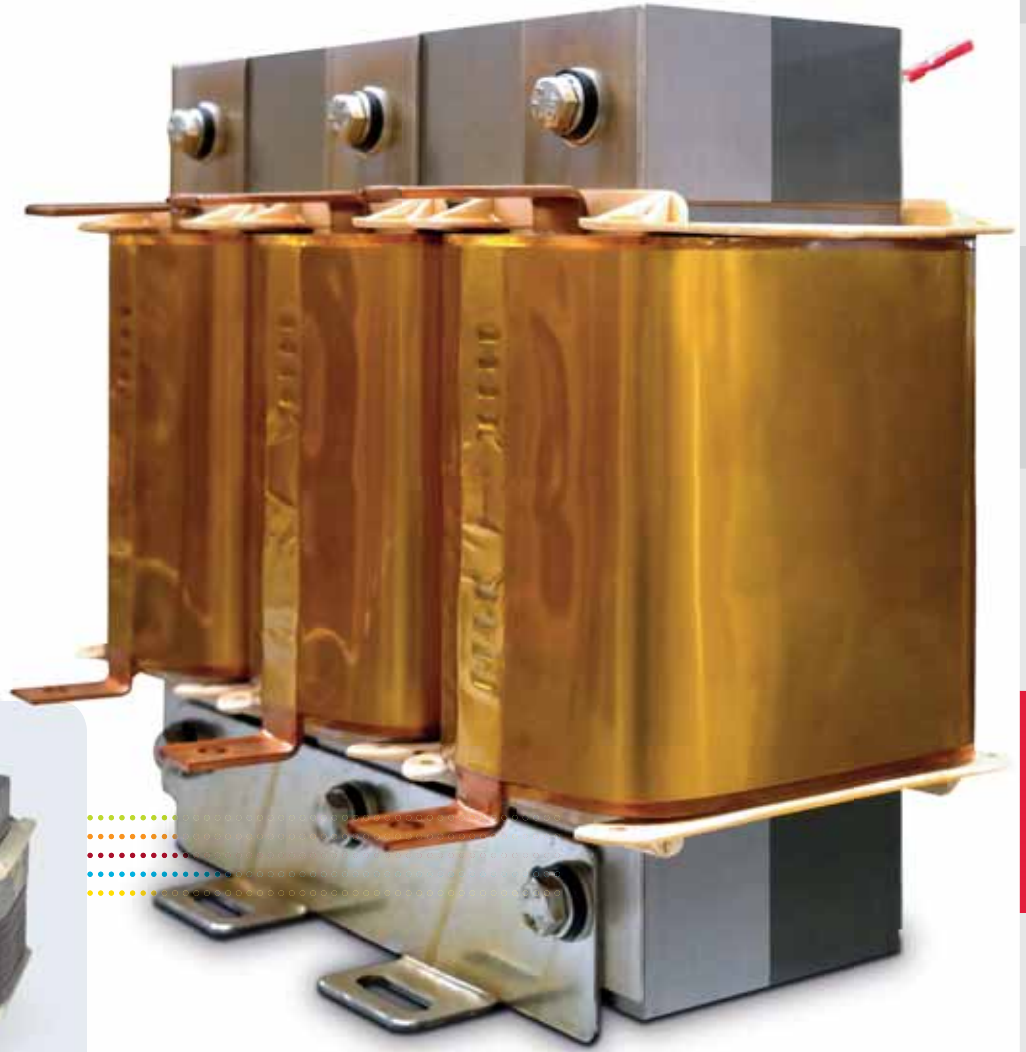


Filter circuit reactors



To prevent resonance phenomena caused by harmonic content in the power supply system, filter circuit reactors are required to set up detuned compensation systems. Here, high linearities guarantee the necessary functional stability even in the overload range.



About us

Basics

Reactive power controllers

Power capacitors

Filter circuit reactors

Capacitor contactors and thyristor switches

Power quality

Measuring devices

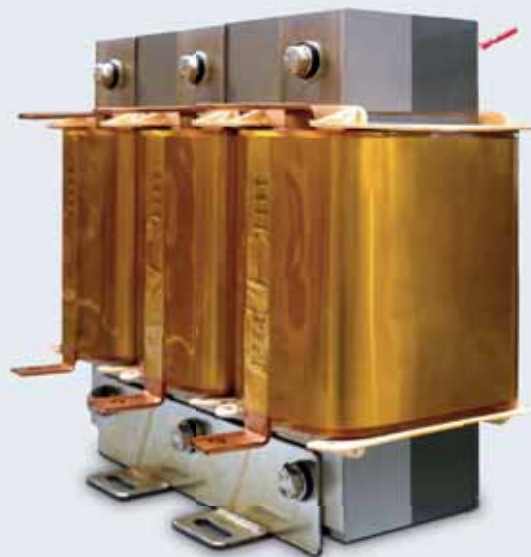
KBR system

Current transformers and Supercapacitors

multiind 50Hz

Power **2.5 – 75 kvar**

Detuning factors
5.5, 7 or 8 %
12.5 or 14 %



Filter circuit reactors for reactive current compensation

- Highlights**
- Power from 2.5 to 75 kvar
 - High linearity, low power dissipation
 - Overload protection through temperature switch
 - Low-noise through impregnation
 - Long operating life
 - Improved impedance behavior

An overview of the **technical details** is provided on pages 44-45.
Construction diagrams are provided on page 43.

Note on the temperature switch

For smooth operation and a long operating life, the integrated temperature sensor must interrupt the main circuit of the filter circuit reactor in case of overload.

Notes on installation

- Observe the applicable DIN / VDE regulations.
- Power supply connection, setup and device operation must be performed by qualified personnel only.
- Maintain maximum current, voltage and temperature ranges.
- Ensure sufficient ventilation.
- Tighten connections with the right torque.

Specifications multiind-basic ... 5.5 %

Detuning factor: **5.5 %** Resonance frequency: **214 Hz**

POWER kvar	TYPE multiind-basic ... 5.5 %	INDUCTIVITY		RATED CURRENT A	DIMENSIONS in mm							CONNECTION			DIAGRAM	WEIGHT kg	CAPACITANCE µF	CAPACITOR multicond UHPC ... -440-3P
		Cu	Al		mH	H	B	T	W1	W2	LL	L	AW	RK				
2.5	multiind-basic 400-02.5-5.5-Cu-L-S	x		12.11	3.5	165	180	86	95	62.5	9	x			A	5.3	3 x 15.4	4.0 / 525
5	multiind-basic 400-05.0-5.5-Cu-L-S	x		6.06	7.2	165	180	106	95	82.5	9	x			A	8.1	3 x 30.8	8.0 / 525
7.5	multiind-basic 400-07.5-5.5-Cu-L-S	x		3.74	11.4	165	180	106	95	83	9	x			A	9.5	3 x 50.0	13.0 / 525
10	multiind-basic 400-10.0-5.5-Cu-L-S	x		2.80	15.3	195	210	109	95	86	9	x			A	12.9	3 x 66.3	12.1
12.5	multiind-basic 400-12.5-5.5-Cu-L-S	x		2.24	19.1	220	240	95	95	71	9	x			A	14.5	3 x 82.8	15.1
15	multiind-basic 400-15.0-5.5-Cu-L-S	x		1.98	21.6	220	240	105	95	81	9	x			A	17.0	3 x 93.7	17.1
20	multiind-basic 400-20.0-5.5-Cu-L-S	x		1.40	30.6	220	240	125	95	81	9	x			A	18.5	3 x 132.6	24.2
25	multiind-basic 400-25.0-5.5-Cu-L-S	x		1.21	35.5	220	240	135	95	91	9	x			A	21.0	3 x 154.0	28.1
30	multiind-basic 400-30.0-5.5-Cu-L-S	x		0.99	43.2	220	240	125	95	81	9	x			A	19.4	3 x 187.4	2 x 17.1
40	multiind-basic 400-40.0-5.5-Cu-L-S	x		0.75	57.4	220	240	135	95	91	9	x			A	20.8	3 x 248.8	1 x 21.1 + 1 x 24.2
50	multiind-basic 400-50.0-5.5-Cu-L-S	x		0.60	71.0	220	240	155	95	82	9	x			A	26.6	3 x 308.0	2 x 28.1
60	multiind-basic 400-60.0-5.5-Cu-L-S	x		0.51	84.0	270	300	145	95	145	9	x			A	31.5	3 x 364.7	1 x 10.0 / 525 + 2 x 3 0.3 / 120
75	multiind-basic 400-75.0-5.5-Cu-L-S	x		0.40	106.3	270	300	150	95	107	9	x			A	38.0	3 x 461.7	3 x 28.1

Specifications multiind-light ... 7 %

Detuning factor: **7 %** Resonance frequency: **189 Hz**

POWER kvar	TYPE multiind-light... 7 %	INDUCTIVITY		RATED CURRENT A	DIMENSIONS IN MM in mm							CONNECTION			DIAGRAM	WEIGHT kg	CAPACITANCE µF	CAPACITOR multicond UHPC ... -440-3P
		Cu	Al		mH	H	B	T	W1	W2	LL	L	AW	RK				
2.5	multiind-light 400-02.5-7-Cu-L-S	x		15.42	3.6	165	180	86	95	62.5	9	x			A	5.1	3 x 15.4	4.0 / 525
5	multiind-light 400-05.0-7-Cu-L-S	x		7.71	7.8	165	180	86	95	62.5	9	x			A	6.1	3 x 30.8	8.0 / 525
7.5	multiind-light 400-07.5-7-Cu-L-S	x		4.76	11.6	165	180	96	95	72.5	9	x			A	7.8	3 x 50.0	13.0 / 525
10	multiind-light 400-10.0-7-Cu-L-S	x		3.56	15.5	165	180	106	95	82.5	9	x			A	9.2	3 x 66.3	12.1
12.5	multiind-light 400-12.5-7-Cu-L-S	x		2.85	18.0	195	210	109	95	86	9	x			A	12.4	3 x 83.0	15.1
15	multiind-light 400-15.0-7-Cu-L-S	x		2.52	21.9	195	210	109	95	86	9	x			A	12.9	3 x 93.7	17.1
20	multiind-light 400-20.0-7-Cu-L-S	x		1.78	28.8	195	210	109	95	86	9	x			A	14.0	3 x 132.7	24.2
25	multiind-light 400-25.0-7-Cu-L-S	x		1.54	36.0	220	240	115	95	91	9	x			A	19.1	3 x 154.0	25.0
25	multiind-light 400-25.0-7-Al-AW-S		x	1.54	36.0	220	240	145	95	91	9		x		C	17.4	3 x 154.0	25.0
30	multiind-light 400-30.0-7-Cu-L-S	x		1.26	43.2	220	240	135	95	91	9	x			A	20.2	3 x 187.3	2 x 17.1
30	multiind-light 400-30.0-7-Al-AW-S		x	1.26	43.2	220	240	145	95	91	9		x		C	17.4	3 x 187.3	2 x 17.1
40	multiind-light 400-40.0-7-Cu-L-S	x		0.95	57.6	220	240	145	95	101	9	x			A	35.0	3 x 248.7	1 x 21.2 + 1 x 24.2
40	multiind-light 400-40.0-7-Al-AW-S		x	0.95	57.6	240	260	167	95	112	9		x		C	27.0	3 x 248.7	1 x 21.2 + 1 x 24.2
50	multiind-light 400-50.0-7-Cu-L-S	x		0.77	72.0	270	300	145	95	95	9	x			A	32.0	3 x 308.0	2 x 28.1
50	multiind-light 400-50.0-7-Al-AW-S		x	0.77	72.0	240	260	167	95	112	9		x		C	26.0	3 x 308.0	2 x 28.1
60	multiind-light 400-60.0-7-Cu-L-S	x		0.65	86.4	270	300	145	95	95	9	x			A	39.4	3 x 364.7	1 x 6.1 + 2 x 30.3
60	multiind-light 400-60.0-7-Al-AW-S		x	0.65	86.4	270	300	180	95	95	9		x		C	36.0	3 x 364.7	1 x 6.1 + 2 x 30.3
75	multiind-light 400-75.0-7-Cu-L-S	x		0.51	108.0	270	300	180	95	122	9	x			A	47.1	3 x 461.7	3 x 28.1
75	multiind-light 400-75.0-7-Al-AW-S		x	0.51	108.0	270	300	180	95	122	9		x		C	36.0	3 x 461.7	3 x 28.1

Filter circuit reactors

multiind 50Hz

Specifications multiind-basic ... 7 %

Detuning factor: **7 %** Resonance frequency: **189 Hz**

POWER kvar	TYPE multiind-basic ... 7 %	INDUC-TIVITY		RATED CUR-RENT A	DIMENSIONS in mm							CONNECTION			DIA-GRAM	WEIGHT kg	CAPACI-TANCE µF	CAPACITOR multicond UHPC ... -440-3P
		Cu	Al		mH	H	B	T	W1	W2	LL	L	AW	RK				
2.5	multiind-basic 400-02.5-7-Cu-L-S	x		15.42	3.6	165	180	86	95	62.5	9	x			A	5.2	3 x 15.4	4.0 / 525
5	multiind-basic 400-05.0-7-Cu-L-S	x		7.709	7.2	165	180	86	95	62.5	9	x			A	6.4	3 x 30.8	8.0 / 525
7.5	multiind-basic 400-07.5-7-Cu-L-S	x		4.76	11.6	165	180	96	95	72.5	9	x			A	8.1	3 x 50.0	13.0 / 525
10	multiind-basic 400-10.0-7-Cu-L-S	x		3.56	15.5	165	180	106	95	82.5	9	x			A	9.2	3 x 66.3	12.1
12.5	multiind-basic 400-12.5-7-Cu-L-S	x		2.85	19.4	195	210	109	95	86	9	x			A	12.5	3 x 82.8	15.1
15	multiind-basic 400-15.0-7-Cu-L-S	x		2.52	21.9	195	210	109	95	86	9	x			A	13.0	3 x 93.7	17.1
20	multiind-basic 400-20.0-7-Cu-L-S	x		1.78	31.1	195	210	109	95	86	9	x			A	14.0	3 x 132.7	24.2
25	multiind-basic 400-25.0-7-Cu-L-S	x		1.54	36	220	240	115	95	91	9	x			A	20.0	3 x 154.0	28.1
25	multiind-basic 400-25.0-7-Al-AW-S	x	x	1.54	36	220	240	145	95	91	9		x		C	17.1	3 x 154.0	28.1
30	multiind-basic 400-30.0-7-Cu-L-S	x		1.26	43.2	220	240	135	95	91	9	x			A	20.2	3 x 187.4	2 x 17.1
30	multiind-basic 400-30.0-7-Al-AW-S	x	x	1.26	43.2	220	240	145	95	91	9		x		C	17.8	3 x 187.3	2 x 17.1
40	multiind-basic 400-40.0-7-Cu-L-S	x		0.95	58.2	220	240	145	95	101	9	x			A	26.5	3 x 248.8	1 x 21.2 + 1 x 24.2
40	multiind-basic 400-40.0-7-Al-AW-S	x	x	0.95	58.2	240	260	167	95	112	9		x		C	26.0	3 x 248.7	1 x 21.2 + 1 x 24.2
50	multiind-basic 400-50.0-7-Cu-L-S	x		0.77	72	270	300	145	95	95	9	x			A	32.5	3 x 308.0	2 x 28.1
50	multiind-basic 400-50.0-7-Al-AW-S	x	x	0.77	72	240	260	167	95	112	9		x		C	26.0	3 x 308.0	2 x 28.1
60	multiind-basic 400-60.0-7-Cu-L-S	x		0.65	86.8	270	300	145	95	95	9	x			A	35.0	3 x 364.7	1 x 10 / 525 + 2 x 30.3 / 440
60	multiind-basic 400-60.0-7-Al-AW-S	x	x	0.65	86.8	270	300	180	95	95	9		x		C	35.0	3 x 364.7	1 x 10 / 525 + 2 x 30.3 / 440
75	multiind-basic 400-75.0-7-Cu-L-S	x		0.51	108	270	300	180	95	122	9	x			A	47.1	3 x 461.7	3 x 28.1
75	multiind-basic 400-75.0-7-Al-AW-S	x	x	0.51	108	270	300	180	95	122	9		x		C	37.5	3 x 461.7	3 x 28.1

Specifications multiind-light ... 8 %

Detuning factor: **8 %** Resonance frequency: **177 Hz**

POWER kvar	TYPE multiind-light... 8 %	INDUC-TIVITY		RATED CUR-RENT A	DIMENSIONS in mm							CONNECTION			DIA-GRAM	WEIGHT kg	CAPACI-TANCE µF	CAPACITOR multicond UHPC ... -440-3P
		Cu	Al		mH	H	B	T	W1	W2	LL	L	AW	RK				
2.5	multiind-light 400-02.5-8-Cu-L-S	x		17.62	3.6	165	180	86	95	62.5	9	x			A	5.1	3 x 15.4	4.0 / 525
5	multiind-light 400-05.0-8-Cu-L-S	x		8.811	7.3	165	180	86	95	62.5	9	x			A	6.1	3 x 30.8	8.0 / 525
7.5	multiind-light 400-07.5-8-Cu-L-S	x		5.44	11.8	165	180	96	95	72.5	9	x			A	7.8	3 x 50.0	13.0 / 525
10	multiind-light 400-10.0-8-Cu-L-S	x		4.073	15.7	195	210	92	95	68.5	9	x			A	9.2	3 x 66.3	12.1
12.5	multiind-light 400-12.5-8-Cu-L-S	x		3.26	19.6	195	210	109	95	86	9	x			A	12.4	3 x 82.8	15.1
15	multiind-light 400-15.0-8-Cu-L-S	x		2.88	22.2	195	210	109	95	86	9	x			A	12.7	3 x 93.7	17.1
20	multiind-light 400-20.0-8-Cu-L-S	x		2.04	31.4	220	240	105	95	81	9	x			A	14.0	3 x 132.7	24.2
25	multiind-light 400-25.0-8-Cu-L-S	x		1.75	36.4	220	240	115	95	91	9	x			A	19.1	3 x 154.0	28.1
30	multiind-light 400-30.0-8-Cu-L-S	x		1.44	44.3	220	240	135	95	91	9	x			A	20.3	3 x 187.4	2 x 17.1
30	multiind-light 400-30.0-8-Al-AW-S	x	x	1.44	43.2	220	240	145	95	91	9		x		C	18.1	3 x 187.3	2 x 17.1
40	multiind-light 400-40.0-8-Cu-L-S	x		1.09	58.8	220	240	155	95	105	9	x			A	25.0	3 x 248.8	1 x 21.2 + 1 x 24.2
40	multiind-light 400-40.0-8-Al-AW-S	x	x	1.09	57.6	220	240	185	95	105	9		x		C	27.0	3 x 248.7	1 x 21.2 + 1 x 24.2
50	multiind-light 400-50.0-8-Cu-L-S	x		0.88	72.9	270	300	145	95	95	9	x			A	32.0	3 x 308.0	2 x 28.1
50	multiind-light 400-50.0-8-Al-AW-S	x	x	0.88	72.0	240	260	167	95	112	9		x		C	26.0	3 x 308.0	2 x 28.1
60	multiind-light 400-60.0-8-Cu-L-S	x		0.74	86.4	270	300	145	95	95	9	x			A	39.4	3 x 364.7	1 x 10 / 525 + 2 x 30.3 / 440
60	multiind-light 400-60.0-8-Al-AW-S	x	x	0.74	86.4	270	300	210	95	122	9		x		C	36.0	3 x 364.7	1 x 10 / 525 + 2 x 30.3 / 440
75	multiind-light 400-75.0-8-Cu-L-S	x		0.59	109.2	270	300	180	95	122	9	x			A	47.1	3 x 461.7	3 x 28.1
75	multiind-light 400-75.0-8-Al-AW-S	x	x	0.59	108.0	270	300	210	95	122	9		x		C	36.0	3 x 461.7	3 x 28.1

Specifications multiind-basic ... 8%

Detuning factor: **8%** Resonance frequency: **177 Hz**

POWER kvar	TYPE multiind-basic ... 8%	INDUCTIVITY		RATED CURRENT A	DIMENSIONS in mm							CONNECTION			DIA-GRAM	WEIGHT kg	CAPACITANCE µF	CAPACITOR multicond UHPC ... -440-3P
		Cu	Al		mH	H	B	T	W1	W2	LL	L	AW	RK				
2.5	multiind-basic 400-02.5-8-Cu-L-S	x		17.62	3.6	165	180	86	95	62.5	9	x			A	5.2	3 x 15.4	4.0 / 525
5	multiind-basic 400-05.0-8-Cu-L-S	x		8.811	7.3	165	180	96	95	72.5	9	x			A	7.6	3 x 30.8	8.0 / 525
7.5	multiind-basic 400-07.5-8-Cu-L-S	x		5.44	11.8	165	180	96	95	72.5	9	x			A	8.3	3 x 50.0	13.0 / 525
10	multiind-basic 400-10.0-8-Cu-L-S	x		4.07	15.7	195	210	92	95	68.5	9	x			A	10.0	3 x 66.3	12.1
12.5	multiind-basic 400-12.5-8-Cu-L-S	x		3.26	19.6	195	210	109	95	86	9	x			A	13.0	3 x 82.8	15.1
15	multiind-basic 400-15.0-8-Cu-L-S	x		2.88	22.2	195	210	109	95	86	9	x			A	14.0	3 x 93.7	17.1
20	multiind-basic 400-20.0-8-Cu-L-S	x		2.04	31.4	220	240	105	95	86	9	x			A	19.0	3 x 132.7	24.2
25	multiind-basic 400-25.0-8-Cu-L-S	x		1.75	36.4	220	240	115	95	91	9	x			A	20.5	3 x 154.0	28.1
30	multiind-basic 400-30.0-8-Cu-L-S	x		1.44	44.3	220	240	135	95	91	9	x			A	21.0	3 x 187.4	2 x 17.1
30	multiind-basic 400-30.0-8-Al-AW-S		x	1.44	44.3	220	240	145	95	91	9		x		C	17.8	3 x 187.3	2 x 17.1
40	multiind-basic 400-40.0-8-Cu-L-S	x		1.09	58.8	220	240	155	95	105	9	x			A	25.5	3 x 248.8	1 x 21.2 + 1 x 24.2
40	multiind-basic 400-40.0-8-Al-AW-S		x	1.09	58.8	220	240	167	95	105	9		x		C	26.0	3 x 248.7	1 x 21.2 + 1 x 24.2
50	multiind-basic 400-50.0-8-Cu-L-S	x		0.88	72.9	270	300	145	95	95	9	x			A	33.0	3 x 308.0	2 x 28.1
50	multiind-basic 400-50.0-8-Al-AW-S		x	0.88	72.9	220	240	167	95	112	9		x		C	26.0	3 x 308.0	2 x 28.1
60	multiind-basic 400-60.0-8-Cu-L-S	x		0.74	86.4	270	300	145	95	95	9	x			A	37.0	3 x 364.7	1 x 10 / 525 + 2 x 30.3 / 440
60	multiind-basic 400-60.0-8-Al-AW-S		x	0.74	86.4	270	300	210	95	122	9		x		C	35.6	3 x 364.7	1 x 10 / 525 + 2 x 30.3 / 440
75	multiind-basic 400-75.0-8-Cu-L-S	x		0.59	109.2	270	300	180	95	122	9	x			A	38.8	3 x 461.7	3 x 28.1
75	multiind-basic 400-75.0-8-Al-AW-S		x	0.59	109.2	270	300	210	95	122	9		x		C	38.7	3 x 461.7	3 x 28.1

Specifications multiind-basic ... 12.5%

Detuning factor: **12.5%** Resonance frequency: **142 Hz**

POWER kvar	TYPE multiind-basic ... 12.5%	INDUCTIVITY		RATED CURRENT A	DIMENSIONS in mm							CONNECTION			DIA-GRAM	WEIGHT kg	CAPACITANCE µF	CAPACITOR multicond UHPC ... -525-3P
		Cu	Al		mH	H	B	T	W1	W2	LL	L	AW	RK				
2.5	multiind-basic 400-02.5-12.5-Cu-L-S	x		27.53	3.8	165	180	86	95	62.5	9	x			A	5.3	3 x 15.3	4.0
5	multiind-basic 400-05.0-12.5-Cu-L-S	x		13.77	7.6	165	180	96	95	72.5	9	x			A	8.7	3 x 30.7	8.0
7.5	multiind-basic 400-07.5-12.5-Cu-L-S	x		8.44	12.4	195	210	92	95	68.5	9	x			A	9.9	3 x 50.0	13.0
10	multiind-basic 400-10.0-12.5-Cu-L-S	x		7.32	14.3	195	210	109	95	86	9	x			A	14.0	3 x 57.7	15.0
12.5	multiind-basic 400-12.5-12.5-Cu-L-S	x		6.089	17.3	220	240	105	95	71	9	x			A	15.1	3 x 69.3	18.0
15	multiind-basic 400-15.0-12.5-Cu-L-S	x		5.23	20.1	220	240	95	95	71	9	x			A	15.1	3 x 80.7	21.0
20	multiind-basic 400-20.0-12.5-Cu-L-S	x		3.65	28.8	220	240	125	95	101	9	x			A	23.9	3 x 115.7	30.0
20	multiind-basic 400-20.0-12.5-Al-AW-S		x	3.65	28.8	240	260	167	95	112	9			x	C	23.2	3 x 115.7	30.0
25	multiind-basic 400-25.0-12.5-Cu-L-S	x		2.97	35.4	220	240	145	95	101	9	x			A	24.7	3 x 142.3	37.0
25	multiind-basic 400-25.0-12.5-Al-AW-S		x	2.97	35.4	240	260	167	95	112	9		x		C	26.7	3 x 142.3	37.0
30	multiind-basic 400-30.0-12.5-Cu-L-S	x		2.44	43.1	220	240	145	95	101	9	x			A	24.7	3 x 173.3	1 x 15.0 + 1 x 30.0
30	multiind-basic 400-30.0-12.5-Al-AW-S		x	2.44	43.1	240	260	167	95	112	9		x		C	25.7	3 x 173.3	1 x 15.0 + 1 x 30.0
40	multiind-basic 400-40.0-12.5-Cu-L-S	x		1.83	57.5	270	300	145	95	95	9	x			A	39.4	3 x 231.0	2 x 30.0
40	multiind-basic 400-40.0-12.5-Al-AW-S		x	1.83	57.5	270	300	180	95	107	9		x		C	36.2	3 x 231.0	2 x 30.0
50	multiind-basic 400-50.0-12.5-Cu-L-S	x		1.48	70.8	270	300	150	95	107	9	x			A	45.9	3 x 284.7	2 x 37.0
50	multiind-basic 400-50.0-12.5-Al-AW-S		x	1.48	70.8	270	300	210	95	112	9		x		C	41.3	3 x 284.7	2 x 37.0
60	multiind-basic 400-60.0-12.5-Cu-L-S	x		1.22	86.2	270	300	180	95	112	9	x			A	48.6	3 x 346.7	3 x 30.0
75	multiind-basic 400-75.0-12.5-Al-AW-S		X	0.988	106.3	260	300	175	95	122	9		X		C	49.7	3 x 462.0	3 x 37.0

Filter circuit reactors

multiind 50Hz

Specifications multiind-light ... 14 %

Detuning factor: **14%** Resonance frequency: **134 Hz**

POWER kvar	TYPE multiind-light... 14%	INDUCTIVITY		RATED CUR- RENT A	DIMENSIONS						CONNECTION			DIA- GRAM	WEIGHT kg	CAPACI- TANCE µF	CAPACITOR multicond UHPC ... -525-3P	
		Cu	Al		mH	H	B	T	W1	W2	LL	L	AW					RK
2.5	multiind-light 400-02.5-14-Cu-L-S	x		30.84	3.9	165	180	86	95	62.5	9	x			A	5.3	3 x 15.3	4.0
5	multiind-light 400-05.0-14-Cu-L-S	x		15.42	7.8	165	180	96	95	72.5	9	x			A	8.3	3 x 30.7	8.0
7.5	multiind-light 400-07.5-14-Cu-L-S	x		9.46	12.7	195	210	109	95	86	9	x			A	13.4	3 x 50.0	13.0
10	multiind-light 400-10.0-14-Cu-L-S	x		8.20	14.6	195	210	109	95	86	9	x			A	14.1	3 x 57.7	15.0
12.5	multiind-light 400-12.5-14-Cu-L-S	x		6.82	17.6	220	240	105	95	81	9	x			A	16.9	3 x 69.3	18.0
15	multiind-light 400-15.0-14-Cu-L-S	x		5.86	20.4	220	240	105	95	81	9	x			A	17.9	3 x 80.7	21.0
20	multiind-light 400-20.0-14-Cu-L-S	x		4.09	29.3	220	240	125	95	101	9	x			A	24.3	3 x 115.7	30.0
25	multiind-light 400-25.0-14-Cu-L-S	x		3.32	36.0	220	240	145	95	101	9	x			A	24.2	3 x 142.3	37.0
25	multiind-light 400-25.0-14-Al-AW-S		x	3.32	36.0	240	260	167	95	112	9		x		C	24.9	3 x 142.3	37.0
30	multiind-light 400-30.0-14-Cu-L-S	x		2.73	43.9	220	240	145	95	101	9	x			A	24.6	3 x 173.3	1 x 15.0 + 1 x 30.0
30	multiind-light 400-30.0-14-Al-AW-S		x	2.73	43.9	240	260	167	95	112	9		x		C	23.9	3 x 173.3	1 x 15.0 + 1 x 30.0
40	multiind-light 400-40.0-14-Cu-L-S	x		2.05	58.5	270	300	145	95	95	9	x			A	37.1	3 x 231.0	2 x 30.0
40	multiind-light 400-40.0-14-Al-AW-S		x	2.05	58.5	270	300	180	95	107	9		x		C	36.2	3 x 231.0	2 x 30.0
50	multiind-light 400-50.0-14-Cu-L-S	x		1.66	72.1	270	300	150	95	107	9	x			A	46.5	3 x 284.7	2 x 37.0
50	multiind-light 400-50.0-14-Al-AW-S		x	1.66	72.1	270	300	210	95	112	9		x		C	39.0	3 x 284.7	2 x 37.0
60	multiind-light 400-60.0-14-Cu-L-S	x		1.36	87.7	270	300	180	95	112	9	x			A	50.0	3 x 346.7	3 x 30.0

Specifications multiind-basic ... 14 %

Detuning factor: **14%** Resonance frequency: **134 Hz**

POWER kvar	TYPE multiind-basic ... 14%	INDUCTIVITY		RATED CUR- RENT A	DIMENSIONS						CONNECTION			DIA- GRAM	WEIGHT kg	CAPACI- TANCE µF	CAPACITOR multicond UHPC ... -525-3P	
		Cu	Al		mH	H	B	T	W1	W2	LL	L	AW					RK
2.5	multiind-basic 400-02.5-14-Cu-L-S	x		30.84	3.9	165	180	86	95	62.5	9	x			A	5.3	3 x 15.3	4.0
5	multiind-basic 400-05.0-14-Cu-L-S	x		15.42	7.8	165	180	96	95	72.5	9	x			A	8.3	3 x 30.7	8.0
7.5	multiind-basic 400-07.5-14-Cu-L-S	x		9.46	12.7	195	210	109	95	86	9	x			A	13.4	3 x 50.0	13.0
10	multiind-basic 400-10.0-14-Cu-L-S	x		8.20	14.6	195	210	109	95	86	9	x			A	14.4	3 x 57.7	15.0
12.5	multiind-basic 400-12.5-14-Cu-L-S	x		5.86	17.6	220	240	105	95	81	9	x			A	17.9	3 x 80.7	21.0
15	multiind-basic 400-15.0-14-Cu-L-S	x		5.86	20.4	220	240	105	95	81	9	x			A	17.9	3 x 80.7	21.0
20	multiind-basic 400-20.0-14-Cu-L-S	x		4.09	29.3	220	240	125	95	101	9	x			A	23.5	3 x 115.7	30.0
25	multiind-basic 400-25.0-14-Cu-L-S	x		3.32	36.0	220	240	145	95	101	9	x			A	24.2	3 x 142.3	37.0
25	multiind-basic 400-25.0-14-Al-AW-S		x	3.32	36.0	240	260	167	95	112	9		x		C	24.9	3 x 142.3	37.0
30	multiind-basic 400-30.0-14-Cu-L-S	x		2.73	43.9	220	240	145	95	101	9	x			A	24.6	3 x 173.3	1 x 15.0 + 1 x 30.0
30	multiind-basic 400-30.0-14-Al-AW-S		x	2.73	43.9	270	300	180	95	112	9		x		C	23.9	3 x 173.3	1 x 15.0 + 1 x 30.0
40	multiind-basic 400-40.0-14-Cu-L-S	x		2.05	58.5	270	300	145	95	95	9	x			A	37.1	3 x 231.0	2 x 30.0
40	multiind-basic 400-40.0-14-Al-AW-S		x	2.05	58.5	270	300	180	95	107	9		x		C	36.2	3 x 231.0	2 x 30.0
50	multiind-basic 400-50.0-14-Cu-L-S	x		1.66	72.1	270	300	150	95	107	9	x			A	46.5	3 x 284.7	2 x 37.0
50	multiind-basic 400-50.0-14-Al-AW-S		x	1.66	72.1	270	300	210	95	112	9		x		C	39.0	3 x 284.7	2 x 37.0
60	multiind-basic 400-60.0-14-Cu-L-S	x		1.36	87.7	270	300	210	95	112	9	x			A	47.6	3 x 346.7	3 x 30.0

Construction diagrams

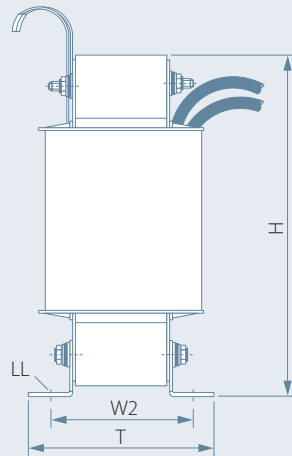
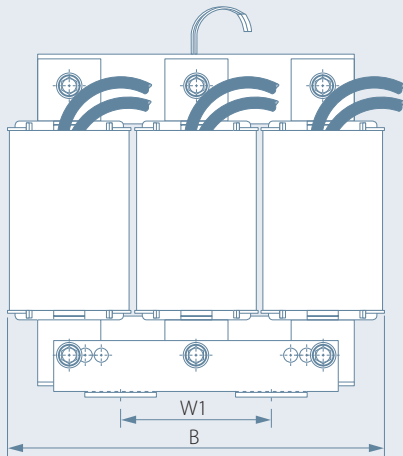


Diagram A

Design with connection lines
Type L

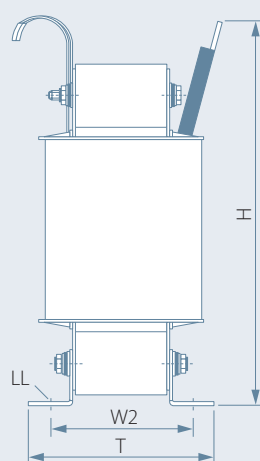
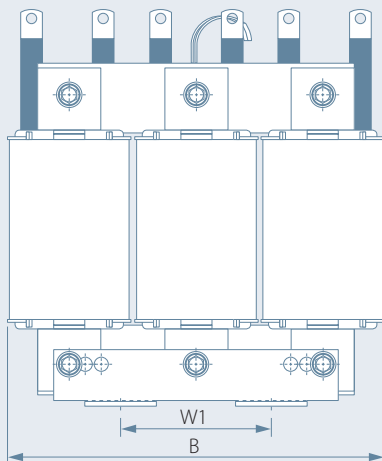


Diagram B

Design with tubular cable lug
Type RK

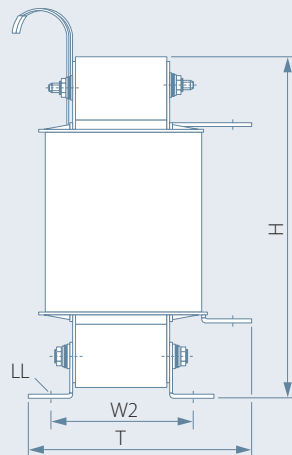
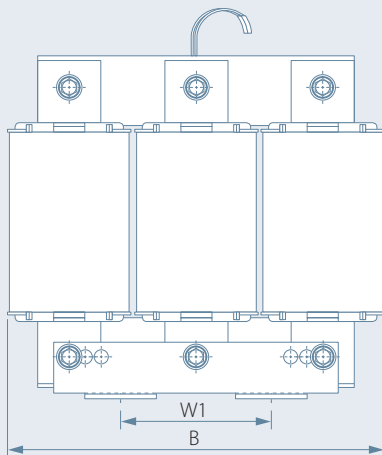


Diagram C

Design with connection angle
Type AW

Not suitable for measurement purposes.

multiind 50Hz Technical details

	multiind 5.5	multiind 7.0	
DEVICE TYPE	basic p = 5.5 %	light p = 7 %	basic p = 7 %
Rated voltage frequency	U _n = 400 V 50Hz	U _n = 400 V 50Hz	U _n = 400 V 50Hz
Maximum permissible operating voltage	U _n = 400 V ± 10%	U _n = 400 V ± 10%	U _n = 400 V ± 10%
Power	2.5 – 75 kvar	2.5 – 75 kvar	2.5 – 75 kvar
Inductive stability Inductive tolerance	L (I _{Lin}) ≥ 0.95 L _N ± 3 %	L (I _{Lin}) ≥ 0.95 L _N ± 3 %	L (I _{Lin}) ≥ 0.95 L _N ± 3 %
Overtemperature protection	Break contact at 125 °C (250 V – 50 Hz – 2.5 A), temperature class B	Break contact at 125 °C (250 V – 50 Hz – 2.5 A), temperature class B	
Protection type	IP 00	IP 00	IP 00
Protection class	I	I	I
Ambient temperature	maximum 40 °C	maximum 40 °C	maximum 40 °C
Cooling type	Natural cooling	Natural cooling	Natural cooling
Impregnation	vacuum-impregnated	vacuum-impregnated	vacuum-impregnated
Detuning factor Resonance frequency	5.5 % 214 Hz	7 % 189 Hz	7 % 189 Hz
Linearity	2.1 x I _{rated}	1.6 x I _{rated}	1.85 x I _{rated}
Standards	DIN EN 60076-6 (VDE 0532-76-6) DIN EN 61558-1-A1 (VDE 0570-1-A1) DIN EN 61558-2-20 (VDE 0570-2-20)	DIN EN 60076-6 (VDE 0532-76-6) DIN EN 61558-1-A1 (VDE 0570-1-A1) DIN EN 61558-2-20 (VDE 0570-2-20)	
Designs	Cu = copper Al = aluminum L = cable connection AW = connection angle RK = tubular cable lug	Cu = copper Al = aluminum L = cable connection AW = connection angle RK = tubular cable lug	

multiind 8.0		multiind 12.5		multiind 14.0	
light $p = 8\%$	basic $p = 8\%$	basic $p = 12.5\%$	light $p = 14\%$	basic $p = 14\%$	
$U_n = 400\text{ V} \mid 50\text{ Hz}$	$U_n = 400\text{ V} \mid 50\text{ Hz}$	$U_n = 400\text{ V} \mid 50\text{ Hz}$	$U_n = 400\text{ V} \mid 50\text{ Hz}$	$U_n = 400\text{ V} \mid 50\text{ Hz}$	$U_n = 400\text{ V} \mid 50\text{ Hz}$
$U_n = 400\text{ V} \pm 10\%$	$U_n = 400\text{ V} \pm 10\%$	$U_n = 400\text{ V} \pm 10\%$	$U_n = 400\text{ V} \pm 10\%$	$U_n = 400\text{ V} \pm 10\%$	$U_n = 400\text{ V} \pm 10\%$
2.5 – 75 kvar	2.5 – 75 kvar	2.5 – 50 kvar	2.5 – 50 kvar	2.5 – 50 kvar	2.5 – 50 kvar
$L(I_{Lin}) \geq 0.95 L_N \mid \pm 3\%$	$L(I_{Lin}) \geq 0.95 L_N \mid \pm 3\%$	$L(I_{Lin}) \geq 0.95 L_N \mid \pm 3\%$	$L(I_{Lin}) \geq 0.95 L_N \mid \pm 3\%$	$L(I_{Lin}) \geq 0.95 L_N \mid \pm 3\%$	$L(I_{Lin}) \geq 0.95 L_N \mid \pm 3\%$
Break contact at 125 °C (250 V – 50 Hz – 2.5 A), temperature class B		Break contact at 125 °C (250 V – 50 Hz – 2.5 A), temperature class B		Break contact at 125 °C (250 V – 50 Hz – 2.5 A), temperature class B	
IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
I	I	I	I	I	I
maximum 40 °C	maximum 40 °C	maximum 40 °C	maximum 40 °C	maximum 40 °C	maximum 40 °C
Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling
vacuum-impregnated	vacuum-impregnated	vacuum-impregnated	vacuum-impregnated	vacuum-impregnated	vacuum-impregnated
8 % 176 Hz	8 % 176 Hz	12.5 % 142 Hz	14 % 134 Hz	14 % 134 Hz	14 % 134 Hz
$1.6 \times I_{rated}$	$1.85 \times I_{rated}$	$1.5 \times I_{rated}$	$1.4 \times I_{rated}$	$1.5 \times I_{rated}$	$1.5 \times I_{rated}$
DIN EN 60076-6 (VDE 0532-76-6) DIN EN 61558-1-A1 (VDE 0570-1-A1) DIN EN 61558-2-20 (VDE 0570-2-20)		DIN EN 60076-6 (VDE 0532-76-6) DIN EN 61558-1-A1 (VDE 0570-1-A1) DIN EN 61558-2-20 (VDE 0570-2-20)		DIN EN 60076-6 (VDE 0532-76-6) DIN EN 61558-1-A1 (VDE 0570-1-A1) DIN EN 61558-2-20 (VDE 0570-2-20)	
Cu = copper Al = aluminum L = cable connection AW = connection angle RK = tubular cable lug		Cu = copper Al = aluminum L = cable connection AW = connection angle RK = tubular cable lug		Cu = copper Al = aluminum L = cable connection AW = connection angle RK = tubular cable lug	