

Capacitors for Power Electronics

9.3 AC Capacitors, MPP, Design C - Commutation - according to IEC 1071 / VDE 0560 Part 120/121

General Technical Data

Tanδ _s	2 x 10 ⁻⁴
Capacitance tolerance	±10%
Limiting temperatures	-25...+70°C
Storage temperatures	-40...+85°C
Humidity class	C
Service life	100 000h
Permitted failure rate	3%
Terminals	Threaded Bolt

Dimensions

D1	D2	a	G2	G1	L3
60	64	30	M6 x 12	M12	16
75	79	38	M10x25	M12	16
85	89	38	M10x25	M12	16
95	99	38	M10x25	M12	16
100	105	38	M10x25	M12	16
116	122	38	M10x25	M12	16

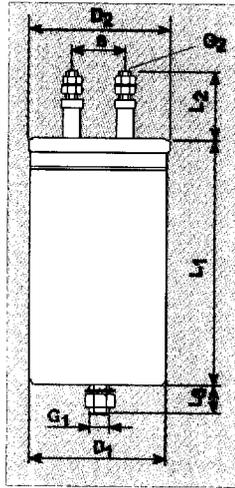


Fig. 1

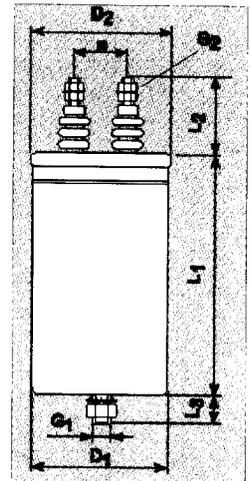


Fig. 2

Part No:	Rated Values						Limit Values				Fig.	Dimensions					G
	C _R	I _n	R _s	P _{vn}	L _e	T _u	I _{max}	(dU/dt) _{max}	I _{max}	(dU/dt) _s		D ₁	L ₁	L ₂	L	K	
	μF	A	mΩ	W	nH	°C	A	V/μs	A	V/μs	mm	mm	mm	mm	mm	kg	

U _R	600V		U _{rms} 420V U _{MAX} 750V				U _i 500V U _s 960V				Fig.	U _{BB} 900V AC U _{BC} 2000V AC					G
253.127-11530W	22	32	5.5	6	150	60	1100	50	2530	115	1	60	175	40	14	20	0.6
253.147-11630W	33	53	2.7	8	150	60	1650	50	3800	115	1	75	175	53	17	20	0.9
253.147-11730W	47	58	2.2	8	150	60	2350	50	5410	115	1	75	175	53	17	20	0.9
253.157-11830W	68	75	1.5	9	150	60	3400	50	7820	115	1	85	175	53	17	20	1.3
253.167-11930W	100	85	1.3	10	150	60	5000	50	11500	115	1	95	175	50	15	15	1.6
253.168-12030W	150	100	1.1	14	180	60	7500	50	17250	115	1	95	245	50	15	15	2.2
253.188-12130W	220	100	1	17	180	60	11000	50	25300	115	1	116	245	50	15	15	3.3

U _R	750V		U _{rms} 525V U _{MAX} 940V				U _i 750V U _s 1200V				Fig.	U _{BB} 1130V AC U _{BC} 2500V AC					G
253.147-21630W	33	57	2.3	8	150	60	2310	70	5300	160	1	75	175	53	17	20	0.9
253.157-21730W	47	70	1.7	9	150	60	3290	70	7500	160	1	85	175	53	17	20	1.3
253.167-21830W	68	87	1.2	10	150	60	4760	70	10900	160	1	95	175	50	15	15	1.6
253.158-21930W	100	80	1.1	13	180	60	7000	70	16000	160	1	85	245	50	17	20	1.8
253.188-26730W	180	80	0.9	17	180	60	12600	70	29000	160	1	116	245	50	15	15	3.3

U _R	930V		U _{rms} 660V U _{MAX} 1160V				U _i 750V U _s 1500V				Fig.	U _{BB} 1420V AC U _{BC} 2500V AC					G
253.127-31230W	10	30	6	6	150	60	800	80	1800	180	1	60	175	40	14	20	0.6
253.145-31230W	10	35	4.4	4.9	130	50	800	80	1800	180	1	75	105	53	17	20	0.8
253.147-31530W	22	52	2.7	8	150	60	1760	80	4000	180	1	75	175	53	17	20	0.9
253.157-31630W	33	59	2.4	9	150	60	2640	80	5900	180	1	85	175	53	17	20	1.3
253.167-31730W	47	75	1.6	10	150	60	3760	80	8500	180	1	95	175	50	15	15	1.6
253.190-36730W	180	80	0.9	23	250	60	9000	50	22000	120	1	116	320	50	15	15	4.3

Part No:	Rated Values						Limit Values				Fig.	Dimensions					G m kg
	C_R	I_n	R_s	P_{vn}	L_e	T_u	\hat{i}_{max}	$(dU/dt)_{max}$	\hat{i}_{max}	$(dU/dt)_s$		D_1	L_1	L_2	L	K	
	μF	A	m Ω	W	nH	$^{\circ}C$	A	V/ μs	A	V/ μs		mm	mm	mm	mm	mm	

U_R 1100V	U_{rms} \hat{U}_{MAX} 800V 1380V						U_i \hat{U}_s 1000V 1800V				Fig.	U_{BB} U_{BG} 2400V 3000V				DC AC	
253.127-41030W	4.7	28	7	6	150	60	940	200	2200	460	1	60	175	40	14	20	0.6
253.147-41230W	10	54	2.4	8	150	60	2000	200	4600	460	1	75	175	53	17	20	0.9
253.147-41430W	15	41	4.3	8	150	60	1350	90	3200	210	1	75	175	53	17	20	0.9
253.157-41430W	15	68	1.7	9	150	60	1950	130	4500	300	1	85	175	53	17	20	1.3
253.167-41530W	22	74	1.6	10	150	60	2860	130	6600	300	1	95	175	50	15	15	1.6
253.168-41630W	33	94	1.4	10	180	60	4290	130	9900	300	1	95	245	50	15	15	2.2

U_R 1200V	U_{rms} \hat{U}_{MAX} 850V 1500V						U_i \hat{U}_s 1150V 1900V				Fig.	U_{BB} U_{BG} 2600V 3300V				DC AC	
253.147-41231W	10	54	2.4	8	150	60	2000	200	4600	460	1	75	175	53	17	20	0.9
253.157-41431W	15	68	1.7	9	150	60	1950	130	4500	300	1	85	175	53	17	20	1.3
253.157-41531W	22	48	3.5	9	150	60	1980	90	4600	210	1	85	175	53	17	20	1.3
253.177-41630W	33	56	2.8	11	150	60	2970	90	6900	210	1	100	175	50	15	15	1.8
253.187-45030W	48	73	1.8	12	150	60	4320	90	10100	210	1	116	175	50	15	15	2.3

U_R 1400V	U_{rms} \hat{U}_{MAX} 1000V 1750V						U_i \hat{U}_s 1000V 2300V				Fig.	U_{BB} U_{BG} 3000V 3000V				DC AC	
253.147-51130W	6.8	49	2.7	8	150	60	1020	150	2400	350	1	75	175	53	17	20	0.9
253.157-51230W	10	64	1.9	9	150	60	1500	150	3500	350	1	85	175	53	17	20	1.3
253.157-51330W	12	67	1.7	9	150	60	1800	150	4200	350	1	85	175	53	17	20	1.3
253.167-51430W	15	77	1.4	10	150	60	2250	150	5300	350	1	95	175	50	15	15	1.6
253.168-51530W	22	100	1.2	14	180	60	3300	150	7700	350	1	95	245	50	15	15	2.2
253.168-51630W	33	72	4.6	30	180	40	1650	50	4000	120	1	95	245	50	15	15	2.2

U_R 1700V	U_{rms} \hat{U}_{MAX} 1200V 2130V						U_i \hat{U}_s 1200V 2700V				Fig.	U_{BB} U_{BG} 3700V 3400V				DC AC	
253.168-62630W	20	68	5	30	180	40	1200	60	2800	140	1	95	245	50	15	15	2.2
253.170-62730W	30	74	5.5	40	250	40	1800	60	4200	140	1	95	320	50	15	15	2.9

U_R 1800V	U_{rms} \hat{U}_{MAX} 1250V 2250V						U_i \hat{U}_s 1250V 2900V				Fig.	U_{BB} U_{BG} 3900V 3500V				DC AC	
253.147-61030W	4.7	47	3	8	150	60	940	200	2200	460	1	75	175	53	17	20	0.9
253.157-61130W	6.8	58	2.2	9	150	60	1360	200	3100	460	1	85	175	53	17	20	1.3
253.167-61230W	10	71	1.6	10	150	60	2000	200	4600	460	1	95	175	50	15	15	1.6

U_R 2100V	U_{rms} \hat{U}_{MAX} 1500V 2630V						U_i \hat{U}_s 1500V 3400V				Fig.	U_{BB} U_{BG} 4500V 4000V				DC AC	
253.147-70930W	3.3	33	6.4	8	150	60	830	250	1900	580	1	75	175	53	17	20	0.9
253.157-71030W	4.7	41	4.6	9	150	60	1180	250	2700	580	1	85	175	53	17	20	1.3
253.188-71230W	10	100	1	17	180	60	2500	250	5800	580	1	116	245	65	17	30	3.5
253.178-77030W	13	80	0.9	14	180	60	6500	500	15000	1150	2	100	245	60	16	43	2.4
253.170-72630W	20	70	5.8	40	250	40	1500	75	3400	170	1	95	320	50	15	15	2.9

U_R 2200V	U_{rms} \hat{U}_{MAX} 1560V 2750V						U_i \hat{U}_s 1560V 3500V				Fig.	U_{BB} U_{BG} 4730V 4120V				DC AC	
253.167-75830W	5.3	42	4.3	10	150	60	1060	200	2400	460	1	95	175	50	15	15	1.6
253.188-7263W0	20	70	0.7	18	180	60	6000	300	14000	6900	1	116	245	50	15	15	3.2

U_R 3000V	U_{rms} \hat{U}_{MAX} 2100V 3750V						U_i \hat{U}_s 2100V 4800V				Fig.	U_{BB} U_{BG} 6500V 5200V				DC AC	
253.127-90630W	1	19	15	6	150	60	350	350	800	810	1	60	175	40	14	20	0.6
253.147-90830W	2.2	31	7.2	8	150	60	770	350	1800	810	1	75	175	53	17	20	0.9
253.167-90930W	3.3	41	4.9	10	150	60	1160	350	2700	810	1	95	175	50	15	15	1.6
253.158-94130W	4	80	1.9	16	180	50	2000	500	4000	1000	1	85	245	53	17	20	1.9