

Large Can Aluminum Electrolytic Capacitors

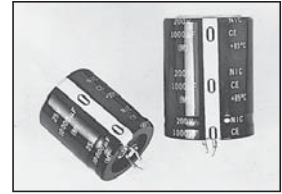
NRLUW Series

FEATURES

- LONG LIFE AT +105°C (5,000 HOURS)
- HIGH RIPPLE CURRENT
- HIGH VOLTAGE (UP TO 450VDC)
- 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 | | 200 ~ 450Vdc | | | | | | | | |
| Rated Capacitance Range | | 100 ~ 2,200μF | | | | | | | | |
| Capacitance Tolerance | | ±20% (M) | | | | | | | | |
| Max. Leakage Current (μA) After 5 minutes (20°C) | | $3 \times C \sqrt{(\mu F)V}$ | | | | | | | | |
| Max. Tan δ at 120Hz/20°C | W.V. (Vdc) | 200 | 220 | 250 | 315 | 350 | 400 | 420 | 450 | |
| | Tan δ max. | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | |
| Surge Voltage | W.V. (Vdc) | 200 | 220 | 250 | 315 | 350 | 400 | 420 | 450 | |
| | S.V. (Vdc) | 250 | 270 | 300 | 365 | 400 | 450 | 470 | 500 | |
| Ripple Current Correction Factors | Frequency (Hz) | 60 | 120 | 500 | 1K | 100K | | | | |
| | Multiplier at 105°C | 200 ~ 250Vdc | 0.80 | 1.00 | 1.20 | 1.30 | 1.50 | | | |
| | | 400 ~ 500Vdc | 0.80 | 1.00 | 1.20 | 1.25 | 1.40 | | | |
| Impedance Ratio (Low Temperature Stability) | Rated Voltage (VDC) | $Z (-25^\circ\text{C})/Z (+20^\circ\text{C})$ | | | | | | | | |
| | 200 ~ 250 | 3 max. | | | | | | | | |
| | 315 ~ 450 | 8 max. | | | | | | | | |
| Load Life Test 5,000 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 ±20% of initial measured value | | | | | | | | |
| | Tan δ | Less than 200% of specified maximum value | | | | | | | | |
| | Leakage Current | Less than specified maximum value | | | | | | | | |
| Other | | Conforms to JIS C-5141 (1991) & JIS C-5102 (1986) | | | | | | | | |

MECHANICAL CHARACTERISTICS:

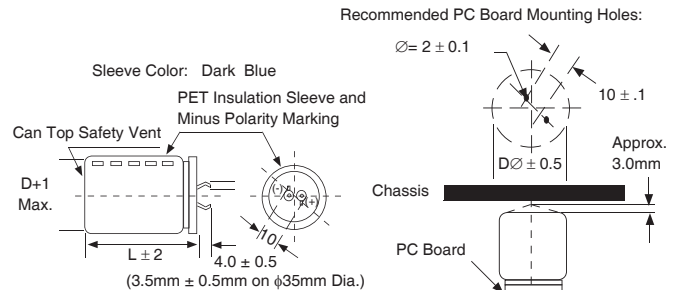
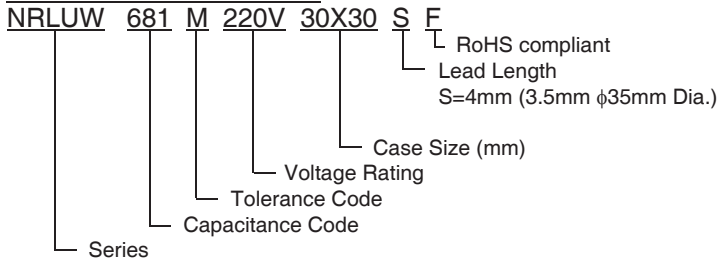
1. Safety Vent:

The capacitors are provided with a pressure 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



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 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



| Part Number | Voltage (VDC) | Cap (μF) | Case Size D x L (mm) | Dissipation Factor | Max. Leakage Current (μA) | Max. Ripple Current (Arms @ 105°C) | |
|----------------------|---------------|----------|----------------------|--------------------|---------------------------|------------------------------------|------------|
| | | | | | | 120Hz | 10KHz ~ up |
| NRLUW331M200V22X25SF | 200 | 330 | 22X25 | 0.2 | 770 | 1.31 | 1.96 |
| NRLUW391M200V22X30SF | | 390 | 22X30 | 0.2 | 837 | 1.32 | 1.98 |
| NRLUW471M200V22X30SF | | 470 | 22X30 | 0.2 | 919 | 1.54 | 2.31 |
| NRLUW471M200V25X25SF | | 470 | 25X25 | 0.2 | 919 | 1.54 | 2.31 |
| NRLUW561M200V22X35SF | | 560 | 22X35 | 0.2 | 1003 | 1.75 | 2.62 |
| NRLUW561M200V25X30SF | | 560 | 25X30 | 0.2 | 1003 | 1.75 | 2.62 |
| NRLUW681M200V22X40SF | | 680 | 22X40 | 0.2 | 1106 | 1.96 | 2.94 |
| NRLUW681M200V25X35SF | | 680 | 25X35 | 0.2 | 1106 | 1.79 | 2.68 |
| NRLUW681M200V30X25SF | | 680 | 30X25 | 0.2 | 1106 | 1.46 | 2.19 |
| NRLUW821M200V22X50SF | | 820 | 22X50 | 0.2 | 1214 | 2.15 | 3.22 |
| NRLUW821M200V25X40SF | | 820 | 25X40 | 0.2 | 1214 | 2.03 | 3.04 |
| NRLUW821M200V30X30SF | | 820 | 30X30 | 0.2 | 1214 | 1.77 | 2.65 |
| NRLUW821M200V35X25SF | | 820 | 35X25 | 0.2 | 1214 | 1.59 | 2.38 |
| NRLUW102M200V25X45SF | | 1000 | 25X45 | 0.2 | 1341 | 2.26 | 3.39 |
| NRLUW102M200V30X35SF | | 1000 | 30X35 | 0.2 | 1341 | 2.06 | 3.09 |
| NRLUW102M200V35X30SF | | 1000 | 35X30 | 0.2 | 1341 | 1.93 | 2.89 |
| NRLUW122M200V25X50SF | | 1200 | 25X50 | 0.2 | 1469 | 2.34 | 3.51 |
| NRLUW122M200V30X40SF | | 1200 | 30X40 | 0.2 | 1469 | 2.34 | 3.51 |
| NRLUW122M200V35X30SF | | 1200 | 35X30 | 0.2 | 1469 | 2.22 | 3.33 |
| NRLUW152M200V30X45SF | | 1500 | 30X45 | 0.2 | 1643 | 2.60 | 3.90 |
| NRLUW152M200V35X35SF | | 1500 | 35X35 | 0.2 | 1643 | 2.56 | 3.84 |
| NRLUW182M200V30X50SF | | 1800 | 30X50 | 0.2 | 1800 | 2.85 | 4.27 |
| NRLUW182M200V35X40SF | | 1800 | 35X40 | 0.2 | 1800 | 2.85 | 4.27 |
| NRLUW222M200V35X50SF | | 2200 | 35X50 | 0.2 | 1989 | 3.14 | 4.71 |
| NRLUW271M220V22X25SF | | 220 | 270 | 22X25 | 0.2 | 731 | 1.04 |
| NRLUW331M220V22X30SF | 330 | | 22X30 | 0.2 | 808 | 1.26 | 1.89 |
| NRLUW391M220V22X30SF | 390 | | 22X30 | 0.2 | 878 | 1.47 | 2.20 |
| NRLUW391M220V25X25SF | 390 | | 25X25 | 0.2 | 878 | 1.21 | 1.81 |
| NRLUW471M220V22X35SF | 470 | | 22X35 | 0.2 | 964 | 1.64 | 2.46 |
| NRLUW471M220V25X30SF | 470 | | 25X30 | 0.2 | 964 | 1.47 | 2.20 |
| NRLUW561M220V22X40SF | 560 | | 22X40 | 0.2 | 1052 | 1.86 | 2.79 |
| NRLUW561M220V25X30SF | 560 | | 25X30 | 0.2 | 1052 | 1.71 | 2.56 |
| NRLUW561M220V30X25SF | 560 | | 30X25 | 0.2 | 1052 | 1.41 | 2.11 |
| NRLUW681M220V22X45SF | 680 | | 22X45 | 0.2 | 1160 | 2.05 | 3.07 |
| NRLUW681M220V25X35SF | 680 | | 25X35 | 0.2 | 1160 | 1.94 | 2.91 |
| NRLUW681M220V30X30SF | 680 | | 30X30 | 0.2 | 1160 | 1.71 | 2.56 |
| NRLUW821M220V25X40SF | 820 | | 25X40 | 0.2 | 1274 | 2.16 | 3.24 |
| NRLUW821M220V30X30SF | 820 | | 30X30 | 0.2 | 1274 | 1.99 | 2.98 |
| NRLUW821M220V35X25SF | 820 | | 35X25 | 0.2 | 1274 | 1.89 | 2.83 |
| NRLUW102M220V25X45SF | 1000 | | 25X45 | 0.2 | 1407 | 2.37 | 3.55 |
| NRLUW102M220V30X35SF | 1000 | | 30X35 | 0.2 | 1407 | 2.26 | 3.39 |
| NRLUW102M220V35X30SF | 1000 | | 35X30 | 0.2 | 1407 | 2.15 | 3.22 |
| NRLUW122M220V30X40SF | 1200 | | 30X40 | 0.2 | 1541 | 2.51 | 3.76 |
| NRLUW122M220V35X35SF | 1200 | | 35X35 | 0.2 | 1541 | 2.48 | 3.72 |



| Part Number | Voltage (VDC) | Cap (μF) | Case Size D x L (mm) | Dissipation Factor | Max. Leakage Current (μA) | Max. Ripple Current (Arms @ 105°C) | | | |
|----------------------|---------------|----------|----------------------|--------------------|---------------------------|------------------------------------|------------|------|------|
| | | | | | | 120Hz | 10KHz ~ up | | |
| NRLUW152M220V30X50SF | 220 | 1500 | 30X50 | 0.2 | 1723 | 2.75 | 4.12 | | |
| NRLUW152M220V35X40SF | | 1500 | 35X40 | 0.2 | 1723 | 2.50 | 3.75 | | |
| NRLUW182M220V35X45SF | | 1800 | 35X45 | 0.2 | 1887 | 3.04 | 4.56 | | |
| NRLUW271M250V22X25SF | 250 | 270 | 22X25 | 0.2 | 779 | 1.18 | 1.77 | | |
| NRLUW331M250V22X30SF | | 330 | 22X30 | 0.2 | 861 | 1.37 | 2.05 | | |
| NRLUW331M250V25X25SF | | 330 | 25X25 | 0.2 | 861 | 1.14 | 1.71 | | |
| NRLUW391M250V22X35SF | | 390 | 22X35 | 0.2 | 936 | 1.56 | 2.34 | | |
| NRLUW391M250V25X30SF | | 390 | 25X30 | 0.2 | 936 | 1.38 | 2.07 | | |
| NRLUW471M250V22X40SF | | 470 | 22X40 | 0.2 | 1028 | 1.74 | 2.61 | | |
| NRLUW471M250V25X30SF | | 470 | 25X30 | 0.2 | 1028 | 1.61 | 2.41 | | |
| NRLUW561M250V22X45SF | | 560 | 22X45 | 0.2 | 1122 | 1.92 | 2.88 | | |
| NRLUW561M250V25X35SF | | 560 | 25X35 | 0.2 | 1122 | 1.83 | 2.74 | | |
| NRLUW561M250V30X25SF | | 560 | 30X25 | 0.2 | 1122 | 1.63 | 2.44 | | |
| NRLUW681M250V22X50SF | | 250 | 680 | 22X50 | 0.2 | 1236 | 2.04 | 3.06 | |
| NRLUW681M250V25X40SF | | | 680 | 25X40 | 0.2 | 1236 | 2.04 | 3.06 | |
| NRLUW681M250V30X30SF | | | 680 | 30X30 | 0.2 | 1236 | 1.90 | 2.85 | |
| NRLUW681M250V35X25SF | | | 680 | 35X25 | 0.2 | 1236 | 1.80 | 2.70 | |
| NRLUW821M250V25X45SF | | | 820 | 25X45 | 0.2 | 1358 | 2.24 | 3.36 | |
| NRLUW821M250V30X35SF | | | 820 | 30X35 | 0.2 | 1358 | 2.15 | 3.22 | |
| NRLUW821M250V35X30SF | | | 820 | 35X30 | 0.2 | 1358 | 1.81 | 2.71 | |
| NRLUW102M250V30X40SF | | | 1000 | 30X40 | 0.2 | 1500 | 2.39 | 3.58 | |
| NRLUW102M250V35X35SF | | | 1000 | 35X35 | 0.2 | 1500 | 2.38 | 3.57 | |
| NRLUW122M250V30X45SF | | | 1200 | 30X45 | 0.2 | 1643 | 2.62 | 3.93 | |
| NRLUW122M250V35X40SF | | | 1200 | 35X40 | 0.2 | 1643 | 2.39 | 3.58 | |
| NRLUW152M250V35X45SF | | | 1500 | 35X45 | 0.2 | 1837 | 2.92 | 4.38 | |
| NRLUW182M250V35X50SF | | | 1800 | 35X50 | 0.2 | 2012 | 3.04 | 4.56 | |
| NRLUW151M315V22X25SF | | | 315 | 150 | 22X25 | 0.2 | 652 | 0.82 | 1.14 |
| NRLUW181M315V22X30SF | | | | 180 | 22X30 | 0.2 | 714 | 0.95 | 1.33 |
| NRLUW221M315V22X35SF | | 220 | | 22X35 | 0.2 | 789 | 1.11 | 1.55 | |
| NRLUW221M315V25X25SF | | 220 | | 25X25 | 0.2 | 789 | 0.98 | 1.37 | |
| NRLUW271M315V22X40SF | 270 | 22X40 | | 0.2 | 874 | 1.28 | 1.79 | | |
| NRLUW271M315V25X30SF | 270 | 25X30 | | 0.2 | 874 | 1.17 | 1.63 | | |
| NRLUW331M315V22X45SF | 330 | 22X45 | | 0.2 | 967 | 1.45 | 2.03 | | |
| NRLUW331M315V25X35SF | 330 | 25X35 | | 0.2 | 967 | 1.35 | 1.89 | | |
| NRLUW331M315V30X25SF | 330 | 30X25 | | 0.2 | 967 | 1.19 | 1.66 | | |
| NRLUW391M315V22X50SF | 390 | 22X50 | | 0.2 | 1051 | 1.62 | 2.26 | | |
| NRLUW391M315V25X40SF | 390 | 25X40 | | 0.2 | 1051 | 1.53 | 2.14 | | |
| NRLUW391M315V30X30SF | 390 | 30X30 | | 0.2 | 1051 | 1.40 | 1.96 | | |
| NRLUW391M315V35X25SF | 390 | 35X25 | | 0.2 | 1051 | 1.30 | 1.82 | | |
| NRLUW471M315V25X45SF | 470 | 25X45 | | 0.2 | 1154 | 1.73 | 2.42 | | |
| NRLUW471M315V30X35SF | 470 | 30X35 | | 0.2 | 1154 | 1.61 | 2.25 | | |
| NRLUW471M315V35X30SF | 470 | 35X30 | | 0.2 | 1154 | 1.52 | 2.12 | | |
| NRLUW561M315V25X50SF | 560 | 25X50 | | 0.2 | 1260 | 1.99 | 2.78 | | |
| NRLUW561M315V30X40SF | 560 | 30X40 | | 0.2 | 1260 | 2.00 | 2.80 | | |
| NRLUW561M315V35X30SF | 560 | 35X30 | | 0.2 | 1260 | 1.69 | 2.36 | | |



| Part Number | Voltage (VDC) | Cap (µF) | Case Size D x L (mm) | Dissipation Factor | Max. Leakage Current (µA) | Max. Ripple Current (Arms @ 105°C) | | |
|----------------------|---------------|----------|----------------------|--------------------|---------------------------|------------------------------------|------------|------|
| | | | | | | 120Hz | 10KHz ~ up | |
| NRLUW681M315V30X45SF | 315 | 680 | 30X45 | 0.2 | 1388 | 2.06 | 2.88 | |
| NRLUW681M315V35X35SF | | 680 | 35X35 | 0.2 | 1388 | 1.88 | 2.63 | |
| NRLUW821M315V30X50SF | | 820 | 30X50 | 0.2 | 1524 | 2.30 | 3.22 | |
| NRLUW821M315V35X40SF | | 820 | 35X40 | 0.2 | 1524 | 2.14 | 2.99 | |
| NRLUW102M315V35X50SF | | 1000 | 35X50 | 0.2 | 1683 | 2.53 | 3.54 | |
| NRLUW121M350V22X25SF | 350 | 120 | 22X25 | 0.2 | 614 | 0.74 | 1.03 | |
| NRLUW151M350V22X30SF | | 150 | 22X30 | 0.2 | 687 | 0.89 | 1.24 | |
| NRLUW181M350V22X35SF | | 180 | 22X35 | 0.2 | 752 | 1.03 | 1.44 | |
| NRLUW181M350V25X25SF | | 180 | 25X25 | 0.2 | 752 | 0.91 | 1.27 | |
| NRLUW221M350V22X40SF | | 220 | 22X40 | 0.2 | 832 | 1.17 | 1.63 | |
| NRLUW221M350V25X30SF | | 220 | 25X30 | 0.2 | 832 | 1.07 | 1.49 | |
| NRLUW271M350V22X45SF | | 270 | 22X45 | 0.2 | 922 | 1.33 | 1.86 | |
| NRLUW271M350V25X35SF | | 270 | 25X35 | 0.2 | 922 | 1.25 | 1.75 | |
| NRLUW271M350V30X25SF | | 270 | 30X25 | 0.2 | 922 | 1.11 | 1.55 | |
| NRLUW331M350V25X40SF | | 330 | 25X40 | 0.2 | 1019 | 1.43 | 2.00 | |
| NRLUW331M350V30X30SF | | 330 | 30X30 | 0.2 | 1019 | 1.31 | 1.83 | |
| NRLUW331M350V35X25SF | | 330 | 35X25 | 0.2 | 1019 | 1.23 | 1.72 | |
| NRLUW391M350V25X45SF | | 390 | 25X45 | 0.2 | 1108 | 1.61 | 2.25 | |
| NRLUW391M350V30X35SF | | 390 | 30X35 | 0.2 | 1108 | 1.51 | 2.11 | |
| NRLUW391M350V35X30SF | | 390 | 35X30 | 0.2 | 1108 | 1.44 | 2.01 | |
| NRLUW471M350V25X50SF | | 470 | 25X50 | 0.2 | 1216 | 1.85 | 2.59 | |
| NRLUW471M350V30X40SF | | 470 | 30X40 | 0.2 | 1216 | 1.88 | 2.63 | |
| NRLUW471M350V35X35SF | | 470 | 35X35 | 0.2 | 1216 | 1.67 | 2.33 | |
| NRLUW561M350V30X45SF | | 560 | 30X45 | 0.2 | 1328 | 1.92 | 2.68 | |
| NRLUW561M350V35X40SF | | 560 | 35X40 | 0.2 | 1328 | 1.88 | 2.63 | |
| NRLUW681M350V30X50SF | | 680 | 30X50 | 0.2 | 1463 | 2.15 | 3.01 | |
| NRLUW681M350V35X40SF | | 680 | 35X40 | 0.2 | 1463 | 2.01 | 2.81 | |
| NRLUW821M350V35X45SF | | 820 | 35X45 | 0.2 | 1607 | 2.26 | 3.16 | |
| NRLUW121M400V22X25SF | | 400 | 120 | 22X25 | 0.2 | 657 | 0.79 | 1.10 |
| NRLUW151M400V22X30SF | | | 150 | 22X30 | 0.2 | 734 | 0.92 | 1.28 |
| NRLUW151M400V25X25SF | | | 150 | 25X25 | 0.2 | 734 | 0.95 | 1.33 |
| NRLUW181M400V22X35SF | | | 180 | 22X35 | 0.2 | 804 | 1.05 | 1.47 |
| NRLUW181M400V25X30SF | | | 180 | 25X30 | 0.2 | 804 | 1.10 | 1.54 |
| NRLUW221M400V22X40SF | | | 220 | 22X40 | 0.2 | 889 | 1.28 | 1.79 |
| NRLUW221M400V25X30SF | | | 220 | 25X30 | 0.2 | 889 | 1.12 | 1.56 |
| NRLUW221M400V30X25SF | 220 | | 30X25 | 0.2 | 889 | 1.17 | 1.63 | |
| NRLUW271M400V22X45SF | 270 | | 22X45 | 0.2 | 985 | 1.40 | 1.96 | |
| NRLUW271M400V25X35SF | 270 | | 25X35 | 0.2 | 985 | 1.40 | 1.96 | |
| NRLUW271M400V30X30SF | 270 | | 30X30 | 0.2 | 985 | 1.36 | 1.90 | |
| NRLUW331M400V25X40SF | 330 | | 25X40 | 0.2 | 1089 | 1.55 | 2.17 | |
| NRLUW331M400V30X30SF | 330 | | 30X30 | 0.2 | 1089 | 1.55 | 2.17 | |
| NRLUW331M400V35X25SF | 330 | | 35X25 | 0.2 | 1089 | 1.35 | 1.89 | |
| NRLUW391M400V25X50SF | 390 | | 25X50 | 0.2 | 1184 | 1.72 | 2.40 | |
| NRLUW391M400V30X35SF | 390 | | 30X35 | 0.2 | 1184 | 1.72 | 2.40 | |
| NRLUW391M400V35X30SF | 390 | | 35X30 | 0.2 | 1184 | 1.53 | 2.14 | |



| Part Number | Voltage (VDC) | Cap (μF) | Case Size D x L (mm) | Dissipation Factor | Max. Leakage Current (μA) | Max. Ripple Current (Arms @ 105°C) | | |
|----------------------|---------------|----------|----------------------|--------------------|---------------------------|------------------------------------|------------|------|
| | | | | | | 120Hz | 10KHz ~ up | |
| NRLUW471M400V30X40SF | 400 | 470 | 30X40 | 0.2 | 1300 | 1.89 | 2.64 | |
| NRLUW471M400V35X35SF | | 470 | 35X35 | 0.2 | 1300 | 1.78 | 2.49 | |
| NRLUW561M400V30X45SF | | 560 | 30X45 | 0.2 | 1419 | 1.98 | 2.77 | |
| NRLUW561M400V35X40SF | | 560 | 35X40 | 0.2 | 1419 | 1.98 | 2.77 | |
| NRLUW681M400V35X45SF | | 680 | 35X45 | 0.2 | 1564 | 2.19 | 3.06 | |
| NRLUW821M400V35X50SF | | 820 | 35X50 | 0.2 | 1718 | 2.42 | 3.38 | |
| NRLUW101M420V22X25SF | | 420 | 100 | 22X25 | 0.2 | 614 | 0.74 | 1.03 |
| NRLUW121M420V22X30SF | 120 | | 22X30 | 0.2 | 673 | 0.86 | 1.20 | |
| NRLUW151M420V22X35SF | 150 | | 22X35 | 0.2 | 752 | 0.98 | 1.37 | |
| NRLUW151M420V25X25SF | 150 | | 25X25 | 0.2 | 752 | 0.90 | 1.26 | |
| NRLUW181M420V22X40SF | 180 | | 22X40 | 0.2 | 824 | 1.09 | 1.52 | |
| NRLUW181M420V25X30SF | 180 | | 25X30 | 0.2 | 824 | 1.05 | 1.47 | |
| NRLUW221M420V22X45SF | 220 | | 22X45 | 0.2 | 911 | 1.21 | 1.69 | |
| NRLUW221M420V25X35SF | 220 | | 25X35 | 0.2 | 911 | 1.19 | 1.66 | |
| NRLUW221M420V30X25SF | 220 | | 30X25 | 0.2 | 911 | 1.12 | 1.56 | |
| NRLUW271M420V22X50SF | 270 | | 22X50 | 0.2 | 1010 | 1.34 | 1.87 | |
| NRLUW271M420V25X40SF | 270 | | 25X40 | 0.2 | 1010 | 1.34 | 1.87 | |
| NRLUW271M420V30X30SF | 270 | | 30X30 | 0.2 | 1010 | 1.30 | 1.82 | |
| NRLUW271M420V35X25SF | 270 | | 35X25 | 0.2 | 1010 | 1.27 | 1.77 | |
| NRLUW331M420V25X45SF | 330 | | 25X45 | 0.2 | 1116 | 1.47 | 2.05 | |
| NRLUW331M420V30X35SF | 330 | | 30X35 | 0.2 | 1116 | 1.47 | 2.05 | |
| NRLUW331M420V35X30SF | 330 | | 35X30 | 0.2 | 1116 | 1.45 | 2.03 | |
| NRLUW391M420V30X40SF | 390 | | 30X40 | 0.2 | 1214 | 1.64 | 2.29 | |
| NRLUW391M420V35X35SF | 390 | | 35X35 | 0.2 | 1214 | 1.68 | 2.35 | |
| NRLUW471M420V30X45SF | 470 | | 30X45 | 0.2 | 1332 | 1.81 | 2.53 | |
| NRLUW471M420V35X35SF | 470 | | 35X35 | 0.2 | 1332 | 1.71 | 2.39 | |
| NRLUW561M420V30X50SF | 560 | | 30X50 | 0.2 | 1454 | 2.07 | 2.89 | |
| NRLUW561M420V35X40SF | 560 | | 35X40 | 0.2 | 1454 | 2.07 | 2.89 | |
| NRLUW681M420V35X50SF | 680 | | 35X50 | 0.2 | 1603 | 2.43 | 3.40 | |
| NRLUW101M450V22X25SF | 450 | | 100 | 22X25 | 0.2 | 636 | 0.73 | 1.02 |
| NRLUW121M450V22X30SF | | | 120 | 22X30 | 0.2 | 697 | 0.84 | 1.17 |
| NRLUW121M450V25X25SF | | | 120 | 25X25 | 0.2 | 697 | 0.87 | 1.21 |
| NRLUW151M450V22X35SF | | | 150 | 22X35 | 0.2 | 779 | 0.97 | 1.35 |
| NRLUW151M450V25X30SF | | | 150 | 25X30 | 0.2 | 779 | 0.89 | 1.24 |
| NRLUW181M450V22X40SF | | | 180 | 22X40 | 0.2 | 853 | 1.08 | 1.51 |
| NRLUW181M450V25X30SF | | | 180 | 25X30 | 0.2 | 853 | 1.03 | 1.44 |
| NRLUW181M450V30X25SF | | | 180 | 30X25 | 0.2 | 853 | 1.08 | 1.51 |
| NRLUW221M450V22X45SF | | | 220 | 22X45 | 0.2 | 943 | 1.17 | 1.63 |
| NRLUW221M450V25X35SF | | 220 | 25X35 | 0.2 | 943 | 1.17 | 1.63 | |
| NRLUW221M450V30X30SF | | 220 | 30X30 | 0.2 | 943 | 1.10 | 1.54 | |
| NRLUW221M450V35X25SF | | 220 | 35X25 | 0.2 | 943 | 1.04 | 1.45 | |
| NRLUW271M450V25X45SF | | 270 | 25X45 | 0.2 | 1045 | 1.43 | 2.00 | |
| NRLUW271M450V30X30SF | | 270 | 30X30 | 0.2 | 1045 | 1.28 | 1.79 | |
| NRLUW271M450V35X30SF | | 270 | 35X30 | 0.2 | 1045 | 1.25 | 1.75 | |
| NRLUW331M450V25X50SF | | 330 | 25X50 | 0.2 | 1156 | 1.45 | 2.03 | |



| Part Number | Voltage (VDC) | Cap (μF) | Case Size D x L (mm) | Dissipation Factor | Max. Leakage Current (μA) | Max. Ripple Current (Arms @ 105°C) | |
|----------------------|---------------|----------|----------------------|--------------------|---------------------------|------------------------------------|------------|
| | | | | | | 120Hz | 10KHz ~ up |
| NRLUW331M450V30X40SF | 450 | 330 | 30X40 | 0.2 | 1156 | 1.45 | 2.03 |
| NRLUW331M450V35X30SF | | 330 | 35X30 | 0.2 | 1156 | 1.43 | 2.00 |
| NRLUW391M450V30X45SF | | 390 | 30X45 | 0.2 | 1256 | 1.75 | 2.45 |
| NRLUW391M450V35X35SF | | 390 | 35X35 | 0.2 | 1256 | 1.66 | 2.32 |
| NRLUW471M450V30X50SF | | 470 | 30X50 | 0.2 | 1379 | 1.85 | 2.59 |
| NRLUW471M450V35X40SF | | 470 | 35X40 | 0.2 | 1379 | 1.85 | 2.59 |
| NRLUW561M450V35X45SF | | 560 | 35X45 | 0.2 | 1505 | 2.04 | 2.85 |

