

HIGH CV, RADIAL LEADS, POLARIZED

FEATURES

- EXTENDED VALUE AND HIGH VOLTAGE
- NEW REDUCED SIZES

RoHS
Compliant
Includes all homogeneous materials

*See Part Number System for Details



CHARACTERISTICS

Rated Voltage Range		6.3 ~ 250Vdc						350 ~ 450Vdc					
Capacitance Range		4.7 ~ 10,000μF						1.5 ~ 68μF					
Operating Temperature Range		-40 ~ +85°C						-25 ~ +85°C					
Capacitance Tolerance		±20%(M)											
Max. Leakage Current @ 20°C		6.3 ~ 50Vdc				CV≤1,000μF				CV>1,000μF			
		0.01CV or 3μA whichever is greater after 2 minutes				0.1CV + 40μA (1 min.)				0.04CV + 100μA (1 min.)			
						.03CV + 15μA (5 min.)				0.02CV + 25μA (5 min.)			
Max. Tan δ @ 120Hz/20°C	W.V. (Vdc)	6.3	10	16	25	35	50	160	200	250	350	400	450
	S.V. (Vdc)	8.0	13	20	32	44	63	200	250	300	400	450	500
	C≤1,000μF	0.26	0.22	0.18	0.16	0.14	0.12	0.20	0.20	0.20	0.20	0.20	0.20
	C=2,000μF	0.28	0.24	0.20	0.18	0.16	0.14	-	-	-	-	-	-
	C=3,300μF	0.30	0.26	0.22	0.20	0.18	-	-	-	-	-	-	-
	C=4,700μF	0.32	0.28	0.24	0.22	-	-	-	-	-	-	-	-
	C=6,800μF	0.36	0.32	0.28	-	-	-	-	-	-	-	-	-
Low Temperature Stability Impedance Ratio @ 120Hz	C=10,000μF	0.44	0.40	-	-	-	-	-	-	-	-	-	-
	W.V. (Vdc)	6.3	10	16	25	35	50	160	200	250	350	400	450
	Z-25°C/Z+20°C	6	4	4	3	2	2	3	3	3	5	5	7
	Z-40°C/Z+20°C	12	10	8	6	4	3	-	-	-	-	-	-
Load Life Test at Rated W.V. +85°C 2,000 Hours		Capacitance Change				Within ±25% of initial measured value							
		Tan δ				Less than 200% of specified maximum value							
		Leakage Current				Less than specified maximum value							

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

Cap. (μF)	Code	Working Voltage (Vdc)											
		6.3	10	16	25	35	50	160	200	250	350	400	450
1.5	1R5	-	-	-	-	-	-	-	-	-	-	-	8x9
2.2	2R2	-	-	-	-	-	-	-	-	-	-	8x9	10x9
3.3	3R3	-	-	-	-	-	-	-	-	-	8x9	10x9	10x9
4.7	4R7	-	-	-	-	-	-	8x9	8x9	8x9	10x9	10x9	-
6.8	6R8	-	-	-	-	-	-	8x9	8x9	10x9	12.5x16	12.5x16	12.5x16
10	100	-	-	-	-	-	-	10x9	10x9	10x9	12.5x16	12.5x16	16x16
22	220	-	-	-	-	-	-	-	-	12.5x16	16x16	18x16	16x20
33	330	-	-	-	-	-	-	12.5x16	12.5x16	16x16	18x16	16x20	18x20
47	470	-	-	-	-	-	-	12.5x16	16x16	18x16	16x20	18x20	18x25
68	680	-	-	-	-	-	-	16x16	18x16	16x20	18x25	18x25	-
100	101	-	-	-	-	-	8x9	16x20	16x20	18x20	-	-	-
150	151	-	-	-	-	8x9	10x9	18x20	18x25	18x25	-	-	-
220	221	-	-	-	8x9	10x9	-	18x25	-	-	-	-	-
330	331	-	-	8x9	10x9	10x9	-	-	-	-	-	-	-
470	471	8x9	8x9	8x9	10x9	-	12.5x16	-	-	-	-	-	-
680	681	8x9	10x9	10x9	12.5x16	12.5x16	16x16	-	-	-	-	-	-
1,000	102	10x9	10x9	-	12.5x16	16x16	16x20	-	-	-	-	-	-
2,200	222	12.5x16	12.5x16	16x16	16x20	18x20	18x25	-	-	-	-	-	-
3,300	332	12.5x16	16x16	16x20	18x20	18x25	-	-	-	-	-	-	-
4,700	472	18x16	16x20	18x20	18x25	-	-	-	-	-	-	-	-
6,800	682	16x20	18x20	18x25	-	-	-	-	-	-	-	-	-
10,000	103	18x20	18x25	-	-	-	-	-	-	-	-	-	-

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



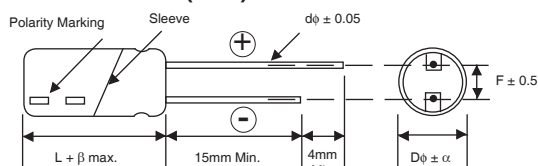
STANDARD PRODUCT, SPECIFICATIONS AND CASE SIZES D ϕ x L (mm)

Part Number	Cap. (μ F)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Ripple Current Rating (mA) +85°C/120Hz	Load Life Hours @ +85°C
NRE-LX471M6.3V8x9F	470	6.3	0.26	380	2,000
NRE-LX681M6.3V8x9F	680		0.26	420	2,000
NRE-LX102M6.3V10x9F	1,000		0.26	550	2,000
NRE-LX222M6.3V12.5x16F	2,200		0.28	1080	2,000
NRE-LX332M6.3V12.5x16F	3,300		0.30	1100	2,000
NRE-LX472M6.3V18x16F	4,700		0.32	1200	2,000
NRE-LX682M6.3V16x20F	6,800		0.36	1550	2,000
NRE-LX103M6.3V18x20F	10,000		0.44	1700	2,000
NRE-LX471M10V8x9F	470	10	0.22	380	2,000
NRE-LX681M10V10x9F	680		0.22	510	2,000
NRE-LX102M10V10x9F	1,000		0.22	550	2,000
NRE-LX222M10V12.5x16F	2,200		0.24	1080	2,000
NRE-LX332M10V16x16F	3,300		0.26	1120	2,000
NRE-LX472M10V16x20F	4,700		0.28	1550	2,000
NRE-LX682M10V18x20F	6,800		0.32	1650	2,000
NRE-LX103M10V18x25F	10,000		0.40	2150	2,000
NRE-LX331M16V8x9F	330	16	0.18	350	2,000
NRE-LX471M16V8x9F	470		0.18	380	2,000
NRE-LX681M16V10x9F	680		0.18	510	2,000
NRE-LX222M16V16x16F	2,200		0.20	1100	2,000
NRE-LX332M16V16x20F	3,300		0.22	1500	2,000
NRE-LX472M16V18x20F	4,700		0.24	1600	2,000
NRE-LX682M16V18x25F	6,800		0.28	2050	2,000
NRE-LX221M25V8x9F	220	25	0.16	320	2,000
NRE-LX331M25V10x9F	330		0.16	410	2,000
NRE-LX471M25V10x9F	470		0.16	460	2,000
NRE-LX681M25V12.5x16F	680		0.16	760	2,000
NRE-LX102M25V12.5x16F	1,000		0.16	940	2,000
NRE-LX222M25V16x20F	2,200		0.18	1400	2,000
NRE-LX332M25V18x20F	3,300		0.20	1550	2,000
NRE-LX472M25V18x25F	4,700		0.22	2000	2,000
NRE-LX151M35V8x9F	150	35	0.14	260	2,000
NRE-LX221M35V10x9F	220		0.14	360	2,000
NRE-LX331M35V10x9F	330		0.14	420	2,000
NRE-LX681M35V12.5x16F	680		0.14	760	2,000
NRE-LX102M35V16x16F	1,000		0.14	950	2,000
NRE-LX222M35V18x20F	2,200		0.16	1500	2,000
NRE-LX332M35V18x25F	3,300		0.18	1850	2,000
NRE-LX101M50V8x9F	100	50	0.12	240	2,000
NRE-LX151M50V10x9F	150		0.12	320	2,000
NRE-LX471M50V12.5x16F	470		0.12	700	2,000
NRE-LX681M50V16x16F	680		0.12	810	2,000
NRE-LX102M50V16x20F	1,000		0.12	1050	2,000
NRE-LX222M50V18x25F	2,200		0.14	1650	2,000

LEAD SPACING AND DIAMETER (mm)

Case Dia. (D ϕ)	8	10	12.5	16	18
Lead Dia. (d ϕ)	0.6	0.6	0.6	0.8	0.8
Lead Spacing (F)	3.5	5.0	5.0	7.5	7.5
Dim. α	0.5	0.5	0.5	0.5	0.5

DIMENSIONS (mm)



Drawing is representative of parts as supplied in bulk or straight lead format, please see taping specification for details on taped format packaging.

PART NUMBER SYSTEM

NRE-LX 151 M 50V 10X9 TB 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)
- TB = Tape & Box*
- RoHS Compliant

*see taping specifications for details



STANDARD PRODUCT, SPECIFICATIONS AND CASE SIZES D ϕ x L (mm)

Part Number	Cap. (μ F)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Ripple Current Rating (mA) +85°C/120Hz	Load Life Hours @ +85°C
NRE-LX4R7M160V8x9F	4.7	160	0.20	54	2,000
NRE-LX6R8M160V8x9F	6.8		0.20	60	2,000
NRE-LX100M160V10x9F	10		0.20	85	2,000
NRE-LX330M160V12.5x16F	33		0.20	175	2,000
NRE-LX470M160V12.5x16F	47		0.20	220	2,000
NRE-LX680M160V16x16F	68		0.20	353	2,000
NRE-LX101M160V16x20F	100		0.20	478	2,000
NRE-LX151M160V18x20F	150		0.20	595	2,000
NRE-LX221M160V18x25F	220		0.20	771	2,000
NRE-LX4R7M200V8x9F	4.7	200	0.20	54	2,000
NRE-LX6R8M200V8x9F	6.8		0.20	60	2,000
NRE-LX100M200V10x9F	10		0.20	85	2,000
NRE-LX330M200V12.5x16F	33		0.20	175	2,000
NRE-LX470M200V16x16F	47		0.20	313	2,000
NRE-LX680M200V18x16F	68		0.20	380	2,000
NRE-LX101M200V16x20F	100		0.20	478	2,000
NRE-LX151M200V18x25F	150		0.20	671	2,000
NRE-LX4R7M250V8x9F	4.7	250	0.20	54	2,000
NRE-LX6R8M250V10x9F	6.8		0.20	69	2,000
NRE-LX100M250V10x9F	10		0.20	85	2,000
NRE-LX220M250V12.5x16F	22		0.20	156	2,000
NRE-LX330M250V16x16F	33		0.20	270	2,000
NRE-LX470M250V18x16F	47		0.20	330	2,000
NRE-LX680M250V16x20F	68		0.20	414	2,000
NRE-LX101M250V18x20F	100		0.20	507	2,000
NRE-LX151M250V18x25F	150		0.20	671	2,000
NRE-LX3R3M350V8x9F	3.3	350	0.20	37	2,000
NRE-LX4R7M350V10x9F	4.7		0.20	49	2,000
NRE-LX6R8M350V12.5x16F	6.8		0.20	94	2,000
NRE-LX100M350V12.5x16F	10		0.20	100	2,000
NRE-LX220M350V16x16F	22		0.20	220	2,000
NRE-LX330M350V18x16F	33		0.20	270	2,000
NRE-LX470M350V16x20F	47		0.20	330	2,000
NRE-LX680M350V18x25F	68		0.20	455	2,000
NRE-LX2R2M400V8x9F	2.2	400	0.20	35	2,000
NRE-LX3R3M400V10x9F	3.3		0.20	40	2,000
NRE-LX4R7M400V10x9F	4.7		0.20	49	2,000
NRE-LX6R8M400V12.5x16F	6.8		0.20	94	2,000
NRE-LX100M400V12.5x16F	10		0.20	100	2,000
NRE-LX220M400V18x16F	22		0.20	226	2,000
NRE-LX330M400V16x20F	33		0.20	282	2,000
NRE-LX470M400V18x20F	47		0.20	350	2,000
NRE-LX680M400V18x25F	68		0.20	455	2,000
NRE-LX1R5M450V8x9F	1.5	450	0.20	19	2,000
NRE-LX2R2M450V10x9F	2.2		0.20	29	2,000
NRE-LX3R3M450V10x9F	3.3		0.20	35	2,000
NRE-LX6R8M450V12.5x16F	6.8		0.20	77	2,000
NRE-LX100M450V16x16F	10		0.20	131	2,000
NRE-LX220M450V16x20F	22		0.20	208	2,000
NRE-LX330M450V18x20F	33		0.20	259	2,000
NRE-LX470M450V18x25F	47		0.20	333	2,000

RIPPLE CURRENT FREQUENCY CORRECTION FACTORS

Frequency (Hz)	60	120	500	1K	10K $\geq$
1.5 ~ 6.8 μ F	0.65	1.00	1.20	1.30	1.50
10 ~ 68 μ F	0.80	1.00	1.20	1.30	1.50
100 ~ 1,000 μ F	0.80	1.00	1.10	1.15	1.20
2,200 ~ 10,000 μ F	0.80	1.00	1.05	1.10	1.15

