

HIGH TEMPERATURE, EXTENDED LOAD LIFE, RADIAL LEADS, POLARIZED

FEATURES

- HIGH RIPPLE CURRENT
- LONG LIFE AT HIGH TEMPERATURE

CHARACTERISTICS

Rated Voltage Range		200 ~ 450VDC					
Capacitance Range		33 ~ 560 μ F					
Operating Temperature Range		-25°C ~ +105°C					
Capacitance Tolerance		\pm 20% (M)					
Maximum Leakage Current @ +20°C		3 x \sqrt{CV} after 5 minute at rated voltage					
Max. Tan δ at 120Hz/20°C	W.V. (Vdc)	200	220	250	400	420	450
	S.V. (Vdc)	250	270	300	450	470	500
	Tan δ	0.20	0.20	0.20	0.20	0.25	0.25
Low Temperature Stability Impedance Ratio @ 120Hz	Z-25°C/Z+20°C	3	3	3	8	8	8
Load Life at W.V. & 105°C All Sizes: 10,000 Hours	Δ Capacitance	Within \pm 20% of initial measured value					
	Δ Tan δ	Less than 200% of specified value					
	Δ LC	Less than specified value					

**MAXIMUM PERMISSIBLE RIPPLE CURRENT (mA AT 120Hz AND 105°C)**

Cap. (μ F)	Working Voltage (Vdc)					
	200	220	250	400	420	450
33	-	-	-	-	-	370
39	-	-	-	-	390	420
47	-	-	-	440	450	480
					440	
56	-	-	-	500	520	510
					460	
68	-	-	-	580	550	590
				510		570
82	-	-	-	610	630	680
				610	560	650
100	-	-	690	740	730	740
				740	670	
120	-	740	790	800	770	830
			740	790		
150	800	860	920	910	900	950
		800	890			
180	920	940	950	1040	-	-
	850		880			
220	1010	1010	1110	-	-	-
	1000	940	1100			
270	1180	1190	1270	-	-	-
	1160	1130	1230			
330	1310	1300	1420	-	-	-
	1300					
390	1430	1490	1590	-	-	-
470	1580	1690	-	-	-	-
560	1770	-	-	-	-	-

MAXIMUM ESR (Ω AT 120Hz AND 20°C)

Cap. (μ F)	Working Voltage (Vdc)	
	200 ~ 400	420 ~ 450
33	-	12.57
39	-	10.63
47	7.06	8.82
56	5.92	7.40
68	4.99	6.10
82	4.05	5.06
100	3.32	4.15
120	2.76	3.46
150	2.21	2.76
180	1.84	-
220	1.51	-
270	1.23	-
330	1.01	-
390	0.85	-
470	0.71	-
560	0.59	-

PART NUMBER SYSTEM

NRB-XW 101 M 250V 12.5X30 F

Series | Capacitance Code: First 2 characters significant, third character is multiplier | Tolerance Code (M=20%) | Working Voltage (Vdc) | Case Size (D ϕ x L) | RoHS Compliant

RIPPLE CURRENT FREQUENCY CORRECTION FACTOR

Voltage Rating	60 (50)Hz	120Hz	500Hz	1KHz	10KHz ~ up
200 ~ 250Vdc	0.8	1.0	1.20	1.30	1.40
400 ~ 450Vdc	0.8	1.0	1.25	1.40	1.50

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



STANDARD PRODUCT AND CASE SIZE TABLE D ϕ x L (mm)

Cap. (μ F)	Code	Working Voltage (Vdc)					
		200	220	250	400	420	450
33	330	-	-	-	-	-	12.5x30
39	390	-	-	-	-	12.5x30	12.5x35
47	470	-	-	-	12.5x30	12.5x35	2.5x40 16x25
56	560	-	-	-	12.5x35	12.5x40 16x25	16x30
68	680	-	-	-	12.5x40 16x25	16x30	16x35 18x25
82	820	-	-	-	16x30 18x25	16x35 18x25	16x40 18x30
100	101	-	-	12.5x30	16x35 18x30	16x40 18x30	18x35
120	121	-	12.5x30	12.5x35 16x25	16x40 18x35	18x35	18x40
150	151	12.5x30	12.5x35 16x25	12.5x40 16x30	18x40	18x40	18x45
180	181	12.5x35 16x25	16x30	16x30 18x25	18x45	-	-
220	221	16x30 18x25	16x30 18x25	16x35 18x30	-	-	-
270	271	16x35 18x30	16x35 18x30	16x40 18x35	-	-	-
330	331	16x40 18x30	18x35	18x40	-	-	-
390	391	18x35	18x40	18x45	-	-	-
470	471	18x40	18x45	-	-	-	-
560	561	18x45	-	-	-	-	-

LEAD SPACING AND DIAMETER (mm)

Case Dia. (D ϕ)	12.5	16	18
Lead Dia. (D ϕ)	0.6	0.8	0.8
Lead Spacing (F)	5.0	7.5	7.5
Dim. α	0.5	0.5	0.5
Dim. β	2.5	2.5	2.5

