Product Selector Guide

IXYS UK WESTCODE

Heavy Duty AC/DC Capacitors

June 2013 Issue 1

The perfect choice for universal or heavy duty AC/DC 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.

The cylindrical capacitors of our E62, universal AC/DC series 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 non-sinusoidal voltages. It goes without saying all AC capacitors may as well be used for DC applications.

This range are housed in hermetically sealed aluminium cans which are 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 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

Features and Benefits

- Housed in hermetically sealed aluminium cans
- Long operating life
- Integrated over-pressure protection
- Range of connection options available
- Available up to 5000V DC
- Self-healing design



Applications

- AC Filtering
- Power Factor Correction
- UPS Applications
- Wind Power Application
- Harmonic Filtering

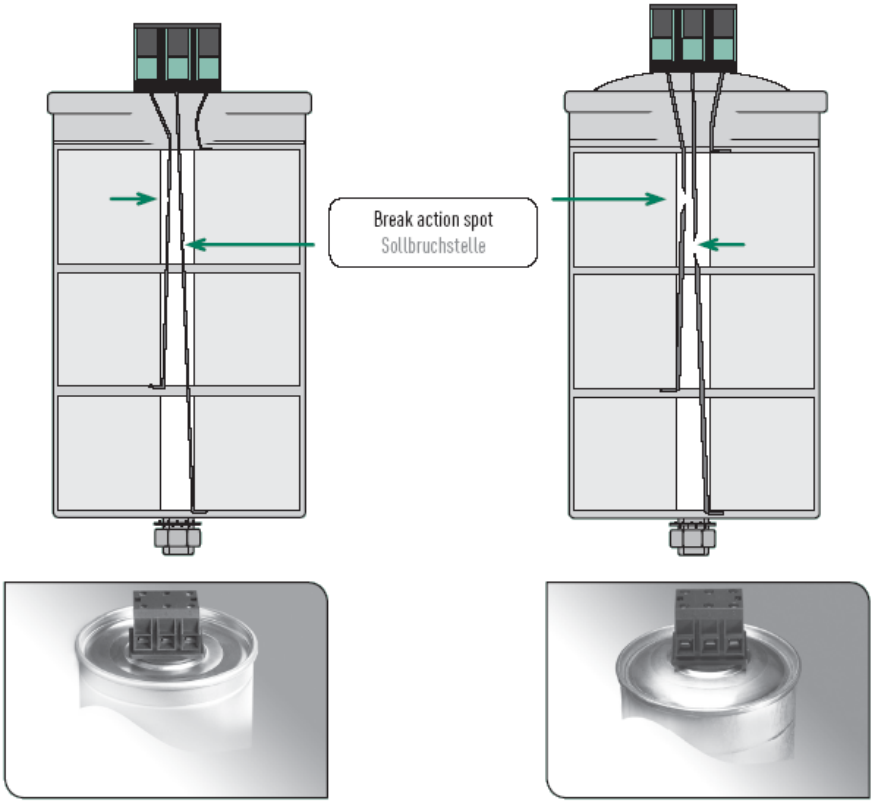
Function of the Break Action Mechanism (BAM™)

In the event of overvoltage or thermal overload or ageing at the end of the capacitors useful service life, an increasing number of self-healing breakdowns may cause rising pressure inside the capacitor.

To prevent it from bursting, the capacitor is fitted with an obligatory break action mechanism, BAM™.

The BAMTM is based on an attenuated spot at one of the connecting wires inside the capacitor. With rising pressure the case begins to expand, mainly by opening the folded crimp and pushing the lid upwards. As a result, the prepared connecting wire is separated at the attenuated spot, and the current path is interrupted irreversibly.

Principle of the Break Action Mechanism



Capacitor before functioning of BAM

Capacitor after functioning of BAM

Warning

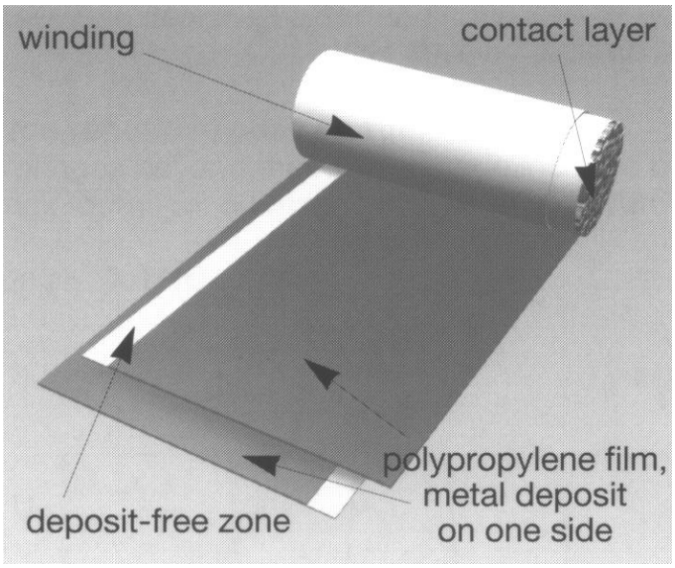
It has to be noted that this safety system can act properly only within the permitted limits of loads and overloads. The simple presence of a safety mechanism does not mean that catastrophic failures are completely impossible. Strong overvoltages, permanent external heat and heavy current overload, e.g. during harmonic resonances, may cause sudden, uncontrollable rise in temperature and pressure inside the can which may not leave sufficient time for the break action mechanism to function properly, and result in explosion and fire.

The MKP-type capacitors consist of a low-loss dielectric formed by pure polypropylene film. A thin self-healing mixture of zinc and aluminium is metallized directly on one side of the PP-film under vacuum. In some cases, additional unmetallized layers are added between the metallized ones.

The plastic film is wound into stable cylindrical windings on the most modern automated equipment. The ends of the capacitor windings are contacted by spraying with a metal contact layer facilitating a high current load and ensuring a low-inductance connection between the terminals and windings.

Our long-term experience as well as on-going research and improvements in this technology ensure the excellent self-healing characteristics of the dielectric and a long operating life of all our capacitors.

The link between PP-film and zinc contact layer is highly stressed during high surge or rms current and therefore considered very critical for operating life and reliability of the capacitor. By cutting the film for selected types in a wave-like manner, we increase the contact surface between film and zinc layer which substantially reduces this strain.



The use of filling materials in capacitors is necessary in order to insulate the capacitor electrodes from oxygen, humidity and other environmental interference. Without such insulation, the metal coating would corrode, an increasing number of partial discharges would occur, the capacitor would lose more and more of its capacitance and suffer increased dielectric losses, and a reduced operating life.

Therefore, an elaborate vacuum drying procedure is initiated immediately after insertion of the capacitor elements into the aluminium case and biologically degradable plant oil or solidifying PUR resin is introduced. Both protect the winding from environmental influence and provide an extended life-expectancy and stable capacitance.

Nomenclature

All parts are numbered using the following system

Example – E53.N51-204H1W

E53 – Capacitor type
N – Diameter (See table below)
51 – length ÷ 10
204 – Capacitance to nearest 10µF
H1 – mounting/termination arrangement
W – Fixed code

Diameter code table

Code	Diameter (mm)	Code	Diameter (mm)
C	30	**M**	75
D	35	**N**	85
E	40	**P**	95
F	45	**Q**	100
G	50	**R**	116
H	55	**S**	136
K	60	**T**	142
L	65	**U**	172

Heavy Duty AC/DC Capacitors
E62 – AC/DC
420VAC –5000VAC/700VDC – 5000VDC



Standards:	IEC 61071
	Optional – IEC61881
Can:	Aluminium
Mounting position:	Terminals pointing upwards
Filling material:	Liquid, based on vegetable oil, non-PCB
Internal protection:	Break Action Mechanism (BAM™)
Fire load:	40MJ/kg
C_n tolerance:	±10%
Insulation strength $C \times R_{is}$:	5000s
$\tan\delta_0$:	2×10^{-4}
Limit temperatures:	
$\Theta_{min} - \Theta_{max}$:	-25°C - +85°C (Lower temperature available on request)
$\Theta_{max\ (HOTSPOT)}$ ø67-85:	≤+85°C
Storage Temperature:	-40°C - +85°C
Failure rate:	100 FIT

Reference interval – 100000hrs, $\Theta_{(HOTSPOT)}$ ≤70°C

Heavy Duty AC/DC Capacitors
E62
$700V_{DC}/420V_{AC}$

Part number	Capacitance C_n µF	V_{DC} V	V_{AC} V	L_e nH	I_{max} A	I_{pk} kA	R_S mΩ	Diameter mm	Length mm
E62.E58-203D1W	20	700	420	60	16	0.50	2.60	40	58
E62.D81-223E2W	22	700	420	80	10	0.30	5.40	35	81
E62.D81-243E2W	24	700	420	80	10	0.30	5.00	35	81
E62.E81-353D1W	35	700	420	80	16	0.40	4.00	40	81
E62.F81-503D1W	50	700	420	80	16	0.57	3.30	45	81
E62.G85-603G1W	60	700	420	100	32	0.70	3.30	50	85
E62.H85-753D1W	75	700	420	80	16	0.75	2.70	55	85
E62.H85-803D1W	80	700	420	80	16	0.90	4.70	55	85
E62.K85-903D1W	90	700	420	80	16	1.00	2.50	60	85
E62.L95-104G1W	100	700	420	100	40	1.15	3.10	65	95
E62.M10-124C6W	120	700	420	140	50	1.40	1.00	75	105
E62.L10-134G1W	130	700	420	110	40	1.20	3.40	65	109
E62.M10-154L1W	150	700	420	80	43	1.70	2.00	75	105
E62.N10-174C6W	170	700	420	140	50	2.00	0.82	85	105
E62.N10-184L1W	180	700	420	110	43	2.00	1.30	85	105
E62.L14-204G1W	200	700	420	140	30	1.20	4.40	65	145
E62.P10-224C6W	220	700	420	140	50	2.50	0.70	95	105
E62.L16-224D2W	220	700	420	130	16	1.20	4.50	65	160
E62.M16-304D2W	300	700	420	90	16	1.60	4.10	75	160
E62.N24-404C6W	400	700	420	160	80	4.50	0.68	85	245
E62.P17-474C6W	470	700	420	160	50	5.30	0.53	95	176
E62.Q17-504C6W	500	700	420	160	80	5.70	0.57	100	176
E62.R17-704M1W	700	700	420	130	80	8.00	0.60	116	176
E62.R24-115M1W	1100	700	420	130	80	12.80	0.49	116	245
E62.S24-155M1W	1500	700	420	130	80	15.00	0.39	136	245
E62.S32-205C6W	2000	700	420	190	100	15.00	0.60	136	320

Other values of capacitance available, please consult factory

Heavy Duty AC/DC Capacitors

E62

840-1000V_{DC}/500-640V_{AC}

Part number	Capacitance C_n µF	V_{DC} V	V_{AC} V	L_e nH	I_{max} A	I_{pk} kA	R_S mΩ	Diameter mm	Length mm
E62.B48-102E1W	1	840	500	60	6	0.10	18.60	25	48
E62.E81-253D1W	25	840	500	80	16	0.40	4.30	40	81
E62.F81-333D1W	33	840	500	80	16	0.50	3.70	45	81
E62.G85-403G1W	40	840	500	100	30	0.60	3.60	50	85
E62.H85-503D1W	50	840	500	80	16	0.70	3.00	55	85
E62.K85-603D1W	60	840	500	80	16	0.80	2.80	60	85
E62.L95-753G1W	75	840	500	100	40	1.00	2.30	65	95
E62.M10-104L1W	100	840	500	110	43	1.40	2.10	75	105
E62.L16-164D2W	160	840	500	110	43	2.20	1.20	65	160
E62.P10-164L1W	160	840	500	100	16	1.00	4.20	95	105
E62.M16-204D2W	200	840	500	130	43	2.80	2.20	75	160
E62.M17-204L1W	200	840	500	140	16	1.30	3.90	75	176
E62.P17-304C6W	300	840	500	160	80	4.10	0.60	95	176
E62.P17-304M1W	300	840	500	130	80	4.10	0.70	95	176
E62.Q17-354M1W	350	840	500	130	80	4.80	0.80	100	176
E62.R17-504M1W	500	840	500	130	80	6.90	0.62	116	176
E62.R24-624C6W	620	840	500	160	100	9.00	0.58	116	245
E62.R24-754C6W	750	840	500	170	100	10.00	0.57	116	245
E62.S24-105C6W	1000	840	500	170	100	14.00	0.56	136	245
E62.S32-155C6W	1500	840	500	190	100	15.00	0.50	136	320
E62.C58-472E1W	4.7	1000	640	60	10	0.24	5.40	30	58
E62.C58-502E1W	5	1000	640	60	10	0.26	4.90	30	58
E62.D58-602E2W	6	1000	640	60	16	0.35	4.50	35	58
E62.D58-682E2W	6.8	1000	640	60	16	0.35	4.10	35	58
E62.E58-103D1W	10	1000	640	60	16	0.40	3.20	40	58
E62.E81-153D1W	15	1000	640	80	16	0.24	5.50	40	81
E62.G62-153G1W	15	1000	640	100	25	0.24	2.90	50	62
E62.E81-183D1W	18	1000	640	80	16	0.29	4.80	40	81
E62.F81-223D1W	22	1000	640	80	16	0.35	4.30	45	81
E62.F81-253D1W	25	1000	640	80	16	0.40	4.00	45	81
E62.G85-303G1W	30	1000	640	100	33	0.50	3.90	50	85
E62.H85-403D1W	40	1000	640	80	16	0.60	3.40	55	85
E62.K85-473D1W	47	1000	640	80	16	0.80	2.90	60	85
E62.L95-503G1W	50	1000	640	100	40	0.80	3.40	65	95
E62.L10-683G1W	68	1000	640	100	30	0.90	3.70	65	109
E62.M10-753L1W	75	1000	640	110	43	1.20	2.70	75	105
E62.N10-803L1W	80	1000	640	110	43	1.30	1.40	85	105
E62.N12-104C6W	100	1000	640	100	80	3.00	0.53	85	120
E62.L16-124D2W	120	1000	640	110	43	1.90	1.60	65	160
E62.P10-124L1W	120	1000	640	130	16	0.90	5.00	95	105
E62.M17-154K1W	150	1000	640	110	16	1.10	4.60	75	176
E62.M16-154D2W	150	1000	640	100	30	2.30	1.50	75	160
E62.P17-204C6W	200	1000	640	160	80	3.50	0.70	95	176
E62.Q17-254C6W	250	1000	640	160	80	4.00	0.63	100	176
E62.P17-254L1W	250	1000	640	130	43	4.00	1.30	95	176
E62.R17-354C6W	350	1000	640	160	80	5.60	0.57	116	176
E62.R24-504C6W	500	1000	640	170	100	7.80	0.60	116	245
E62.R32-754C6W	750	1000	640	190	100	12.00	0.64	116	320
E62.S24-804C6W	800	1000	640	170	100	12.80	0.63	136	245
E62.S32-105C6W	1000	1000	640	190	100	15.60	0.62	136	320

Other values of capacitance available, please consult factory

Heavy Duty AC/DC Capacitors

E62

1120-1260V_{DC}/680-750V_{AC}

Part number	Capacitance C_n µF	V_{DC} V	V_{AC} V	L_e nH	I_{max} A	I_{pk} kA	R_S mΩ	Diameter mm	Length mm
E62.C58-332E1W	3.3	1120	680	60	15	0.17	6.50	30	58
E62.E81-123D1W	12	1120	680	80	16	0.20	5.80	40	81
E62.F81-203D1W	20	1120	680	80	16	0.40	4.20	45	81
E62.G85-253G1W	25	1120	680	100	28	0.50	4.00	50	85
E62.H85-303D1W	30	1120	680	80	16	0.50	3.30	55	85
E62.K85-333D1W	33	1120	680	80	16	0.60	3.20	60	85
E62.G12-403G1W	40	1120	680	100	38	0.70	3.50	50	124
E62.L95-403G1W	40	1120	680	120	25	0.44	5.90	65	95
E62.M10-603L1W	60	1120	680	110	43	1.10	2.30	75	105
E62.N10-683L1W	68	1120	680	110	43	1.20	1.50	85	105
E62.L16-903D2W	90	1120	680	110	16	0.78	4.80	65	160
E62.Q10-104L1W	100	1120	680	100	16	0.87	5.10	100	105
E62.M16-104D2W	100	1120	680	110	43	1.80	1.30	75	160
E62.M17-114K1W	110	1120	680	100	30	2.00	1.50	75	176
E62.P17-184L1W	180	1120	680	130	43	3.30	1.40	95	176
E62.Q17-204C6W	200	1120	680	160	80	3.70	0.66	100	176
E62.R17-284C6W	280	1120	680	160	80	5.10	0.60	116	176
E62.R24-404C6W	400	1120	680	170	100	7.30	0.60	116	245
E62.S24-604C6W	600	1120	680	170	100	10.70	0.56	136	245
E62.S32-804C6W	800	1120	680	190	100	14.80	0.63	136	320
E62.E81-103D1W	10	1260	750	110	16	1.35	6.10	40	81
E62.G62-103G1W	10	1260	750	110	20	1.20	3.10	50	62
E62.F85-153B2W	15	1260	750	110	16	0.90	5.90	45	85
E62.G85-203G1W	20	1260	750	100	27	1.20	4.20	50	85
E62.K85-223D1W	22	1260	750	120	16	1.50	3.50	60	85
E62.H85-243G1W	24	1260	750	110	29	1.50	3.80	55	85
E62.K85-263D1W	26	1260	750	120	16	1.50	3.40	60	85
E62.K85-293D1W	29	1260	750	120	16	1.80	3.20	60	85
E62.L95-333G1W	33	1260	750	100	37	2.00	3.60	65	95
E62.M10-473L1W	47	1260	750	110	43	2.90	2.40	75	105
E62.N10-603L1W	60	1260	750	110	43	3.70	1.50	85	105
E62.L16-703D2W	70	1260	750	140	16	2.00	5.60	65	160
E62.P10-753L1W	75	1260	750	110	43	4.60	1.40	95	105
E62.Q10-803L1W	80	1260	750	100	30	4.80	1.60	100	105
E62.M17-803K1W	80	1260	750	110	43	5.00	1.40	75	176
E62.Q17-154C6W	150	1260	750	130	43	9.30	1.40	100	176
E62.P17-154L1W	150	1260	750	160	80	9.30	0.70	95	176
E62.R17-224C6W	220	1260	750	160	80	13.50	0.61	116	176
E62.R24-334C6W	330	1260	750	170	100	20.00	0.61	116	245
E62.S24-504C6W	500	1260	750	170	100	20.00	0.56	136	245
E62.S32-604C6W	600	1260	750	190	100	20.00	0.64	136	320

Other values of capacitance available, please consult factory

Heavy Duty AC/DC Capacitors

E62

1400-2000V_{DC}/850-1200V_{AC}

Part number	Capacitance C_n µF	V_{DC} V	V_{AC} V	L_e nH	I_{max} A	I_{pk} kA	R_S mΩ	Diameter mm	Length mm
E62.C58-202E4W	2	1400	850	60	10	0.18	8.10	30	58
E62.C81-402E4W	4	1400	850	80	10	0.18	11.70	30	81
E62.F85-123B2W	12	1400	850	110	16	0.30	6.20	45	85
E62.G85-153G1W	15	1400	850	80	25	0.30	4.60	50	85
E62.G85-163G1W	16	1400	850	100	30	0.40	4.50	50	85
E62.L95-253G1W	25	1400	850	100	40	0.60	3.90	65	95
E62.L10-303G1W	30	1400	850	110	30	0.60	4.40	65	109
E62.M10-333L1W	33	1400	850	110	38	0.80	2.70	75	105
E62.M17-403K1W	40	1400	850	110	30	0.90	2.10	60	176
E62.N10-473L1W	47	1400	850	110	43	1.10	2.20	85	105
E62.P10-603L1W	60	1400	850	110	43	1.40	1.40	95	105
E62.M17-703K1W	70	1400	850	110	30	1.60	1.60	75	176
E62.P17-124C6W	120	1400	850	160	80	2.70	0.74	95	176
E62.Q17-134C6W	130	1400	850	160	80	3.00	0.71	100	176
E62.R17-184C6W	180	1400	850	160	80	4.10	0.63	116	176
E62.R24-274C6W	270	1400	850	170	100	6.20	0.62	116	245
E62.S24-404C6W	400	1400	850	170	100	9.20	0.58	136	245
E62.S32-504C6W	500	1400	850	190	100	11.40	0.40	136	320
E62.C58-152E4W	1.5	1680	1000	60	10	0.30	5.00	30	58
E62.C81-302E4W	3	1680	1000	80	10	0.35	7.20	30	81
E62.F85-802B2W	8	1680	1000	110	16	0.50	5.00	45	85
E62.G85-103G1W	10	1680	1000	100	32	0.60	3.60	50	85
E62.H85-123G1W	12	1680	1000	110	30	0.70	3.00	55	85
E62.L95-163G1W	16	1680	1000	110	40	0.95	3.30	65	95
E62.L95-183G1W	18	1680	1000	100	40	1.00	3.20	65	95
E62.G15-203G1W	20	1680	1000	120	25	0.50	6.20	50	151
E62.M10-203C6W	20	1680	1000	140	50	1.20	1.20	75	105
E62.K17-283K1W	28	1680	1000	140	50	1.60	0.94	60	176
E62.N10-283C6W	28	1680	1000	110	30	1.60	1.70	85	105
E62.P10-333C6W	33	1680	1000	140	50	1.90	0.85	95	105
E62.M17-463K1W	46	1680	1000	110	30	2.60	1.40	75	176
E62.P17-683C6W	68	1680	1000	160	80	3.90	0.65	95	176
E62.Q17-803C6W	80	1680	1000	160	80	4.60	0.61	100	176
E62.R17-124C6W	120	1680	1000	160	80	7.00	0.54	116	176
E62.R24-184C6W	180	1680	1000	170	100	10.40	0.57	116	245
E62.R32-224C6W	220	1680	1000	180	100	14.20	0.64	116	320
E62.S24-254C6W	250	1680	1000	170	100	14.50	0.54	136	245
E62.S32-334C6W	330	1680	1000	190	100	15.00	0.61	136	320
E62.C58-501E4W	0.5	2000	1200	60	10	0.16	5.90	30	58
E62.C58-102E4W	1	2000	1200	60	10	0.25	6.00	30	58
E62.C93-222E4W	2.2	2000	1200	90	10	0.20	11.10	30	93
E62.G62-332B2W	3.3	2000	1200	80	16	0.80	4.00	50	62
E62.G85-682G1W	6.8	2000	1200	100	33	0.50	3.70	50	85
E62.L95-103G1W	10	2000	1200	100	40	0.70	3.70	65	95
E62.L10-153G1W	15	2000	1200	120	40	0.80	3.90	65	109
E62.L16-303G1W	30	2000	1200	130	40	1.00	5.30	65	160
E62.Q10-323C6W	32	2000	1200	140	50	2.00	0.79	100	105
E62.M17-353K1W	35	2000	1200	110	30	2.30	1.50	75	176
E62.N17-403C6W	40	2000	1200	160	80	2.70	0.76	85	176
E62.R17-104C6W	100	2000	1200	150	80	3.20	1.00	116	176

Other values of capacitance available, please consult factory

Heavy Duty AC/DC Capacitors

E62

2250-3400V_{DC}/1350-2000V_{AC}

Part number	Capacitance C_n µF	V_{DC} V	V_{AC} V	L_e nH	I_{max} A	I_{pk} kA	R_S mΩ	Diameter mm	Length mm
E62.C81-152E4W	1.5	2250	1350	80	10	0.20	9.90	30	81
E62.F85-402B2W	4	2250	1350	130	16	0.32	6.00	45	85
E62.G85-402G1W	4	2250	1350	120	26	0.32	5.00	50	85
E62.G85-502G1W	5	2250	1350	100	25	0.40	4.40	50	85
E62.H85-682G1W	6.8	2250	1350	110	25	0.50	4.00	55	85
E62.K10-752K1W	7.5	2250	1350	110	30	0.60	3.00	60	105
E62.M10-103C6W	10	2250	1350	140	45	0.80	1.60	75	105
E62.M10-133K1W	13	2250	1350	110	30	1.00	2.30	75	105
E62.N10-153C6W	15	2250	1350	120	50	1.10	1.20	85	105
E62.N10-163C6W	16	2250	1350	140	50	1.20	1.10	85	105
E62.P10-203C6W	20	2250	1350	140	50	1.50	0.96	95	105
E62.M17-223C6W	22	2250	1350	160	80	1.90	0.97	75	176
E62.P17-403C6W	40	2250	1350	160	80	3.10	0.71	95	176
E62.Q17-473C6W	47	2250	1350	160	80	3.60	0.67	100	176
E62.R17-683C6W	68	2250	1350	160	80	5.30	0.59	116	176
E62.R24-104C6W	100	2250	1350	170	100	7.70	0.60	116	245
E62.S24-154C6W	150	2250	1350	170	100	11.60	0.56	136	245
E62.S32-204C6W	200	2250	1350	190	100	15.00	0.62	136	320
E62.C58-331E4W	0.33	2800	1700	60	10	0.20	6.50	30	58
E62.C58-471E4W	0.47	2800	1700	60	10	0.20	8.20	30	58
E62.C81-102E4W	1	2800	1700	80	10	0.20	11.50	30	81
E62.F62-102B2W	1	2800	1700	150	16	0.40	5.80	45	62
E62.F85-222B2W	2.2	2800	1700	80	10	0.20	7.30	45	85
E62.F85-252B2W	2.5	2800	1700	120	16	0.20	6.80	45	85
E62.G85-332B2W	3.3	2800	1700	120	16	0.30	5.90	50	85
E62.H85-472B2W	4.7	2800	1700	120	16	0.50	5.00	55	85
E62.M10-682C6W	6.8	2800	1700	140	46	0.70	1.80	75	105
E62.N10-103C6W	10	2800	1700	140	50	1.00	1.30	85	105
E62.P10-123C6W	12	2800	1700	140	50	1.20	1.20	95	105
E62.P17-253C6W	25	2800	1700	160	80	2.40	0.80	95	176
E62.Q17-303C6W	30	2800	1700	160	80	2.90	0.73	100	176
E62.R17-403C6W	40	2800	1700	160	80	3.90	0.65	116	176
E62.R17-503C6W	50	2800	1700	150	80	2.30	1.60	116	176
E62.R24-603C6W	60	2800	1700	170	100	5.80	0.64	116	245
E62.S24-903C6W	90	2800	1700	170	100	8.70	0.58	136	245
E62.S32-134C6W	125	2800	1700	190	10	12.10	0.64	136	320
E62.M17-103C6W	10	3400	2000	170	40	1.20	2.10	75	176
E62.P17-153C6W	15	3400	2000	170	40	1.00	1.60	95	176
E62.Q17-203C6W	20	3400	2000	160	50	2.30	1.30	100	176
E62.R17-303C6W	30	3400	2000	160	50	3.60	1.00	116	176
E62.R32-403C6W	40	3400	2000	190	80	4.60	1.10	116	320
E62.R32-603C6W	60	3400	2000	180	100	6.00	1.00	116	320
E62.S32-903C6W	90	3400	2000	190	100	9.70	1.00	136	320

Other values of capacitance available, please consult factory

Heavy Duty AC/DC Capacitors

E62

3600-5000V_{DC}/2100-4000V_{AC}

Part number	Capacitance C_n µF	V_{DC} V	V_{AC} V	L_e nH	I_{max} A	I_{pk} kA	R_S mΩ	Diameter mm	Length mm
E62.C58-101E4W	0.1	3600	2100	60	9	0.10	12.70	30	58
E62.C58-151E4W	0.15	3600	2100	60	9	0.10	10.40	30	58
E62.C58-221E4W	0.22	3600	2100	60	10	0.20	7.50	30	58
E62.G62-681B2W	0.68	3600	2100	100	16	0.50	4.70	50	62
E62.H10-152B2W	1.5	3600	2100	120	16	1.20	5.70	55	105
E62.R20-333C6W	33	3600	2100	150	80	3.30	1.20	116	205
E62.R32-403CRW	40	3600	2100	180	100	5.40	1.10	116	320
E62.G10-202B2W	2	4000	2400	120	16	0.50	5.60	50	105
E62.H15-402B2W	4	4000	2400	190	16	0.60	7.50	55	151
E62.M17-682C6W	6.8	4000	2400	160	40	0.90	2.50	75	176
E62.N17-103C6W	10	4000	2400	170	40	1.40	1.90	85	176
E62.R17-223CRW	22	4000	2400	160	50	2.80	1.10	116	176
E62.F81-101B2W	0.1	5000	4000	100	16	0.40	9.60	45	81
E62.F81-151B2W	0.15	5000	4000	90	16	0.50	7.00	45	81
E62.F10-331B2W	0.33	5000	4000	140	16	0.30	14.00	45	105
E62.F10-471B2W	0.47	5000	4000	140	16	0.37	10.80	45	105
E62.H10-681B2W	0.68	5000	4000	120	16	0.50	8.50	55	105
E62.M12-102CRW	1	5000	4000	150	40	0.80	3.90	75	120
E62.P12-222CRW	2.2	5000	4000	150	40	1.70	2.00	95	120
E62.P20-472CRW	4.7	5000	4000	170	40	3.70	1.20	95	205
E62.R20-602CRW	6	5000	4000	160	80	4.70	0.80	116	205
E62.R28-103CRW	10	5000	4000	180	50	6.00	2.60	116	280

Other values of capacitance available, please consult factory

Heavy Duty AC Capacitors

E62 - AC

1200V_{AC} and 5000V_{AC}

Part number	Capacitance C_n µF	V_{AC} V	L_e nH	I_{max} A	I_{pk} kA	R_S mΩ	Diameter mm	Length mm
E62.B58-101E1W	0.1	1200	60	8	0.10	15.00	25	58
E62.C58-151E1W	0.15	1200	60	8	0.10	10.40	30	58
E62.C58-221E1W	0.22	1200	60	10	0.20	7.50	30	58
E62.C58-331E1W	0.33	1200	60	10	0.20	6.50	30	58
E62.C58-471E1W	0.47	1200	60	10	0.20	8.20	30	58
E62.C58-501E1W	0.5	1200	60	10	0.16	5.90	30	58
E62.C58-681E1W	0.68	1200	60	10	0.22	6.60	30	58
E62.C58-102E1W	1	1200	60	10	0.25	6.00	30	58
E62.C81-152E1W	1.5	1200	60	10	0.23	9.90	30	81
E62.C81-202E1W	2	1200	60	10	0.25	8.70	30	81
E62.C93-222E1W	2.2	1200	90	10	0.20	11.10	30	93
E62.E81-402D1W	4	1200	80	16	0.30	5.20	40	81
E62.E81-472D1W	4.7	1200	60	16	0.42	4.70	40	81
E62.F81-502D1W	5	1200	80	16	0.35	4.50	45	81
E62.G85-582D1W	5.75	1200	80	16	0.50	3.80	50	85
E62.G85-682D1W	6.8	1200	80	16	0.50	3.70	50	85
E62.K85-103D1W	10	1200	80	16	0.70	3.10	60	85
E62.H12-153D1W	15	1200	100	16	0.60	4.70	55	124
E62.K15-223D1W	22	1200	100	16	1.20	5.40	60	151
E62.L16-303D2W	30	1200	130	16	1.00	4.50	65	160
E62.M16-333D2W	33	1200	120	16	0.93	4.80	75	160
E62.M16-403D2W	40	1200	130	16	1.20	4.50	75	160
E62.K12-331CDW	0.33	5000	140	16	0.73	8.70	60	120
E62.K12-471CDW	0.47	5000	140	16	0.92	7.10	60	120
E62.K14-681CDW	0.68	5000	140	16	0.94	8.90	60	140
E62.M14-102CDW	1	5000	140	16	1.39	6.50	75	140
E62.N14-152CDW	1.5	5000	140	16	2.08	4.80	85	140
E62.P14-202CDW	2	5000	140	16	2.77	2.00	95	140

Other values of capacitance available, please consult factory

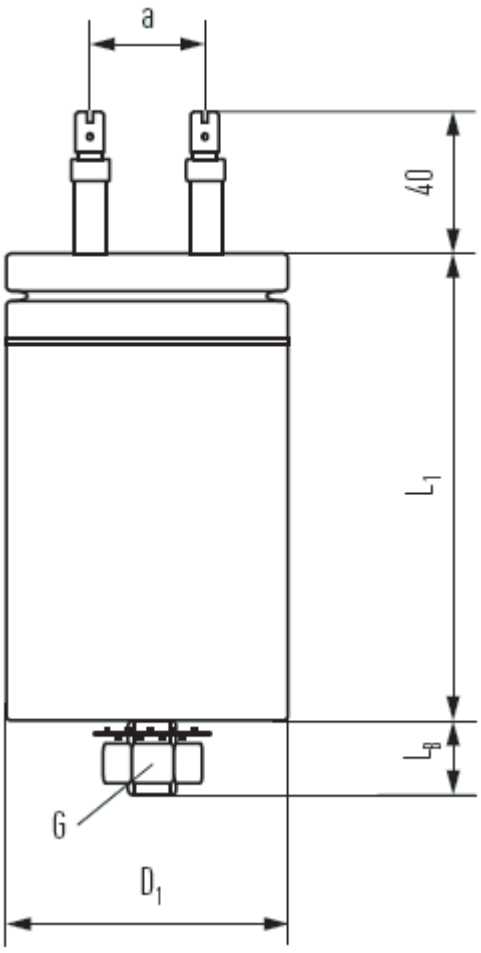
Can and termination details – B2



Capacitors with can diameter 45mm – 50mm

Can material:	Aluminium
Base mounting stud:	See table below
Lid:	Brass with rubber sealing, Flanged can
Terminals:	Single tab connector 6.3×0.8mm on soldered ceramic bushing
I_{MAX} (terminals):	16A
Protection:	IP00
Humidity class:	F

D_1	L_B	G	a	K	L
45	10	M8	19	20	9
50	16	M12	26	20	16
55	16	M12	26	20	16



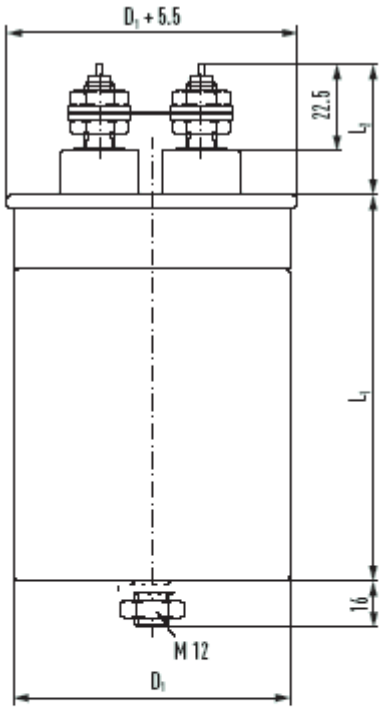
Can and termination details – C6

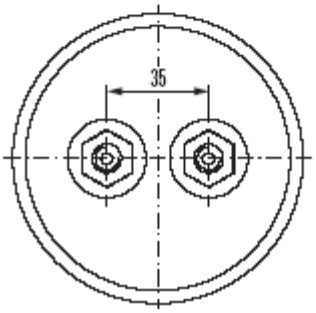


Capacitors with can diameter 75mm – 136mm

Can material:	Aluminium
Base mounting stud:	M12
Lid:	Flanged aluminium (folded edge)
Terminals:	Threaded stud M10 on soldered plastic bushing
Torque:	9Nm
I_{MAX} (terminals):	100A
Protection:	IP00
Humidity class:	C

D_1	L_2
75	45
85	45
95	45
100	45
116	41
136	41





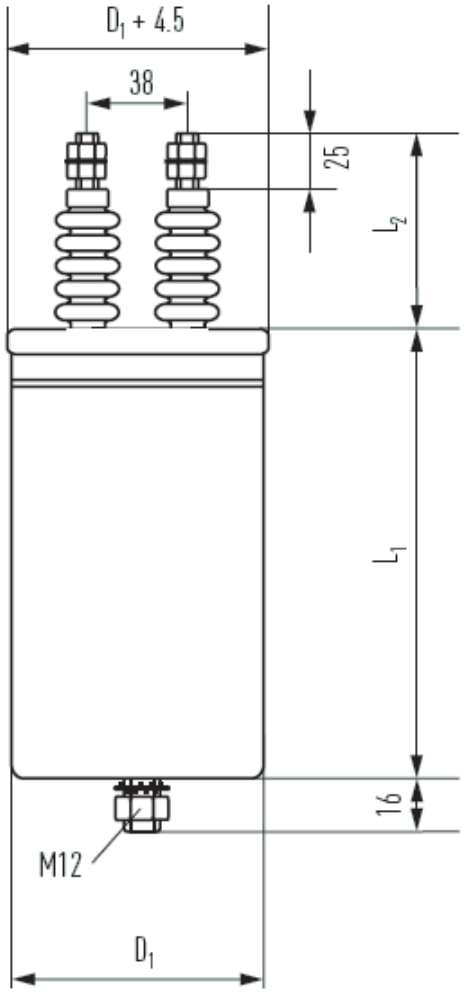
Can and termination details – CR



Capacitors with can diameter 75mm – 136mm

Can material:	Aluminium
Base mounting stud:	M12
Lid:	Flangedcopper (folded edge)
Terminals:	Threaded stud M10 on soldered ceramic bushing
Torque:	9Nm
I_{MAX} (terminals):	100A
Protection:	IP00
Humidity class:	C

D_1	L_2
75	55
85	55
95	55
100	55
116	55
136	52

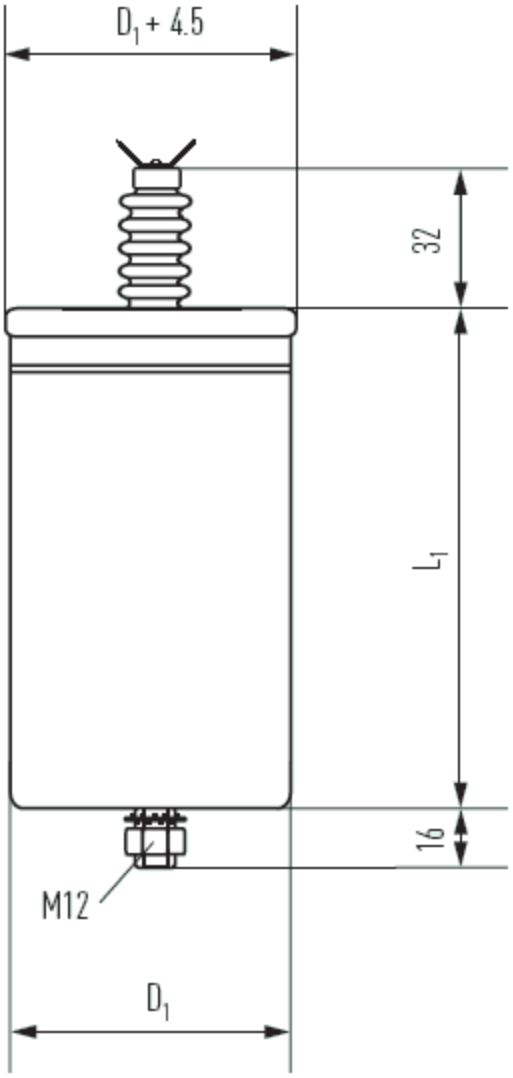


Can and termination details – CD



Capacitors with can diameter 60mm – 95mm

Can material:	Aluminium
Base mounting stud:	M12
Lid:	Flanged copper (folded edge)
Terminals:	Dual tab connectors 6.3×0.8
I_{MAX} (terminals):	16A
Protection:	IP00
Humidity class:	C

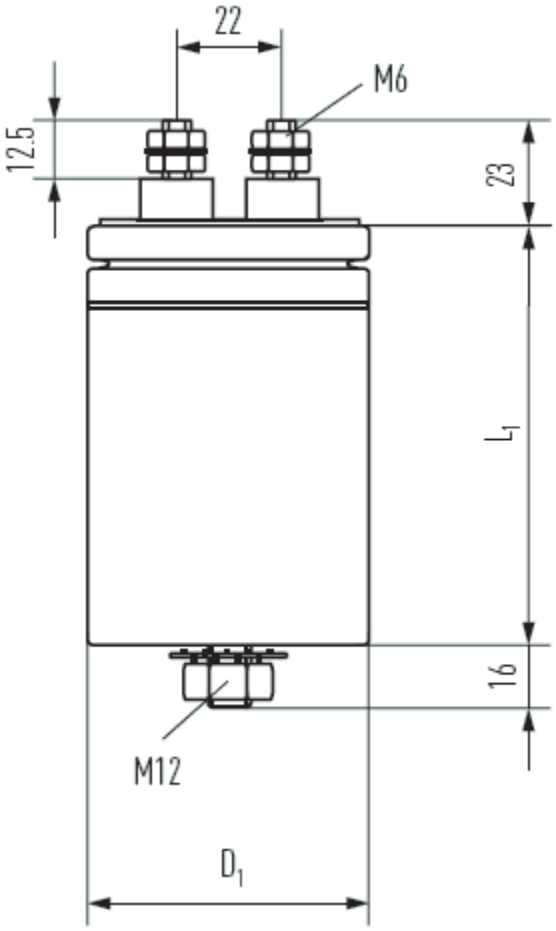


Can and termination details – G1



Capacitors with can diameter 50mm – 65mm

Can material:	Aluminium
Base mounting stud:	M12
Lid:	Plastic with rubber sealing, flanged can
Terminals:	Threaded stud M6 on integrated plastic bushing
Torque:	2Nm
I_{MAX} (terminals):	40A
Protection:	IP00
Humidity class:	F



Can and termination details – D1/D2

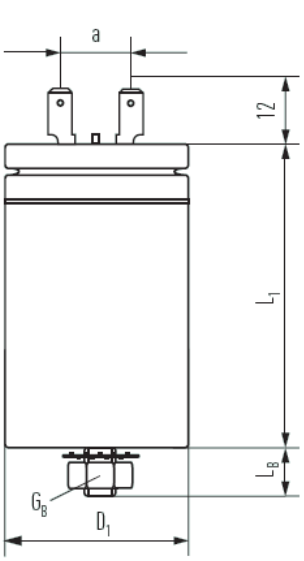


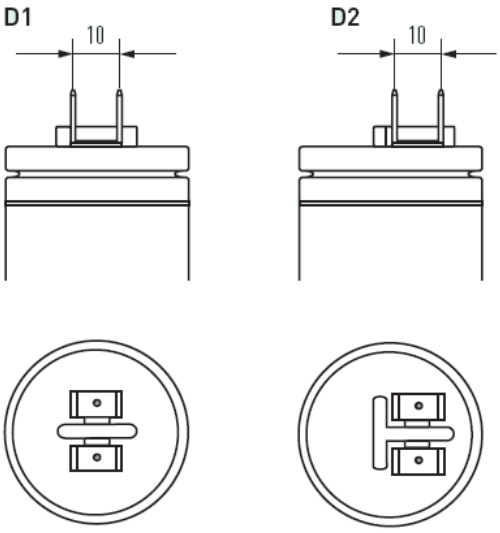


D1 capacitors with can diameter 35mm – 60mm

D2 capacitors with can diameter 65mm – 75mm

Can material:	Aluminium
Base mounting stud:	See table below
Lid:	Plastic with rubber sealing, Flanged can
Terminals:	Dual tab connectors 6.3×0.8mm (tinned steel, riveted)
I_{MAX} (terminals):	16A
Protection:	IP00
Humidity class:	F





D_1	a	G_B	L_B
35	13.5	M8	10
40	13.5	M8	10
45	13.5	M8	10
50	13.5	M12	16
55	13.5	M12	16
60	13.5	M12	16
65	16.5	M12	16
70	16.5	M12	16

Can and termination details – E1/E2

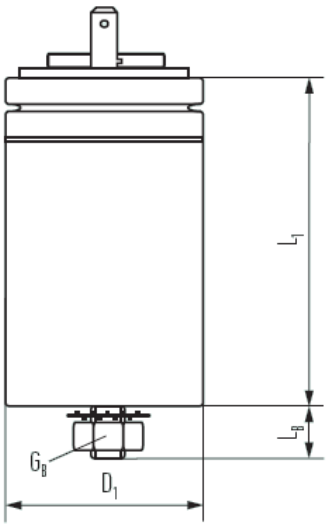


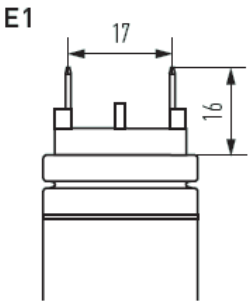


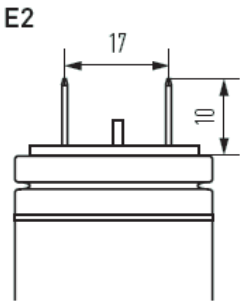
E1 capacitors with can diameter 25mm – 30mm

E2 capacitors with can diameter 35mm – 65mm

Can material:	Aluminium
Base mounting stud:	See table below
Lid:	Plastic (UL94:V0)
Terminals:	Tab connector 6.3×0.8mm (tinned steel, riveted)
I_{MAX} (terminals):	16A
Protection:	IP00
Humidity class:	F







D_1	L_B	G_B
25	10	M8
30-45	10	M8
50-65	16	M12

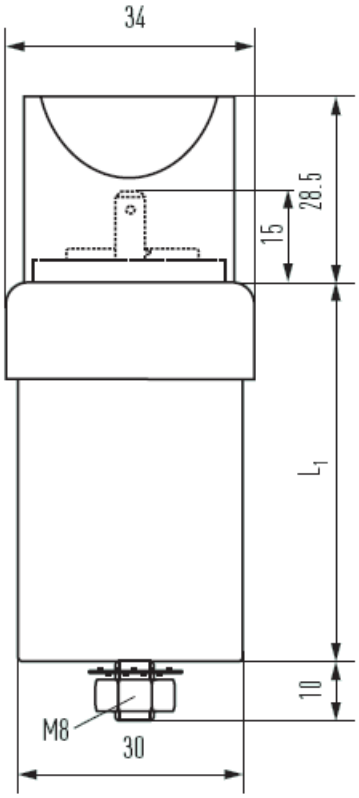
Can and termination details – E4

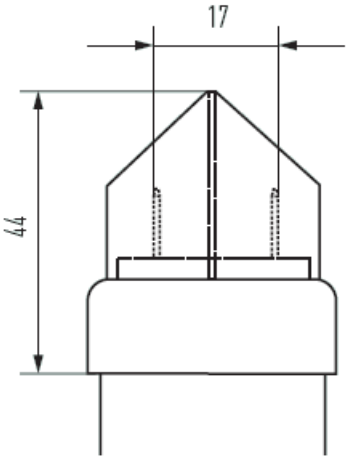


Capacitors with can diameter 30mm

Extended clearance and creepage distances by special plastic insulating top (UL94:V0)

Can material:	Aluminium
Base mounting stud:	M8
Lid:	Plastic (UL94:V0) with rubber sealing, flanged can
Terminals:	Dual tab connectors 6.3×0.8mm (tinned steel, riveted)
I_{MAX} (terminals):	16A
Protection:	IP00
Humidity class:	F





Can and termination details – K/L/M

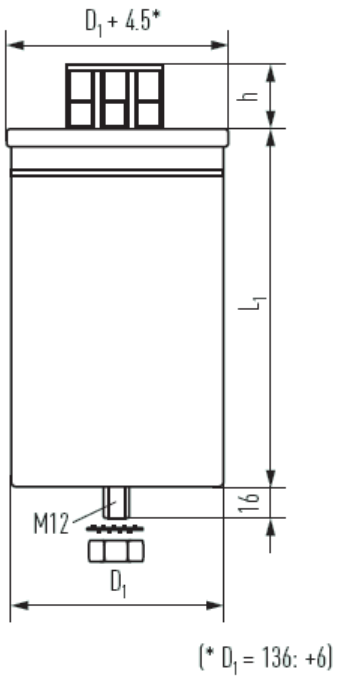




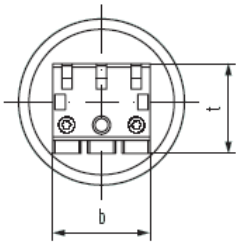
Capacitors with can diameter 60-136mm

Can Material:	Aluminium
Base mounting stud:	M12
Lid:	Flanged aluminium (folded edge)
Terminals:	K1 – 1×10mm^2 per contact[1]
	Torque – 1.2-2Nm
	KL – 2×25mm^2 per contact[1]
	Torque – 2.5-3Nm
	K1 – 1×50mm^2 per contact[1]
	Torque – 3.2-3.7Nm
I_{MAX} (terminals):	K1 – 39A
	L1 – 56A
	M1 – 104A
Protection:	IP20
Humidity class:	C

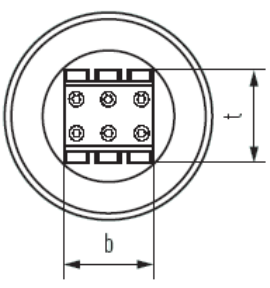
1) For designs K1, L1 and M1 the central screw has no contact



K1



M1
L1



	L1	M1	K1
h	35	45	26
b	42	49	38
t	44	55	35.5

Important information

Safety

IXYS UK will not be responsible for any kind of damages to persons or property due to improper application of any capacitors purchased from IXYS UK or its distributors. The capacitors should only be used for the application intended.
Mind that electrical or mechanical misapplication of capacitors can become hazardous. Misapplied capacitors can catch fire or explode and cause bodily injury or property damage due to the expulsion of material or metal fragments. Please consult the detailed instructions for mounting and application in our brochure "application notes for power capacitors".
For more information please contact IXYS UK

Mounting and cooling

The useful life of a capacitor may be reduced dramatically if exposed to excessive heat. Typically, an increase in ambient temperature of 7°C will halve the expected life of the capacitor. Please ensure capacitors are used within the stated operating temperatures.
To avoid overheating, the capacitors must be allowed to cool unhindered and should be shielded from external heat sources. IXYS UK recommends forced ventilation for all applications with detuning reactors.
Give at least 20mm clearance between the capacitors for natural or forced ventilation and do not place them directly above or next to heat sources such as tuning or detuning reactors, bus bars etc.

Protection against over-voltages and short circuits – Self-healing dielectric

All dielectric structures used in IXYS UK power capacitors are 'self-healing'; in the event of a voltage breakdown the metal layers around the breakdown channel are evaporated by the temperature of the electric arc that forms between the electrodes. They are removed within a few microseconds and pushed apart by the pressure generated in the centre of the breakdown spot.
An insulation area is formed which is reliably resistive and voltage proof for all operation requirements of the capacitor. The capacitor remains fully functional during and after the breakdown.
For voltages within the permitted testing and operating limits of the capacitors are short circuit and overvoltage proof. They are also protected against external short circuits as far as the resulting surge discharges do not exceed the specified surge current limits.

Certificate FM26085

IXYS UK Westcode Ltd's BS EN ISO9001 quality system is registered by BSI

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