

E62 and E64

HEAVY DUTY

AC CAPACITORS FOR UNIVERSAL USE

WECHSELSPANNUNGSKONDENSATOREN
FÜR DEN UNIVERSELLEN EINSATZ



Your perfect choice for universal and heavy duty AC applications

In modern applications of power electronics, AC capacitors are among the most critical links in the chain of components when it comes to long operating life, safety and reliability of operation.

Decades of proprietary ELECTRONICON experience in metallizing capacitor films and designing high-end capacitors have created our very own Know-How, for instance in special metallizing patterns, our **SINECUT™** slitting technology and optimized winding geometries. This enables us to design AC capacitors with a high specific ratio of capacitance to volume, high AC-voltage load capacity and outstanding suitability for high rms and surge currents.

The cylindrical capacitors of our universal AC series „E62“ are perfect for non-sinusoidal voltages and pulsed currents, e.g. as damping or commutation capacitors switched in parallel to thyristors, or connected in series with resistors (damping of undesirable voltage spikes during the switching of power semiconductors). They can be widely used as supporting, smoothing, and surge discharge capacitors, further in AC filters, a.m.o. The low loss factor of our MKP dielectric compensates to a large extent for the losses caused by the non-sinusoidal voltages. It goes without saying that all AC capacitors may as well be used for DC applications.

The E62s are housed in a hermetically sealed aluminium can which is filled with environmentally friendly plant oil as standard; optionally many of them can also be made available with a filling of inert gas. The gas filling is not only environmentally friendly, but also permits mounting in any position, while oil-filled capacitors should – for electrical as well as environmental considerations – always be mounted vertically.

The capacitors of the E64 range follow the same design principles as E62 but are particularly well-prepared for operation at high ambient temperatures: they can cope with Hotspot-temperatures of up to 100°C.

The excellent self-healing characteristics of our film metallization and the integrated overpressure protection (BAM™) ensure safe operation and controlled disconnection in the event of overload or failure at the end of operating life.

Die Erste Wahl für universelle und höchst anspruchsvolle Wechselspannungs-Anwendungen

In modernen Leistungselektronik-Anwendungen zählen AC Kondensatoren zu den kritischsten Komponenten im Bezug auf Lebensdauer, Sicherheit und Zuverlässigkeit.

Aus jahrzehntelanger ELECTRONICON-Erfahrung in der Entwicklung hochwertiger Kondensatoren und der Metallisierung von Kondensatorfolien ist unser eigenes Know-How erwachsen, das sich z.B. in speziellen Bedämpfungsmethoden, unserer **SINECUT™** Schneidtechnologie und optimierten Wickelgeometrien widerspiegelt. Dieses Know-How ermöglicht uns die Entwicklung von Wechselspannungskondensatoren mit hohem spezifischen Kapazitäts-Volumen-Verhältnis, hoher Wechselspannungsbearbeitbarkeit und hervorragender Eignung für hohe Effektiv- und Stoßströme.

Die zylindrischen Kondensatoren unserer universellen AC Serie „E62“ sind ideal für den Einsatz bei nicht-sinusförmigen Spannungen und impulsförmigen Strömen, z.B. als Bedämpfung- oder Kommutierungskondensatoren, geschaltet parallel zu Thyristoren oder in Serie zu Widerständen (zur Dämpfung unerwünschter Spannungsspitzen während des Schaltens von Leistungshalbleitern). Sie werden außerdem als Stütz-, Glättungs- und Stoßladekondensatoren sowie in Wechselspannungsfiltren genutzt. Der geringe Verlustfaktor der von uns verwendeten Technologien vermag die Verluste weitgehend auszugleichen, welche durch die nicht-sinusförmigen Spannungen verursacht werden. Selbstverständlich taugen alle Wechselspannungskondensatoren auch für Gleichspannungsanwendungen.

Die E62er sind in einem hermetisch dicht verschlossenen Aluminiumbecher untergebracht, der normalerweise mit ökologisch unbedenklichem Pflanzenöl gefüllt ist; optional werden viele E62er Typen auch mit Gasfüllung angeboten. Die Gasfüllung ist nicht nur besonders umweltfreundlich, sondern ermöglicht den Einbau in beliebiger Lage, während ölgefüllte Kondensatoren aus elektrischen und umwelttechnischen Gründen stets vertikal eingebaut werden sollten.

Die Kondensatoren der E64 Reihe sind nach den selben Designprinzipien ausgelegt wie E62, jedoch besonders auf den Einsatz bei hohen Umgebungstemperaturen abgestimmt: sie kommen mit Hotspot-Temperaturen von bis zu 100°C zurecht.

Für einen sicheren Schutz bei Überlastung bzw. einen kontrollierten Ausfall am Ende der Lebensdauer sorgen die ausgezeichnete Selbstheilfähigkeit unserer Folie-Metallisierung sowie ein in den Kondensatoren integrierter Überdruckmechanismus (BAM™).

E62 TAB - FAST ON TERMINALS
AC
420.....500V AC

for latest edition and updates
 check www.powercapacitors.info



AC-Capacitors for General Use
 Wechselspannungskondensatoren (allgemeine Anwendung)



UL us 10000 AFC

UL: up to_bis zu 930V AC/660V rms
 CSA: up to_bis zu 850V AC/600V rms
 Designs D1 and D2 only_Nur Maßbild D1 und D2

Standards IEC 61071, UL810, CSA22.2 No.190
 optional IEC 61881

can Gehäuse aluminium Aluminium

mounting position Einbaulage ... terminals pointing upwards stehend

filling material Füllmittel liquid, based on vegetable oil, non-PCB
 flüssig, auf Pflanzenölbasis, PCB-frei

Internal protection break-action mechanism (BAM)

Interne Sicherung Überdrucksicherung

fire load Brandlast 40 MJ/kg

C_N tolerance Toleranz ±10% (optional ±5%)
tanδ₀ 2 × 10⁻⁴

operating temperatures Grenztemperaturen

Θ_{min} ... Θ_{max} -40 ... +85°C
 (lower temperatures on request)

Θ_{HOTSPOT} ≤ 85°C

storing temperature Lagertemperatur -40 ... +85°C

statistical lifetime statistische Lebensdauer > 200 000 h

Failure rate Ausfallrate 100 FIT *

(reference interval_Referenzintervall 100000 h, Θ_{HOTSPOT} ≤70°C)

* FIT curve see pg. 32_FIT Kurve siehe Seite 32

C _N (μF)	U _N DC (V)	R _S (mΩ)	R _{th} (K/W)	I _{max} (A)	I ₁ (kA)	I _S (kA)	L _e (nH)	D ₁ × L ₁ (mm)	Design Maßbild	m (kg)	order no. Bestell-Nr.	pcs / box Stk / Box
U_N 420V AC		U_{rms} 300V		U_S 1050V		U_{BB} 1050V DC		U_{B6} 3000V AC				
15	700	3.1	21.9	16	0.3	0.9	60	35 × 58	D1	0.07	E62.D58-153D10	50 / FB4
20	700	2.6	19.2	16	0.5	1.5	60	40 × 58	D1	0.08	E62.E58-203D10	36 / FB4
22	700	5.4	15.7	10	0.3	0.9	80	35 × 81	E2	0.1	E62.D81-223E20	50 / FB3
24	700	5	15.7	10	0.3	0.9	80	35 × 81	E2	0.1	E62.D81-243E20	50 / FB3
24	700	5.7	15.7	10	0.3	0.9	80	35 × 81	D1	0.12	E62.D81-243D10	50 / FB3
35	700	4	13.9	16	0.4	1.2	80	40 × 81	D1	0.11	E62.E81-353D10	36 / FB3
50	700	3.3	12.2	16	0.57	1.71	80	45 × 81	D1	0.14	E62.F81-503D10	32 / FB3
75	700	2.7	9.5	16	0.75	2.6	80	55 × 85	D1	0.21	E62.H85-753D10	18 / FB3
80	700	4.7	9.5	16	0.9	2.7	80	55 × 85	D1	0.21	E62.H85-803D10	18 / FB3
90	700	2.5	8.7	16	1	3	80	60 × 85	D1	0.25	E62.K85-903D10	18 / FB3
220	700	4.5	4.3	16	1.2	3.6	130	65 × 160	D2	0.6	E62.L16-224D20	10 / FB7
300	700	4.1	3.7	16	1.6	4.8	90	75 × 160	D2	0.7	E62.M16-304D20	8 / FB7
U_N 500V AC		U_{rms} 360V		U_S 1260V		U_{BB} 1260V DC		U_{B6} 3000V AC				
1	840	18.6	37.1	6	0.1	0.3	60	25 × 48	E1	0.03	E62.B48-102E10	98 / FB4
20	840	5.4	13.8	16	0.3	0.8	80	40 × 81	D1	0.11	E62.E81-203D10	36 / FB3
25	840	4.3	13.8	16	0.4	1.1	80	40 × 81	D1	0.11	E62.E81-253D10	36 / FB3
33	840	3.7	12.2	16	0.5	1.4	80	45 × 81	D1	0.14	E62.F81-333D10	32 / FB3
50	840	3	9.5	16	0.7	2.1	80	55 × 85	D1	0.21	E62.H85-503D10	18 / FB3
60	840	2.8	8.7	16	0.8	2.5	80	60 × 85	D1	0.25	E62.K85-603D10	18 / FB3
160	840	4.2	4.3	16	1	3	100	65 × 160	D2	0.6	E62.L16-164D20	10 / FB7
200	840	3.9	3.7	16	1.3	3.9	140	75 × 160	D2	0.7	E62.M16-204D20	8 / FB7



Other values, dimensions and terminal combinations available on request.
 Andere Werte, Abmessungen und Anschlußkombinationen auf Anfrage erhältlich.



E62 TAB - FAST ON TERMINALS

AC 2100...5000V AC



C_N (μF)	U_{DC} (V)	R_S ($\text{m}\Omega$)	R_{th} (K/W)	I_{max} (A)	\hat{I} (kA)	I_S (kA)	L_e (nH)	$D_1 \times L_1$ (mm)	Design Maßbild	m (kg)	order no. Bestell-Nr.	pcs / box Stk / Box
U_N 2100V AC		U_{rms} 1500V			U_S 54000V		U_{BB} 5400V DC		U_{BG} 6200V AC			
0.1	3600	12.7	25.6	9	0.1	0.3	60	30 × 58	E4	0.07	E62.C58-101E40	50 / FB4
0.15	3600	10.4	25.6	9	0.1	0.3	60	30 × 58	E4	0.07	E62.C58-151E40	50 / FB4
0.22	3600	7.5	25.6	10	0.2	0.6	60	30 × 58	E4	0.07	E62.C58-221E40	50 / FB4
0.22	3600	6.8	16	16	0.15	0.45	100	45 × 62	B2	0.1	E62.F62-221B20	21 / FB3
0.47	3600	5.7	16	16	0.4	1.2	100	45 × 62	B2	0.1	E62.F62-471B21	21 / FB3
0.68	3600	4.7	14.4	16	0.5	1.5	100	50 × 62	B2	0.15	E62.G62-681B20	21 / FB2
1	3600	7.4	9.4	16	0.8	2.4	140	45 × 105	B2	0.18	E62.F10-102B21	21 / FB1
1.5	3600	5.7	7.7	16	1.2	3.6	120	55 × 105	B2	0.26	E62.H10-152B20	18 / FB0
2	3500	5.9	9.4	16	0.8	2.25	120	45 × 105	B2	0.18	E62.F10-202B20	21 / FB1
U_N 2400V AC		U_{rms} 1700V			U_S 6000V		U_{BB} 6000V DC		U_{BG} 6800V AC			
2	4000	5.6	8.5	16	0.5	1.5	120	50 × 105	B2	0.24	E62.G10-202B20	21 / FB0
2.2	4000	5	7.4	16	0.5	1.5	120	55 × 105	B2	0.26	E62.H10-222B20	18 / FB0
4	4000	7.5	5.4	16	0.6	1.8	190	55 × 151	B2	0.4	E62.H15-402B20	12 / FB8
U_N 4000V AC		U_{rms} 2800V			U_S 7500V		U_{BB} 7500V DC		U_{BG} 8200V AC			
0.1	5000	9.6	12.2	16	0.4	1.2	100	45 × 81	B2	0.14	E62.F81-101B20	21 / FB1
0.15	5000	7	12.2	16	0.5	1.5	90	45 × 81	B2	0.14	E62.F81-151B20	21 / FB1
0.22	5000	14.5	9.4	16	0.4	1.3	140	45 × 105	B2	0.18	E62.F10-221B21	21 / FB1
0.22	5000	6.9	7.1	16	0.7	2.1	140	60 × 105	CD	0.3	E62.K10-221C00	10 / FB0
0.33	5000	14	9.4	16	0.3	0.9	140	45 × 105	B2	0.18	E62.F10-331B20	21 / FB1
0.39	5000	12.3	9.4	16	0.3	0.9	140	45 × 105	B2	0.18	E62.F10-391B20	21 / FB1
0.47	5000	10.8	9.4	16	0.37	1.1	140	45 × 105	B2	0.18	E62.F10-471B20	21 / FB1
0.5	5000	10.4	9.4	16	0.5	1.5	140	45 × 105	B2	0.18	E62.F10-501B20	21 / FB1
0.68	5000	8.5	7.7	16	0.5	1.5	120	55 × 105	B2	0.26	E62.H10-681B20	18 / FB0
1.5	4000	5.2	4.2	16	1.4	4.2	140	75 × 140	CD	0.6	E62.M14-152C00	5 / FB8
2	4000	5.1	3.7	16	1.4	4.2	140	85 × 140	CD	0.8	E62.N14-202C00	5 / FB8
U_N 5000V AC		U_{rms} 3500V			U_S 7500V		U_{BB} 8750V					
0.1	5000	14.9	9.4	16	0.4	1.1	140	45 × 105	B2	0.18	E62.F10-101B20	21 / FB1
0.15	5000	12.9	9.4	16	0.44	1.4	140	45 × 105	B2	0.18	E62.F10-151B20	21 / FB1
0.22	5000	14.5	9.4	16	0.44	1.4	140	45 × 105	B2	0.18	E62.F10-221B20	21 / FB1
0.33	5000	8.7	6.2	16	0.73	2.19	140	60 × 120	CD	0.3	E62.K12-331C00	18 / FB7
0.47	5000	7.1	6.2	16	0.92	2.76	140	60 × 120	CD	0.3	E62.K12-471C00	18 / FB7
0.68	5000	8.9	5.3	16	0.94	2.82	140	60 × 140	CD	0.4	E62.K14-681C00	12 / FB8
1	5000	6.5	4.2	16	1.39	4.17	140	75 × 140	CD	0.6	E62.M14-102C00	5 / FB8
1.5	5000	4.8	3.7	16	2.08	6.24	140	85 × 140	CD	0.8	E62.N14-152C00	5 / FB8
2	5000	3.9	3.4	16	2.77	8.31	140	95 × 140	CD	1	E62.P14-202C00	3 / FB8



CAPACITORS FOR APPLICATIONS IN POWER ELECTRONICS

www.electronicon.com




E51/E53/E55
AC/DC FILM CAPACITORS




HIGH VOLTAGES, HEAVY CURRENTS, AND LOW INDUCTANCE

ELECTRONICON
always in charge

www.electronicon.com



E57/E59/SR17™ AC AND DC CAPACITORS
WITH LARGE CAPACITANCES



STANDARD OR SPECIAL – YOUR CHOICE

ELECTRONICON
always in charge

www.electronicon.com



PK16™ AND E61
– HIGH DENSITY DC FILM
CAPACITORS



THE IDEAL CHOICE FOR YOUR DC LINK

ELECTRONICON
always in charge

www.electronicon.com



E62 AND E64
HEAVY DUTY AC CAPACITORS



THE PERFECT CHOICE FOR YOUR AC/DC APPLICATION

ELECTRONICON
always in charge

www.electronicon.com



E62-3ph AND 3HF
HEAVY DUTY THREE PHASE AC FILTER CAPACITORS



HIGH-END FOR THE HEART OF YOUR AC FILTER

ELECTRONICON
always in charge

www.electronicon.com



PEC APPLICATION NOTES / ANWENDUNGSHINWEISE



ELECTRONICON
always in charge

always in charge

EXCELLENT EXPERIENCE IN CAPACITOR MAKING FOR OVER 75 YEARS

Gera has been a centre of capacitor making since 1938. ELECTRONICON Kondensatoren GmbH which emerged from previous RFT/VEB ELEKTRONIK Gera in 1992, has become one of Europe's leading capacitor manufacturers supplying customers worldwide and being an open and competent partner for manufacturers and users of power factor correction equipment, for many manufacturers of drives, power electronics, home appliances, and for the lighting industry. Regular investments in advanced and environmentally sound technologies guarantee the highest levels in manufacture and quality to modern standards which are approved and monitored by leading certification authorities.



In today's globalised competition, we distinguish ourselves by

- Absolute reliability and safety of our products
- Close co-operation between manufacturer and client to meet both technical and commercial requirements
- Improvement and development of our technical expertise in capacitor design and manufacture, as well as film coating, with special attention paid to the MKPg-technology
- Early identification and incorporation of new trends and methods in the manufacturing of capacitors
- Flexibility and punctual fulfilment of our commercial obligations

Our experienced development engineers are competent and responsible for both implementing the latest technical trends applicable to our products and ensuring that our products adapt to the challenges of traditional and new markets.

The close and intense co-operation between the departments of Marketing & Sales, Research & Development, and Production has become the keystone of our success. ELECTRONICON is continually striving to establish a similarly close and interactive relationship with its distributors and direct clients both in home and overseas markets, to become not just one out of many suppliers, but your preferred partner for ideas and solutions.

ELECTRONICON®

Germany • 07549 Gera • Keplerstrasse 2
Fon +49 365 / 734 61 00 • Fax +49 365 / 734 61 10
E-Mail: sales@electronicon.com, www.electronicon.com

