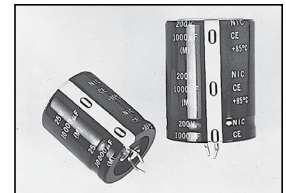


FEATURES

- LONG LIFE AT +105°C (3,000 HOURS)
- HIGH RIPPLE CURRENT
- HIGH DENSITY DESIGN
- SUITABLE FOR SWITCHING POWER SUPPLIES

RoHS
Compliant
includes all homogeneous materials

*See Part Number System for Details



SPECIFICATIONS

Operating Temperature Range		-25 ~ +105°C											
Rated Voltage Range		160 ~ 450Vdc											
Rated Capacitance Range		56 ~ 2,200μF											
Capacitance Tolerance		±20% (M)											
Max. Leakage Current (μA) After 5 minutes (20°C)		$\leq 3 \sqrt{CV}$ (μA)											
Max. Tan δ at 120Hz/20°C	W.V. (Vdc)	160	180	200	220	250	315	350	385	400	420	450	
	Tan δ max.	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.20	0.20	
Surge Voltage	W.V. (Vdc)	160	180	200	220	250	315	350	385	400	420	450	
	S.V. (Vdc)	200	225	250	270	300	370	400	440	450	470	500	
Ripple Current Frequency Correction Factors	Frequency (Hz)	50		120		300		1K		10K		50K	
	Multiplier at 105°C	160 ~ 315Vdc		0.80		1.00		1.15		1.17		1.20	
		400 ~ 450Vdc		0.77		1.00		1.16		1.30		1.41	
Ripple Current Temperature Correction Factors	Temperature (°C)	40		60		70		85		105		-	
	Multiplier	2.47		2.37		2.17		1.67		1.00		-	
Low Temperature Stability (Impedance Ratio)	W.V. (Vdc)	160	180	200	220	250	315	350	385	400	420	450	
	Z-25°C/+20°C	7											
Load Life Test 3,000 hours at +105°C	Capacitance Change	Within ±20% of initial measured value											
	Tan δ	Less than 200% of specified maximum value											
	Leakage Current	Less than specified maximum value											
Shelf Life Test 1,000 hours at +105°C (no load)	Capacitance Change	Within ±15% of initial measured value											
	Tan δ	Less than 150% of specified maximum value											
	Leakage Current	Less than specified maximum value											
Surge Voltage Test 1,000 Cycles 30 seconds "On" and 5.5 minutes "Off" @ +15°C ~ +35°C	Capacitance Change	Within ±15% of initial measured value											
	Tan δ	Less than specified maximum value											
	Leakage Current	Less than specified maximum value											
Soldering Effect Solder Bath Temp.: +260 ± 5°C Pre-heat: 120 ± 2 sec. to +120 ± 2°C	Capacitance Change	Within ±10% of initial measured value											
	Tan δ	Less than specified maximum value											
	Leakage Current	Less than specified maximum value											

Note: Please note NRLCW product series is specifically designed for use in commercial & consumer applications. For mission critical or industrial applications, NIC recommends our NRLFW / NRLMW / NRLPW / NRLRW series products. Please consult NIC product specifications available on www.niccomp.com. If in doubt, please contact NIC to review your requirements (apreview@niccomp.com)

MECHANICAL CHARACTERISTICS:

1. Safety Vent:

The capacitors are provided with a pressure sensitive safety vent on the top of can. The vent is designed to rupture in the event that high internal gas pressure is developed by circuit malfunction or mis-use like reverse voltage.

2. Terminal Strength:

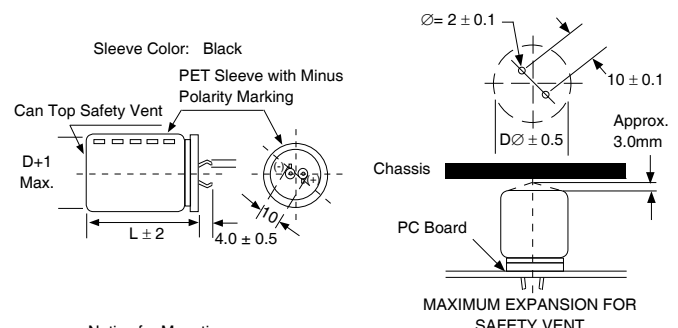
Each terminal of the capacitor shall withstand an axial pull force of 4.5Kg for a period 10 seconds or a radial bent force of 2.5Kg for a period of 30 seconds.

PART NUMBER SYSTEM

NRLCW 221 M 400V 22X51 S F

Series Case Size (mm) Voltage Rating Tolerance Code Capacitance Code RoHS compliant Lead Length (S=4mm)

Recommended PC Board Mounting Holes:



Notice for Mounting

The space from the top of the can shall be more than (3mm) from chassis or other construction materials so that safety vent has room to expand in case of emergency.

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 LIST, CASE SIZE AND SPECIFICATIONS

Part Number	Cap. (μ F)	Voltage (Vdc)	Case Size (mm)	ESR (Ω @ 20°C)	Max. Ripple Current (Arms @ 105°C)		Load Life @ +105°C (Hours)
				120Hz	120Hz	50KHz	
NRLCW221M160V22X25SF	220	160	22X25	1.13	0.76	0.91	3000
NRLCW331M160V22X25SF	330		22X25	0.75	1.14	1.37	3000
NRLCW331M160V25.4X25SF	330		25.4X25	0.75	1.14	1.37	3000
NRLCW391M160V22X31SF	390		22X31	0.64	1.21	1.45	3000
NRLCW391M160V25.4X25SF	390		25.4X25	0.64	1.21	1.45	3000
NRLCW391M160V30X25SF	390		30X25	0.64	1.21	1.45	3000
NRLCW471M160V22X35SF	470		22X35	0.53	1.33	1.60	3000
NRLCW471M160V25.4X25SF	470		25.4X25	0.53	1.33	1.60	3000
NRLCW471M160V30X25SF	470		30X25	0.53	1.33	1.60	3000
NRLCW561M160V22X41SF	560		22X41	0.44	1.46	1.75	3000
NRLCW561M160V25.4X31SF	560		25.4X31	0.44	1.46	1.75	3000
NRLCW561M160V30X25SF	560		30X25	0.44	1.46	1.75	3000
NRLCW561M160V35X25SF	560		35X25	0.44	1.46	1.75	3000
NRLCW681M160V22X45SF	680		22X45	0.37	1.61	1.93	3000
NRLCW681M160V25.4X35SF	680		25.4X35	0.37	1.61	1.93	3000
NRLCW681M160V30X25SF	680		30X25	0.37	1.61	1.93	3000
NRLCW681M160V35X25SF	680		35X25	0.37	1.61	1.93	3000
NRLCW821M160V22X51SF	820		22X51	0.30	1.90	2.28	3000
NRLCW821M160V25.4X41SF	820		25.4X41	0.30	1.90	2.28	3000
NRLCW821M160V30X31SF	820		30X31	0.30	1.90	2.28	3000
NRLCW821M160V35X25SF	820		35X25	0.30	1.90	2.28	3000
NRLCW102M160V25.4X45SF	1000		25.4X45	0.25	2.11	2.53	3000
NRLCW102M160V30X35SF	1000		30X35	0.25	2.11	2.53	3000
NRLCW102M160V35X25SF	1000		35X25	0.25	2.11	2.53	3000
NRLCW122M160V25.4X51SF	1200		25.4X51	0.21	2.31	2.77	3000
NRLCW122M160V30X41SF	1200		30X41	0.21	2.31	2.77	3000
NRLCW122M160V35X31SF	1200		35X31	0.21	2.31	2.77	3000
NRLCW152M160V30X45SF	1500		30X45	0.17	2.67	3.20	3000
NRLCW152M160V35X35SF	1500		35X35	0.17	2.67	3.20	3000
NRLCW182M160V30X51SF	1800		30X51	0.14	3.14	3.77	3000
NRLCW182M160V35X45SF	1800		35X45	0.14	3.14	3.77	3000
NRLCW222M160V35X51SF	2200		35X51	0.11	3.58	4.30	3000
NRLCW271M180V22X25SF	270	180 (Continue next page)	22X25	0.92	0.93	1.12	3000
NRLCW331M180V22X31SF	330		22X31	0.75	1.20	1.44	3000
NRLCW331M180V25.4X25SF	330		25.4X25	0.75	1.20	1.44	3000
NRLCW391M180V22X35SF	390		22X35	0.64	1.35	1.62	3000
NRLCW391M180V25.4X31SF	390		25.4X31	0.64	1.35	1.62	3000
NRLCW391M180V30X25SF	390		30X25	0.64	1.35	1.62	3000
NRLCW471M180V22X41SF	470		22X41	0.53	1.41	1.69	3000
NRLCW471M180V25.4X35SF	470		25.4X35	0.53	1.41	1.69	3000
NRLCW471M180V30X25SF	470		30X25	0.53	1.41	1.69	3000
NRLCW471M180V35X25SF	470		35X25	0.53	1.41	1.69	3000
NRLCW561M180V22X45SF	560		22X45	0.44	1.60	1.92	3000
NRLCW561M180V25.4X41SF	560		25.4X41	0.44	1.60	1.92	3000
NRLCW561M180V30X31SF	560		30X31	0.44	1.60	1.92	3000
NRLCW561M180V35X25SF	560		35X25	0.44	1.60	1.92	3000
NRLCW681M180V22X51SF	680		22X51	0.37	1.79	2.15	3000
NRLCW681M180V25.4X45SF	680		25.4X45	0.37	1.79	2.15	3000
NRLCW681M180V30X35SF	680		30X35	0.37	1.79	2.15	3000



STANDARD PRODUCT LIST, CASE SIZE AND SPECIFICATIONS

Part Number	Cap. (μ F)	Voltage (Vdc)	Case Size (mm)	ESR (Ω @ 20°C)	Max. Ripple Current (Arms @ 105°C)		Load Life @ +105°C (Hours)
				120Hz	120Hz	50KHz	
NRLCW681M180V35X25SF	680	180	35X25	0.37	1.79	2.15	3000
NRLCW821M180V25.4X51SF	820		25.4X51	0.30	1.98	2.38	3000
NRLCW821M180V30X41SF	820		30X41	0.30	1.98	2.38	3000
NRLCW821M180V35X31SF	820		35X31	0.30	1.98	2.38	3000
NRLCW102M180V30X45SF	1000		30X45	0.25	2.20	2.64	3000
NRLCW102M180V35X35SF	1000		35X35	0.25	2.20	2.64	3000
NRLCW122M180V30X51SF	1200		30X51	0.21	2.38	2.86	3000
NRLCW122M180V35X41SF	1200		35X41	0.21	2.38	2.86	3000
NRLCW152M180V35X45SF	1500		35X45	0.17	2.82	3.38	3000
NRLCW182M180V35X51SF	1800		35X51	0.14	3.15	3.78	3000
NRLCW271M200V22X25SF	270	200	22X25	0.92	1.10	1.32	3000
NRLCW331M200V22X31SF	330		22X31	0.75	1.15	1.38	3000
NRLCW391M200V22X35SF	390		22X35	0.64	1.21	1.45	3000
NRLCW391M200V25.4X31SF	390		25.4X31	0.64	1.20	1.44	3000
NRLCW471M200V22X41SF	470		22X41	0.53	1.33	1.60	3000
NRLCW471M200V25.4X35SF	470		25.4X35	0.53	1.32	1.58	3000
NRLCW561M200V22X45SF	560		22X45	0.44	1.47	1.76	3000
NRLCW561M200V25.4X41SF	560		25.4X41	0.44	1.46	1.75	3000
NRLCW561M200V30X31SF	560		30X31	0.44	1.46	1.75	3000
NRLCW681M200V22X51SF	680		22X51	0.37	1.61	1.93	3000
NRLCW681M200V25.4X45SF	680		25.4X45	0.37	1.62	1.94	3000
NRLCW681M200V30X35SF	680		30X35	0.37	1.63	1.96	3000
NRLCW821M200V25.4X51SF	820		25.4X51	0.30	1.78	2.14	3000
NRLCW821M200V30X41SF	820		30X41	0.30	1.83	2.20	3000
NRLCW821M200V35X31SF	820		35X31	0.30	1.82	2.18	3000
NRLCW102M200V30X45SF	1000		30X45	0.25	2.10	2.52	3000
NRLCW102M200V35X35SF	1000		35X35	0.25	2.10	2.52	3000
NRLCW122M200V30X51SF	1200		30X51	0.21	2.41	2.89	3000
NRLCW122M200V35X41SF	1200		35X41	0.21	2.42	2.90	3000
NRLCW152M200V35X45SF	1500		35X45	0.17	2.81	3.37	3000
NRLCW182M200V35X51SF	1800		35X51	0.14	3.05	3.66	3000
NRLCW221M220V22X25SF	220	220 (Continue next page)	22X25	1.13	0.90	1.08	3000
NRLCW271M220V22X31SF	270		22X31	0.92	0.95	1.14	3000
NRLCW331M220V22X31SF	330		22X31	0.75	1.20	1.44	3000
NRLCW331M220V25.4X31SF	330		25.4X31	0.75	1.15	1.38	3000
NRLCW391M220V22X35SF	390		22X35	0.64	1.30	1.56	3000
NRLCW391M220V25.4X31SF	390		25.4X31	0.64	1.32	1.58	3000
NRLCW471M220V22X41SF	470		22X41	0.53	1.52	1.82	3000
NRLCW471M220V25.4X35SF	470		25.4X35	0.53	1.40	1.68	3000
NRLCW471M220V30X31SF	470		30X31	0.53	1.35	1.62	3000
NRLCW561M220V22X45SF	560		22X45	0.44	1.61	1.93	3000
NRLCW561M220V25.4X41SF	560		25.4X41	0.44	1.51	1.81	3000
NRLCW561M220V30X31SF	560		30X31	0.44	1.51	1.81	3000
NRLCW681M220V25.4X51SF	680		25.4X51	0.37	1.71	2.05	3000
NRLCW681M220V30X35SF	680		30X35	0.37	1.66	1.99	3000
NRLCW681M220V35X31SF	680		35X31	0.37	1.62	1.94	3000
NRLCW821M220V35X41SF	820		35X41	0.30	1.86	2.23	3000
NRLCW821M220V30X41SF	820		30X41	0.30	1.82	2.18	3000
NRLCW821M220V35X35SF	820		35X35	0.30	1.76	2.11	3000



STANDARD PRODUCT LIST, CASE SIZE AND SPECIFICATIONS

Part Number	Cap. (μ F)	Voltage (Vdc)	Case Size (mm)	ESR (Ω @ 20°C)	Max. Ripple Current (Arms @ 105°C)		Load Life @ +105°C (Hours)
				120Hz	120Hz	50KHz	
NRLCW102M220V30X51SF	1000	220	30X51	0.25	2.26	2.71	3000
NRLCW102M220V35X41SF	1000		35X41	0.25	2.23	2.68	3000
NRLCW122M220V30X55SF	1200		30X55	0.21	2.63	3.16	3000
NRLCW122M220V35X45SF	1200		35X45	0.21	2.62	3.14	3000
NRLCW152M220V35X51SF	1500		35X51	0.17	2.92	3.50	3000
NRLCW151M250V22X25SF	150	250	22X25	1.66	0.76	0.91	3000
NRLCW221M250V22X31SF	220		22X31	1.13	0.91	1.09	3000
NRLCW271M250V22X31SF	270		22X31	0.92	1.05	1.26	3000
NRLCW331M250V22X35SF	330		22X35	0.75	1.17	1.40	3000
NRLCW331M250V25.4X31SF	330		25.4X31	0.75	1.16	1.39	3000
NRLCW391M250V22X41SF	390		22X41	0.64	1.36	1.63	3000
NRLCW391M250V25.4X35SF	390		25.4X35	0.64	1.33	1.60	3000
NRLCW391M250V30X25SF	390		30X25	0.64	1.36	1.63	3000
NRLCW471M250V22X45SF	470		22X45	0.53	1.46	1.75	3000
NRLCW471M250V25.4X41SF	470		25.4X41	0.53	1.43	1.72	3000
NRLCW471M250V30X31SF	470		30X31	0.53	1.51	1.81	3000
NRLCW561M250V22X51SF	560		22X51	0.44	1.57	1.88	3000
NRLCW561M250V25.4X45SF	560		25.4X45	0.44	1.64	1.97	3000
NRLCW561M250V30X35SF	560		30X35	0.44	1.64	1.97	3000
NRLCW681M250V25.4X51SF	680		25.4X51	0.37	1.93	2.32	3000
NRLCW681M250V30X41SF	680		30X41	0.37	1.82	2.18	3000
NRLCW681M250V35X31SF	680		35X31	0.37	1.82	2.18	3000
NRLCW821M250V30X45SF	820		30X45	0.30	1.99	2.39	3000
NRLCW821M250V35X35SF	820		35X35	0.30	2.03	2.44	3000
NRLCW102M250V30X51SF	1000		30X51	0.25	2.19	2.63	3000
NRLCW102M250V35X41SF	1000		35X41	0.25	2.14	2.57	3000
NRLCW122M250V35X51SF	1200		35X51	0.21	2.76	3.31	3000
NRLCW101M315V22X25SF	100		22X25	2.49	0.62	0.74	3000
NRLCW121M315V22X31SF	120		22X31	2.07	0.76	0.91	3000
NRLCW121M315V25.4X25SF	120		25.4X25	2.07	0.76	0.91	3000
NRLCW151M315V22X35SF	150		22X35	1.66	0.84	1.01	3000
NRLCW151M315V25.4X31SF	150		25.4X31	1.66	0.84	1.01	3000
NRLCW181M315V22X41SF	180		22X41	1.38	0.93	1.12	3000
NRLCW181M315V25.4X35SF	180		25.4X35	1.38	0.93	1.12	3000
NRLCW181M315V30X25SF	180		30X25	1.38	0.93	1.12	3000
NRLCW221M315V22X45SF	220		22X45	1.13	1.05	1.26	3000
NRLCW221M315V25.4X41SF	220		25.4X41	1.13	1.05	1.26	3000
NRLCW221M315V30X31SF	220		30X31	1.13	1.05	1.26	3000
NRLCW221M315V35X25SF	220		35X25	1.13	1.05	1.26	3000
NRLCW271M315V22X51SF	270		22X51	0.92	1.17	1.40	3000
NRLCW271M315V25.4X45SF	270		25.4X45	0.92	1.17	1.40	3000
NRLCW271M315V30X35SF	270		30X35	0.92	1.17	1.40	3000
NRLCW271M315V35X25SF	270		35X25	0.92	1.17	1.40	3000
NRLCW331M315V25.4X51SF	330		25.4X51	0.75	1.24	1.49	3000
NRLCW331M315V30X41SF	330		30X41	0.75	1.24	1.49	3000
NRLCW331M315V35X31SF	330		35X31	0.75	1.24	1.49	3000
NRLCW391M315V30X45SF	390		30X45	0.64	1.50	1.80	3000
NRLCW391M315V35X35SF	390		35X35	0.64	1.50	1.80	3000
NRLCW471M315V30X51SF	470		30X51	0.53	1.72	2.06	3000



STANDARD PRODUCT LIST, CASE SIZE AND SPECIFICATIONS

Part Number	Cap. (μ F)	Voltage (Vdc)	Case Size (mm)	ESR (Ω @ 20°C)	Max. Ripple Current (Arms @ 105°C)		Load Life @ +105°C (Hours)
				120Hz	120Hz	50KHz	
NRLCW471M315V35X41SF	470	315	35X41	0.53	1.72	2.06	3000
NRLCW561M315V35X45SF	560		35X45	0.44	1.96	2.35	3000
NRLCW681M315V35X51SF	680		35X51	0.37	2.19	2.63	3000
NRLCW821M315V35X61SF	820		35X61	0.30	2.38	2.86	3000
NRLCW820M350V22X25SF	82	350	22X25	3.03	0.70	0.84	3000
NRLCW101M350V22X31SF	100		22X31	2.49	0.73	0.88	3000
NRLCW101M350V25.4X25SF	100		25.4X25	2.49	0.73	0.88	3000
NRLCW121M350V22X35SF	120		22X35	2.07	0.78	0.94	3000
NRLCW121M350V25.4X31SF	120		25.4X31	2.07	0.78	0.94	3000
NRLCW151M350V22X41SF	150		22X41	1.66	0.83	1.00	3000
NRLCW151M350V25.4X35SF	150		25.4X35	1.66	0.83	1.00	3000
NRLCW151M350V30X25SF	150		30X25	1.66	0.83	1.00	3000
NRLCW181M350V22X45SF	180		22X45	1.38	0.92	1.10	3000
NRLCW181M350V25.4X41SF	180		25.4X41	1.38	0.92	1.10	3000
NRLCW181M350V30X31SF	180		30X31	1.38	0.92	1.10	3000
NRLCW181M350V35X25SF	180		35X25	1.38	0.92	1.10	3000
NRLCW221M350V22X51SF	220		22X51	1.13	1.05	1.26	3000
NRLCW221M350V25.4X45SF	220		25.4X45	1.13	1.05	1.26	3000
NRLCW221M350V30X35SF	220		30X35	1.13	1.05	1.26	3000
NRLCW221M350V35X25SF	220		35X25	1.13	1.05	1.26	3000
NRLCW271M350V25.4X51SF	270		25.4X51	0.92	1.28	1.54	3000
NRLCW271M350V30X41SF	270		30X41	0.92	1.28	1.54	3000
NRLCW271M350V35X31SF	270		35X31	0.92	1.28	1.54	3000
NRLCW331M350V30X45SF	330		30X45	0.75	1.39	1.67	3000
NRLCW331M350V35X35SF	330		35X35	0.75	1.39	1.67	3000
NRLCW391M350V30X51SF	390		30X51	0.64	1.55	1.86	3000
NRLCW391M350V35X41SF	390		35X41	0.64	1.55	1.86	3000
NRLCW471M350V35X45SF	470		35X45	0.53	1.73	2.08	3000
NRLCW561M350V35X51SF	560		35X51	0.44	1.92	2.30	3000
NRLCW681M350V35X61SF	680		35X61	0.37	2.38	2.86	3000
NRLCW680M385V22X25SF	68	385 (Continue next page)	22X25	3.66	0.49	0.59	3000
NRLCW820M385V22X25SF	82		22X25	3.03	0.55	0.66	3000
NRLCW101M385V22X31SF	100		22X31	2.49	0.66	0.79	3000
NRLCW101M385V25.4X25SF	100		25.4X25	2.49	0.66	0.79	3000
NRLCW121M385V22X35SF	120		22X35	2.07	0.71	0.85	3000
NRLCW121M385V25.4X31SF	120		25.4X31	2.07	0.71	0.85	3000
NRLCW151M385V22X41SF	150		22X41	1.66	0.83	1.00	3000
NRLCW151M385V25.4X35SF	150		25.4X35	1.66	0.83	1.00	3000
NRLCW151M385V30X25SF	150		30X25	1.66	0.83	1.00	3000
NRLCW181M385V22X45SF	180		22X45	1.38	0.92	1.10	3000
NRLCW181M385V25.4X41SF	180		25.4X41	1.38	0.92	1.10	3000
NRLCW181M385V30X31SF	180		30X31	1.38	0.92	1.10	3000
NRLCW221M385V22X51SF	220		22X51	1.13	1.03	1.24	3000
NRLCW221M385V25.4X45SF	220		25.4X45	1.13	1.03	1.24	3000
NRLCW221M385V30X35SF	220		30X35	1.13	1.03	1.24	3000
NRLCW221M385V35X25SF	220		35X25	1.13	1.03	1.24	3000
NRLCW271M385V25.4X51SF	270		25.4X51	0.92	1.16	1.39	3000
NRLCW271M385V30X41SF	270		30X41	0.92	1.16	1.39	3000
NRLCW271M385V35X31SF	270		35X31	0.92	1.16	1.39	3000



STANDARD PRODUCT LIST, CASE SIZE AND SPECIFICATIONS

Part Number	Cap. (μ F)	Voltage (Vdc)	Case Size (mm)	ESR (Ω @ 20°C)	Max. Ripple Current (Arms @ 105°C)		Load Life @ +105°C (Hours)
				120Hz	120Hz	50KHz	
NRLCW331M385V30X45SF	330	385	30X45	0.75	1.32	1.58	3000
NRLCW331M385V35X35SF	330		35X35	0.75	1.32	1.58	3000
NRLCW391M385V30X51SF	390		30X51	0.64	1.47	1.76	3000
NRLCW391M385V35X41SF	390		35X41	0.64	1.47	1.76	3000
NRLCW471M385V35X45SF	470		35X45	0.53	1.80	2.16	3000
NRLCW561M385V35X51SF	560		35X51	0.44	2.00	2.40	3000
NRLCW820M400V22X25SF	82	400	22X25	3.03	0.61	0.87	3000
NRLCW101M400V22X31SF	100		22X31	2.49	0.66	0.94	3000
NRLCW101M400V25.4X25SF	100		25.4X25	2.49	0.67	0.96	3000
NRLCW121M400V22X35SF	120		22X35	2.07	0.71	1.02	3000
NRLCW121M400V25.4X25SF	120		25.4X25	2.07	0.71	1.02	3000
NRLCW121M400V30X25SF	120		30X25	2.07	0.73	1.04	3000
NRLCW151M400V22X41SF	150		22X41	1.66	0.83	1.19	3000
NRLCW151M400V25.4X31SF	150		25.4X31	1.66	0.84	1.20	3000
NRLCW151M400V30X25SF	150		30X25	1.66	0.84	1.20	3000
NRLCW151M400V35X25SF	150		35X25	1.66	0.84	1.20	3000
NRLCW181M400V22X45SF	180		22X45	1.38	0.93	1.33	3000
NRLCW181M400V25.4X35SF	180		25.4X35	1.38	0.93	1.33	3000
NRLCW181M400V30X30SF	180		30X30	1.38	0.93	1.33	3000
NRLCW181M400V35X25SF	180		35X25	1.38	0.93	1.33	3000
NRLCW221M400V22X51SF	220		22X51	1.13	1.05	1.50	3000
NRLCW221M400V25.4X41SF	220		25.4X41	1.13	1.05	1.50	3000
NRLCW221M400V30X31SF	220		30X31	1.13	1.05	1.50	3000
NRLCW221M400V35X25SF	220		35X25	1.13	1.05	1.50	3000
NRLCW271M400V25.4X45SF	270		25.4X45	0.92	1.16	1.66	3000
NRLCW271M400V30X35SF	270		30X35	0.92	1.16	1.66	3000
NRLCW271M400V35X31SF	270		35X31	0.92	1.16	1.66	3000
NRLCW331M400V25.4X51SF	330		25.4X51	0.75	1.37	1.96	3000
NRLCW331M400V30X41SF	330		30X41	0.75	1.37	1.96	3000
NRLCW331M400V35X31SF	330		35X31	0.75	1.37	1.96	3000
NRLCW391M400V25.4X61SF	390		25.4X61	0.64	1.44	2.06	3000
NRLCW391M400V30X45SF	390		30X45	0.64	1.44	2.06	3000
NRLCW391M400V35X35SF	390		35X35	0.64	1.44	2.06	3000
NRLCW471M400V30X51SF	470		30X51	0.53	1.81	2.59	3000
NRLCW471M400V35X41SF	470		35X41	0.53	1.81	2.59	3000
NRLCW561M400V30X61SF	560		30X61	0.44	2.00	2.86	3000
NRLCW561M400V35X45SF	560		35X45	0.44	2.00	2.86	3000
NRLCW681M400V35X51SF	680		35X51	0.37	2.15	3.07	3000
NRLCW820M420V22X25SF	82	420 (Continue next page)	22X25	4.05	0.61	0.87	3000
NRLCW820M420V25.4X25SF	82		25.4X25	4.05	0.62	0.89	3000
NRLCW101M420V22X31SF	100		22X31	3.32	0.66	0.94	3000
NRLCW101M420V25.4X25SF	100		25.4X25	3.32	0.66	0.94	3000
NRLCW121M420V22X35SF	120		22X35	2.76	0.71	1.02	3000
NRLCW121M420V25.4X31SF	120		25.4X31	2.76	0.71	1.02	3000
NRLCW121M420V30X25SF	120		30X25	2.76	0.71	1.02	3000
NRLCW151M420V22X41SF	150		22X41	2.21	0.84	1.20	3000
NRLCW151M420V25.4X35SF	150		25.4X35	2.21	0.84	1.20	3000
NRLCW151M420V30X25SF	150		30X25	2.21	0.84	1.20	3000
NRLCW181M420V22X45SF	180		22X45	1.84	0.91	1.30	3000



STANDARD PRODUCT LIST, CASE SIZE AND SPECIFICATIONS

Part Number	Cap. (μ F)	Voltage (Vdc)	Case Size (mm)	ESR (Ω @ 20°C)	Max. Ripple Current (Arms@105°C)		Load Life @ +105°C (Hours)
				120Hz	120Hz	50KHz	
NRLCW181M420V25.4X35SF	180	420	25.4X35	1.84	0.91	1.30	3000
NRLCW181M420V30X31SF	180		30X31	1.84	0.91	1.30	3000
NRLCW181M420V35X25SF	180		35X25	1.84	0.91	1.30	3000
NRLCW221M420V22X51SF	220		22X51	1.51	1.05	1.50	3000
NRLCW221M420V25.4X45SF	220		25.4X45	1.51	1.05	1.50	3000
NRLCW221M420V30X35SF	220		30X35	1.51	1.05	1.50	3000
NRLCW221M420V35X25SF	220		35X25	1.51	1.05	1.50	3000
NRLCW271M420V25.4X51SF	270		25.4X51	1.23	1.16	1.66	3000
NRLCW271M420V30X41SF	270		30X41	1.23	1.16	1.66	3000
NRLCW271M420V35X31SF	270		35X31	1.23	1.16	1.66	3000
NRLCW331M420V30X45SF	330		30X45	1.01	1.4	2.00	3000
NRLCW331M420V35X35SF	330		35X35	1.01	1.4	2.00	3000
NRLCW391M420V30X51SF	390		30X51	0.85	1.5	2.15	3000
NRLCW391M420V35X41SF	390		35X41	0.85	1.5	2.15	3000
NRLCW471M420V35X45SF	470		35X45	0.71	1.81	2.59	3000
NRLCW561M420V35X51SF	560		35X51	0.59	2.05	2.93	3000
NRLCW681M420V35X61SF	680		35X61	0.49	2.15	3.07	3000
NRLCW560M450V22X25SF	56	450	22X25	5.92	0.4	0.57	3000
NRLCW680M450V22X31SF	68		22X31	4.88	0.51	0.73	3000
NRLCW680M450V25.4X25SF	68		25.4X25	4.88	0.51	0.73	3000
NRLCW820M450V22X31SF	82		22X31	4.05	0.61	0.87	3000
NRLCW820M450V25.4X25SF	82		25.4X25	4.05	0.61	0.87	3000
NRLCW101M450V22X35SF	100		22X35	3.32	0.66	0.94	3000
NRLCW101M450V25.4X31SF	100		25.4X31	3.32	0.66	0.94	3000
NRLCW101M450V30X25SF	100		30X25	3.32	0.66	0.94	3000
NRLCW121M450V22X41SF	120		22X41	2.76	0.76	1.09	3000
NRLCW121M450V25.4X35SF	120		25.4X35	2.76	0.76	1.09	3000
NRLCW121M450V30X25SF	120		30X25	2.76	0.76	1.09	3000
NRLCW121M450V35X25SF	120		35X25	2.76	0.76	1.09	3000
NRLCW151M450V22X45SF	150		22X45	2.21	0.84	1.20	3000
NRLCW151M450V25.4X35SF	150		25.4X35	2.21	0.84	1.20	3000
NRLCW151M450V30X31SF	150		30X31	2.21	0.84	1.20	3000
NRLCW151M450V35X25SF	150		35X25	2.21	0.84	1.20	3000
NRLCW181M450V22X51SF	180		22X51	1.84	0.96	1.37	3000
NRLCW181M450V25.4X41SF	180		25.4X41	1.84	0.96	1.37	3000
NRLCW181M450V30X31SF	180		30X31	1.84	0.96	1.37	3000
NRLCW181M450V35X31SF	180		35X31	1.84	0.96	1.37	3000
NRLCW221M450V25.4X45SF	220		25.4X45	1.51	1.07	1.53	3000
NRLCW221M450V30X35SF	220		30X35	1.51	1.07	1.53	3000
NRLCW221M450V35X31SF	220		35X31	1.51	1.07	1.53	3000
NRLCW271M450V25.4X61SF	270		25.4X61	1.23	1.12	1.60	3000
NRLCW271M450V30X41SF	270		30X41	1.23	1.12	1.60	3000
NRLCW271M450V35X35SF	270		35X35	1.23	1.12	1.60	3000
NRLCW331M450V30X51SF	330		30X51	1.01	1.38	1.97	3000
NRLCW331M450V35X41SF	330		35X41	1.01	1.38	1.97	3000
NRLCW391M450V30X61SF	390		30X61	0.85	1.44	2.06	3000
NRLCW391M450V35X41SF	390		35X41	0.85	1.44	2.06	3000
NRLCW471M450V35X51SF	470		35X51	0.71	1.76	2.52	3000
NRLCW561M450V35X61SF	560		35X61	0.59	1.82	2.60	3000

