

## SWITCHING CAPACITORS

### METALLIZED POLYPROPYLENE

# MKP 1.44/2 SW

### AXIAL LEAD

- Applications:
- Electronic ballasts
  - Industrial controls - Motor running
  - Brushless motor speed controls
  - Switch mode power supply (SMPS)
  - Induction ovens

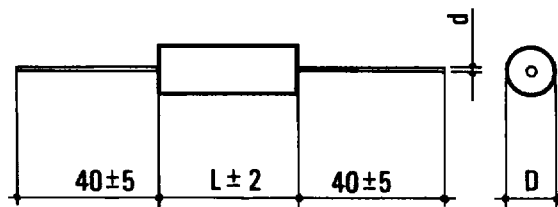


### Technical data

General technical data	VDE 0560 part 1 and 12 and IEC 1071-1
Application class (DIN 40040)	GPE/LS
Dielectric:	Polypropylene film
Plates:	Aluminium layer deposited by evaporation under vacuum
Winding:	Non-inductive type
Leads:	Tinned wire (medium lead content 5%)
Protection:	Polyester wrapping with epoxy resin end fill
Flame retardant (IEC 384-1)	Standard execution: not flame retardant code: ... AA1. Upon request flame retardant execution category B code: ... SE1.
Temperature range (case)	-40 to +85°C
Max permissible ambient temperature (operation at rated power, rated current and natural cooling)	70°C
Capacitance tolerance	J = ± 5%; K = ± 10%
Rated Voltage: $U_N$ (D.C.)	250V - 400V - 600V - 700V - 850V
Test voltage terminal to terminal $U_{TT}$	1.5 $U_{RMS}$ for 10 S
Test voltage terminal to case $U_{TC}$	3KV-50Hz for 60 S
Insulation resistance test conditions	Temperature : +25°C ± 5°C Voltage charge time : 1 minute Voltage charge : 100 Vdc Typ. value : 3.000 sec.
Dissipation Factor (tgδ)	≤ 5 × 10 <sup>-4</sup> at 1 KHz and 25°C
Damp heat test: Test conditions	Temperature : +40°C Relative humidity : 93% ± 2% Test duration : 56 days
Performances	Capacitance change $\Delta C/C$ : ≤ ± 5% DF change $\Delta tg\delta$ : ≤ 50 × 10 <sup>-4</sup> at 1KHz Insulation resistance: ≥ 50% of limit value
IEC 68-1 climatic category	40/85/56
Degree of protection	IP00
Capacitance Deviation in the temperature range of -40 to +85°C	± 1.5% Max on capacitance value at 20°C
Change of capacitance versus operating time	- 3% after 30.000 Hours at $U_{RMS}$ or after 100.000 Hours at $U_N$
Installation	Whatever Position
Vibration Strenght	Din 40040, Table 6, class V
Life Expectancy	≥ 30.000 Hours at $U_{RMS}$
Failure Quota	300/10 <sup>9</sup> components hours

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D	< 10mm	> 10mm ≤ 22mm	> 22 mm
d	0,8 mm (20 AWG)	1 mm (18 AWG)	1,2 mm (16 AWG)

U <sub>N</sub>	250 V	400 V	600 V	700 V	850 V
U <sub>PK</sub>	400 V	600 V	800 V	1000 V	1200 V

GENERAL CHARACTERISTICS

Code	C μF	U <sub>N</sub> V-	U <sub>RMS</sub> V~	dV/dt V/μs	I <sub>PKR</sub> A	ESR Max at 100 KHz mΩ	I <sub>RMS</sub> @100 KHz - @70°C A	DIMENSIONS	
								D max	L
C44GDUU4220AA1	2,2	250	160	50	110	7,4	9	11,5	31
C44GDUU4250AA1	2,5	250	160	50	125	6,6	9	12	31
C44GDUU4300AA1	3	250	160	50	150	5,8	9	13,5	31
C44GDUU4500AA1	5	250	160	50	250	4,2	9	17	31
C44GDUU4680AA1	6,8	250	160	50	340	3,6	9	20	31
C44GDUU5100AA1	10	250	160	30	300	4,2	9	20	42
C44GDUU5150AA1	15	250	160	30	450	3,2	11	24,5	42
C44GDUU5200AA1	20	250	160	30	600	3,0	11	28	42
C44GDUU5250AA1	25	250	160	30	750	3,0	11	31,5	42
C44GDUU5300AA1	30	250	160	20	600	5,2	11	29,5	56
C44GFUU3680AA1	0,68	400	250	70	48	15	6	10	31
C44GFUU4100AA1	1	400	250	70	70	10,2	8	12	31
C44GFUU4150AA1	1,5	400	250	70	105	7,2	9	14,5	31
C44GFUU4200AA1	2	400	250	70	140	5,8	9	16,5	31
C44GFUU4250AA1	2,5	400	250	70	175	5,0	9	18,5	31
C44GFUU4300AA1	3	400	250	70	210	4,6	9	20	31
C44GFUU4400AA1	4	400	250	50	200	6,0	9	19,5	42
C44GFUU4470AA1	4,7	400	250	50	235	5,4	9	21	42
C44GFUU4500AA1	5	400	250	50	250	5,2	9	21,5	42
C44GFUU4680AA1	6,8	400	250	50	340	4,2	11	25	42
C44GFUU5100AA1	10	400	250	50	500	3,6	11	30	42
C44GFUU5150AA1	15	400	250	30	450	6,2	11	32	56
C44GHUU4100AA1	1	600	330	100	100	8,4	9	15,5	31
C44GHUU4200AA1	2	600	330	75	150	8,2	9	18,5	42
C44GHUU4300AA1	3	600	330	75	225	6,2	9	22,5	42
C44GHUU4500AA1	5	600	330	75	375	4,4	11	28,5	42
C44GHUU4680AA1	6,8	600	330	50	340	9,0	11	28,5	56
C44GHUU5100AA1	10	600	330	50	500	7,0	11	34,5	56
C44GJUU3680AA1	0,68	700	400	125	85	9,2	9	17	31
C44GJUU4100AA1	1	700	400	125	125	6,8	9	20,5	31
C44GJUU4150AA1	1,5	700	400	90	135	8,4	9	20,5	42
C44GJUU4200AA1	2	700	400	90	180	6,6	11	23,5	42
C44GJUU4300AA1	3	700	400	90	270	5,2	11	28,5	42
C44GJUU4400AA1	4	700	400	90	360	4,4	11	33	42
C44GJUU4500AA1	5	700	400	60	300	9,8	11	30,5	56
C44GMUU3150AA1	0,15	850	450	300	45	19	5	10	31
C44GMUU3220AA1	0,22	850	450	300	66	13,2	7	12	31
C44GMUU3330AA1	0,33	850	450	300	100	9,2	9	14,5	31
C44GMUU3470AA1	0,47	850	450	300	140	7,0	9	17	31
C44GMUU3680AA1	0,68	850	450	300	200	5,4	9	20,5	31
C44GMUU4100AA1	1	850	450	200	200	6,2	9	20,5	42
C44GMUU4150AA1	1,5	850	450	200	300	4,6	11	24,5	42
C44GMUU4200AA1	2	850	450	200	400	4,0	11	28,5	42
C44GMUU4220AA1	2,2	850	450	200	440	3,8	11	30	42
C44GMUU4250AA1	2,5	850	450	200	500	3,8	11	31,5	42