

High Performance - 105°C - High Voltage – Special Design – High Reliability **AW – 3.000 hrs – 105°**

Parameters	U.M.	Symbol/Value	Notes
Expected lifetime	[hrs]	3.000	@rated voltage, temperature and ripple current
Climatic category		40/105/56	-40°C / +105°C / 85% Relative Humidity
Voltage	[V]	V_R	500 - 550V
Capacitance	[μ F]	C	C_{10} rated value at t=0hrs
Capacitance tolerance	%	M = 20 %	Other capacitance on request as indicated in the data book
Series resistance	[m Ω]	ESR	ESR ₁₀ rated value at t=0hrs
Leakage Current	[mA]	$I_f=0,004 \cdot C \cdot V$	I_{f10} rated value at t=0hrs
I Ripple	[A]	I_R	Ripple current @ rated parameters
		$I_t=K_f \cdot K_t \cdot I_R$	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		$\Delta C/C_{10} \leq 30\%$	
		$ESR \leq 3 \cdot ESR_{10}$	
		$I_f \leq I_{f10}$	
Surge Voltage	[V]	$V_{surge}=1,1 \cdot V_R$	$\geq 500V$
		$V_{surge}=1,05 \cdot V_R$	

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

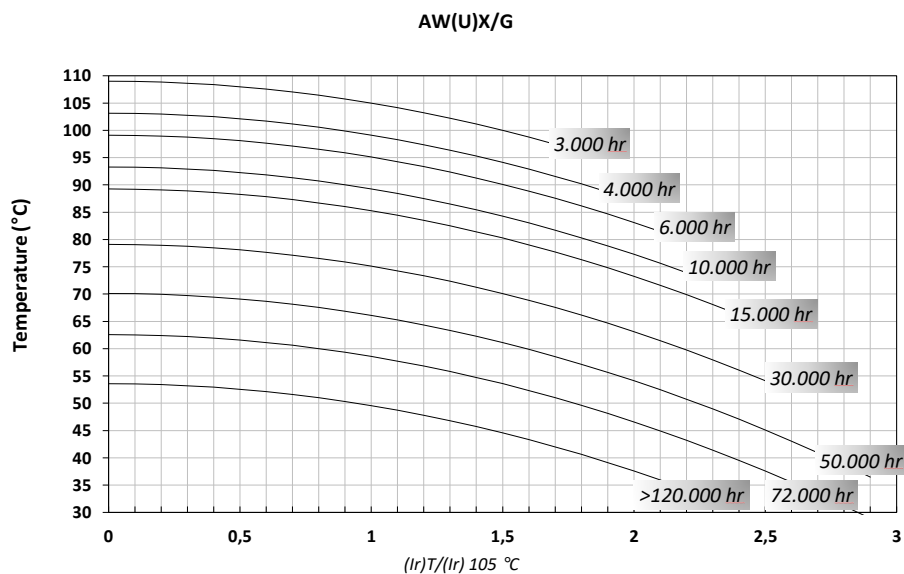
°C	40	55	65	75	85	95	105
Kt	2.50	2.40	2.20	2.00	1.80	1.30	1.00

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 – AWUX472M500DF1

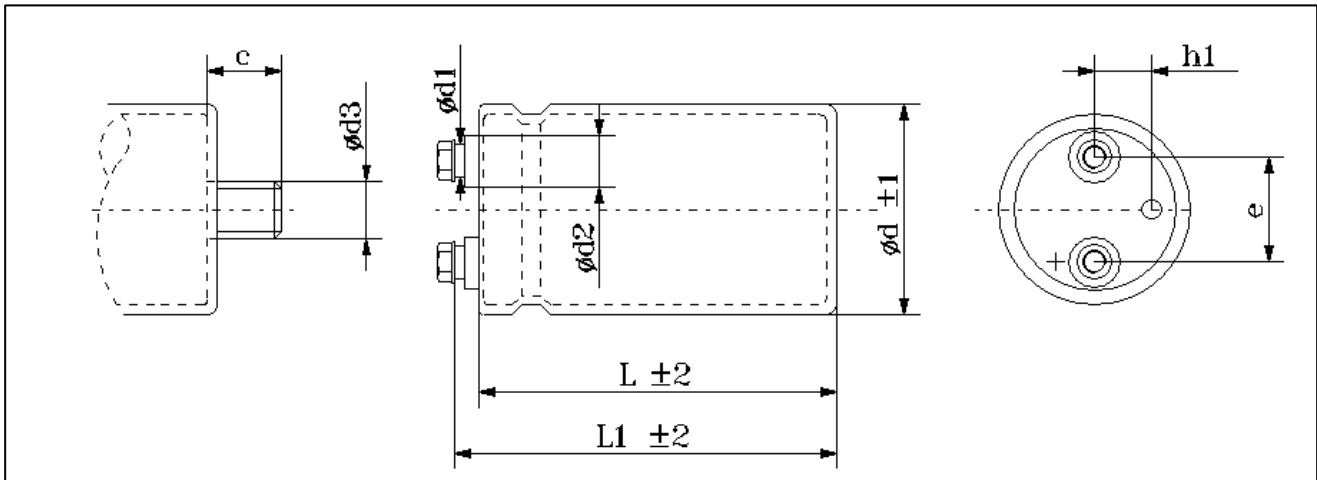
AW	(U)	X	472	M	500	DF	1
Series	U=mounting stud Void=flat bottom	Terminals	C with multiplying factor: 1=x10, 2=x100, 3=x1.000,	Tolerance	V_R	Size	1=sleeve 0=no sleeve

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]@85°C	(U) for mounting stud	
500	1000	BB	51	83	0,18	201	167	150	4.2	2,3	AW(U)X102M500BB1
	1500	BC	51	105	0,18	141	118	106	5.6	3,1	AW(U)X152M500BC1
	2200	CC	63	105	0,18	98	79	73	7.5	4,2	AW(U)X222M500CC1
	3300	DC	76	105	0,18	68	56	51	10.5	5,8	AW(U)X332M500DC1
	4700	DF	76	145	0,18	32	27	24	16.5	9,2	AW(U)X472M500DF1
	5600	EF	90	145	0,18	26	21	20	20.3	11,3	AW(U)G562M500EF1
	6800	EF	90	145	0,18	23	18	17	22.1	12,3	AW(U)G682M500EF1
	6800	DJ	76	222	0,18	23	18	17	23.4	13,0	AW(U)X682M500DJ1
	8200	EJ	90	222	0,18	18	15	14	29.2	16,2	AW(U)G822M500EJ1
	10000	EJ	90	222	0,18	15	13	11	32.0	17,8	AW(U)G103M500EJ1
12000	EL	90	240	0,18	14	11	10	35.2	19,6	AW(U)G123M500EL1	
550	820	BB	51	83	0,15	212	177	159	4.10	2,3	AW(U)X821M550BB1
	1000	BC	51	105	0,15	165	137	124	5.07	2,8	AW(U)X102M550BC1
	1200	BC	51	105	0,15	144	120	108	5.43	3,0	AW(U)X122M550BC1
	1500	CC	63	105	0,15	126	105	95	6.59	3,7	AW(U)X152M550CC1
	2200	CC	63	105	0,15	94	78	71	7.63	4,2	AW(U)X222M550CC1
	3300	DC	76	105	0,15	60	49	44	12.2	6,8	AW(U)X332M550DC1
	3900	DF	76	145	0,15	35	29	27	15.7	8,7	AW(U)X392M550DF1
	4700	DF	76	145	0,15	31	26	23	16.8	9,3	AW(U)X472M550DF1
	5600	EF	90	145	0,15	25	21	19	21.5	11,9	AW(U)G562M550EF1
	6800	DJ	76	222	0,15	21	17	16	24.2	13,4	AW(U)X682M550DJ1
8200	EJ	90	222	0,15	17	14	13	30.1	16,7	AW(U)G822M550EJ1	
10000	EL	90	240	0,15	14	12	10	34.2	19,0	AW(U)G103M550EL1	



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

