

# LARGE TYPE EA-10

Series



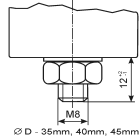
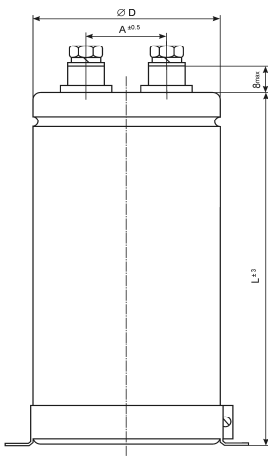
CONIS ELCO Ltd.

Screw Terminal, For General Purpose

- \* Aluminum Electrolytic Capacitors
- \* Standard Series for General Purpose
- \* Load Life of 1000 hours at 85°C
- \* Screw terminal series

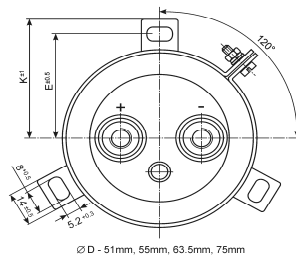
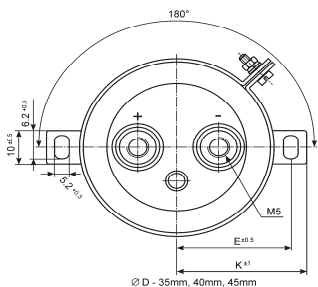
## SPECIFICATION

Item	Characteristics																																													
Operating Temperature Range	- 40 ÷ + 85°C																																													
Rated Working Voltage	10 ÷ 100 VDC																																													
Nominal Capacitance Range (120Hz, 20°C)	3300 ÷ 47000 0 µF																																													
Capacitance Tolerance (120Hz 20°C)	± 20%																																													
Leakage Current (max) (20°C)	$I = 0,006C_n U_r$ * Whichever is smaller after 5 minutes I - Leakage Current (µA) C <sub>n</sub> - Rated Capacitance (µF) U <sub>r</sub> - Working Voltage (V)																																													
Dissipation Factor (max) (20°C)	<table border="1"> <thead> <tr> <th>ØD \ VDC</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>35; 40</td> <td>0.50</td> <td>0.45</td> <td>0.45</td> <td>0.40</td> <td>0.30</td> <td>0.25</td> <td>0.25</td> <td>0.20</td> </tr> <tr> <td>51; 45</td> <td>0.65</td> <td>0.60</td> <td>0.60</td> <td>0.45</td> <td>0.45</td> <td>0.35</td> <td>0.30</td> <td>0.20</td> </tr> <tr> <td>63,5; 55</td> <td>0.90</td> <td>0.80</td> <td>0.70</td> <td>0.50</td> <td>0.50</td> <td>0.40</td> <td>0.35</td> <td>0.25</td> </tr> <tr> <td>75</td> <td>1.50</td> <td>1.30</td> <td>1.00</td> <td>0.90</td> <td>0.70</td> <td>0.50</td> <td>0.40</td> <td>0.30</td> </tr> </tbody> </table>	ØD \ VDC	10	16	25	35	50	63	80	100	35; 40	0.50	0.45	0.45	0.40	0.30	0.25	0.25	0.20	51; 45	0.65	0.60	0.60	0.45	0.45	0.35	0.30	0.20	63,5; 55	0.90	0.80	0.70	0.50	0.50	0.40	0.35	0.25	75	1.50	1.30	1.00	0.90	0.70	0.50	0.40	0.30
	ØD \ VDC	10	16	25	35	50	63	80	100																																					
	35; 40	0.50	0.45	0.45	0.40	0.30	0.25	0.25	0.20																																					
	51; 45	0.65	0.60	0.60	0.45	0.45	0.35	0.30	0.20																																					
63,5; 55	0.90	0.80	0.70	0.50	0.50	0.40	0.35	0.25																																						
75	1.50	1.30	1.00	0.90	0.70	0.50	0.40	0.30																																						
Low Temperature Stability impedance ratio at 100Hz	VDC	10	16	25	35	50	63	80	100																																					
	Z - 25°C/Z +20°C	4	3	2	2	2	2	2	2																																					
	Z - 40°C/Z +20°C	8	8	6	4	3	3	3	3																																					
Load Life after application of the rated voltage for 1000 hours at 85°C	Leakage Current	Less than specified value																																												
	Capacitance Change	± 20%																																												
	tan δ	Less than 150% specified value																																												
Shelf Life	After 1000 hours no load test, leakage current, capacitance and tan δ are the same as load life values.																																													



## DIMENSIONS

ØD	E±0,5	K±1	a±0,5
35.0	24.0	29.0	12.7
40.0	26.5	31.5	15.0
45.0	29.5	34.5	15.0
51.0	32.9	38.9	22.5
55.0	34.5	39.5	22.5
63.5	38.4	45.3	28.6
75.0	44.5	49.5	32.0



## RIPPLE CURRENT COEFFICIENTS

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz
Coefficient	0.75	1.00	1.35	1.55	2.00
Temp (°C)	40	60	70	85	
Coefficient	2.0	1.5	1.3	1.0	

● CASE SIZE & MAX RIPPLE CURRENT A (rms) at 120Hz, 85°C & Resr, I<sub>L</sub>

Capacitance (μF)	Voltage (V)	DxL (mm)	Resr MAX (Ω) 120Hz, 20°C	I <sub>L</sub> MAX (μA) 20°C	MAX Ripple Current A (rms)	
22000	10	35x52; 40x52	0.060	1320	5.0	
33000		35x52; 40x52	0.048	1980	6.0	
47000		35x62; 40x62	0.033	2880	8.2	
68000		35x84; 40x84	0.030	4080	11.0	
100000		35x102; 45x84	0.024	6000	12.5	
150000		51x102; 55x84	0.019	9000	16.9	
220000		51x137; 55x112	0.015	13200	22.0	
330000		63,5x122; 75x112	0.012	19800	23.5	
470000		75x122	0.010	28800	25.9	
15000		16	35x52; 40x52	0.058	1440	6.0
22000	35x52; 40x52		0.047	2110	6.5	
33000	35x62; 40x52		0.038	3200	7.1	
47000	35x84; 40x62		0.031	4500	9.1	
68000	35x102; 40x84		0.024	6510	12.1	
100000	51x84; 45x84		0.019	9600	13.2	
150000	51x112; 55x102		0.014	14400	17.6	
220000	63,5x122; 75x102		0.012	21100	24.5	
330000	75x112		0.010	32100	25.9	
470000	75x122		0.009	45000	26.9	
10000	25	35x52; 40x52	0.060	1500	6.0	
15000		35x52; 40x52	0.045	2250	6.5	
22000		35x62; 40x52	0.038	3300	7.3	
33000		35x84; 40x62	0.032	4950	9.5	
47000		35x102; 40x84	0.027	7050	12.0	
68000		51x84; 45x84	0.022	10200	13.0	
100000		51x112; 55x102	0.018	15000	18.5	
150000		63,5x112; 75x102	0.014	22500	23.5	
220000		75x112	0.011	33000	27.9	
6800		35	35x52; 40x52	0.063	1650	4.5
10000	35x52; 40x52		0.050	2400	5.0	
15000	35x62; 40x52		0.040	3600	6.8	
22000	35x84; 40x62		0.030	5200	7.9	
33000	35x102; 40x84		0.025	7410	10.5	
47000	51x102; 45x112		0.023	11280	13.0	
68000	51x112; 55x102		0.019	16500	15.0	
100000	51x137; 55x122		0.016	24000	19.5	
150000	75x122		0.013	36000	24.5	
6800	50		35x52; 40x52	0.058	2040	2.9
10000		35x62; 40x62	0.043	3000	3.9	
15000		35x84; 40x84	0.038	4500	5.3	
22000		35x102; 45x84	0.032	6600	7.5	
33000		51x102; 45x112	0.027	9900	8.3	
47000		51x112; 55x102	0.023	14100	10.5	
68000		63,5x112; 55x122	0.019	20400	12.6	
100000		75x122	0.015	30000	13.7	
4700		63	35x52; 40x52	0.070	1380	2.9
6800			35x62; 40x52	0.053	2580	3.4
10000	35x84; 40x62		0.040	3780	4.9	
15000	35x102; 45x84		0.035	4200	6.5	
22000	51x102; 45x112		0.030	8850	7.0	
33000	63,5x112; 55x112		0.025	12360	9.5	
47000	63,5x122; 75x112		0.020	17760	11.5	
68000	75x122		0.018	25680	15.9	

● CASE SIZE & MAX RIPPLE CURRENT A (rms) at 120Hz, 85°C & Resr, I<sub>L</sub>

Capacitance (μF)	Voltage (V)	DxL (mm)	Resr MAX (Ω) 120Hz, 20°C	I <sub>L</sub> MAX (μA) 20°C	MAX Ripple Current A (rms)
4700	80	35x52; 40x52	0.065	2260	3.0
6800		35x62; 40x62	0.045	3110	4.0
10000		35x84; 40x84	0.035	4800	5.0
15000		51x102; 45x112	0.028	7200	6.6
22000		51x112; 55x112	0.020	10560	8.0
33000		63,5x112; 75x112	0.018	15840	11.0
47000		63,5x137; 75x122	0.060	22600	13.5
3300		100	35x62; 40x52	0.090	1980
4700	35x84; 40x62		0.065	2820	3.8
6800	35x102; 40x84		0.045	4080	4.5
10000	51x102; 45x112		0.035	6000	6.5
15000	51x122; 55x102		0.028	9000	8.5
22000	63,5x122; 75x102		0.020	13200	9.1
33000	75x122		0.018	19800	12.5

# LARGE TYPE EA-11

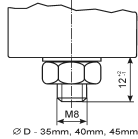
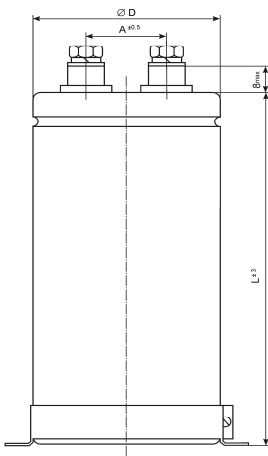
Series

**CONIS ELCO Ltd.**  
Screw Terminal, Wide Temperature Range

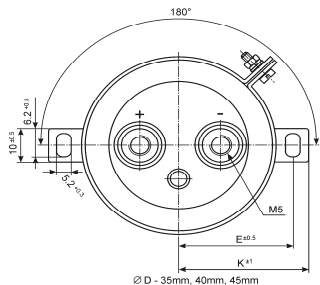
- \* Aluminum Electrolytic Capacitors
- \* Wide operating temperature range
- \* High performance and excellent temperature characteristics
- \* Load Life of 1000 hours at 105°C
- \* Screw terminal series

## SPECIFICATION

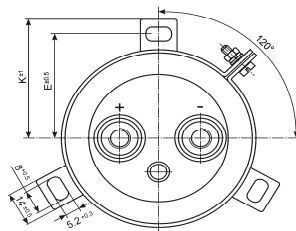
Item	Characteristics																																													
Operating Temperature Range	- 55 ÷ + 105°C																																													
Rated Working Voltage	10 ÷ 100 VDC																																													
Nominal Capacitance Range (120Hz, 20°C)	3300 ÷ 47000 0 µF																																													
Capacitance Tolerance (120Hz 20°C)	± 20%																																													
Leakage Current (max) (20°C)	$I = 0,006C_n U_r$ * Whichever is smaller after 5 minutes I - Leakage Current (µA) C <sub>n</sub> - Rated Capacitance (µF) U <sub>r</sub> - Working Voltage (V)																																													
Dissipation Factor (max) (20°C)	<table border="1"> <thead> <tr> <th>ØD \ VDC</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>35; 40</td> <td>0.50</td> <td>0.46</td> <td>0.41</td> <td>0.31</td> <td>0.26</td> <td>0.26</td> <td>0.26</td> <td>0.22</td> </tr> <tr> <td>51; 45</td> <td>0.65</td> <td>0.62</td> <td>0.47</td> <td>0.37</td> <td>0.32</td> <td>0.22</td> <td>0.22</td> <td>0.22</td> </tr> <tr> <td>63,5; 55</td> <td>0.80</td> <td>0.80</td> <td>0.72</td> <td>0.52</td> <td>0.52</td> <td>0.42</td> <td>0.37</td> <td>0.27</td> </tr> <tr> <td>75</td> <td>1.40</td> <td>1.25</td> <td>0.95</td> <td>0.72</td> <td>0.72</td> <td>0.72</td> <td>0.52</td> <td>0.42</td> </tr> </tbody> </table>	ØD \ VDC	10	16	25	35	50	63	80	100	35; 40	0.50	0.46	0.41	0.31	0.26	0.26	0.26	0.22	51; 45	0.65	0.62	0.47	0.37	0.32	0.22	0.22	0.22	63,5; 55	0.80	0.80	0.72	0.52	0.52	0.42	0.37	0.27	75	1.40	1.25	0.95	0.72	0.72	0.72	0.52	0.42
	ØD \ VDC	10	16	25	35	50	63	80	100																																					
	35; 40	0.50	0.46	0.41	0.31	0.26	0.26	0.26	0.22																																					
	51; 45	0.65	0.62	0.47	0.37	0.32	0.22	0.22	0.22																																					
63,5; 55	0.80	0.80	0.72	0.52	0.52	0.42	0.37	0.27																																						
75	1.40	1.25	0.95	0.72	0.72	0.72	0.52	0.42																																						
Low Temperature Stability impedance ratio at 100Hz	VDC	10	16	25	35	50	63	80	100																																					
	Z - 25°C/Z +20°C	4	3	2	2	2	2	2	2																																					
	Z - 40°C/Z +20°C	8	8	6	4	3	3	3	3																																					
Load Life after application of the rated voltage for 1000 hours at 105°C	Leakage Current	Less than specified value																																												
	Capacitance Change	± 20%																																												
	tan δ	Less than 200% specified value																																												
Shelf Life	After 1000 hours no load test, leakage current, capacitance and tan δ are the same as load life values.																																													



Ø D - 35mm, 40mm, 45mm



Ø D - 35mm, 40mm, 45mm



Ø D - 51mm, 55mm, 63.5mm, 75mm

## DIMENSIONS

ØD	E±0,5	K±1	a±0,5
35.0	24.0	29.0	12.7
40.0	26.5	31.5	15.0
45.0	29.5	34.5	15.0
51.0	32.9	38.9	22.5
55.0	34.5	39.5	22.5
63.5	38.4	45.3	28.6
75.0	44.5	49.5	32.0

## RIPPLE CURRENT COEFFICIENTS

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz
Coefficient	0.75	1.00	1.10	1.15	1.20
Temp (°C)	40	60	70	85	105
Coefficient	2.20	1.85	1.55	1.25	1.00

● CASE SIZE & MAX RIPPLE CURRENT A (rms) at 120Hz, 105°C & Resr, I<sub>L</sub>

Capacitance (μF)	Voltage (V)	DxL (mm)	Resr MAX (Ω) 120Hz, 20°C	I <sub>L</sub> MAX (μA) 20°C	MAX Ripple Current A (rms)	
22000	10	35x52; 40x52	0.050	1320	4.1	
33000		35x52; 40x52	0.042	1980	5.2	
47000		35x62; 40x62	0.029	2880	7.1	
68000		35x84; 40x84	0.028	4080	9.0	
100000		35x102; 45x84	0.021	6000	10.0	
150000		51x102; 55x84	0.016	9000	12.0	
220000		51x137; 55x112	0.013	13200	17.0	
330000		63,5x122; 75x112	0.010	19800	17.5	
470000		75x122	0.008	28800	18.0	
15000		16	35x52; 40x52	0.050	1440	5.2
22000	35x52; 40x52		0.043	2110	5.5	
33000	35x62; 40x52		0.035	3200	6.1	
47000	35x84; 40x62		0.029	4500	7.5	
68000	35x102; 40x84		0.022	6510	10.5	
100000	51x84; 45x84		0.017	9600	11.0	
150000	51x112; 55x102		0.012	14400	13.9	
220000	63,5x122; 75x102		0.010	21100	18.5	
330000	75x112		0.008	32100	19.0	
470000	75x122		0.007	45000	19.5	
10000	25	35x52; 40x52	0.055	1500	5.2	
15000		35x52; 40x52	0.040	2250	5.5	
22000		35x62; 40x52	0.033	3300	6.2	
33000		35x84; 40x62	0.028	4950	7.1	
47000		35x102; 40x84	0.024	7050	8.9	
68000		51x84; 45x84	0.019	10200	10.9	
100000		51x112; 55x102	0.015	15000	12.5	
150000		63,5x112; 75x102	0.010	22500	15.9	
220000		75x112	0.008	33000	19.5	
6800		35	35x52; 40x52	0.052	1650	3.8
10000	35x52; 40x52		0.042	2400	4.1	
15000	35x62; 40x52		0.035	3600	5.9	
22000	35x84; 40x62		0.024	5200	6.5	
33000	35x102; 40x84		0.022	7410	7.8	
47000	51x102; 45x112		0.019	11280	9.5	
68000	51x112; 55x102		0.016	16500	11.5	
100000	51x137; 55x122		0.013	24000	14.0	
150000	75x122		0.010	36000	17.0	
6800	50		35x52; 40x52	0.050	2040	2.4
10000		35x62; 40x62	0.039	3000	3.1	
15000		35x84; 40x84	0.035	4500	4.5	
22000		35x102; 45x84	0.025	6600	6.5	
33000		51x102; 45x112	0.021	9900	7.0	
47000		51x112; 55x102	0.019	14100	8.5	
68000		63,5x112; 55x122	0.015	20400	9.9	
100000		75x122	0.013	30000	10.5	
4700		63	35x52; 40x52	0.060	1380	2.3
6800			35x62; 40x52	0.045	2580	3.1
10000	35x84; 40x62		0.035	3780	4.0	
15000	35x102; 45x84		0.030	4200	4.6	
22000	51x102; 45x112		0.025	8850	6.5	
33000	63,5x112; 55x112		0.020	12360	7.3	
47000	63,5x122; 75x112		0.016	17760	9.0	
68000	75x122		0.013	25680	10.8	

● CASE SIZE & MAX RIPPLE CURRENT A (rms) at 120Hz, 105°C & Resr, I<sub>L</sub>

Capacitance (μF)	Voltage (V)	DxL (mm)	Resr MAX (Ω) 120Hz, 20°C	I <sub>L</sub> MAX (μA) 20°C	MAX Ripple Current A (rms)
4700	80	35x52; 40x52	0.057	2260	2.4
6800		35x62; 40x62	0.041	3110	3.4
10000		35x84; 40x84	0.030	4800	4.3
15000		51x102; 45x112	0.025	7200	5.0
22000		51x112; 55x112	0.017	10560	7.0
33000		63,5x112; 75x112	0.015	15840	8.5
47000		63,5x137; 75x122	0.013	22600	10.0
3300		100	35x62; 40x52	0.080	1980
4700	35x84; 40x62		0.057	2820	3.0
6800	35x102; 40x84		0.041	4080	3.8
10000	51x102; 45x112		0.030	6000	4.8
15000	51x122; 55x102		0.025	9000	5.9
22000	63,5x122; 75x102		0.017	13200	7.6
33000	75x122		0.015	19800	9.0

# LARGE TYPE EA-23

Series



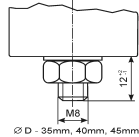
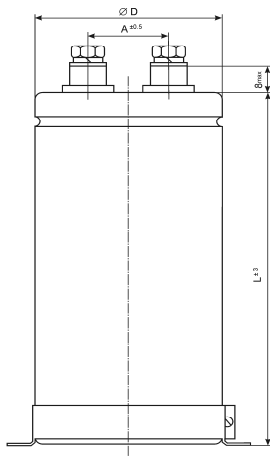
CONIS ELCO Ltd.

Screw Terminal, Wide Temperature Range

- \* Aluminum Electrolytic Capacitors
- \* Wide operating temperature range
- \* High performance and excellent temperature characteristics
- \* Low ESR. High Reliability
- \* Load Life of 2000 hours at 105°C
- \* Screw terminal series

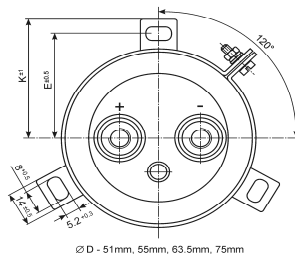
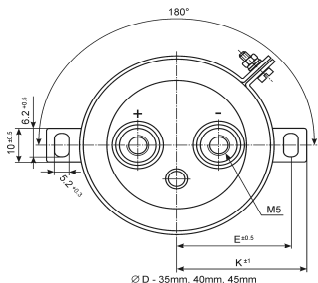
## SPECIFICATION

Item	Characteristics																																								
Operating Temperature Range	- 55 ÷ + 105°C																																								
Rated Working Voltage	10 ÷ 63 VDC																																								
Nominal Capacitance Range (120Hz, 20°C)	6800 ÷ 47000 0 µF																																								
Capacitance Tolerance (120Hz 20°C)	± 20%																																								
Leakage Current (max) (20°C)	$I = 0,006C_n U_r$ * Whichever is smaller after 5 minutes I - Leakage Current (µA) C <sub>n</sub> - Rated Capacitance (µF) U <sub>r</sub> - Working Voltage (V)																																								
Dissipation Factor (max) (20°C)	<table border="1"> <thead> <tr> <th>ØD</th> <th>VDC</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>35; 40</td> <td></td> <td>0.45</td> <td>0.45</td> <td>0.36</td> <td>0.26</td> <td>0.21</td> <td>0.20</td> </tr> <tr> <td>51; 45</td> <td></td> <td>0.60</td> <td>0.58</td> <td>0.43</td> <td>0.33</td> <td>0.28</td> <td>0.27</td> </tr> <tr> <td>63,5; 55</td> <td></td> <td>0.70</td> <td>0.70</td> <td>0.65</td> <td>0.47</td> <td>0.47</td> <td>0.45</td> </tr> <tr> <td>75</td> <td></td> <td>1.20</td> <td>1.15</td> <td>0.85</td> <td>0.65</td> <td>0.65</td> <td>0.60</td> </tr> </tbody> </table>	ØD	VDC	10	16	25	35	50	63	35; 40		0.45	0.45	0.36	0.26	0.21	0.20	51; 45		0.60	0.58	0.43	0.33	0.28	0.27	63,5; 55		0.70	0.70	0.65	0.47	0.47	0.45	75		1.20	1.15	0.85	0.65	0.65	0.60
	ØD	VDC	10	16	25	35	50	63																																	
	35; 40		0.45	0.45	0.36	0.26	0.21	0.20																																	
	51; 45		0.60	0.58	0.43	0.33	0.28	0.27																																	
63,5; 55		0.70	0.70	0.65	0.47	0.47	0.45																																		
75		1.20	1.15	0.85	0.65	0.65	0.60																																		
Low Temperature Stability impedance ratio at 100Hz	VDC	10	16	25	35	50	63																																		
	Z - 25°C/Z +20°C	4	3	2	2	2	2																																		
	Z - 40°C/Z +20°C	8	8	6	4	3	3																																		
Load Life after application of the rated voltage for 2000 hours at 105°C	Leakage Current	Less than specified value																																							
	Capacitance Change	± 20%																																							
	tan δ	Less than 200% specified value																																							
Shelf Life	After 1000 hours no load test, leakage current, capacitance and tan δ are the same as load life values.																																								



## DIMENSIONS

ØD	E±0,5	K±1	a±0,5
35.0	24.0	29.0	12.7
40.0	26.5	31.5	15.0
45.0	29.5	34.5	15.0
51.0	32.9	38.9	22.5
55.0	34.5	39.5	22.5
63.5	38.4	45.3	28.6
75.0	44.5	49.5	32.0



## RIPPLE CURRENT COEFFICIENTS

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz
Coefficient	0.75	1.00	1.10	1.15	1.20
Temp (°C)	40	60	70	85	105
Coefficient	2.20	1.85	1.55	1.25	1.00

● CASE SIZE & MAX RIPPLE CURRENT A (rms) at 120Hz, 105°C & Resr, I<sub>L</sub>

Capacitance (μF)	Voltage (V)	DxL (mm)	Resr MAX (Ω) 120Hz, 20°C	I <sub>L</sub> MAX (μA) 20°C	MAX Ripple Current A (rms)	
22000	10	35x52; 40x52	0.045	1320	5.0	
33000		35x52; 40x52	0.038	1980	6.0	
47000		35x62; 40x62	0.023	2880	8.2	
68000		35x84; 40x84	0.022	4080	11.0	
100000		35x102; 45x84	0.018	6000	12.5	
150000		51x102; 55x84	0.014	9000	16.9	
220000		51x137; 55x112	0.011	13200	22.0	
330000		63,5x122; 75x112	0.008	19800	23.5	
470000		75x122	0.006	28800	25.9	
15000		16	35x52; 40x52	0.045	1440	6.0
22000	35x52; 40x52		0.038	2110	6.5	
33000	35x62; 40x52		0.031	3200	7.1	
47000	35x84; 40x62		0.025	4500	9.1	
68000	35x102; 40x84		0.018	6510	12.1	
100000	51x84; 45x84		0.014	9600	13.2	
150000	51x112; 55x102		0.010	14400	17.6	
220000	63,5x122; 75x102		0.008	21100	24.5	
330000	75x112		0.006	32100	25.9	
470000	75x122		0.005	45000	26.9	
10000	25	35x52; 40x52	0.048	1500	6.0	
15000		35x52; 40x52	0.035	2250	6.5	
22000		35x62; 40x52	0.029	3300	7.3	
33000		35x84; 40x62	0.024	4950	9.5	
47000		35x102; 40x84	0.020	7050	12.0	
68000		51x84; 45x84	0.016	10200	13.0	
100000		51x112; 55x102	0.013	15000	18.5	
150000		63,5x112; 75x102	0.009	22500	23.5	
220000		75x112	0.007	33000	27.9	
6800		35	35x52; 40x52	0.047	1650	4.5
10000	35x52; 40x52		0.037	2400	5.0	
15000	35x62; 40x52		0.030	3600	6.8	
22000	35x84; 40x62		0.020	5200	7.9	
33000	35x102; 40x84		0.018	7410	10.5	
47000	51x102; 45x112		0.016	11280	13.0	
68000	51x112; 55x102		0.013	16500	15.0	
100000	51x137; 55x122		0.010	24000	19.5	
150000	75x122		0.008	36000	24.5	
6800	50		35x52; 40x52	0.045	2040	2.9
10000		35x62; 40x62	0.034	3000	3.9	
15000		35x84; 40x84	0.030	4500	5.3	
22000		35x102; 45x84	0.021	6600	7.5	
33000		51x102; 45x112	0.017	9900	8.3	
47000		51x112; 55x102	0.016	14100	10.5	
68000		63,5x112; 55x122	0.012	20400	12.6	
100000		75x122	0.010	30000	13.7	
4700		63	35x52; 40x52	0.060	1380	2.3
6800			35x62; 40x52	0.045	2580	3.1
10000	35x84; 40x62		0.035	3780	4.0	
15000	35x102; 45x84		0.030	4200	4.6	
22000	51x102; 45x112		0.025	8850	6.5	
33000	63,5x112; 55x112		0.020	12360	7.3	
47000	63,5x122; 75x112		0.016	17760	9.0	
68000	75x122		0.013	25680	10.8	

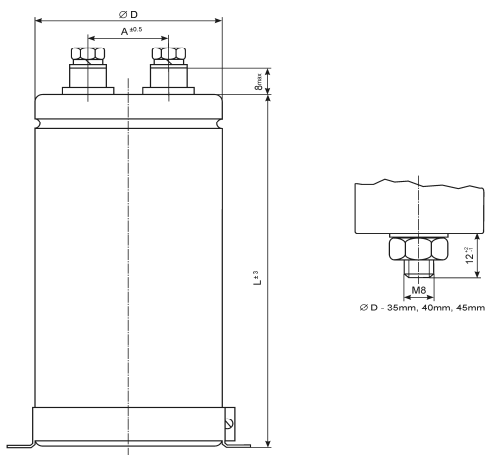


# LARGE TYPE EA-24 Series

- \* Aluminum Electrolytic Capacitors
- \* Standard Series for General Purpose
- \* Load Life of 1000 hours at 85°C
- \* Screw terminal series

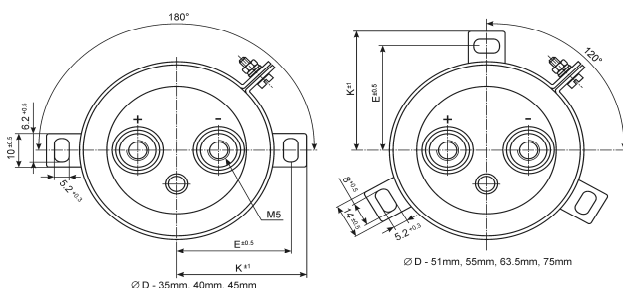
## SPECIFICATION

Item	Characteristics							
Operating Temperature Range	- 40 ÷ + 85°C							
Rated Working Voltage	160 ÷ 450 VDC							
Nominal Capacitance Range (120Hz, 20°C)	330 ÷ 15000 µF							
Capacitance Tolerance (120Hz 20°C)	± 20%							
Leakage Current (max) (20°C)	$I = 0,006C_n U_r$				* Whichever is smaller after 5 minutes			
	I - Leakage Current (µA) C <sub>n</sub> - Rated Capacitance (µF) U <sub>r</sub> - Working Voltage (V)							
Dissipation Factor (max) (20°C)	0.20							
Low Temperature Stability impedance ratio at 100Hz	VDC	160	200	250	350	385	400	450
	Z - 40°C/Z +20°C	8	8	8	10	12	12	12
Load Life after application of the rated voltage for 1000 hours at 85°C	Leakage Current	Less than specified value						
	Capacitance Change	± 20%						
	tan δ	Less than 150% specified value						
Shelf Life	After 1000 hours no load test, leakage current, capacitance and tan δ are the same as load life values.							



## DIMENSIONS

ØD	E±0,5	K±1	a±0,5
35.0	24.0	29.0	12.7
40.0	26.5	31.5	15.0
45.0	29.5	34.5	15.0
51.0	32.9	38.9	22.5
55.0	34.5	39.5	22.5
63.5	38.4	45.3	28.6
75.0	44.5	49.5	32.0



## RIPPLE CURRENT COEFFICIENTS

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz
Coefficient	0.75	1.00	1.35	1.55	2.00

Temp (°C)	40	60	70	85
Coefficient	2.00	1.50	1.30	1.00

● CASE SIZE & MAX RIPPLE CURRENT A (rms) at 120Hz, 85°C

μF \ VDC	160		200		250		350	
	330							35x62; 40x52
470							35x62; 40x62	1.70
680					35x62; 40x52	1.90	35x102; 40x84	2.30
1000			35x62; 40x52	2.10	35x84; 40x62	2.60	35x112; 45x842	2.90
1500	35x62; 40x52	2.80	35x84; 40x62	2.90	35x112; 40x84	3.20	51x102; 55x102	3.80
2200	35x84; 40x62	4.10	35x102; 40x84	4.80	51x84; 45x84	4.60	63,5x112; 75x112	4.90
3300	35x102; 40x84	5.80	51x84; 45x84	6.00	51x112; 45x112	6.10	63,5x137; 75x122	7.10
4700	51x102; 45x84	6.80	51x112; 45x112	7.30	63,5x112; 55x122	8.10		
6800	51x122; 45x112	8.80	63,5x122; 75x112	10.10	63,5x137; 75x112	9.15		
10000	63,5x137; 75x112	12.50	75x122	11.00	75x122	10.20		
15000	75x122	15.30						

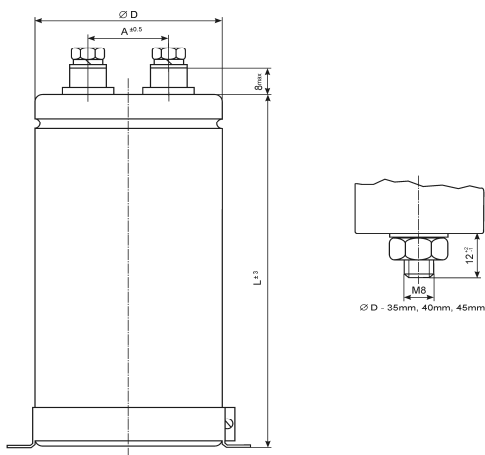
μF \ VDC	385		400		450	
	330	35x62; 40x52	1.10	35x62; 40x52	1.1	35x62; 40x52
470	35x84; 40x62	1.45	35x84; 40x62	1.45	35x84; 40x62	1.45
680	35x102; 40x84	2.10	35x102; 40x84	2.1	35x102; 40x84	2.1
1000	51x102; 45x112	2.80	51x102; 45x112	2.8	51x102; 45x112	2.8
1500	51x112; 55x112	3.30	51x112; 55x112	3.3	51x112; 55x112	3.3
2200	63,5x122; 75x112	5.00	63,5x122; 75x112	5	63,5x122; 75x112	5
3300	75x122	6.30	75x122	6.3	75x122	6.3

# LARGE TYPE EA-25 Series

- \* Aluminum Electrolytic Capacitors
- \* Wide operating temperature range
- \* High performance and excellent temperature characteristics
- \* Load Life of 1000 hours at 105°C
- \* Screw terminal series

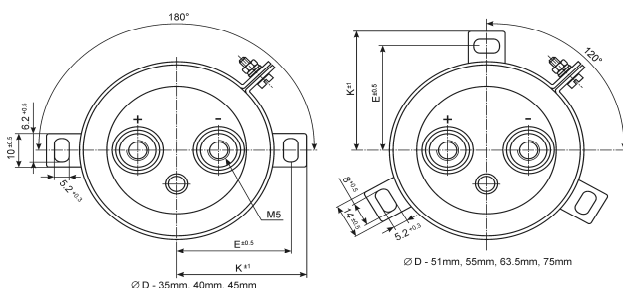
## SPECIFICATION

Item	Characteristics							
Operating Temperature Range	- 40 ÷ + 105°C							
Rated Working Voltage	160 ÷ 450 VDC							
Nominal Capacitance Range (120Hz, 20°C)	330 ÷ 15000 µF							
Capacitance Tolerance (120Hz 20°C)	± 20%							
Leakage Current (max) (20°C)	$I = 0,006C_n U_r$				* Whichever is smaller after 5 minutes			
	I - Leakage Current (µA) C <sub>n</sub> - Rated Capacitance (µF) U <sub>r</sub> - Working Voltage (V)							
Dissipation Factor (max) (20°C)	0.15							
Low Temperature Stability impedance ratio at 100Hz	VDC	160	200	250	350	385	400	450
	Z - 25°C/Z +20°C	6	6	6	8	8	8	8
	Z - 40°C/Z +20°C	8	8	8	10	10	12	12
Load Life after application of the rated voltage for 1000 hours at 105°C	Leakage Current	Less than specified value						
	Capacitance Change	± 20%						
	tan δ	Less than 150% specified value						
Shelf Life	After 1000 hours no load test, leakage current, capacitance and tan δ are the same as load life values.							



## DIMENSIONS

ØD	E±0,5	K±1	a±0,5
35.0	24.0	29.0	12.7
40.0	26.5	31.5	15.0
45.0	29.5	34.5	15.0
51.0	32.9	38.9	22.5
55.0	34.5	39.5	22.5
63.5	38.4	45.3	28.6
75.0	44.5	49.5	32.0



## RIPPLE CURRENT COEFFICIENTS

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz
Coefficient	0.75	1.00	1.10	1.15	1.20
Temp (°C)	40	60	70	85	105
Coefficient	1.80	1.40	1.20	1.00	1.00

● CASE SIZE & MAX RIPPLE CURRENT A (rms) at 120Hz, 105°C

μF \ VDC	160		200		250		350	
	330							35x62; 40x52
470							35x62; 40x62	1.00
680					35x62; 40x52	1.50	35x102; 40x84	1.30
1000			35x62; 40x52	1.80	35x84; 40x62	2.10	35x112; 45x84	1.70
1500	35x62; 40x52	2.10	35x84; 40x62	2.30	35x112; 40x84	2.60	51x102; 55x102	2.20
2200	35x84; 40x62	3.00	35x102; 40x84	3.30	51x84; 45x84	3.40	63,5x112; 75x112	3.10
3300	35x102; 40x84	4.00	51x84; 45x84	4.20	51x112; 45x112	4.80	63,5x137; 75x122	3.90
4700	51x102; 45x84	5.00	51x112; 45x112	5.80	63,5x112; 55x122	5.20		
6800	51x122; 45x112	7.00	63,5x122; 75x112	6.20	63,5x137; 75x112	5.50		
10000	63,5x137; 75x112	7.60	75x122	7.00	75x122	7.50		
15000	75x122	8.00						

μF \ VDC	385		400		450	
	330	35x62; 40x52	0.70	35x62; 40x52	0.70	35x62; 40x52
470	35x84; 40x62	1.00	35x84; 40x62	1.00	35x84; 40x62	1.00
680	35x102; 40x84	1.30	35x102; 40x84	1.30	35x102; 40x84	1.30
1000	51x102; 45x112	1.70	51x102; 45x112	1.70	51x102; 45x112	1.70
1500	51x112; 55x112	2.20	51x112; 55x112	2.20	51x112; 55x112	2.20
2200	63,5x122; 75x112	3.10	63,5x122; 75x112	3.10	63,5x122; 75x112	3.10
3300	75x122	3.90	75x122	3.90	75x122	3.90