KOME

KLW Series

Radial Aluminium Electrolytic Capacitors



Features

- 2000 ~ 5000 hours at 105°C
- Miniaturised
- Low impedance, high ripple current
- For switching power supplies

TEMPERATURE RANGE	RATED VOLTAGE	CAPACITANCE	ENDURANCE
–40°C … +105°C	**6.3 – 100 V**	**0.47 – 18000 μF**	**105°C 2000 – 5000 h**

Endurance: 2000 h for ΦD ≤ 6.3; 3000 h for ΦD = 8; 4000 h for ΦD = 10; 5000 h for ΦD > 10.

Specifications

Operating temperature range	–40 ~ +105°C
Rated voltage range	6.3 ~ 100 V
Capacitance range	0.47 ~ 18000 μF
Capacitance tolerance	±20% (20°C, 120 Hz)
Leakage current	After 2 minutes' application of rated voltage at 20°C, not more than 0.01CV or 3 μA, whichever is greater C: nominal capacitance (μF), V: rated voltage (V)
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage with the rated ripple current has been applied for 2000 ~ 5000 hours at 105°C.

Capacitance change	Within ±20% of the initial value
D.F. (tan δ)	Not more than 200% of the specified value
Leakage current	Not more than the specified value
Life by case diameter	ΦD ≤ 6.3: 2000 hours ΦD = 8: 3000 hours ΦD = 10: 4000 hours ΦD > 10: 5000 hours

Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposure for 1,000 hours at 105°C without voltage applied, and then preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.

Capacitance change	Within ±20% of the initial value
D.F. (tan δ)	Not more than 200% of the specified value
Leakage current	Not more than 200% of the specified value

Low-temperature characteristics

Rated voltage (V)	6.3 ~ 100
Z(–40°C)/Z(+20°C)	3

Impedance ratio at 120 Hz.

Ripple current frequency correction factor

Frequency	120 Hz	1 kHz	10 kHz	100 kHz
0.47 ~ 180 μF	0.40	0.75	0.90	1.00
220 ~ 560 μF	0.50	0.83	0.93	1.00
680 ~ 1800 μF	0.60	0.86	0.95	1.00
2200 ~ 3900 μF	0.75	0.90	0.97	1.00
4700 ~ 18000 μF	0.85	0.95	0.98	1.00

Dissipation factor (tan δ) at 20°C, 120 Hz

Rated voltage (V)	6.3	10	16	25	35	50	63	100
tan δ (max.)	0.18	0.16	0.14	0.12	0.10	0.09	0.08	0.08

For capacitances above 1000 μF, add 0.02 for every additional 1000 μF.

Ripple current temperature coefficient

Ambient temperature (°C)	+70	+85	+105
Coefficient	1.96	1.68	1.00

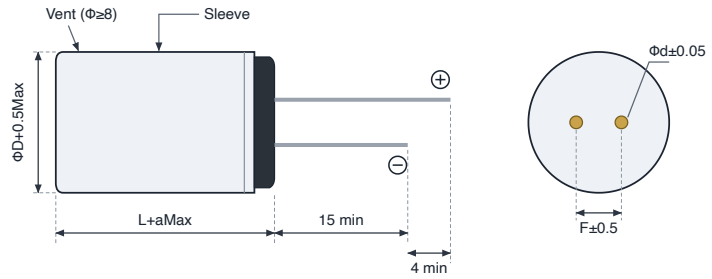
Standard ratings

μF \ V	6.3	10	16	25	35	50	63	100
0.47						5×11		
1						5×11		
2.2						5×11		
3.3						5×11		
4.7						5×11		
5.6								5×11
8.2								6.3×12
10						5×11		
12							5×11	6.3×12
18								6.3×15
22						5×11	6.3×12	8×12
27								10×12.5
33					5×11	6.3×12		8×16 10×16
39							6.3×15	8×20
47			5×11	5×11		6.3×12		
56					6.3×12			10×20
68						6.3×15	8×12	10×25 13×15
100		5×11	6.3×12	6.3×12	6.3×15	8×12	8×16 10×12.5	10×30 13×20
120						8×16 10×12.5	10×16	13×25 16×15
150	5×11			6.3×15	8×12		8×20	18×15
180						8×20	10×20	13×30 16×20
220		6.3×12	6.3×15	8×12	8×16 10×12.5	10×16	10×25	13×35 16×25
270					8×20	10×20		13×40 18×20
330	6.3×12	6.3×15	8×12	8×16 10×12.5	10×16	10×25	10×30 13×20	16×31.5 18×25
390				8×20		10×30	13×25	16×35.5 18×31.5
470	6.3×15	8×12	8×16 10×12.5	10×16	10×20	13×20	13×30 16×20	16×40
560			8×20		10×25	13×25		18×35.5
680	8×12	8×16 10×12.5	10×16	10×20	10×30 13×20	13×30	13×35 16×25 18×20	18×40
820	10×12.5			10×25		13×35 16×20	13×40 16×31.5 18×25	
1000	8×16	8×20 10×16	10×20	10×30 13×20	13×25	13×40 16×25	16×35.5	
1200	8×20 10×16	10×20	10×25		13×30 16×20	16×30 18×25	16×40 18×31.5	
1500	10×20	10×25	10×30 13×20	13×25	13×35	16×35.5	18×31.5	
1800		10×30		13×30 16×20	13×40 16×25 18×20	16×40 18×31.5	18×40	
2200	10×25	13×20	13×25	13×35 18×20	16×31.5 18×25	18×35.5		
2700	10×30		13×30 16×20	13×40 16×25	16×35.5 18×31.5	18×40		
3300	13×20	13×25	13×35	16×31.5 18×25	16×40 18×35.5			
3900	13×25	13×30 16×20	13×40 16×25 18×20	16×35.5 18×31.5	18×40			
4700	13×30	13×35	16×31.5 18×25	16×40 18×35.5				
5600	13×35 16×20	13×40 16×25 18×20	16×35.5 18×31.5	18×40				
6800	13×40 16×25 18×20	16×31.5 18×25	16×40					
8200	16×31.5	16×35.5 18×31.5	18×35.5					

10000	16×35.5 18×25	16×40 18×35.5	18×40					
12000	16×40 18×31.5	18×40						
15000	18×35.5							
18000	18×40							

Case size ΦD × L (mm). Full ratings in the characteristics list.

Dimensions



ΦD	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8
a	1.5	1.5	1.5	2.0	2.0	2.0	2.0

Row 'a' is unlabelled on the original sheet; read as a (L+a Max) — subject to manufacturer confirmation.

Unit: mm

How to order

KLW	4	102	M	100	B	10X16
Series code	Number of characters for capacitance 47μF = 2, 470μF = 3, 4700μF = 4	Capacitance 47μF = 470, 3300μF = 332, 33000μF = 333	Capacitance tolerance M = ±20%, K = ±10%	Voltage code 6.3V = 060, 10V = 100, 63V = 630, 100V = 101	Package B: bulk pack, A: ammo pack	Size code

Example: KLW4102M100B10X16

Characteristics list

UR (V)	Rated Capacitance (μF)	Max ESR 20°C 100kHz (Ω)	Rated Ripple Current 105°C 100kHz (mA rms)	Size ΦD×L (mm)	Surge Voltage (V)
6.3	150	0.75	175	5×11	8
6.3	330	0.33	290	6.3×12	8
6.3	470	0.18	400	6.3×15	8
6.3	680	0.12	555	8×12	8
6.3	820	0.090	760	10×12.5	8
6.3	1000	0.090	730	8×16	8
6.3	1200	0.080	810	8×20	8
6.3	1200	0.068	1050	10×16	8
6.3	1500	0.052	1220	10×20	8
6.3	2200	0.045	1440	10×25	8
6.3	2700	0.037	1690	10×30	8
6.3	3300	0.038	1660	13×20	8
6.3	3900	0.030	1950	13×25	8
6.3	4700	0.025	2310	13×30	8
6.3	5600	0.022	2510	13×35	8
6.3	5600	0.029	2210	16×20	8
6.3	6800	0.017	2870	13×40	8
6.3	6800	0.022	2560	16×25	8
6.3	6800	0.028	2490	18×20	8
6.3	8200	0.019	3010	16×31.5	8
6.3	10000	0.017	3150	16×35.5	8
6.3	10000	0.020	2740	18×25	8
6.3	12000	0.015	3710	16×40	8
6.3	12000	0.018	3330	18×31.5	8
6.3	15000	0.016	3680	18×35.5	8
6.3	18000	0.015	3800	18×40	8
10	100	0.65	175	5×11	13
10	220	0.32	290	6.3×12	13
10	330	0.22	400	6.3×15	13
10	470	0.13	555	8×12	13
10	680	0.090	730	8×16	13
10	680	0.090	760	10×12.5	13
10	1000	0.080	810	8×20	13
10	1000	0.068	1050	10×16	13
10	1200	0.052	1220	10×20	13
10	1500	0.045	1440	10×25	13

UR (V)	Rated Capacitance (μF)	Max ESR 20°C 100kHz (Ω)	Rated Ripple Current 105°C 100kHz (mA rms)	Size ΦD×L (mm)	Surge Voltage (V)
10	1800	0.037	1690	10×30	13
10	2200	0.038	1660	13×20	13
10	3300	0.030	1950	13×25	13
10	3900	0.025	2310	13×30	13
10	3900	0.029	2210	16×20	13
10	4700	0.022	2510	13×35	13
10	5600	0.017	2870	13×40	13
10	5600	0.022	2560	16×25	13
10	5600	0.028	2490	18×20	13
10	6800	0.019	3010	16×31.5	13
10	6800	0.02	2740	18×25	13
10	8200	0.017	3150	16×35.5	13
10	8200	0.018	3330	18×31.5	13
10	10000	0.015	3710	16×40	13
10	10000	0.016	3680	18×35.5	13
10	12000	0.015	3800	18×40	13
16	47	0.85	175	5×11	20
16	100	0.4	290	6.3×12	20
16	220	0.22	400	6.3×15	20
16	330	0.12	555	8×12	20
16	470	0.090	730	8×16	20
16	470	0.090	760	10×12.5	20
16	560	0.080	810	8×20	20
16	680	0.068	1050	10×16	20
16	1000	0.052	1220	10×20	20
16	1200	0.045	1440	10×25	20
16	1500	0.037	1690	10×30	20
16	1500	0.038	1660	13×20	20
16	2200	0.030	1950	13×25	20
16	2700	0.025	2310	13×30	20
16	2700	0.029	2210	16×20	20
16	3300	0.022	2510	13×35	20
16	3900	0.017	2870	13×40	20
16	3900	0.022	2560	16×25	20
16	3900	0.028	2490	18×20	20
16	4700	0.019	3010	16×31.5	20
16	4700	0.020	2740	18×25	20
16	5600	0.017	3150	16×35.5	20
16	5600	0.018	3330	18×31.5	20
16	6800	0.015	3710	16×40	20
16	8200	0.016	3680	18×35.5	20
16	10000	0.015	3800	18×40	20
25	47	0.80	175	5×11	32
25	100	0.32	290	6.3×12	32
25	150	0.22	400	6.3×15	32
25	220	0.13	555	8×12	32
25	330	0.090	730	8×16	32
25	330	0.090	760	10×12.5	32
25	390	0.080	810	8×20	32
25	470	0.068	1050	10×16	32
25	680	0.052	1220	10×20	32
25	820	0.045	1440	10×25	32
25	1000	0.037	1690	10×30	32
25	1000	0.038	1660	13×20	32
25	1500	0.030	1950	13×25	32
25	1800	0.025	2310	13×30	32
25	1800	0.029	2210	16×20	32
25	2200	0.022	2510	13×35	32
25	2200	0.028	2490	18×20	32
25	2700	0.017	2870	13×40	32
25	2700	0.022	2560	16×25	32
25	3300	0.019	3010	16×31.5	32
25	3300	0.020	2740	18×25	32
25	3900	0.017	3150	16×35.5	32
25	3900	0.018	3330	18×31.5	32
25	4700	0.015	3710	16×40	32
25	4700	0.016	3680	18×35.5	32
25	5600	0.015	3800	18×40	32
35	33	0.80	175	5×11	44

UR (V)	Rated Capacitance (μF)	Max ESR 20°C 100kHz (Ω)	Rated Ripple Current 105°C 100kHz (mA rms)	Size ΦD×L (mm)	Surge Voltage (V)
35	56	0.4	290	6.3×12	44
35	100	0.21	400	6.3×15	44
35	150	0.13	555	8×12	44
35	220	0.090	730	8×16	44
35	220	0.090	760	10×12.5	44
35	270	0.080	810	8×20	44
35	330	0.068	1050	10×16	44
35	470	0.052	1220	10×20	44
35	560	0.045	1440	10×25	44
35	680	0.037	1690	10×30	44
35	680	0.038	1660	13×20	44
35	1000	0.030	1950	13×25	44
35	1200	0.025	2310	13×30	44
35	1200	0.029	2210	16×20	44
35	1500	0.022	2510	13×35	44
35	1800	0.017	2870	13×40	44
35	1800	0.022	2560	16×25	44
35	1800	0.028	2490	18×20	44
35	2200	0.019	3010	16×31.5	44
35	2200	0.020	2740	18×25	44
35	2700	0.017	3150	16×35.5	44
35	2700	0.018	3330	18×31.5	44
35	3300	0.015	3710	16×40	44
35	3300	0.016	3680	18×35.5	44
35	3900	0.015	3800	18×40	44
50	0.47	5.50	17	5×11	63
50	1	4	30	5×11	63
50	2.2	2.5	43	5×11	63
50	3.3	2.2	53	5×11	63
50	4.7	1.9	88	5×11	63
50	10	1.5	100	5×11	63
50	22	0.9	155	5×11	63
50	33	0.62	230	6.3×12	63
50	47	0.45	260	6.3×12	63
50	68	0.31	360	6.3×15	63
50	100	0.22	485	8×12	63
50	120	0.160	635	8×16	63
50	120	0.160	620	10×12.5	63
50	180	0.120	730	8×20	63
50	220	0.088	1050	10×16	63
50	270	0.082	1120	10×20	63
50	330	0.073	1250	10×25	63
50	390	0.054	1500	10×30	63
50	470	0.048	1660	13×20	63
50	560	0.044	1840	13×25	63
50	680	0.039	2220	13×30	63
50	820	0.033	2290	13×35	63
50	820	0.042	1980	16×20	63
50	1000	0.029	2500	13×40	63
50	1000	0.034	2240	16×25	63
50	1200	0.028	2700	16×30	63
50	1200	0.029	2610	18×25	63
50	1500	0.025	2800	16×35.5	63
50	1800	0.021	3200	16×40	63
50	1800	0.025	3000	18×31.5	63
50	2200	0.023	3100	18×35.5	63
50	2700	0.02	3400	18×40	63
63	12	1.9	145	5×11	79
63	22	1.0	240	6.3×12	79
63	39	0.61	330	6.3×15	79
63	68	0.34	405	8×12	79
63	100	0.27	535	8×16	79
63	100	0.255	540	10×12.5	79
63	120	0.190	600	10×16	79
63	150	0.210	690	8×20	79
63	180	0.145	890	10×20	79
63	220	0.130	1050	10×25	79
63	330	0.090	1300	10×30	79
63	330	0.085	1290	13×20	79

UR (V)	Rated Capacitance (μF)	Max ESR 20°C 100kHz (Ω)	Rated Ripple Current 105°C 100kHz (mA rms)	Size ΦD×L (mm)	Surge Voltage (V)
63	390	0.070	1720	13×25	79
63	470	0.055	2090	13×30	79
63	470	0.059	1770	16×20	79
63	680	0.047	2270	13×35	79
63	680	0.050	2160	16×25	79
63	680	0.055	2290	18×20	79
63	820	0.042	2560	13×40	79
63	820	0.043	2670	16×31.5	79
63	820	0.043	2590	18×25	79
63	1000	0.036	2770	16×35.5	79
63	1200	0.030	2850	16×40	79
63	1200	0.032	2950	18×31.5	79
63	1500	0.030	3100	18×31.5	79
63	1800	0.025	3210	18×40	79
100	5.6	1.9	57	5×11	125
100	8.2	1.3	74	6.3×12	125
100	12	1.1	78	6.3×12	125
100	18	0.62	85	6.3×15	125
100	22	0.53	275	8×12	125
100	27	0.47	319	10×12.5	125
100	33	0.35	360	8×16	125
100	33	0.32	424	10×16	125
100	39	0.27	490	8×20	125
100	56	0.25	499	10×20	125
100	68	0.18	634	10×25	125
100	68	0.20	613	13×15	125
100	100	0.15	739	10×30	125
100	100	0.13	805	13×20	125
100	120	0.11	857	13×25	125
100	120	0.13	706	16×15	125
100	150	0.12	871	18×15	125
100	180	0.090	1120	13×30	125
100	180	0.110	916	16×20	125
100	220	0.075	1240	13×35	125
100	220	0.081	1290	16×25	125
100	270	0.060	1330	13×40	125
100	270	0.085	1170	18×20	125
100	330	0.059	1630	16×31.5	125
100	330	0.071	1500	18×25	125
100	390	0.052	1750	16×35.5	125
100	390	0.058	1630	18×31.5	125
100	470	0.045	1920	16×40	125
100	560	0.054	1920	18×35.5	125
100	680	0.041	2100	18×40	125

Dimensions: the fourth row of the original dimension table is unlabelled; read as a (L+a Max) — subject to manufacturer confirmation.
Custom products are available on request.
Voltage code for 6.3 V is 060 as specified by the manufacturer (2026-11-03).