

## APPLICATIONS

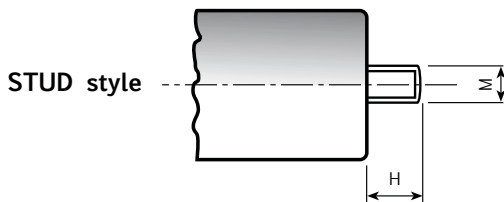
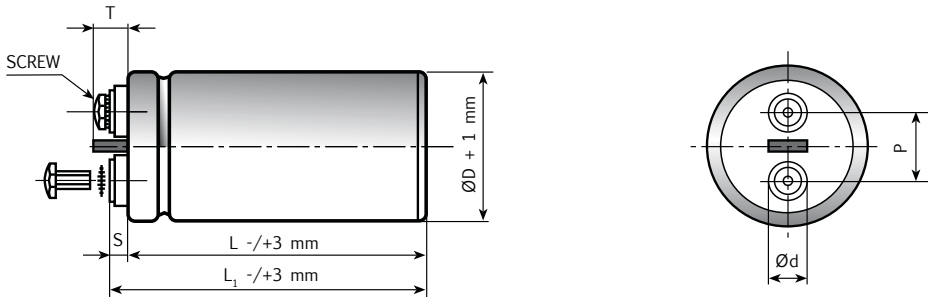
Designed for professional power electronics by slope metallization.  
 Low and medium frequencies switching.  
 Solar converters, Motor drives, Inverters, Welding.

## GENERAL INFORMATION

<b>Reference</b>	IEC 61071-1
<b>IEC climatic</b>	40/85/21 IEC 68-1
<b>Storage temperature</b>	-40 to +90°C
<b>Temperature range</b>	-40 to +85°C
<b>Case</b>	Aluminium case with or without stud M12
<b>Maximum screw torque strength for stud M12</b>	8 Nm
<b>Deck</b>	Plastic deck UL94 (V0)
<b>Insert style of deck</b>	High current M6 female terminals, M8 male terminals
<b>Maximum screw torque strength for insert</b>	3Nm x M6, 6Nm x M8,
<b>Dielectric</b>	Self healing polypropylene film
<b>Filling</b>	Self-extinguishing (V0) polyurethane resin
<b>Surge voltage between terminals</b>	X1.5 10sec 25°C
<b>Test voltage terminal to case</b>	4KV 50Hz for 2 sec
<b>Capacitance deviation range temperature</b>	±1.5% @ 25°C
<b>Tolerance (digit 12<sup>th</sup>)</b>	"K" = -10%, +10% "J" = -5% +5% under request
<b>Mounting</b>	Horizontal – vertical
<b>Maximum ripple current</b>	100A
<b>Max dV/dt not repetitive peak</b>	≤ 40 V/μsec
<b>Life</b>	100000 H - Nominal Voltage @ 85°C
<b>Failure Rate</b>	300 FIT
<b>Damp Heat test</b>	Stable electrical parameters in humidity ambient conditions 85°C; 85% RH, Nominal voltage applied, 1000 Hours
<b>Expected life estimation based on application conditions and our life formula</b>	Please contact our technical service.
<b>End life criteria</b>	±10% cap

**MECHANICAL SPECIFICATIONS**

**M6 STANDARD FEMALE STYLE**



**M6 LONG FEMALE STYLE**

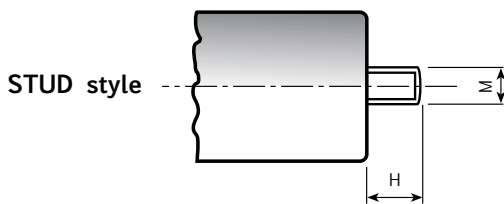
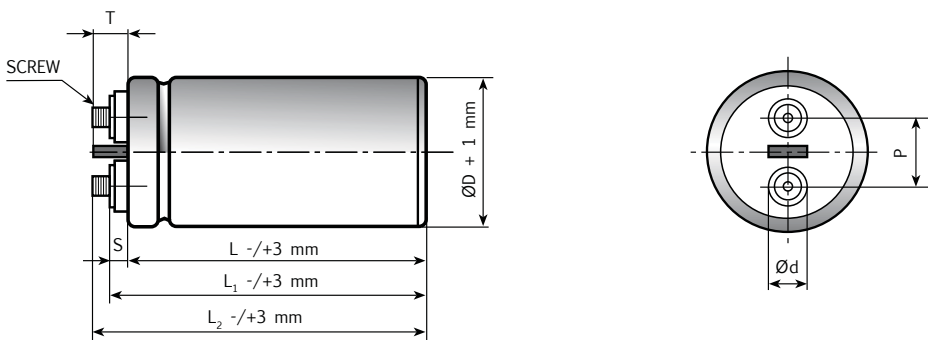


Diagram of dimensions (unit=mm)

**MECHANICAL SPECIFICATIONS**

**M8 MALE STYLE**

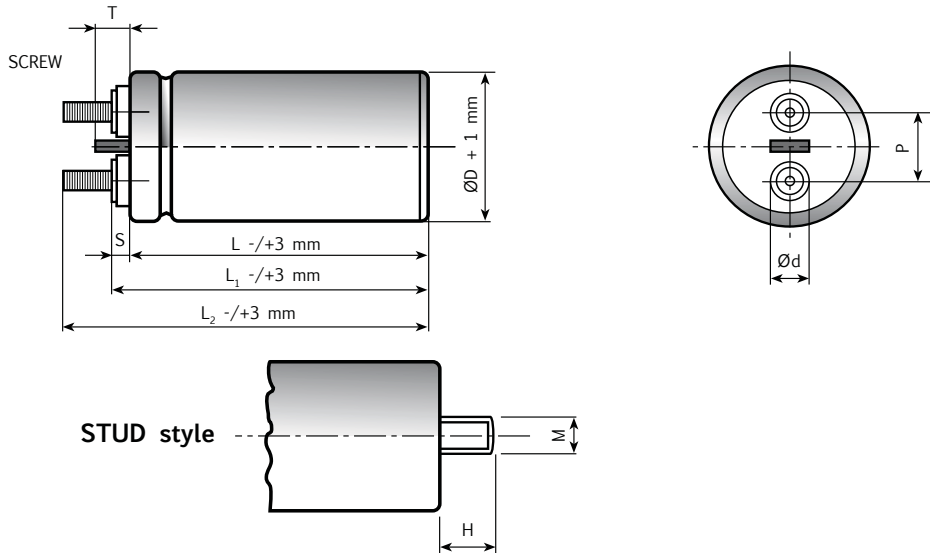


Diagram of dimensions (unit=mm)

ØD	d	P	M	H	T	L <sub>1</sub> - L	L <sub>2</sub> - L	L <sub>2</sub> - L <sub>1</sub>
75 male	22.20	31.8	M12	16	11	9	29	20
85 male	22.20	31.8	M12	16	11	9	29	20
75 female M6	22.20	31.8	M12	16	11	9	Not defined	
85 female M6	22.20	31.8	M12	16	11	9	Not defined	
75 female M6 long	22.20	31.8	M12	16	11	9	14	5
85 female M6 long	22.20	31.8	M12	16	11	9	14	5

## K31 TYPE STANDARD RATINGS

Cap. μF	Ø x L Mm	ESR mΩ 10 KHz	ESL nH	Rth °C/W	Ir a.c. A max 10K Hz 40°C	Ir a.c. A max 10K Hz 60°C	Ir a.c. A max 10KHz 75°C	dV/dt V/μsec	I pk A	PART NUMBER Termination digit excluded
500	75x120	1.5	35	5.2	67	51	32	7.0	3495	K31600501_KOJ120
620	75x140	1.6	35	4.6	69	52	33	6.3	3907	K31600621_KOJ140
650	85x120	1.6	40	4.4	71	53	34	7.0	4544	K31600651_KOL120
700	75x155	1,7	35	4.1	71	54	34	6.3	4410	K31600701_KOJ155
800	85x140	1.6	40	3.9	75	57	36	6.3	5040	K31600801_KOL140
900	85x155	1.6	40	3.4	80	61	38	6.3	5670	K31600901_KOL155
1000	85x155	1.6	40	3.4	80	61	38	6.3	6294	K31600102_KOL155

**RATED  
VOLTAGE  
VDC**

**600V**

Cap. μF	Ø x L Mm	ESR mΩ 10 KHz	ESL nH	Rth °C/W	Ir a.c. A max 10K Hz 40°C	Ir a.c. A max 10K Hz 60°C	Ir a.c. A max 10KHz 75°C	dV/dt V/μsec	I pk A	PART NUMBER Termination digit excluded
350	75x120	1.5	35	5.2	67	51	32	8.2	2854	K31700351_KOJ120
420	75x140	1.6	35	4.6	69	52	33	7.4	3087	K31700421_KOJ140
450	85x120	1.4	40	4.4	75	57	36	8.2	3670	K31700451_KOL120
500	75x155	1.4	40	4.1	78	59	37	7.4	3675	K31700501_KOJ155
550	85x140	1.3	40	3.9	83	63	40	7.4	4043	K31700551_KOL140
600	85x155	1.5	40	3.4	83	63	40	7.4	4410	K31700601_KOL155
700	85x155	1.7	40	3.4	78	59	37	7.4	5072	K31700701_KOL155

**RATED  
VOLTAGE  
VDC**

**700V**

Cap. μF	Ø x L Mm	ESR mΩ 10 KHz	ESL nH	Rth °C/W	Ir a.c. A max 10K Hz 40°C	Ir a.c. A max 10K Hz 60°C	Ir a.c. A max 10KHz 75°C	dV/dt V/μsec	I pk A	PART NUMBER Termination digit excluded
220	75x120	1.9	35	5.2	60	45	28	9.3	2050	K31900221_KOJ120
270	75x140	1.6	35	4.6	69	52	33	8.4	2268	K31900271_KOJ140
300	75x155	1.7	35	4.1	71	54	34	8.4	2520	K31900301_KOJ155
300	85x120	1.4	40	4.4	75	57	36	9.3	2796	K31900301_KOL120
350	85x140	1.7	40	3.9	73	55	35	8.4	2940	K31900351_KOL140
370	85x120	1.6	40	4.4	71	53	34	9.3	3448	K31900351_KOL120
400	75x155	1.7	35	4.1	71	54	34	8.4	3293	K31900401_KOJ155
450	85x140	1.7	40	3.9	73	55	35	8.4	3780	K31900451_KOL140
500	85x155	1.7	40	3.4	78	59	37	8.4	4200	K31900501_KOL155
550	85x155	1.7	40	3.4	78	59	37	8.4	4389	K31900551_KOL155

**RATED  
VOLTAGE  
VDC**

**900V**

## K31 TYPE STANDARD RATINGS

Cap. μF	Ø x L Mm	ESR mΩ 10 KHz	ESL nH	Rth °C/W	Ir a.c. A max 10K Hz 40°C	Ir a.c. A max 10K Hz 60°C	Ir a.c. A max 10KHz 75°C	dV/dt V/μsec	I pk A	PART NUMBER Termination digit excluded
150	75x120	1.5	35	5.2	67	51	32	10.6	1650	K31111151_KOJ120
190	75x120	1.5	35	5.2	67	51	32	10.6	1907	K31111191_KOJ120
190	75x140	1.5	35	4.6	71	54	34	9.6	1900	K31111191_KOJ140
200	85x120	1.4	40	4.4	75	57	36	10.6	2200	K31111201_KOL120
220	75x155	1.4	35	4.1	78	59	37	9.6	2200	K31111221_KOJ155
240	75x140	1.5	35	4.6	71	54	34	9.6	2304	K31111241_KOJ140
250	85x120	1.4	40	4.4	75	57	36	10.6	2640	K31111251_KOL120
250	85x140	1.3	40	3.9	83	63	40	9.6	2500	K31111251_KOL140
280	75x155	1.4	35	4.1	78	59	37	9.6	2640	K31111281_KOJ155
300	85x155	1.4	40	3.4	86	65	41	9.6	3000	K31111301_KOL155
320	85x140	1.4	40	3.9	80	61	38	9.6	3072	K31111321_KOL140
420	85x155	1.5	40	3.4	83	63	40	9.6	3830	K31111421_KOL155

**RATED  
VOLTAGE  
VDC**

**1100V**

Cap. μF	Ø x L Mm	ESR mΩ 10 KHz	ESL nH	Rth °C/W	Ir a.c. A max 10K Hz 40°C	Ir a.c. A max 10K Hz 60°C	Ir a.c. A max 10KHz 75°C	dV/dt V/μsec	I pk A	PART NUMBER Termination digit excluded
120	75x120	2.3	35	5.2	54	41	26	12.8	1531	K31131121_KOJ120
170	75x140	2.2	35	4.6	59	44	28	11.6	1914	K31131171_KOJ140
170	85x120	2.2	40	4.4	60	45	29	12.8	2169	K31131171_KOL120
180	75x155	2.1	35	4.1	64	48	30	11.6	2088	K31131181_KOJ155
220	85x140	2	40	3.9	67	51	32	11.6	2552	K31131221_KOL140
250	85x155	2	40	3.4	72	54	34	11.6	2900	K31131251_KOL155

**RATED  
VOLTAGE  
VDC**

**1300V**