

Parameters	U.M.	Symbol/Value	Notes
Expected lifetime	[hrs]	8.000	@rated voltage, temperature and ripple current
Climatic category		55/105/56	-55°C / +105°C / 85% Relative Humidity
Voltage	[V]	V _R	350 - 450
Capacitance	[μF]	C	C ₁₀ rated value at t=0hrs
Capacitance tolerance	%	M = 20 %	Other capacitance on request as indicated in the data book
Series resistance	[mΩ]	ESR	ESR ₁₀ rated value at t=0hrs
Leakage Current	[mA]	I _f =0,004*C*V	I _{f10} rated value at t=0hrs
I Ripple	[A]	I _R	Ripple current @ rated parameters
		I _t =K _f *K _t *I _R	I _t ripple current at a given T
		K _f	Frequency Correlation Factor See table below
		K _t	Temperature Correlation Factor See table below
End of Life values		ΔC/C ₁₀ ≤ 30%	
		ESR ≤ 3*ESR ₁₀	
		I _f ≤ I _{f10}	
Surge Voltage	[V]	V _{surge} =1,1*V _R	≤450V
		V _{surge} =1,05*V _R	

Ripple Current Coefficient

Hz	50	100	120	200	300	400	500	1000
Kf	0.78	1.00	1.02	1.06	1.08	1.09	1.32	1.37

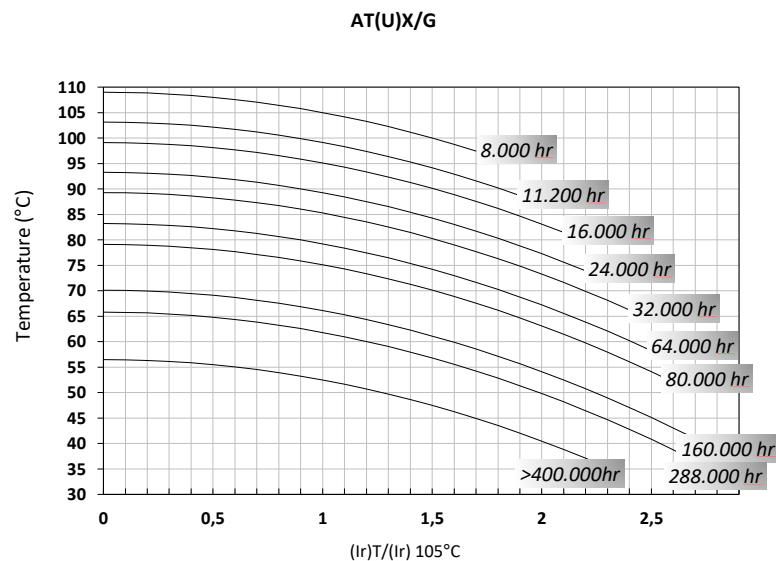
°C	40	55	65	75	85	95	105
Kt	2.50	2.40	2.20	2.00	1.80	1.30	1.00

Note: Superimposed alternating voltage summed to DC voltage must not exceed rated voltage, rated ripple current must not be exceeded and no reverse polarity is allowed

Ordering Code: Example – ATUX472M450DF1

AT	(U)	X	472	M	450	DF	1
Series	U=mounting stud	Terminals	C with multiplying factor:	Tolerance	V _R	Size	1=sleeve 0=no sleeve
	Void=flat bottom		1=x10, 2=x100, 3=x1.000,				

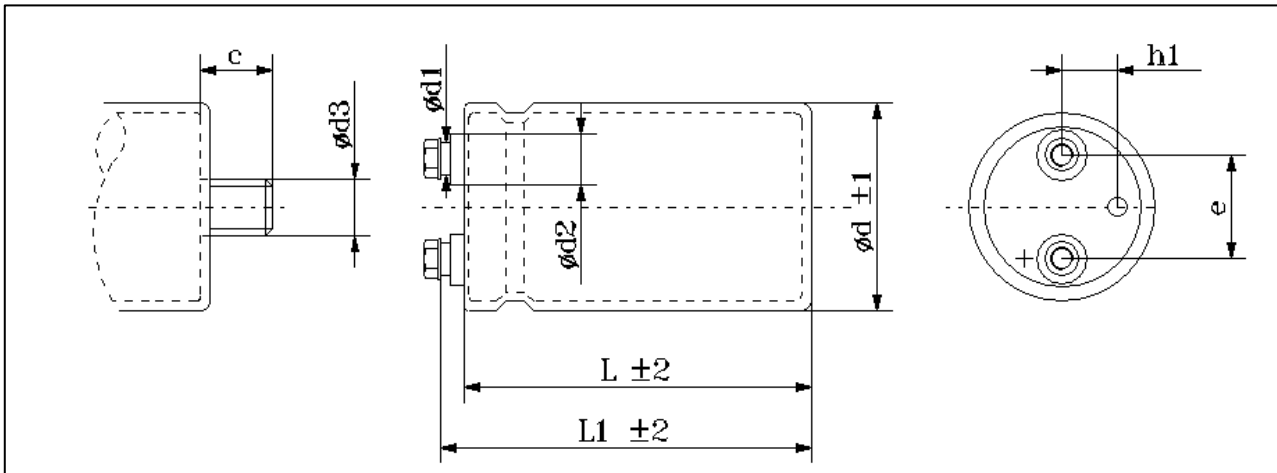
Expected Lifetime Vs Temperature and Ripple Current



	Capacitance	Case	Diam	Height	Tanδ	ESRmax typ		Zmax	Iripple @100Hz		Ordering Code
	[uF]@100Hz		[mm]	[mm]	[%]@100Hz	[mΩ]@100Hz	[mΩ]@10KHz	[A]@55°C	[A]@105°C	(U) for mounting stud	
350	2200	CC	63	105	0,06	43	35	33	19,8	8,2	AT(U)X222M350CC1
	2700	CC	63	105	0,06	35	28	27	21,9	9,1	AT(U)X272M350CC1
	3300	CC	63	105	0,06	29	23	22	24,2	10,1	AT(U)X332M350CC1
	3900	DC	76	145	0,06	24	20	18	33,7	14,0	AT(U)X392M350DC1
	4700	DF	76	145	0,06	20	16	15	37,0	15,4	AT(U)X472M350DF1
	6800	DF	76	145	0,06	14	11	11	44,5	18,6	AT(U)X682M350DF1
	8200	DF	76	145	0,06	12	9	9	48,9	20,4	AT(U)X822M350DF1
	10000	DJ	76	222	0,06	10	8	7	65,2	27,2	AT(U)X103M350DJ1
	12000	DJ	76	222	0,06	8	6	6	71,4	29,8	AT(U)X123M350DJ1
	15000	EJ	90	222	0,06	6	5	5	87,9	36,6	AT(U)G153M350EJ1
18000	EJ	90	222	0,06	5	4	4	95,9	39,9	AT(U)G183M350EJ1	
400	1000	CC	63	105	0,06	96	76	72	13,3	5,6	AT(U)X102M400CC1
	1500	CC	63	105	0,06	64	51	48	16,3	6,8	AT(U)X152M400CC1
	2200	CC	63	105	0,06	43	35	33	19,8	8,2	AT(U)X222M400CC1
	3300	CC	63	105	0,06	29	23	22	24,2	10,1	AT(U)X332M400CC1
	3900	DC	76	145	0,06	24	20	18	33,7	14,0	AT(U)X392M400DC1
	4700	DC	76	145	0,06	20	16	15	37,0	15,4	AT(U)X472M400DC1
	5600	DF	76	145	0,06	17	14	13	40,4	16,8	AT(U)X562M400DF1
	6800	DF	76	145	0,06	14	11	11	44,5	18,6	AT(U)X682M400DF1
	8200	DJ	76	222	0,06	12	9	9	59,3	24,7	AT(U)X822M400DJ1
	10000	DJ	76	222	0,06	10	8	7	65,5	27,3	AT(U)X103M400DJ1
12000	EJ	90	222	0,06	8	6	6	78,6	32,7	AT(U)G123M400EJ1	
450	1000	CC	63	105	0,06	96	76	72	13,3	5,6	AT(U)X102M450CC1
	1500	CC	63	105	0,06	64	51	48	16,3	6,8	AT(U)X152M450CC1
	2200	CC	63	105	0,06	43	35	33	19,8	8,2	AT(U)X222M450CC1
	3300	CC	63	105	0,06	29	23	22	24,2	10,1	AT(U)X332M450CC1
	3900	DC	76	145	0,06	24	20	18	33,7	14,0	AT(U)X392M450DC1
	4700	DC	76	145	0,06	20	16	15	37,0	15,4	AT(U)X472M450DC1
	5600	DF	76	145	0,06	17	14	13	40,4	16,8	AT(U)X562M450DF1
	6800	DF	76	145	0,06	14	11	11	44,5	18,6	AT(U)X682M450DF1
	8200	DJ	76	222	0,06	12	9	9	59,3	24,7	AT(U)X822M450DJ1
	10000	DJ	76	222	0,06	10	8	7	65,5	27,3	AT(U)X103M450DJ1



Technical Drawing



Dimension, Quantity and Weight for Box

Case				Connections							Mounting Stud			Packaging	
Code	DxL (mm)	L1	h1	d1	d2	e	Terminal	Screw			Screw			Pcs Box	Weight Box (Kg).
							Code	Thread	Torque (Nm)	Length	d3	c	Torque (Nm)		
BB	51x83	89	13	13	18	22.2	X	M5	2,0	10	M12	16	10	30	5-7
BC	51x105	111	13	13	18	22.2	X	M5	2,0	10	M12	16	10	30	6-9
CC	63x105	111	16	13	18	28.6	X	M5	2,0	10	M12	16	10	20	6-8
CF	63x145	151	19	13	18	28.6	X	M5	2,0	10	M12	16	10	20	9-10
DC	76x105	111	19	13	18	31.8	X	M5	2,0	10	M12	16	10	12	6-8
DF	76x145	151	19	13	18	31.8	X	M5	2,0	10	M12	16	10	12	8-14
				18	23		G	M6	2,5						
DK	76x165	173	19	13	18	31.8	X	M5	2,0	10	M12	16	10	12	9-14
				18	23		G	M6	2,5						
DG	76x200	207	19	13	18	31.8	X	M5	2,0	10	M12	16	10	12	9-13
				18	23		G	M6	2,5						
DJ	76x222	227	19	13	18	31.8	X	M5	2,0	10	M12	16	10	8	9-12
				18	23		G	M6	2,5						
DL	76x240	245	19	13	18	31.8	X	M5	2,0	10	M12	16	10	12	9-13
				18	23		G	M6	2,5						
EC	90x105	111	19	18	23	31,8	G	M6	2,5	10	M12	16	10	6	7-9
EF	90x145	151	19	18	23	31,8	G	M6	2,5	10	M12	16	10	6	9-11
EG	90x200	207	19	18	23	31,8	G	M6	2,5	10	M12	16	10	6	9-11
EJ	90x222	227	19	18	23	31,8	G	M6	2,5	10	M12	16	10	6	8-12
EL	90x240	245	19	18	23	31,8	G	M6	2,5	10	M12	16	10	6	9-13

All dimensions in mm, torque in Nm, weight in kg

