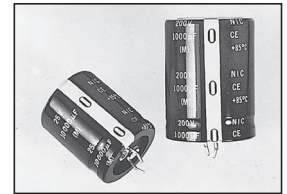


### FEATURES

- EXPANDED VALUE RANGE
- LONG LIFE AT +105°C (2,000 HOURS)
- HIGH RIPPLE CURRENT IN SMALL SIZE
- SUITABLE FOR SWITCHING POWER SUPPLIES

### EXPANDED VALUE RANGE

**RoHS  
Compliant**  
includes all homogeneous materials



### SPECIFICATIONS

\*See Part Number System for Details

|                                                                                                              |                    |                                           |           |      |         |      |      |
|--------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------|-----------|------|---------|------|------|
| Operating Temperature Range                                                                                  |                    | -25 ~ +105°C                              |           |      |         |      |      |
| Rated Voltage Range                                                                                          |                    | 400 ~ 550Vdc                              |           |      |         |      |      |
| Rated Capacitance Range                                                                                      |                    | 56 ~ 1200μF                               |           |      |         |      |      |
| Capacitance Tolerance                                                                                        |                    | ±20% (M)                                  |           |      |         |      |      |
| Max. Leakage Current (μA)<br>After 5 minutes (20°C)                                                          |                    | $3 \times \sqrt{C(\mu F)V}$               |           |      |         |      |      |
| Max. Tan δ<br>at 120Hz/20°C                                                                                  | W.V. (Vdc)         | 400                                       | 420       | 450  | 475     | 500  | 550  |
|                                                                                                              | Tan δ max.         | 0.20                                      | 0.20      | 0.20 | 0.25    | 0.25 | 0.25 |
| Surge Voltage                                                                                                | W.V. (Vdc)         | 400                                       | 420       | 450  | 475     | 500  | 550  |
|                                                                                                              | S.V. (Vdc)         | 450                                       | 470       | 500  | 525     | 550  | 600  |
| Low Temperature<br>Stability                                                                                 | W.V. (Vdc)         | 400                                       | 420       | 450  | 475     | 500  | 550  |
|                                                                                                              | Z-25°C/Z+20°C      | 8 max.                                    |           |      | 12 max. |      |      |
| Ripple Current<br>Frequency Correction Factors                                                               | Frequency (Hz)     | 50 (60)                                   | 100 (120) | 300  | 500     | 1K   | 10K  |
|                                                                                                              | Multiplier         | 0.80                                      | 1.00      | 1.15 | 1.20    | 1.25 | 1.40 |
| Load Life Test<br>2,000 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<br>1,000 hours at +105°C<br>(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         |           |      |         |      |      |
| Resistance to Soldering Heat<br>Immersion +260°C ± 5°C for 10 ± 1 seconds<br>up to 2.0mm from capacitor body | Capacitance Change | Within ±10% of initial measured value     |           |      |         |      |      |
|                                                                                                              | Tan δ              | Less than specified maximum value         |           |      |         |      |      |
|                                                                                                              | Leakage Current    | Less than specified maximum value         |           |      |         |      |      |

### MECHANICAL CHARACTERISTICS:

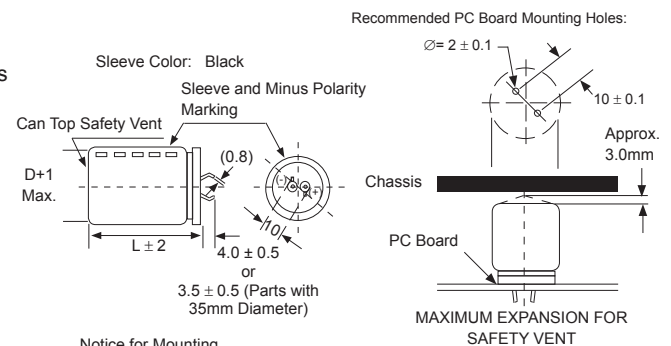
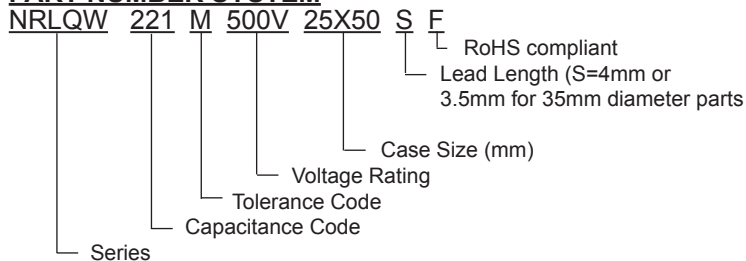
#### 1. Safety Vent:

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 2.0Kg 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](http://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](mailto:tpmg@niccomp.com)



### STANDARD PRODUCT LIST, CASE SIZE AND SPECIFICATIONS

| Part Number          | Cap.<br>( $\mu$ F) | W.V.<br>(Vdc) | Case Size<br>DxL (mm) | Leakage Current<br>( $\mu$ A) | ESR<br>( $\Omega$ @20°C) | Max. Ripple Current<br>(Arms @ 105°C) |             |
|----------------------|--------------------|---------------|-----------------------|-------------------------------|--------------------------|---------------------------------------|-------------|
|                      |                    |               |                       |                               | 120Hz                    | 120Hz                                 | 10K ~ 50KHz |
| NRLQW121M400V22X25SF | 120                | 400           | 22X25                 | 657                           | 2.76                     | 0.92                                  | 1.288       |
| NRLQW151M400V22X30SF | 150                |               | 22X30                 | 734                           | 2.21                     | 1.08                                  | 1.512       |
| NRLQW181M400V22X30SF | 180                |               | 22X30                 | 804                           | 1.84                     | 1.15                                  | 1.610       |
| NRLQW181M400V25X25SF | 180                |               | 25X25                 | 804                           | 1.84                     | 1.12                                  | 1.568       |
| NRLQW221M400V22X35SF | 220                |               | 22X35                 | 889                           | 1.50                     | 1.32                                  | 1.848       |
| NRLQW221M400V25X30SF | 220                |               | 25X30                 | 889                           | 1.50                     | 1.30                                  | 1.820       |
| NRLQW271M400V22X40SF | 270                |               | 22X40                 | 985                           | 1.22                     | 1.50                                  | 2.100       |
| NRLQW271M400V25X35SF | 270                |               | 25X35                 | 985                           | 1.22                     | 1.49                                  | 2.086       |
| NRLQW271M400V30X25SF | 270                |               | 30X25                 | 985                           | 1.22                     | 1.33                                  | 1.862       |
| NRLQW331M400V22X50SF | 330                |               | 22X50                 | 1089                          | 1.00                     | 1.76                                  | 2.464       |
| NRLQW331M400V25X40SF | 330                |               | 25X40                 | 1089                          | 1.00                     | 1.68                                  | 2.352       |
| NRLQW331M400V30X30SF | 330                |               | 30X30                 | 1089                          | 1.00                     | 1.55                                  | 2.170       |
| NRLQW331M400V35X25SF | 330                |               | 35X25                 | 1089                          | 1.00                     | 1.44                                  | 2.016       |
| NRLQW391M400V22X55SF | 390                |               | 22X55                 | 1184                          | 0.85                     | 1.94                                  | 2.716       |
| NRLQW391M400V25X45SF | 390                |               | 25X45                 | 1184                          | 0.85                     | 1.86                                  | 2.604       |
| NRLQW391M400V30X35SF | 390                |               | 30X35                 | 1184                          | 0.85                     | 1.75                                  | 2.450       |
| NRLQW391M400V35X30SF | 390                |               | 35X30                 | 1184                          | 0.85                     | 1.63                                  | 2.282       |
| NRLQW471M400V25X50SF | 470                |               | 25X50                 | 1300                          | 0.70                     | 2.07                                  | 2.898       |
| NRLQW471M400V30X40SF | 470                |               | 30X40                 | 1300                          | 0.70                     | 1.97                                  | 2.758       |
| NRLQW471M400V35X30SF | 470                |               | 35X30                 | 1300                          | 0.70                     | 1.68                                  | 2.352       |
| NRLQW561M400V25X60SF | 560                |               | 25X60                 | 1419                          | 0.59                     | 2.37                                  | 3.318       |
| NRLQW561M400V30X45SF | 560                |               | 30X45                 | 1419                          | 0.59                     | 2.18                                  | 3.052       |
| NRLQW561M400V35X35SF | 560                |               | 35X35                 | 1419                          | 0.59                     | 1.92                                  | 2.688       |
| NRLQW681M400V30X50SF | 680                |               | 30X50                 | 1564                          | 0.48                     | 2.41                                  | 3.374       |
| NRLQW681M400V35X40SF | 680                |               | 35X40                 | 1564                          | 0.48                     | 2.15                                  | 3.010       |
| NRLQW821M400V30X60SF | 820                |               | 30X60                 | 1718                          | 0.40                     | 2.76                                  | 3.864       |
| NRLQW821M400V35X45SF | 820                |               | 35X45                 | 1718                          | 0.40                     | 2.37                                  | 3.318       |
| NRLQW102M400V35X55SF | 1000               |               | 35X55                 | 1897                          | 0.33                     | 2.78                                  | 3.892       |
| NRLQW122M400V35X60SF | 1200               |               | 35X60                 | 2078                          | 0.27                     | 2.95                                  | 4.130       |
| NRLQW101M420V22X25SF | 100                | 420           | 22X25                 | 614                           | 3.31                     | 0.85                                  | 1.190       |
| NRLQW121M420V22X30SF | 120                |               | 22X30                 | 673                           | 2.76                     | 0.98                                  | 1.372       |
| NRLQW151M420V22X30SF | 150                |               | 22X30                 | 752                           | 2.21                     | 1.06                                  | 1.484       |
| NRLQW151M420V25X25SF | 150                |               | 25X25                 | 752                           | 2.21                     | 1.04                                  | 1.456       |
| NRLQW181M420V22X35SF | 180                |               | 22X35                 | 824                           | 1.84                     | 1.20                                  | 1.680       |
| NRLQW181M420V25X30SF | 180                |               | 25X30                 | 824                           | 1.84                     | 1.20                                  | 1.680       |
| NRLQW221M420V22X40SF | 220                |               | 22X40                 | 911                           | 1.50                     | 1.37                                  | 1.918       |
| NRLQW221M420V25X30SF | 220                |               | 25X30                 | 911                           | 1.50                     | 1.28                                  | 1.792       |
| NRLQW221M420V30X25SF | 220                |               | 30X25                 | 911                           | 1.50                     | 1.24                                  | 1.736       |
| NRLQW271M420V22X50SF | 270                |               | 22X50                 | 1010                          | 1.22                     | 1.62                                  | 2.268       |
| NRLQW271M420V25X35SF | 270                |               | 25X35                 | 1010                          | 1.22                     | 1.47                                  | 2.058       |
| NRLQW271M420V30X30SF | 270                |               | 30X30                 | 1010                          | 1.22                     | 1.44                                  | 2.016       |
| NRLQW271M420V35X25SF | 270                |               | 35X25                 | 1010                          | 1.22                     | 1.32                                  | 1.848       |
| NRLQW331M420V22X60SF | 330                |               | 22X60                 | 1116                          | 1.00                     | 1.87                                  | 2.618       |
| NRLQW331M420V25X45SF | 330                |               | 25X45                 | 1116                          | 1.00                     | 1.75                                  | 2.450       |
| NRLQW331M420V30X35SF | 330                |               | 30X35                 | 1116                          | 1.00                     | 1.65                                  | 2.310       |
| NRLQW331M420V35X30SF | 330                |               | 35X30                 | 1116                          | 1.00                     | 1.56                                  | 2.184       |
| NRLQW391M420V25X50SF | 390                |               | 25X50                 | 1214                          | 0.85                     | 1.93                                  | 2.702       |
| NRLQW391M420V30X40SF | 390                |               | 30X40                 | 1214                          | 0.85                     | 1.84                                  | 2.576       |
| NRLQW391M420V35X30SF | 390                |               | 35X30                 | 1214                          | 0.85                     | 1.62                                  | 2.268       |
| NRLQW471M420V25X60SF | 470                |               | 25X60                 | 1332                          | 0.70                     | 2.21                                  | 3.094       |
| NRLQW471M420V30X45SF | 470                |               | 30X45                 | 1332                          | 0.70                     | 2.05                                  | 2.870       |
| NRLQW471M420V35X35SF | 470                |               | 35X35                 | 1332                          | 0.70                     | 1.86                                  | 2.604       |
| NRLQW561M420V30X50SF | 560                |               | 30X50                 | 1454                          | 0.59                     | 2.25                                  | 3.150       |
| NRLQW561M420V35X40SF | 560                |               | 35X40                 | 1454                          | 0.59                     | 2.10                                  | 2.940       |
| NRLQW681M420V30X60SF | 680                |               | 30X60                 | 1603                          | 0.48                     | 2.59                                  | 3.626       |
| NRLQW681M420V35X45SF | 680                |               | 35X45                 | 1603                          | 0.48                     | 2.29                                  | 3.206       |
| NRLQW821M420V35X50SF | 820                |               | 35X50                 | 1760                          | 0.40                     | 2.50                                  | 3.500       |
| NRLQW102M420V35X60SF | 1000               |               | 35X60                 | 1944                          | 0.33                     | 2.88                                  | 4.032       |

### STANDARD PRODUCT LIST, CASE SIZE AND SPECIFICATIONS

| Part Number          | Cap.<br>( $\mu$ F) | W.V.<br>(Vdc) | Case Size<br>DxL (mm) | Leakage Current<br>( $\mu$ A) | ESR<br>( $\Omega$ @20°C) | Max. Ripple Current<br>(Arms @ 105°C) |             |
|----------------------|--------------------|---------------|-----------------------|-------------------------------|--------------------------|---------------------------------------|-------------|
|                      |                    |               |                       |                               | 120Hz                    | 120Hz                                 | 10K ~ 50KHz |
| NRLQW101M450V22X25SF | 100                | 450           | 22X25                 | 636                           | 3.31                     | 0.85                                  | 1.190       |
| NRLQW121M450V22X30SF | 120                |               | 22X30                 | 697                           | 2.76                     | 0.98                                  | 1.372       |
| NRLQW121M450V25X25SF | 120                |               | 25X25                 | 697                           | 2.76                     | 0.96                                  | 1.344       |
| NRLQW151M450V22X35SF | 150                |               | 22X35                 | 779                           | 2.21                     | 1.13                                  | 1.582       |
| NRLQW151M450V25X30SF | 150                |               | 25X30                 | 779                           | 2.21                     | 1.12                                  | 1.568       |
| NRLQW181M450V22X40SF | 180                |               | 22X40                 | 853                           | 1.84                     | 1.28                                  | 1.792       |
| NRLQW181M450V25X30SF | 180                |               | 25X30                 | 853                           | 1.84                     | 1.20                                  | 1.680       |
| NRLQW181M450V30X25SF | 180                |               | 30X25                 | 853                           | 1.84                     | 1.18                                  | 1.652       |
| NRLQW221M450V22X45SF | 220                |               | 22X45                 | 943                           | 1.50                     | 1.44                                  | 2.016       |
| NRLQW221M450V25X35SF | 220                |               | 25X35                 | 943                           | 1.50                     | 1.37                                  | 1.918       |
| NRLQW221M450V30X30SF | 220                |               | 30X30                 | 943                           | 1.50                     | 1.36                                  | 1.904       |
| NRLQW271M450V22X50SF | 270                |               | 22X50                 | 1045                          | 1.22                     | 1.61                                  | 2.254       |
| NRLQW271M450V25X40SF | 270                |               | 25X40                 | 1045                          | 1.22                     | 1.56                                  | 2.184       |
| NRLQW271M450V30X30SF | 270                |               | 30X30                 | 1045                          | 1.22                     | 1.44                                  | 2.016       |
| NRLQW271M450V35X25SF | 270                |               | 35X25                 | 1045                          | 1.22                     | 1.33                                  | 1.862       |
| NRLQW331M450V22X60SF | 330                |               | 22X60                 | 1156                          | 1.00                     | 1.86                                  | 2.604       |
| NRLQW331M450V25X50SF | 330                |               | 25X50                 | 1156                          | 1.00                     | 1.82                                  | 2.548       |
| NRLQW331M450V30X35SF | 330                |               | 30X35                 | 1156                          | 1.00                     | 1.64                                  | 2.296       |
| NRLQW331M450V35X30SF | 330                |               | 35X30                 | 1156                          | 1.00                     | 1.54                                  | 2.156       |
| NRLQW391M450V25X55SF | 390                |               | 25X55                 | 1256                          | 0.85                     | 2.01                                  | 2.814       |
| NRLQW391M450V30X40SF | 390                |               | 30X40                 | 1256                          | 0.85                     | 1.83                                  | 2.562       |
| NRLQW391M450V35X35SF | 390                |               | 35X35                 | 1256                          | 0.85                     | 1.76                                  | 2.464       |
| NRLQW471M450V25X60SF | 470                |               | 25X60                 | 1379                          | 0.70                     | 2.21                                  | 3.094       |
| NRLQW471M450V30X45SF | 470                |               | 30X45                 | 1379                          | 0.70                     | 2.05                                  | 2.870       |
| NRLQW471M450V35X40SF | 470                |               | 35X40                 | 1379                          | 0.70                     | 1.97                                  | 2.758       |
| NRLQW561M450V30X50SF | 560                |               | 30X50                 | 1505                          | 0.59                     | 2.26                                  | 3.164       |
| NRLQW561M450V35X45SF | 560                |               | 35X45                 | 1505                          | 0.59                     | 2.18                                  | 3.052       |
| NRLQW681M450V30X60SF | 680                |               | 30X60                 | 1659                          | 0.48                     | 2.59                                  | 3.626       |
| NRLQW681M450V35X50SF | 680                |               | 35X50                 | 1659                          | 0.48                     | 2.38                                  | 3.332       |
| NRLQW821M450V35X60SF | 820                |               | 35X60                 | 1822                          | 0.40                     | 2.74                                  | 3.836       |
| NRLQW680M475V22X25SF | 68                 | 475           | 22X25                 | 539                           | 6.09                     | 0.67                                  | 0.938       |
| NRLQW820M475V22X30SF | 82                 |               | 22X30                 | 592                           | 5.05                     | 0.77                                  | 1.078       |
| NRLQW101M475V22X35SF | 100                |               | 22X35                 | 653                           | 4.14                     | 0.88                                  | 1.232       |
| NRLQW101M475V25X25SF | 100                |               | 25X25                 | 653                           | 4.14                     | 0.83                                  | 1.162       |
| NRLQW121M475V22X40SF | 120                |               | 22X40                 | 716                           | 3.45                     | 0.99                                  | 1.386       |
| NRLQW121M475V25X30SF | 120                |               | 25X30                 | 716                           | 3.45                     | 0.96                                  | 1.344       |
| NRLQW151M475V22X45SF | 150                |               | 22X45                 | 800                           | 2.76                     | 1.14                                  | 1.596       |
| NRLQW151M475V25X35SF | 150                |               | 25X35                 | 800                           | 2.76                     | 1.10                                  | 1.540       |
| NRLQW151M475V30X25SF | 150                |               | 30X25                 | 800                           | 2.76                     | 1.04                                  | 1.456       |
| NRLQW181M475V22X50SF | 180                |               | 22X50                 | 877                           | 2.30                     | 1.27                                  | 1.778       |
| NRLQW181M475V25X40SF | 180                |               | 25X40                 | 877                           | 2.30                     | 1.24                                  | 1.736       |
| NRLQW181M475V30X30SF | 180                |               | 30X30                 | 877                           | 2.30                     | 1.19                                  | 1.666       |
| NRLQW181M475V35X25SF | 180                |               | 35X25                 | 877                           | 2.30                     | 1.15                                  | 1.610       |
| NRLQW221M475V22X60SF | 220                |               | 22X60                 | 969                           | 1.88                     | 1.47                                  | 2.058       |
| NRLQW221M475V25X45SF | 220                |               | 25X45                 | 969                           | 1.88                     | 1.40                                  | 1.960       |
| NRLQW221M475V30X35SF | 220                |               | 30X35                 | 969                           | 1.88                     | 1.36                                  | 1.904       |
| NRLQW221M475V35X30SF | 220                |               | 35X30                 | 969                           | 1.88                     | 1.33                                  | 1.862       |
| NRLQW271M475V25X55SF | 270                |               | 25X55                 | 1074                          | 1.53                     | 1.62                                  | 2.268       |
| NRLQW271M475V30X40SF | 270                |               | 30X40                 | 1074                          | 1.53                     | 1.54                                  | 2.156       |
| NRLQW271M475V35X35SF | 270                |               | 35X35                 | 1074                          | 1.53                     | 1.52                                  | 2.128       |
| NRLQW331M475V30X45SF | 330                |               | 30X45                 | 1187                          | 1.25                     | 1.73                                  | 2.422       |
| NRLQW331M475V35X40SF | 330                |               | 35X40                 | 1187                          | 1.25                     | 1.71                                  | 2.394       |
| NRLQW391M475V30X55SF | 390                |               | 30X55                 | 1291                          | 1.06                     | 1.98                                  | 2.772       |
| NRLQW391M475V35X40SF | 390                |               | 35X40                 | 1291                          | 1.06                     | 1.79                                  | 2.506       |
| NRLQW471M475V30X60SF | 470                |               | 30X60                 | 1417                          | 0.88                     | 2.18                                  | 3.052       |
| NRLQW471M475V35X50SF | 470                |               | 35X50                 | 1417                          | 0.88                     | 2.09                                  | 2.926       |
| NRLQW561M475V35X55SF | 560                |               | 35X55                 | 1547                          | 0.74                     | 2.29                                  | 3.206       |

# Large Can Aluminum Electrolytic Capacitors

## STANDARD PRODUCT LIST, CASE SIZE AND SPECIFICATIONS

| Part Number          | Cap.<br>( $\mu$ F) | W.V.<br>(Vdc) | Case Size<br>DxL (mm) | Leakage Current<br>( $\mu$ A) | ESR<br>( $\Omega$ @20°C) | Max. Ripple Current<br>(Arms @ 105°C) |             |
|----------------------|--------------------|---------------|-----------------------|-------------------------------|--------------------------|---------------------------------------|-------------|
|                      |                    |               |                       |                               | 120Hz                    | 120Hz                                 | 10K ~ 50KHz |
| NRLQW560M500V22X25SF | 56                 | 500           | 22X25                 | 501                           | 7.4                      | 0.63                                  | 0.882       |
| NRLQW680M500V22X30SF | 68                 |               | 22X30                 | 553                           | 6.09                     | 0.72                                  | 1.008       |
| NRLQW820M500V22X30SF | 82                 |               | 22X30                 | 607                           | 5.05                     | 0.80                                  | 1.120       |
| NRLQW820M500V25X25SF | 82                 |               | 25X25                 | 607                           | 5.05                     | 0.78                                  | 1.092       |
| NRLQW101M500V22X35SF | 100                |               | 22X35                 | 670                           | 4.14                     | 0.92                                  | 1.288       |
| NRLQW101M500V25X30SF | 100                |               | 25X30                 | 670                           | 4.14                     | 0.90                                  | 1.260       |
| NRLQW121M500V22X40SF | 120                |               | 22X40                 | 734                           | 3.45                     | 1.03                                  | 1.442       |
| NRLQW121M500V25X35SF | 120                |               | 25X35                 | 734                           | 3.45                     | 1.02                                  | 1.428       |
| NRLQW121M500V30X25SF | 120                |               | 30X25                 | 734                           | 3.45                     | 0.97                                  | 1.358       |
| NRLQW151M500V22X50SF | 150                |               | 22X50                 | 821                           | 2.76                     | 1.20                                  | 1.680       |
| NRLQW151M500V25X40SF | 150                |               | 25X40                 | 821                           | 2.76                     | 1.17                                  | 1.638       |
| NRLQW151M500V30X30SF | 150                |               | 30X30                 | 821                           | 2.76                     | 1.13                                  | 1.582       |
| NRLQW151M500V35X25SF | 150                |               | 35X25                 | 821                           | 2.76                     | 1.09                                  | 1.526       |
| NRLQW181M500V22X60SF | 180                |               | 22X60                 | 900                           | 2.3                      | 1.37                                  | 1.918       |
| NRLQW181M500V25X45SF | 180                |               | 25X45                 | 900                           | 2.3                      | 1.31                                  | 1.834       |
| NRLQW181M500V30X35SF | 180                |               | 30X35                 | 900                           | 2.3                      | 1.28                                  | 1.792       |
| NRLQW181M500V35X30SF | 180                |               | 35X30                 | 900                           | 2.3                      | 1.26                                  | 1.764       |
| NRLQW221M500V25X50SF | 220                |               | 25X50                 | 994                           | 1.88                     | 1.46                                  | 2.044       |
| NRLQW221M500V30X40SF | 220                |               | 30X40                 | 994                           | 1.88                     | 1.45                                  | 2.030       |
| NRLQW221M500V35X35SF | 220                |               | 35X35                 | 994                           | 1.88                     | 1.44                                  | 2.016       |
| NRLQW271M500V25X60SF | 270                |               | 25X60                 | 1102                          | 1.53                     | 1.70                                  | 2.380       |
| NRLQW271M500V30X45SF | 270                |               | 30X45                 | 1102                          | 1.53                     | 1.63                                  | 2.282       |
| NRLQW271M500V35X35SF | 270                |               | 35X35                 | 1102                          | 1.53                     | 1.52                                  | 2.128       |
| NRLQW331M500V30X50SF | 330                |               | 30X50                 | 1218                          | 1.25                     | 1.81                                  | 2.534       |
| NRLQW331M500V35X40SF | 330                |               | 35X40                 | 1218                          | 1.25                     | 1.71                                  | 2.394       |
| NRLQW391M500V30X60SF | 390                |               | 30X60                 | 1324                          | 1.06                     | 2.06                                  | 2.884       |
| NRLQW391M500V35X50SF | 390                |               | 35X50                 | 1324                          | 1.06                     | 1.99                                  | 2.786       |
| NRLQW471M500V35X55SF | 470                |               | 35X55                 | 1454                          | 0.88                     | 2.19                                  | 3.066       |
| NRLQW101M550V30X25SF | 100                | 550           | 30X25                 | 703                           | 4.14                     | 0.80                                  | 1.120       |
| NRLQW121M550V30X30SF | 120                |               | 30X30                 | 770                           | 3.45                     | 0.93                                  | 1.302       |
| NRLQW121M550V35X25SF | 120                |               | 35X25                 | 770                           | 3.45                     | 0.92                                  | 1.288       |
| NRLQW151M550V30X35SF | 150                |               | 30X35                 | 861                           | 2.76                     | 1.07                                  | 1.498       |
| NRLQW151M550V35X30SF | 150                |               | 35X30                 | 861                           | 2.76                     | 1.05                                  | 1.470       |
| NRLQW181M550V30X40SF | 180                |               | 30X40                 | 943                           | 2.30                     | 1.21                                  | 1.694       |
| NRLQW181M550V35X30SF | 180                |               | 35X30                 | 943                           | 2.30                     | 1.14                                  | 1.596       |
| NRLQW221M550V30X45SF | 220                |               | 30X45                 | 1043                          | 1.88                     | 1.36                                  | 1.904       |
| NRLQW221M550V35X35SF | 220                |               | 35X35                 | 1043                          | 1.88                     | 1.30                                  | 1.820       |
| NRLQW271M550V30X55SF | 270                |               | 30X55                 | 1156                          | 1.53                     | 1.57                                  | 2.198       |
| NRLQW271M550V35X40SF | 270                |               | 35X40                 | 1156                          | 1.53                     | 1.47                                  | 2.058       |
| NRLQW331M550V35X50SF | 330                |               | 35X50                 | 1278                          | 1.25                     | 1.72                                  | 2.408       |
| NRLQW391M550V35X55SF | 390                |               | 35X55                 | 1389                          | 1.06                     | 1.88                                  | 2.632       |

New Part Numbers are Highlighted

