

Surface Mount Aluminum Electrolytic Capacitors NACY Series

FEATURES

- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
- LOW IMPEDANCE AT 100KHz (Up to 20% lower than NACZ)
- WIDE TEMPERATURE RANGE (-55 +105°C)
- DESIGNED FOR AUTOMATIC MOUNTING AND REFLOW SOLDERING

**RoHS
Compliant**
includes all homogeneous materials



CHARACTERISTICS

*See Part Number System for Details

Rated Capacitance Range		4.7 ~ 6800 μF										
Operating Temperature Range		- 55°C + 105°C										
Capacitance Tolerance		±20% (120Hz/+20°C)										
Max. Leakage Current after 2 minutes at 20°C		0.01CV or 3 μA										
Max. Tan δ at 120Hz & 20°C	W.V.(Vdc)	6.3	10	16	25	35	50	63	80	100		
	S.V.(Vdc)	8	13	20	32	44	63	80	100	125		
	Tan δ	φ4 to φ6.3	0.24	0.20	0.16	0.14	0.12	0.12	0.10	0.08	0.07	
		φ8 ~ φ16	C≤1500μF	0.28	0.24	0.20	0.16	0.14	0.14	0.12	0.10	0.08
			C=2200μF	-	0.26	-	0.18	-	-	-	-	-
			C=3300μF	0.32	-	0.24	-	-	-	-	-	-
C=4700μF			-	0.30	-	-	-	-	-	-	-	
C=6800μF	0.36	-	-	-	-	-	-	-	-			
Low Temperature Stability (Impedance Ratio at 120 Hz)	Z -40°C/Z +20°C	3	2	2	2	2	2	2	2	2		
	Z -55°C/Z +20°C	5	4	4	3	3	3	3	3	3		
Load Life Test AT 105°C 4 ~ 6.3mm Dia 1,000 Hours 8 ~ 12.5mm Dia 2,000 Hours	Capacitance Change	Within ±25% of initial measured value										
	Tan δ	Less than 200% of the specified value										
	Leakage Current	Less than the specified maximum value										

MAXIMUM PERMISSIBLE RIPPLE CURRENT (mA rms AT 100KHz AND 105°C)

Cap. (μF)	Working Voltage (Vdc)									
	6.3	10	16	25	35	50	63	80	100	
4.7	-	-	-	-	90	64	55	45	-	-
10	-	-	-	90	170	215	90	65	-	-
15	-	-	90	170	170	-	-	-	-	-
22	-	90	170	170	170	215	135	140	140	-
27	90	-	-	-	-	-	-	-	-	-
33	-	170	-	250	250	243	280	140	220	-
47	170	-	250	250	250	243	280	220	500	-
56	170	-	-	250	-	-	-	-	-	-
68	-	250	250	250	300	-	-	-	-	-
100	250	-	250	300	600	400	480	500	800	-
150	250	250	300	600	600	-	-	500	800	-
220	250	300	300	600	600	585	800	-	-	-
330	300	600	600	600	850	800	-	800	-	-
470	600	600	600	850	1150	-	1410	-	-	-
680	600	-	850	-	1150	-	-	-	-	-
1000	600	850	-	1150	-	1610	-	-	-	-
1500	850	-	1150	-	1800	-	-	-	-	-
2200	-	1150	-	1800	-	-	-	-	-	-
3300	1150	-	1800	-	-	-	-	-	-	-
4700	-	1800	-	-	-	-	-	-	-	-
6800	1800	-	-	-	-	-	-	-	-	-

MAXIMUM IMPEDANCE (Ω AT 100KHz AND 20°C)

Cap. (μF)	Working Voltage (Vdc)									
	6.3	10	16	25	35	50	63	80	100	
4.7	-	-	-	-	1.45	2.55	2.00	2.40	-	-
10	-	-	-	1.45	0.7	0.52	1.00	2.00	-	-
15	-	-	1.45	0.7	0.7	-	-	-	-	-
22	-	1.45	0.7	0.7	0.7	0.52	0.80	0.90	0.90	-
27	1.45	-	-	-	-	-	-	-	-	-
33	-	0.7	-	0.39	0.39	0.44	0.35	0.90	0.50	-
47	0.7	-	0.39	0.39	0.39	0.44	0.35	0.50	0.24	-
56	0.7	-	-	0.39	-	-	-	-	-	-
68	-	0.39	0.39	0.39	0.30	-	-	-	-	-
100	0.39	-	0.39	0.3	0.15	0.22	0.20	0.24	0.14	-
150	0.39	0.39	0.3	0.15	0.15	-	-	0.24	0.14	-
220	0.39	0.3	0.3	0.15	0.15	0.13	0.14	-	-	-
330	0.3	0.15	0.15	0.15	0.08	0.10	-	0.14	-	-
470	0.15	0.15	0.15	0.08	0.058	-	0.065	-	-	-
680	0.15	-	0.08	-	0.058	-	-	-	-	-
1000	0.15	0.08	-	0.058	-	0.065	-	-	-	-
1500	0.08	-	0.058	-	0.035	-	-	-	-	-
2200	-	0.058	-	0.035	-	-	-	-	-	-
3300	0.058	-	0.035	-	-	-	-	-	-	-
4700	-	0.035	-	-	-	-	-	-	-	-
6800	0.035	-	-	-	-	-	-	-	-	-

Denotes New Values

PRECAUTIONS

Please review the notes on correct use, safety and precautions found on pages T10 & T11 of NIC's Electrolytic Capacitor catalog.
Also found at www.niccomp.com/precautions
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: tpmg@niccomp.com

RIPPLE CURRENT

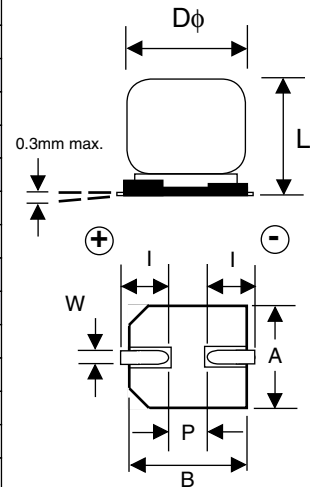
FREQUENCY CORRECTION FACTOR

Frequency	≤ 120Hz	≤ 1KHz	≤ 10KHz	≤ 100KHz
Correction Factor	0.75	0.85	0.95	1.00



STANDARD PRODUCT AND CASE SIZE Dφ xL (mm)

Cap (μF)	Code	Working Voltage (Vdc)								
		6.3	10	16	25	35	50	63	80	100
4.7	4R7	-	-	-	-	4x6.3	4x6.3	5x6.3	6.3x6.3	-
10	100	-	-	-	4x6.3	5x6.3	6.3x6.3	6.3x6.3	6.3x8	-
15	150	-	-	4x6.3	5x6.3	5x6.3	-	-	-	-
22	220	-	4x6.3	5x6.3	5x6.3	5x6.3	6.3x6.3	6.3x8	8x10.5	8x10.5
27	270	4x6.3	-	-	-	-	-	-	-	-
33	330	-	5x6.3	-	6.3x6.3	6.3x6.3	6.3x8	8x10.5	8x10.5	10x10.5
47	470	5x6.3	-	6.3x6.3	6.3x6.3	6.3x6.3	6.3x8	8x10.5	10x10.5	12.5x14
56	560	5x6.3	-	-	6.3x6.3	-	-	-	-	-
68	680	-	6.3x6.3	6.3x6.3	6.3x6.3	6.3x8	-	-	-	-
100	101	6.3x6.3	-	6.3x6.3	6.3x8	8x10.5	8x10.5	10x10.5	12.5x14	16x17
150	151	6.3x6.3	6.3x6.3	6.3x8	8x10.5	8x10.5	-	-	12.5x14	16x17
220	221	6.3x6.3	6.3x8	6.3x8	8x10.5	8x10.5	10x10.5	12.5x14	-	-
330	331	6.3x8	8x10.5	8x10.5	8x10.5	10x10.5	12.5x14	-	16x17	-
470	471	8x10.5	8x10.5	8x10.5	10x10.5	12.5x14	-	16x17	-	-
680	681	8x10.5	-	10x10.5	-	12.5x14	-	-	-	-
1000	102	8x10.5	10x10.5	-	12.5x14	-	16x17	-	-	-
1500	152	10x10.5	-	12.5x14	-	16x17	-	-	-	-
2200	222	-	12.5x14	-	16x17	-	-	-	-	-
3300	332	12.5x14	-	16x17	-	-	-	-	-	-
4700	472	-	16x17	-	-	-	-	-	-	-
6800	682	16x17	-	-	-	-	-	-	-	-



DIMENSIONS (mm)

Case Size	Dφ ±0.5	L max.	A ±0.2	B ±0.2	l ±0.2	W	P ±0.2
4 x 6.3	4.0	6.3	4.3	4.3	1.8	0.5 ~ 0.8	1.0
5 x 6.3	5.0	6.3	5.3	5.3	2.2	0.5 ~ 0.8	1.5
6.3 x 6.3	6.3	6.3	6.6	6.6	2.5	0.5 ~ 0.8	2.2
6.3 x 8	6.3	8.0	6.6	6.6	2.5	0.5 ~ 0.8	2.2
8 X 10.5	8.0	10.5	8.3	8.3	2.9	0.7 ~ 1.0	3.2
10 x 10.5	10.0	10.5	10.3	10.3	3.2	0.7 ~ 1.4	4.6
12.5 x 14	12.5	14.0	12.8	12.8	4.5	0.6 ~ 1.4	4.6
16x17	16.0	17	16.3	16.3	5.0	1.8 ~ 2.1	7.0

PART NUMBER SYSTEM

