

Technical data and limit values		
Standards IEC 60831-1+2, EN 60831-1+2, UL 810 5 th edition		
Overvoltage	V_{max}	$V_R + 10\%$ (up to 8 h daily) / $V_R + 15\%$ (up to 30 min daily) / $V_R + 20\%$ (up to 5 min daily) / $V_R + 30\%$ (up to 1 min daily)
Overcurrent	I_{max}	up to $1.3 \cdot I_R$ (up to $1.5 \cdot I_R$ including combined effects of harmonics, overvoltages and capacitance tolerance)
Inrush current	I_s	up to $200 \cdot I_R$ (B25667); up to $300 \cdot I_R$ (B25668)
Losses: – Dielectric – Total*		< 0.2 W/kvar < 0.45 W/kvar
Rated frequency	f	50 / 60 Hz
Capacitance tolerance		–5% / +10%
Test voltage, terminal / terminal	V_{TT}	$2.15 \cdot V_{R1}$, AC, 10 s
Test voltage, terminal / case	V_{TC}	up to $V_R \leq 660$ V: 3000 V AC, 10 s; above $V_R = 660$ V: 6000 V AC, 10 s
Mean life expectancy	$t_{LD(Co)}$	up to 115 000 h (B25667); up to 130 000 h (B25668)
Ambient temperature		–40/D; max. temp. 55 °C; max. mean 24 h = 45 °C; max. mean 1 year = 35 °C; lowest temperature = –40 °C
Cooling		natural or forced
Humidity	H_{rel}	max. 95%
Altitude		max. 4 000 m above sea level
Mounting position		upright / horizontal
Mounting and grounding		threaded M12 stud on bottom of case
Safety		dry technology, overpressure disconnect, self-healing, maximum allowed fault current 10 000 A in accordance with UL 810 standard
Discharge module		ceramic discharge module pre-mounted, discharge time ≤ 75 V in 60 s; ≤ 75 V in 90 s for types marked with ⁴ in the ordering code table page 15 ff.
Case		extruded aluminum can
Enclosure		IP20, indoor mounting (optionally with terminal cap for IP54)
Dielectric		polypropylene film
Impregnation		inert gas, Nitrogen (N ₂)
Terminals		SIGUT terminal strip with electric shock protection (IP20), (VDE 0106 part 100), max. 16 mm ² cable cross-section, max. current 50 A
Certification		cUL file # E238746 for B25667; for B25668 up to 690 V
Number of switching operations		max. 5 000 switchings per year according to IEC 60831-1+2

<https://www.markazbargh.com/>

Three-phase capacitors					
Type	50 Hz		60 Hz		C_R μF
	Output kvar	I_R A	Output kvar	I_R A	
Rated voltage 400 V AC, 50 / 60 Hz, delta connection					
MKK400-D-5-01	5.0	7	6.0	9	3 · 32
MKK400-D-7.5-01	7.5	11	9.0	13	3 · 50
MKK400-D-10-01	10.0	14	12.0	17	3 · 64
MKK400-D-12.5-01	12.5	18	15.0	22	3 · 83
MKK400-D-15-01	15.0	22	18.0	26	3 · 100
MKK400-D-20-01	20.0	30	24.0	36	3 · 133
MKK400-D-25-01	25.0	36	–	–	3 · 165
MKK400-D-50-21	50	72	60 ¹⁾	87 ¹⁾	3 · 332
Rated voltage 440 V AC, 50 / 60 Hz, delta connection					
MKK440-D-5-01	5.0	7	6.0	8	3 · 27
MKK440-D-7.5-01	7.5	10	9.0	12	3 · 41
MKK440-D-10.4-01	10.4	14	12.5	16	3 · 57
MKK440-D-12.5-01	12.5	16	15.0	20	3 · 69
MKK440-D-14.2-01	14.2	19	17.0	22	3 · 77
MKK440-D-15-01	15.0	20	18.0	24	3 · 83
MKK440-D-16.7-01	16.7	22	20.0	26	3 · 92
MKK440-D-18.8-01	18.8	25	22.6	30	3 · 103
MKK440-D-20-01	20.0	26	24.0	31	3 · 111
MKK440-D-25-01	25.0	33	30.0	39	3 · 137
MKK440-D-28.1-01 ³⁾	28.1	37	–	–	3 · 154
MKK440-D-30-01 ⁴⁾	30.0 ¹⁾	39 ¹⁾	–	–	3 · 164
MKK440-D-33-01 ^{3, 4)}	33.0	43	–	–	3 · 181
Rated voltage 525 V AC, 50 / 60 Hz, delta connection					
MKK525-D-8.3-01	8.3	9	10.0	11	3 · 32
MKK525-D-10-01	10.0	11	12.0	13	3 · 39
MKK525-D-12.5-01	12.5	14	15.0	17	3 · 48
MKK525-D-15-01	15.0	17	18.0	20	3 · 58
MKK525-D-16.7-01	16.7	18	20.0	21	3 · 64
MKK525-D-20-01	20.0	22	24.0	26	3 · 77
MKK525-D-25-01	25.0	28	30.0	33	3 · 96
MKK525-D-30-01 ⁴⁾	30.0 ¹⁾	33 ¹⁾	–	–	3 · 115
Rated voltage 690 V AC, 50 / 60 Hz, delta connection					
MKK690-D-5-11	5.0	4.2	6	5.0	3 · 11
MKK690-D-10-11	10.0	8.4	12	10.1	3 · 23
MKK690-D-12.5-11	12.5	10.5	15	12.6	3 · 28
MKK690-D-15-11	15.0	12.6	18	15.1	3 · 34
MKK690-D-20.8-11	20.8	17.5	25	21.0	3 · 47
MKK690-D-25-11	25.0	21.0	30	25.1	3 · 56

Technical data and limit values		
Standards IEC 60831-1+2, IS: 13340/41		
Overvoltage	V_{max}	$V_R + 10\%$ (up to 8 h daily) / $V_R + 15\%$ (up to 30 min daily) / $V_R + 20\%$ (up to 5 min daily) / $V_R + 30\%$ (up to 1 min daily)
Overcurrent	I_{max}	up to $1.3 \cdot I_R$ (up to $1.5 \cdot I_R$ including combined effects of harmonics, overvoltages and capacitance)
Inrush current	I_s	up to $200 \cdot I_R$
Losses: – Dielectric – Total*		< 0.2 W/kvar < 0.45 W/kvar
Rated frequency	f	50 / 60 Hz
Capacitance tolerance		–5% / 10%
Test voltage, terminal / terminal	V_{TT}	$2.15 \cdot V_R$, AC, 2 s
Test voltage, terminal / case	V_{TC}	3000 V AC, 10 s
Mean life expectancy	$t_{LD(Co)}$	up to 100000 h
Ambient temperature		–25/D; max. temp. 55 °C; max. mean 24 h = 45 °C; max. mean 1 year = 35 °C; lowest temperature = –25 °C
Cooling		natural or forced
Humidity	H_{rel}	max. 95%
Altitude		max. 4000 m above sea level
Mounting position		upright
Mounting and grounding		threaded M12 (10 Nm) for case size diam. > 53 mm M8 (4 Nm) for case size diam. ≤ 53 mm
Safety		Self-healing technology, overpressure disconnecter, maximum allowed fault current 10000 A in accordance with UL 810 standard
Discharge resistors		discharge module included; pre-mounted for B32344 series
Case		extruded aluminum can
Enclosure		IP20, indoor mounting (IP54 for B32344 with plastic terminal cap; for other series please refer to page 34)
Dielectric		polypropylene film
Impregnation		biodegradable soft resin, semi-dry
Terminals		SIGUT screw terminals for B32344 series, max. current 60 A, max. 16 mm ² cable cross-section, fast-on terminals for B32340 and B32343 series
Number of switching operations		max. 5000 switchings per year according to IEC 60831-1+2

Three-phase capacitors

Type	50 Hz		60 Hz		C _R μF
	Output kvar	I _R A	Output kvar	I _R A	
Rated voltage 400 V AC, 50/60 Hz, delta connection					
MKP400-D-1.0	1.0	1.4	1.2	1.7	3 · 7
MKP400-D-1.5	1.5	2.2	1.8	2.6	3 · 10
MKP400-D-2.0	2.0	2.9	2.4	3.5	3 · 13
MKP400-D-2.5	2.5	3.6	3.0	4.3	3 · 17
MKP400-D-5.0	5.0	7.2	6.0	8.6	3 · 33
MKP400-D-6.3	6.3	9.1	7.5	11.0	3 · 42
MKP400-D-7.5	7.5	10.8	9.0	13.0	3 · 50
MKP400-D-8.3	8.3	12.0	10.0	14.5	3 · 55
MKP400-D-10.0	10.0	14.5	12.0	17.3	3 · 67
MKP400-D-12.5	12.5	18.1	15.0	21.7	3 · 83
MKP400-D-15.0	15.0	21.7	18.0	26.0	3 · 100
MKP400-D-16.7	16.7	24.1	20.0	28.9	3 · 111
MKP400-D-20.0	20.0	28.9	24.0	34.7	3 · 133
MKP400-D-25.0	25.0	36.1	–	–	3 · 166
Rated voltage 440 V AC, 50/60 Hz, delta connection					
MKP440-D-1.5	1.5	2.0	1.8	2.3	3 · 8
MKP440-D-2.1	2.1	2.7	2.5	3.3	3 · 11
MKP440-D-2.5	2.5	3.3	3.0	3.9	3 · 14
MKP440-D-4.2	4.2	5.5	5.0	6.6	3 · 23
MKP440-D-5.0	5.0	6.5	6.0	7.8	3 · 27
MKP440-D-6.3	6.3	8.3	7.5	9.9	3 · 34
MKP440-D-7.5	7.5	9.9	9.0	11.8	3 · 41
MKP440-D-8.3	8.3	10.9	10.0	13.1	3 · 46
MKP440-D-10.0	10.0	13.1	12.0	15.8	3 · 55
MKP440-D-10.4	10.4	13.7	12.5	16.4	3 · 57
MKP440-D-12.5	12.5	16.4	15.0	19.7	3 · 69
MKP440-D-15.0	15.0	19.7	18.0	23.6	3 · 82
MKP440-D-16.7	16.7	21.9	20.0	26.3	3 · 92
MKP440-D-20.8	20.8	27.3	25.0	32.8	3 · 114
MKP440-D-25.0	25.0	32.8	30.0	40.0	3 · 138
MKP440-D-28.0	28.0	36.8	–	–	3 · 154
MKP440-D-30.0	30.0	39.0	–	–	3 · 165