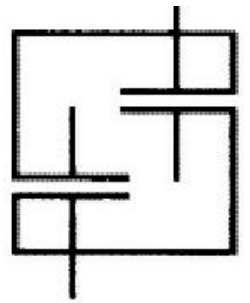


Welcome to

SELECTRONIC CAPACITORS

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General information

Plastic film capacitors are wound capacitors for various application areas. Depending on the requested characteristics, we provide various winding types, dielectrics, coatings and bondings of the leads used. By the use of different materials and the selection of the appropriate manufacturing methods and design a large range of offer arises.

The dielectric of these capacitors is composed of plastic film on which metal films are vacuum metallised. Due to the contacting with the metal spray process, all the windings get contacted. Herewith, the capacitor gets a low inductance and low damping.

The capacitors have the capacity of self healing. The electric arc resulting from a dielectric puncture vaporises the metallised film in the proximity of the point of puncture whereby a metal-free zone arises in the circumference of the point of puncture. Thereby, the full isolation of the dielectric is guaranteed.

Classification of the capacitors by dielectric:

MKT = polyester film, metallised with aluminium

MKP = polypropylene film, metallised with zinc

MKC = polycarbonate film, metallised with aluminium

The identification of the plastic film capacitors is made out of 3 letters.

The letter K means that it is a capacitor with plastic film as dielectric.

The letter after the K designates the material of the dielectric.

(T = Polyester film, P = Polypropylene film, C = Polycarbonate film).

The letter M before the K means that the capacitor has vacuum metallised coatings.

MKT-capacitors

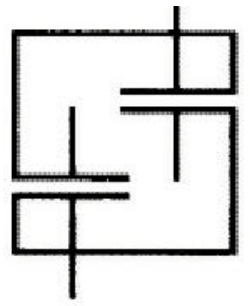
are characterised by high dielectric and pulse strength as well as heat resistance. The big C-values in smallest dimensions are obtained by the high dielectric constant.

MKP-capacitors

are characterised by a low loss factor, high proof voltage and high insulating resistance. Due to the low dielectric constant, the volume of these capacitors is higher in comparison to polyester capacitors. The capacitors are particularly applicable to be used with ac voltage.

MKC-capacitors

Polycarbonate capacitors on request.



Applications

Motor Capacitors

MKT Capacitors $U_N = 70-160$ V AC

MKP Capacitors $U_N = 250-400$ V AC normal requirements

MKP Capacitors $U_N = 500-600$ V AC increased requirements

DC-Voltage Filter Capacitors

MKT Capacitors $U_N = 160-1000$ V DC

MKP Capacitors $U_N = 400-1000$ V DC especially used for DC-Voltage with superimposed AC Voltage

GAD-viva Audio-cap Capacitors for High End Audio-technology

Teflon - Capacitors with Silver-Gold metallization $U_N = 400-800$ V AC

MKP Capacitors with Silver-Gold metallization $U_N = 400-800$ V AC

MKP Capacitors $U_N = 250-400$ V AC

AC-Voltage Capacitors, Coupling Capacitors, Audio Filter Capacitors

MKT Capacitors $U_N = 70-200$ V AC

MKP Capacitors $U_N = 250-400$ V AC normal requirements

MKP Capacitors $U_N = 500-600$ V AC increased requirements

Anti Interference Capacitors, Impulse Capacitor

MKP RC combination $U_N = 160-250$ V AC to extend the lifetime of relay contacts and for anti-interference

MKT Capacitors $U_N = 400-1000$ V DC

Special Constructions

Challenge our capacities.

We are challenged by your special requests on which we have specialised. A large vertical range of manufacture enables us a fast reaction in the prompt manufacturing of patterns also for „customised solutions“. We meet with great accuracy and competence the requirements of our customers and realise them to their complete satisfaction.

According to your requests, we produce capacitors with:

- special designs
- special dimensions
- every intermediate capacity
- wire length as the customer wishes
- special length of flexible wire

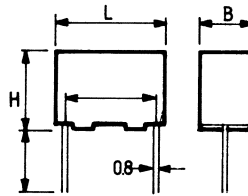
Our special service: Sampling within one week.

Types overview

MKT-HME	Plastic cup, radial design. Dielectric: Polyester, Capacitance 0,1 µF up to 80 µF Voltage: 160 V DC / 70 V AC up to 1000 V DC / 250 V AC
MKT-PME	Plastic cup, radial design. Dielectric: Polypropylene, Capacitance 0,047 µF up to 15 µF Voltage: 400 V AC / 630 V DC up to 600 V AC / 1000 V DC
MKP-PMEM	Plastic cup, radial design. Dielectric: Polypropylene, Capacitance 0,15 µF up to 15 µF 2,0µF - 5,0µF VDE-mark, 400 V AC, HPFNT Voltage: 400 V AC / 630 V DC up to 600 V AC / 1000 V DC
MKT-HMF	Plastic film bandaged, flat winding, axial design. Dielectric: Polyester, Capacitance 0,1 µF up to 80 µF Voltage: 160 V DC / 70 V AC up to 1000 V DC / 250 V AC
MKP-PMF	Plastic film bandaged, flat winding, axial design. Dielectric: Polypropylene, Capacitance 0,047 µF up to 15 µF Voltage: 250 V AC / 400 V DC up to 600 V AC / 1000 V DC
MKP-PMF/ST	Plastic film bandaged, flat winding, axial design. Dielectric: Polypropylene with internal series connection . Voltage: 500 V AC / 800 V DC up to 600 V AC / 1000 V DC
MKT-HMF/B	Plastic cup, axial design. Dielectric: Polyester, Capacitance 0,1 µF up to 36 µF Voltage: 160 V DC / 70 V AC up to 1000 V DC / 250 V AC
MKP-PMF/B	Plastic cup, axial design. Dielectric: Polypropylene, Capacitance 0,047 µF up to 5 µF Voltage: 250 V AC / 400 V DC up to 600 V AC / 1000 V DC
MKT-AZ	Aluminium cup, cylindrical design, thread M8 / M12 Dielectric: Polyester, Capacitance 1 µF up to 230 µF Voltage: 160 V DC / 70 V AC bis 250 V DC / 160 V AC
MKP-AZ	Aluminium cup, cylindrical design, thread M8 / M12 Dielectric: Polypropylene, Capacitance 0,056 µF up to 40 µF Voltage: 250 V AC / 400 V DC up to 600 V AC / 1000 V DC
MKP-PME/RC	RC-combination, Plastic cup, radial design. Dielectric: Polypropylene, Capacitance : 0,1µF up to 1,0µF Voltage: 160V AC / 250V DC up to 250V AC / 630V DC
MKT-HMR	Plastic film bandaged, round winding, axial design. Dielectric: Polyester, Capacitance 0,1 µF up to 150 µF Voltage: 160 V DC / 70 V AC up to 1000 V DC / 250 V AC
MKP-PMR	Plastic film bandaged, round winding, axial design. Dielectric: Polypropylene, Capacitance 0,068 µF up to 50 µF Voltage: 250 V AC / 400 V DC up to 600 V AC / 1000 V DC
GAD viva Audiocap	High performance Audio Capacitors, axial design Plastic cup or Plastic film bandaged, round winding, Dielectric: Polypropylene or Teflon. Silver-Gold-metallised for highest quality. Voltage: 250 V AC / 400 V DC up to 800 V AC / 1200 V DC

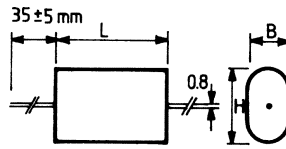
Design forms

MKT-HME
MKP-PME
MKP-PMEM
MKP-PME/RC



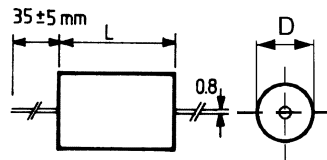
L	25,5	31	38,5	39,5	42	47
RM	22,5	27,5	35	37,5	37,5	42,5

MKT-HMF
MKP-PMF



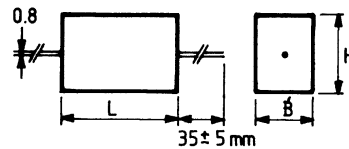
L	19	27	32	42	50
RM	22,5	30	35	45	53

MKT-HMR
MKP-PMR



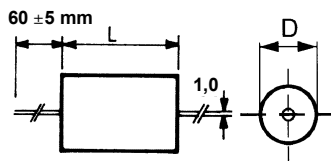
L	19	27	32	42	50
RM	22,5	30	35	45	53

MKT-HMF/B
MKP-PMF/B



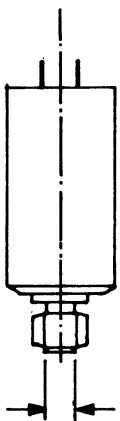
L	27	32	35	53
RM	30	35	38	55

GAD-viva Audio-cap

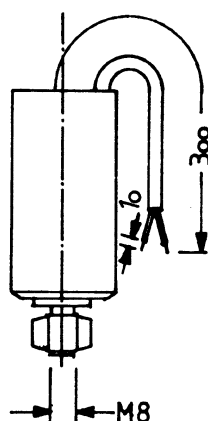


MKT-AZ
MKP-AZ

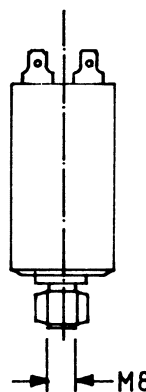
Aluminium can with M8 thread



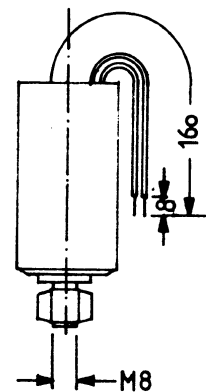
Design with soldering tag connections



Design with cable



Design with open contact studs 6,3 mm



Design with stranded wire 0,5 mm Ø



SElectronic Kondensatoren

HME

MKT-CAPACITORS

Plastic film – metallised – self-healing – DIN 44112

TECHNICAL SPECIFICATION

Dielectric:	polyester
Coatings:	aluminium metallised
Casing:	plastic cup, synthetic resin sealing
Application class:	GMF according to DIN 40040
Temperature range:	-40° C up to +100° C
Insulating values:	≥0,33 µF approx. 10.000 sec. (MΩ*µF) < 0,33 µF approx. 10 ⁵ MΩ measured with 100 V at +20° C after 1 Min.
Loss factor tanδ:	5 to 8 · 10 ⁻³ measured at +20° C and 1 kHz
Tolerance:	± 5 %, ± 10 %, ± 20 %
Temperature coefficient:	+340 to +450 · 10 ⁻⁶ /° C
Time inconstancy:	-20° C to +85° C < 3 %
Testing voltage:	1,5 x UN 2 sec.
Impulse loading:	U _N 160 V - ≤ 6 V/µS U _N 250 V - ≤ 10 V/µS; U _N 400 V - ≤ 15 V/µS U _N 630 V - ≤ 20 V/µS; U _N 1000 V - ≤ 25 V/µS
Voltage derating:	From +85° C UM 1,25 % per 1° C
Connections:	tin-plated copper wire / stranded wire / insulated wire

U _N	160 V DC 70 V AC	250 V DC 160 V AC	400 V DC 200 V AC	630 V DC 220 V AC	1000 V DC 250 V AC
Cap. µF	Dimensions: BxHxL (mm)				
0,1				8 x 16 x 25,5	8 x 16 x 25,5
0,15				8 x 16 x 25,5	8 x 16 x 25,5
0,22			8 x 16 x 25,5	8 x 16 x 25,5	10 x 18 x 25,5
0,33			8 x 16 x 25,5	10 x 18 x 25,5	10 x 18,3 x 31
0,47		8 x 16 x 25,5	10 x 18 x 25,5	10 x 18 x 25,5	11,5 x 19,8 x 31
0,68		8 x 16 x 25,5	10 x 18,3 x 31	11,5 x 19,8 x 31	13,5 x 23 x 31
1,0		10 x 18 x 25,5	11,5 x 19,8 x 31	13,5 x 23 x 31	16,5 x 28 x 42
1,5	8 x 16 x 25,5	11,5 x 19,8 x 31	13,5 x 23 x 31	16,5 x 28 x 42	16,5 x 28 x 42
2,2	8 x 16 x 25,5	13,5 x 23 x 31	14 x 25 x 38,5	26,5 x 36,5 x 39,5	26,5 x 36,5 x 39,5
3,3	10 x 18 x 25,5	14 x 25 x 38,5	16,5 x 28 x 42	26,5 x 36,5 x 39,5	35,5 x 45 x 47
4,7	11,5 x 19,8 x 31	16,5 x 28 x 42	26,5 x 36,5 x 39,5	35,5 x 45 x 47	35,5 x 45 x 47
6,8	13,5 x 23 x 31	26,5 x 36,5 x 39,5	26,5 x 36,5 x 39,5	35,5 x 45 x 47	
10	14 x 25 x 38,5	26,5 x 36,5 x 39,5	35,5 x 45 x 47		
22	26,5 x 36,5 x 39,5				
33	26,5 x 36,5 x 39,5				
47	35,5 x 45 x 47				

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SElectronic Kondensatoren

PME

MKP-CAPACITORS

Plastic film – metallised – self-healing – DIN 44112

TECHNICAL SPECIFICATION

Dielectric:	polypropylene
Coatings:	zinc metallised
Casing:	plastic housing, synthetic resin sealing
Application class:	HPF according to DIN 40040
Temperature range:	-25° C to +85° C
Insulating values:	approx. 20.000 sec. (MΩ*μF) Measured with 100 V at +20° C after 1 min.
Loss factor tanδ:	1 kHz 10 kHz < 1 · 10 ⁻³ < 5 · 10 ⁻³
Tolerance:	± 5 %, ± 10 %, ± 20 %
Impulse loading:	≤ 1 μF - 100 V/μs; > 1 μF - 50 V/μs;
Connections:	tin-plated copper wires/stranded wire/insulated wire

U _N	400 V AC 630 V DC	500 V AC 800 V DC	600 V AC 1000 V DC
Cap. μF	Dimensions: BxHxL (mm)		
0,047		8 x 16 x 25,5	10 x 18 x 25,5
0,068		10 x 18 x 25,5	11,5 x 19,8 x 31
0,1		10 x 18,3 x 31	13,5 x 23 x 31
0,15	8 x 16 x 25,5	13,5 x 23 x 31	14 x 25 x 38,5
0,22	8 x 16 x 25,5	13,5 x 23 x 31	14 x 25 x 38,5
0,33	10 x 18,3 x 31	14 x 25 x 38,5	16,5 x 28 x 42
0,47	10 x 18,3 x 31	16,5 x 28 x 42	26,5 x 36,5 x 39,5
0,68	11,5 x 19,8 x 31	26,5 x 36,5 x 39,5	35,5 x 45 x 47
1,0	14 x 25 x 38,5	35,5 x 45 x 47	35,5 x 45 x 47
1,5	14 x 25 x 38,5	35,5 x 45 x 47	
2,2	16,5 x 28 x 42		
3,0	16,5 x 28 x 42		
4	26,5 x 36,5 x 39,5		
5	35,5 x 45 x 47		
5,6	35,5 x 45 x 47		
6,8	35,5 x 45 x 47		
8,2	35,5 x 45 x 47		

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SELECTRONIC Kondensatoren

PMEM

MKP MOTORKONDENSATOREN

flame-retardant plastic housing, stranded wires or tin-plated copper wires

TECHNICAL SPECIFICATION

Dielectric:	polypropylene
Coatings:	zinc metallised
Casing:	plastic housing, synthetic resin sealing
Application class:	HPFNT according to DIN EN 60252-1
Temperature range:	-25° C to +85° C
Life expectancy:	10.000 h according to DIN 40040
Insulating value:	≥25.000 MΩ
Loss factor tanδ:	1 kHz 10 kHz < 1 · 10 ⁻³ < 5 · 10 ⁻³
Nominal voltage:	250 V AC DB / 400 V AC DB
Peak voltage:	800 V / 1500 V
Tolerance:	± 5 %, ± 10 %
Impulse loading:	≤ 1 μF - 100 V/μs; > 1 μF - 50 V/μs;
Manufactured according to:	DIN EN 60252-1
Connections:	tin-plated copper wires 0,8 x 6mm / stranded wire 0,5 mm ² – length on demand

U _N	250 V AC DB HPFNT		400 V AC DB HPFNT		500 V AC 800 V DC		600 V AC 1000 V DC	
Cap. μF	Dimensions: BxHxL (mm), RM (mm)							
0,1					10 x 18,3 x 31	RM 27,5	13,5 x 23 x 31	RM 27,5
0,15					13,5 x 23 x 31	RM 27,5	14 x 25 x 38,5	RM 35
0,22					13,5 x 23 x 31	RM 27,5	14 x 25 x 38,5	RM 35
0,33			10 x 18,3 x 31	RM 27,5	14 x 25 x 38,5	RM 35	16,5 x 28 x 42	RM 37,5
0,47	10 x 18,3 x 31	RM 27,5	11,5 x 19,8 x 31	RM 27,5	16,5 x 28 x 42	RM 37,5	26,5 x 36,5 x 39,5	RM 37,5
0,68	10 x 18,3 x 31	RM 27,5	14 x 25 x 38,5	RM 35	26,5 x 36,5 x 39,5	RM 37,5	35,5 x 45 x 47	RM 42,5
1,0	13,5 x 23 x 31	RM 27,5	14 x 25 x 38,5	RM 35	35,5 x 45 x 47	RM 42,5	35,5 x 45 x 47	RM 42,5
1,5	13,5 x 23 x 31	RM 27,5	14 x 25 x 38,5	RM 35	35,5 x 45 x 47	RM 42,5		
2,0	13,5 x 23 x 31	RM 27,5	16,5 x 28 x 42	RM 37,5				
2,2	14 x 25 x 38,5	RM 35	16,5 x 28 x 42	RM 37,5				
2,5	14 x 25 x 38,5	RM 35	16,5 x 28 x 42	RM 37,5				
3,0	14 x 25 x 38,5	RM 35	16,5 x 28 x 42	RM 37,5				
3,5	16,5 x 28 x 42	RM 37,5	26,5 x 36,5 x 39,5	RM 37,5				
4,0	16,5 x 28 x 42	RM 37,5	26,5 x 36,5 x 39,5	RM 37,5				
5,0	16,5 x 28 x 42	RM 37,5	26,5 x 36,5 x 39,5	RM 37,5				
6,0	16,5 x 28 x 42	RM 37,5						
7,0	24,5 x 28 x 42	RM 37,5						
8,0	26,5 x 36,5 x 39,5	RM 37,5						

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!

VDE approved 2,0μF up to 5,0μF 400V AC DB HPFNT



SELECTRONIC Kondensatoren

PME/RC MKP-CAPACITORS Plastic film – metallised – self-healing

The PME/RC elements are the perfect combination to extend the lifetime of contacts and to suppress ignition noise. Modern technology knows since a long time the application of CAPACITOR and resistor in series as one of the most efficient means for the extension of the lifetime of the contacts.

The PME/RC-elements consist of a capacitor made of polypropylene plastic film in series with a resistor. Both elements are built in the same housing and are sealed with epoxy resin. Thereby, the smallest construction can be reached. The absolutely precise grid dimension guarantees a definite assembly in printed circuit. The connections are consisting of double tin-coated copper wires which can easily be handled with, even in the soldering bath.

The PME/RC series is characterised by a wide spectrum of capacitance and resistance values whereby they can be used in a large application range.

TECHNICAL SPECIFICATION

Dielectric:	polypropylene
Coatings:	zinc metallised
Casing:	plastic housing, synthetic resin sealing
Application class:	HPF according to DIN 40040
Temperature range:	-25° C to +85° C
Insulating values:	approx. 20.000 sec. (MΩ*μF) Measured with 100 V at +20° C after 1 min.
Loss factor tanδ:	1 kHz 10 kHz < 1 · 10 ⁻³ < 5 · 10 ⁻³
Tolerance:	± 5 %, ± 10 %, ± 20 %
R - Toleranz	± 5 %, ± 10%
Impulse loading:	≤ 1 μF - 100 V/μs; > 1 μF - 50 V/μs;
Connections:	tin-plated copper wires/stranded wire/insulated wire

During pulse load the surface temperature of the RC-combination shall not exceed 85 °C

U _N	160 V AC 250 V DC		250 V AC 630 V DC	
	Resistor Ω	Dimensions: BxHxL (mm)	Resistor Ω	Dimensions: BxHxL (mm)
0,1			22 - 470	8 x 16 x 25,5
0,25			22 - 470	10 x 18 x 25,5
0,5	22 - 680	8 x 16 x 25,5	22 - 220	11,5 x 19,8 x 31
0,75	22 - 330	10 x 18 x 25,5		
1,0	22 - 220	11,5 x 19,8 x 31		

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SElectronic Kondensatoren

HMF

MKT-CAPACITORS
Plastic film – metallised – self-healing – DIN 44112

TECHNICAL SPECIFICATION

Dielectric:	polyester
Coatings:	aluminium metallised
Casing:	Polyester film, synthetic resin sealing
Application class:	GMF according to DIN 40040
Temperature range:	-40° C up to +100° C
Insulating values:	≥0,33 µF approx. 10.000 sec. (MΩ*µF) < 0,33 µF approx. 10 ⁵ MΩ measured with 100 V at +20° C after 1 Min.
Loss factor tanδ:	5 to 8 · 10 ⁻³ measured at +20° C and 1 kHz
Tolerance:	± 5 %, ± 10 %, ± 20 %
Temperature coefficient:	+340 to +450 · 10 ⁻⁶ /° C
Time inconstancy:	-20° C to +85° C < 3 %
Testing voltage:	1,5 x UN 2 sec.
Impulse loading:	UN 160 V - ≤ 6 V/µS UN 250 V - ≤ 10 V/µS; UN 400 V - ≤ 15 V/µS UN 630 V - ≤ 20 V/µS; UN 1000 V - ≤ 25 V/µS
Voltage derating:	From +85° C UM 1,25 % per 1° C
Connections:	tin-plated copper wire / stranded wire / insulated wire

UN	160 V DC 70 V AC	250 V DC 160 V AC	400 V DC 200 V AC	630 V DC 220 V AC	1000 V DC 250 V AC
Cap. µF	Dimensions: BxHxL (mm)				
0,1				5 x 10 x 19	6 x 11 x 19
0,15			5 x 10 x 19	6 x 11 x 19	7 x 12 x 19
0,22		5 x 10 x 19	6 x 11 x 19	7 x 12 x 19	8 x 13 x 19
0,33		6 x 11 x 19	8 x 13 x 19	9 x 14 x 19	8 x 15 x 27
0,47	5 x 9 x 19	7 x 12 x 19	7 x 14 x 27	9 x 16 x 27	10 x 17 x 27
0,68	6 x 10 x 19	9 x 14 x 19	9 x 16 x 27	10 x 18 x 27	13 x 20 x 27
1,0	7 x 13 x 19	8 x 15 x 27	8 x 16 x 32	12 x 19 x 32	13 x 21 x 32
1,5	8 x 13 x 19	9 x 17 x 27	11 x 19 x 32	15 x 23 x 32	17 x 25 x 32
2,2	6 x 14 x 27	10 x 18 x 32	13 x 21 x 32	17 x 25 x 32	19 x 27 x 32
3,3	8 x 16 x 27	12 x 20 x 32	18 x 26 x 32	16 x 23 x 50	18 x 25 x 50
4,7	8 x 16 x 32	15 x 23 x 32	20 x 27 x 50	22 x 29 x 50	24 x 31 x 50
6,8	10 x 18 x 32	19 x 27 x 32	24 x 31 x 50	26 x 33 x 50	28 x 35 x 50
10	12 x 21 x 32	20 x 27 x 50	28 x 35 x 50		
15	16 x 26 x 32	26 x 33 x 50			
22	17 x 24 x 50				
33	21 x 29 x 50				
47	26 x 33 x 50				
60	29 x 37 x 50				

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SELECTRONIC Kondensatoren

PMF

MKP-CAPACITORS

Plastic film – metallised – self-healing – for increased requirements

TECHNICAL SPECIFICATION

Dielectric:	polypropylene
Coatings:	zinc metallised
Casing:	polyester film, synthetic resin sealing
Application class:	HPF according to DIN 40040
Temperature range:	-25° C to +85° C
Insulating values:	approx. 20.000 sec. (MΩ*μF) Measured with 100 V at +20° C after 1 min.
Loss factor tanδ:	1 kHz 10 kHz < 1 · 10 ⁻³ < 5 · 10 ⁻³
Tolerance:	± 5 %, ± 10 %, ± 20 %
Impulse loading:	≤ 1 μF - 100 V/μs; > 1 μF - 50 V/μs;
Connections:	tin-plated copper wires/stranded wire/insulated wire

U _N	250 V AC 400 V DC	400 V AC 630 V DC	500 V AC 800 V DC	600 V AC 1000 V DC
Cap. μF	Dimensions: BxHxL (mm)			
0,047			8 x 13 x 19	9 x 15 x 27
0,068			11 x 16 x 19	12 x 20 x 27
0,1		8 x 13 x 19	9 x 15 x 32	11 x 17 x 32
0,15	6 x 11 x 19	11 x 16 x 19	11 x 17 x 32	14 x 20 x 32
0,22	8 x 13 x 19	9 x 15 x 27	13 x 19 x 32	17 x 23 x 32
0,33	6 x 13 x 27	11 x 17 x 27	17 x 23 x 32	16 x 22 x 42
0,47	8 x 15 x 27	11 x 19 x 32	20 x 26 x 32	20 x 26 x 42
0,68	11 x 17 x 27	14 x 22 x 32	19 x 26 x 42	24 x 32 x 42
1,0	10 x 18 x 32	17 x 27 x 32	22 x 29 x 42	29 x 37 x 42
1,5	13 x 21 x 32	20 x 25 x 42	27 x 36 x 42	
2,2	17 x 25 x 32	25 x 30 x 42	35 x 41 x 42	
3,3	16 x 26 x 42	30 x 35 x 42		
4,7	22 x 29 x 42			
6,8	28 x 35 x 42			
10	30 x 38 x 50			

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SElectronic Kondensatoren

PMF/ST MKP-CAPACITORS Plastic film – metallised – self-healing – for increased requirements

TECHNICAL SPECIFICATION

Dielectric:	polypropylene
Coatings:	zinc metallised
Casing:	polyester film, synthetic resin sealing
Application class:	HPF according to DIN 40040
Temperature range:	-25° C to +85° C
Insulating values:	approx. 20.000 sec. (MΩ*μF) Measured with 100 V at +20° C after 1 min.
Loss factor tanδ:	1 kHz 10 kHz < 1 · 10 ⁻³ < 5 · 10 ⁻³
Tolerance:	± 5 %, ± 10 %, ± 20 %
Impulse loading:	≤ 1 μF - 100 V/μs; > 1 μF - 50 V/μs;
Connections:	tin-plated copper wires/stranded wire/insulated wire

To meet considerably increased requirements in impulse loading and self healing properties the metallised coatings are made of different surface resistance.

U _N	500 V AC 800 V DC	600 V AC 1000 V DC
Kap. μF	Abmessungen: BxHxL (mm)	
0,047	8 x 13 x 19	9 x 15 x 27
0,068	11 x 16 x 19	12 x 20 x 27
0,1	9 x 15 x 32	11 x 17 x 32
0,15	11 x 17 x 32	14 x 20 x 32
0,22	13 x 19 x 32	17 x 23 x 32
0,33	17 x 23 x 32	16 x 22 x 42
0,47	20 x 26 x 32	20 x 26 x 42
0,68	19 x 26 x 42	24 x 32 x 42
1,0	22 x 29 x 42	29 x 37 x 42
1,2	23 x 31 x 42	
2,2	35 x 41 x 42	

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SElectronic Kondensatoren

HMF/B

MKT-CAPACITORS

Plastic film – metallised – self-healing – increased requirements

TECHNICAL SPECIFICATION

Dielectric:	polyester
Coatings:	aluminium metallised
Casing:	plastic cup, synthetic resin sealing
Application class:	GMF according to DIN 40040
Temperature range:	-40° C up to +100° C
Insulating values:	≥0,33 µF approx. 10.000 sec. (MΩ*µF) < 0,33 µF approx. 105 MΩ measured with 100 V at +20° C after 1 Min.
Loss factor tanδ:	5 to 8 · 10 ⁻³ measured at +20° C and 1 kHz
Tolerance:	± 5 %, ± 10 %, ± 20 %
Temperature coefficient:	+340 to +450 · 10 ⁻⁶ /° C
Time inconstancy:	-20° C to +85° C < 3 %
Testing voltage:	1,5 x UN 2 sec.
Impulse loading:	U _N 160 V - ≤ 6 V/µS U _N 250 V - ≤ 10 V/µS; U _N 400 V - ≤ 15 V/µS U _N 630 V - ≤ 20 V/µS; U _N 1000 V - ≤ 25 V/µS
Voltage derating:	From +85° C UM 1,25 % per 1° C
Connections:	tin-plated copper wire (also with single-ended connection cable, stranded wire and insulated wire available)

U _N	160 V DC 70 V AC	250 V DC 160 V AC	400 V DC 200 V AC	630 V DC 220 V AC	1000 V DC 250 V AC
Cap. µF	Dimensions: BxHxL (mm)				
0,1				8 x 16 x 27	8 x 16 x 27
0,15				8 x 16 x 27	8 x 16 x 27
0,22			8 x 16 x 27	8 x 16 x 27	10 x 18 x 27
0,33			8 x 16 x 27	10 x 18 x 27	11 x 20 x 32
0,47		8 x 16 x 27	10 x 18 x 27	10 x 18 x 27	13 x 22 x 35
0,56		8 x 16 x 27	10 x 18 x 27	11 x 20 x 32	13 x 22 x 35
0,68		8 x 16 x 27	10 x 18 x 27	11 x 20 x 32	13 x 20 x 53
1,0		10 x 18 x 27	11 x 20 x 32	13 x 20 x 53	18 x 25 x 53
1,5	8 x 16 x 27	11 x 20 x 32	13 x 20 x 53	18 x 25 x 53	18 x 25 x 53
2,2	8 x 16 x 27	13 x 22 x 35	18 x 25 x 53	18 x 25 x 53	18 x 30 x 53
3,3	10 x 18 x 27	13 x 20 x 53	18 x 25 x 53	24 x 30 x 53	24 x 30 x 53
4,7	11 x 20 x 32	18 x 25 x 53	24 x 30 x 53		
6,8	13 x 22 x 35	18 x 30 x 53			
8,2	13 x 22 x 35	24 x 30 x 53			
10	13 x 20 x 53	24 x 30 x 53			
15	18 x 25 x 53				
22	18 x 30 x 53				
36	24 x 30 x 53				

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SELECTRONIC Kondensatoren

PMF/B

MKP-CAPACITORS

Plastic film – metallised – self-healing – increased requirements

TECHNICAL SPECIFICATION

Dielectric:	polypropylene
Coatings:	zinc metallised
Casing:	plastic housing, synthetic resin sealing
Application class:	HPF according to DIN 40040
Temperature range:	-25° C to +85° C
Insulating values:	approx. 20.000 sec. (MΩ*μF) Measured with 100 V at +20° C after 1 min.
Loss factor tanδ:	1 kHz 10 kHz < 1 · 10 ⁻³ < 5 · 10 ⁻³
Tolerance:	± 5 %, ± 10 %, ± 20 %
Impulse loading:	≤ 1 μF - 100 V/μs; > 1 μF - 50 V/μs;
Connections:	tin-plated copper wire (also with single-ended connection cable, stranded wire and insulated wire available)

U _N	250 V AC 400 V DC	400 V AC 630 V DC	500 V AC 800 V DC	600 V AC 1000 V DC
Cap. μF	Dimensions: BxHxL (mm)			
0,047			8 x 16 x 27	10 x 18 x 27
0,068			10 x 18 x 27	11 x 20 x 32
0,1			11 x 20 x 32	13 x 22 x 35
0,15		10 x 18 x 27	13 x 22 x 35	13 x 20 x 53
0,22		10 x 18 x 27	13 x 20 x 53	18 x 25 x 53
0,33	8 x 16 x 27	11 x 20 x 32	18 x 25 x 53	18 x 25 x 53
0,47	10 x 18 x 27	13 x 22 x 35	18 x 25 x 53	24 x 30 x 53
0,68	11 x 20 x 32	18 x 25 x 53	18 x 30 x 53	
1,0	13 x 22 x 35	18 x 30 x 53	24 x 30 x 53	
1,5	13 x 20 x 53	24 x 30 x 53		
2,2	18 x 25 x 53	24 x 30 x 53		
3,3	18 x 30 x 53			
4,7	24 x 30 x 53			

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SELECTRONIC Kondensatoren

HMR

MKT-CAPACITORS
Plastic film – metallised – self-healing

TECHNICAL SPECIFICATION

Dielectric:	polyester
Coatings:	aluminium metallised
Casing:	polyester film, synthetic resin sealing
Application class:	GMF according to DIN 40040
Temperature range:	-40° C up to +100° C
Insulating values:	≥0,33 µF approx. 10.000 sec. (MΩ*µF) < 0,33 µF approx. 10 ⁵ MΩ measured with 100 V at +20° C after 1 Min.
Loss factor tanδ:	5 to 8 · 10 ⁻³ measured at +20° C and 1 kHz
Tolerance:	± 5 %, ± 10 %, ± 20 %
Temperature coefficient:	+340 to +450 · 10 ⁻⁶ /° C
Time inconstancy:	-20° C to +85° C < 3 %
Testing voltage:	1,5 x UN 2 sec.
Impulse loading:	U _N 160 V - ≤ 6 V/µS U _N 250 V - ≤ 10 V/µS; U _N 400 V - ≤ 15 V/µS U _N 630 V - ≤ 20 V/µS; U _N 1000 V - ≤ 25 V/µS
Voltage derating:	From +85° C UM 1,25 % per 1° C
Connections:	tin-plated copper wire / stranded wire / insulated wire

U _N	160 V DC 70 V AC	250 V DC 160 V AC	400 V DC 200 V AC	630 V DC 220 V AC	1000 V DC 250 V AC
Cap. µF	Dimensions: DxL (mm)				
0,1				8 x 19	9 x 19
0,15			8 x 19	9 x 19	10 x 19
0,22		8 x 19	9 x 19	10 x 19	11 x 19
0,33		9 x 19	11 x 19	12 x 19	12 x 27
0,47	8 x 19	10 x 19	11 x 27	13 x 27	14 x 27
0,68	9 x 19	12 x 19	13 x 27	14 x 27	17 x 27
1,0	11 x 19	12 x 27	12 x 32	16 x 32	17 x 32
1,5	11 x 19	13 x 27	15 x 32	20 x 32	22 x 32
2,2	10 x 27	14 x 32	17 x 32	22 x 32	24 x 32
3,3	12 x 27	16 x 32	23 x 32	20 x 50	22 x 50
4,7	12 x 32	20 x 32	24 x 50	26 x 50	28 x 50
6,8	14 x 32	24 x 32	28 x 50	30 x 50	32 x 50
10	17 x 32	24 x 50	32 x 50		
15	22 x 32	30 x 50			
22	22 x 50				
27	24 x 50				
33	26 x 50				
47	30 x 50				

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SElectronic Kondensatoren

PMR

MKP-CAPACITORS

Plastic film – metallised – self-healing – increased requirements

TECHNICAL SPECIFICATION

Dielectric:	polypropylene
Coatings:	zinc metallised
Casing:	polyester film, synthetic resin sealing
Application class:	HPF according to DIN 40040
Temperature range:	-25° C to +85° C
Insulating values:	approx. 20.000 sec. (MΩ*μF) Measured with 100 V at +20° C after 1 min.
Loss factor tanδ:	1 kHz 10 kHz < 1 · 10 ⁻³ < 5 · 10 ⁻³
Tolerance:	± 5 %, ± 10 %, ± 20 %
Impulse loading:	≤ 1 μF - 100 V/μs; > 1 μF - 50 V/μs;
Connections:	tin-plated copper wires/stranded wire/insulated wire

U _N	250 V AC 400 V DC	400 V AC 630 V DC	500 V AC 800 V DC	600 V AC 1000 V DC
Cap. μF	Dimensions: BxHxL (mm)			
0,068			14 x 19	17 x 27
0,1		11 x 19	13 x 32	15 x 32
0,15	9 x 19	14 x 19	15 x 32	18 x 32
0,22	11 x 19	13 x 27	17 x 32	21 x 32
0,33	10 x 27	15 x 27	21 x 32	20 x 42
0,47	12 x 27	16 x 32	24 x 32	24 x 42
0,68	15 x 27	19 x 32	23 x 42	29 x 42
1,0	15 x 32	23 x 32	26 x 42	34 x 42
1,5	18 x 32	23 x 42	32 x 42	
2,2	22 x 32	28 x 42	39 x 42	
3,3	22 x 42	33 x 42		
4,7	26 x 42			
6,8	32 x 42			
10	35 x 50			

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SELECTRONIC Kondensatoren

MKT/AZ

MKT-CAPACITORS

Plastic film – metallised – self-healing – increased requirements

TECHNICAL SPECIFICATION

Dielectric:	polyester
Coatings:	aluminium metallised
Casing:	aluminium can, synthetic resin sealing
Application class:	GMF according to DIN 40040
Temperature range:	-40° C up to +100° C
Insulating values:	≥0,33 µF approx. 10.000 sec. (MΩ*µF) < 0,33 µF approx. 10 ⁵ MΩ measured with 100 V at +20° C after 1 Min.
Loss factor tanδ:	5 to 8 · 10 ⁻³ measured at +20° C and 1 kHz
Tolerance:	± 5 %, ± 10 %, ± 20 %
Temperature coefficient:	+340 to +450 · 10 ⁻⁶ /° C
Time inconstancy:	-20° C to +85° C < 3 %
Testing voltage:	1,5 x UN 2 sec.
Impulse loading:	UN 160 V - ≤ 6 V/µS UN 250 V - ≤ 10 V/µS; UN 400 V - ≤ 15 V/µS UN 630 V - ≤ 20 V/µS; UN 1000 V - ≤ 25 V/µS
Voltage derating:	From +85° C UM 1,25 % per 1° C
Connections:	stranded wire, connection cable, solder tails and contact studs

UN	160 V DC 70 V AC	250 V DC 160 V AC
Cap. µF	Dimensions: DxL (mm)	
2,2		20 x 35
3,3		20 x 35
6,8	20 x 35	25 x 50
10	25 x 35	30 x 50
15	25 x 50	30 x 50
22	25 x 50	35 x 50
33	30 x 50	30 x 80
47	35 x 50	35 x 80
65	30 x 80	40 x 90
70	30 x 80	
75	35 x 80	
80	35 x 80	
85	35 x 80	
90	35 x 80	
95	40 x 90	
100	40 x 90	
110	40 x 90	
120	40 x 90	

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SElectronic Kondensatoren

MKP/AZ MKP-CAPACITORS Plastic film – metallised – self-healing – increased requirements

TECHNICAL SPECIFICATION

Dielectric:	polypropylene
Coatings:	zinc metallised
Casing:	aluminium can, synthetic resin sealing
Application class:	HPF according to DIN 40040
Temperature range:	-25° C to +85° C
Insulating values:	approx. 20.000 sec. (MΩ*μF) Measured with 100 V at +20° C after 1 min.
Loss factor tanδ:	1 kHz 10 kHz < 1 · 10 ⁻³ < 5 · 10 ⁻³
Tolerance:	± 5 %, ± 10 %, ± 20 %
Impulse loading:	≤ 1 μF - 100 V/μs; > 1 μF - 50 V/μs;
Connections:	stranded wire, connection cable, solder tails and contact studs

U _N	250 V AC 400 V DC	400 V AC 630 V DC	500 V AC 800 V DC	600 V AC 1000 V DC
Cap. μF	Dimensions: BxHxL (mm)			
0,068				20 x 35
0,1			20 x 35	20 x 35
0,15			20 x 35	25 x 35
0,22			25 x 35	25 x 35
0,33		20 x 35	25 x 35	25 x 50
0,47		20 x 35	25 x 50	30 x 50
0,68	20 x 35	25 x 35	25 x 50	35 x 50
1,0	20 x 35	25 x 50	30 x 50	30 x 80
1,5	25 x 35	30 x 50	35 x 50	35 x 80
2,2	25 x 35	30 x 50	30 x 80	40 x 90
3,3	25 x 50	30 x 80	35 x 80	
4,7	35 x 50	30 x 80		
6,8	30 x 80	35 x 80		
10	35 x 80	35 x 80		
16	40 x 90	40 x 90		
22	40 x 90			

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!



SELECTRONIC Kondensatoren

GAD-viva Audio-cap

High-quality audio capacitors

In collaboration with our customer, we have developed and produced audio capacitors for highest demands. Our extensive experience in capacitor production and strict quality control in our company guarantee that our GAD-viva Audio-cap are meeting the highest demand on quality.

Through prolonging series of tests, we have been successful in developing an impregnate eliminating to the highest possible extent vibration in the metallised film. The oil composition guarantees that the GAD-viva Audio-cap capacitors are particularly suitable for audio applications.

The highest technical standard and production experience are indispensable for the production of Audio-Cap Silver/Gold/Teflon. Due to its special physical characteristics, teflon film needs very close tolerance of manufacturing which can only be achieved at very few product types. Furthermore, the metallization technology puts high demands on the state-of-the-art technology related experience. Because of the elasticity and extensibility of the teflon, the winding of the capacitors poses a top technical challenge.

For the lowest possible resistance, all GAD-viva Audio-capacitors are contacted at the front ends with a special material and they have silver-coated copper-wire connections.

We produce the following production series of GAD-viva Audio-capacitors:

GAD-viva Audio-cap Silver/Gold-Teflon

Self healing metallised plastic film capacitors built in black plastic tube, with synthetic resin sealing, axial connections of silver-coated copper wire.

Dielectric: Teflon
Metallization: Silver 97% Gold 3%
Capacitance: 22nF up to 0,47 μ F
Tolerance: +/-5%
Nominal voltage: 630 VDC/400 VAC

Dimensions on request

GAD-viva Audio-cap Silver/Gold/Oil

Self healing metallised plastic film capacitors built in black plastic tube, Oil impregnated, with synthetic resin sealing, axial connections of silver-coated copper wire.

Dielectric: Polypropylene
Metallization: Silver 97% Gold 3%
Capacitance: 0,01 μ F up to 10 μ F
Tolerance: +/-2%
Nominal voltage: 400 VAC/630 VDC up to 800 VAC/1200 VDC

Dimensions on request



SELECTRONIC Kondensatoren

GAD-vivaAudio-cap Silver/Gold

Self healing metallised plastic film capacitors built in black plastic tube, with synthetic resin sealing, axial connections of silver-coated copper wire.

Dielectric:	Polypropylene
Metallization:	Silver 97% Gold 3%
Capacitance:	0,01 μ F up to 10 μ F
Tolerance:	+/-2%
Nominal voltage:	400 VAC/630 VDC up to 800 VAC/1200 VDC

Dimensions on request

GAD-viva Audio-cap Silver

Self healing metallised plastic film capacitors built in black plastic tube, with synthetic resin sealing, axial connections of silver-coated copper wire.

Dielectric:	Polypropylene
Metallization:	Silver
Capacitance:	0,01 μ F up to 10 μ F
Tolerance:	+/-2%
Nominal voltage:	400 VAC/630 VDC up to 800 VAC/1200 VDC

Dimensions on request

GAD-viva Audio-cap Silver/Oil

Self healing metallised plastic film capacitors built in black plastic tube, Oil impregnated, with synthetic resin sealing, axial connections of silver-coated copper wire.

Dielectric:	Polypropylene
Metallization:	Silver
Capacitance:	0,01 μ F up to 10 μ F
Tolerance:	+/-2%
Nominal voltage:	400 VAC/630 VDC up to 800 VAC/1200 VDC

Dimensions on request



SELECTRONIC Kondensatoren

GAD-viva Audio-cap PP

TECHNICAL SPECIFICATION

Dielectric:	Polypropylene
Coatings:	Zinc metallised
Casing:	Polyester film, synthetic resin sealing
Application class:	HPF according to DIN 40040
Temperature range:	-25 °C to +85 °C
Insulating values:	approx. 20.000 sec. ($M\Omega \cdot \mu F$) measured with 100 V at +20 °C after 1 min.
Loss factor $\tan\delta$:	1 kHz 10 kHz < $1 \cdot 10^{-3}$ < $5 \cdot 10^{-3}$
Tolerance:	$\pm 3 \%$
Impulse loading:	$\leq 1 \mu F - 100 V/\mu s$; $> 1 \mu F - 50 V/\mu s$;
Connections:	tin-plated copper wires/stranded wire/insulated wire
Special feature:	extremely low internal resistance

U_N	250 V AC 400 V DC	400 V AC 630 V DC
Cap. μF	Dimensions: BxHxL (mm)	
0,01		12 x 19
0,1		13 x 19
0,22	10 x 19	14 x 27
0,33	11 x 19	12 x 27
0,47	12 x 19	14 x 27
0,68	12 x 27	16 x 27
1,0	12 x 33	19 x 27
1,5	15 x 33	17 x 33
2,2	17 x 33	20 x 33
3,3	20 x 33	24 x 33
4,7	20 x 43	26 x 38
6,8	25 x 43	29 x 43
10	29 x 43	35 x 43
15	29 x 46	31 x 50
22	35 x 46	38 x 50
33	37 x 60	43 x 72
47	42 x 60	52 x 72
100	49 x 66	

GREATER CAPACITANCE VAUES AND EACH INTERMEDIATE VALUE AVAILABLE!