

# ALUMINUM ELECTROLYTIC CAPACITORS

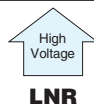
nichicon

# LNY

Screw Terminal Type, 85°C Higher Capacitance

- Suited for equipment down sizing.
- Load life of 2000 hours application of ripple current at 85°C
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).

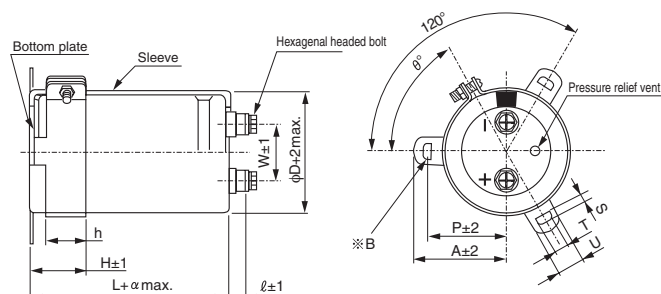
**LNY**



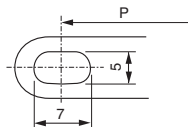
## Specifications

| Item                          | Performance Characteristics                                                                                                                                                                                                |                                                   |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Category Temperature Range    | - 40 to +85°C                                                                                                                                                                                                              |                                                   |
| Rated Voltage Range           | 350 to 450V                                                                                                                                                                                                                |                                                   |
| Rated Capacitance Range       | 820 to 22000µF                                                                                                                                                                                                             |                                                   |
| Capacitance Tolerance         | ±20% (120Hz, 20°C)                                                                                                                                                                                                         |                                                   |
| Leakage Current               | After 5 minutes' application of rated voltage, leakage current is not more than $3\sqrt{CV}$ (µA) or 5 mA, whichever is smaller. (at 20°C)<br>[C: Rated Capacitance(µF), V: Voltage (V)]                                   |                                                   |
| Tangent of loss angle (tan δ) | See refer to next page (Measurement frequency: 120Hz at 20°C)                                                                                                                                                              |                                                   |
| Stability at Low Temperature  | Rated voltage (V)                                                                                                                                                                                                          | 350 to 450                                        |
|                               | Impedance ratio (max.)                                                                                                                                                                                                     | Z(-40°C) / Z(+20°C)<br>12                         |
| Measurement frequency: 120Hz  |                                                                                                                                                                                                                            |                                                   |
| Insulation Resistance         | The insulation resistance shall be more than 100MΩ at DC 500V application between terminal and bracket.                                                                                                                    |                                                   |
| Voltage proof                 | There is no abnormality during AC 2500V 1 minute's application between terminal and bracket.                                                                                                                               |                                                   |
| Endurance                     | The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours at 85°C, the peak voltage shall not exceed the rated voltage. |                                                   |
|                               | Capacitance change                                                                                                                                                                                                         | Within ±20% of the initial capacitance value      |
|                               | tan δ                                                                                                                                                                                                                      | 300% or less than the initial specified value     |
| Shelf Life                    | After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the requirements listed at right.                        |                                                   |
|                               | Capacitance change                                                                                                                                                                                                         | Within ±20% of the initial capacitance value      |
|                               | tan δ                                                                                                                                                                                                                      | 300% or less than the initial specified value     |
| Marking                       | Leakage current                                                                                                                                                                                                            | Less than or equal to the initial specified value |
|                               | Printed with white color letter on black sleeve                                                                                                                                                                            |                                                   |

## Drawing



※ B  
3-leg brackets for φ90 capacitors have different hole shapes from the ordinary ones illustrated below.



Note) The brackets will be supplied in the separate box.

## Type numbering system (Example: 400V 10000µF)

|                              |   |   |   |   |   |   |   |   |    |    |    |                  |      |                |           |
|------------------------------|---|---|---|---|---|---|---|---|----|----|----|------------------|------|----------------|-----------|
| 1                            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13               | 14   |                |           |
| L                            | N | Y | 2 | G | 1 | 0 | 3 | M | S  | E  | J  |                  |      |                |           |
|                              |   |   |   |   |   |   |   |   |    |    |    | Mounting bracket |      |                |           |
|                              |   |   |   |   |   |   |   |   |    |    |    | Case dia. code   |      | (φ51 to φ90)   |           |
| Configuration※               |   |   |   |   |   |   |   |   |    |    |    | φD               | Code | 3-leg brackets | Code less |
| Capacitance tolerance (±20%) |   |   |   |   |   |   |   |   |    |    |    | 51               | F    | 2-leg brackets | BB        |
| Rated Capacitance (10000μF)  |   |   |   |   |   |   |   |   |    |    |    | 63.5             | G    | No brackets    | BN        |
| Rated Voltage (400V)         |   |   |   |   |   |   |   |   |    |    |    | 76.2             | H    |                |           |
|                              |   |   |   |   |   |   |   |   |    |    |    | 90               | J    |                |           |
| Series name                  |   |   |   |   |   |   |   |   |    |    |    |                  |      |                |           |
| Type                         |   |   |   |   |   |   |   |   |    |    |    |                  |      |                |           |

※ Configuration

|                                      |
|--------------------------------------|
| Cr (III) Plating<br>(RoHS compliant) |
| SE                                   |

Please refer to the Guidelines for Aluminum Electrolytic Capacitors for dimensions information.

※ Please contact to us if PVCless products are required.

● Dimension of terminal pitch (W) and length (ℓ) and Nominal dia. of bolt (mm)

| φD   | W    | ℓ | α | Nominal dia. of bolt |
|------|------|---|---|----------------------|
| 51   | 22.0 | 6 | 3 | M5                   |
| 63.5 | 28.6 | 6 | 3 | M5                   |
| 76.2 | 31.8 | 6 | 3 | M5                   |
| 90   | 31.8 | 6 | 3 | M5                   |

● Dimension of mounting bracket (mm)

| Symbol | 3-Leg |      |      |      | 2-Leg |      |      |     |
|--------|-------|------|------|------|-------|------|------|-----|
|        | 51    | 63.5 | 76.2 | 90   | 51    | 63.5 | 76.2 | 90  |
| P      | 32.5  | 38.1 | 44.5 | 50.8 | 33.2  | 40.5 | 46.5 | 53  |
| A      | 38.5  | 43   | 49.2 | 58.5 | 40    | 46.5 | 53   | 59  |
| T      | 7.5   | 8.0  | 7.0  | 8.0  | 6.0   | 7.0  | 6.0  | 6.0 |
| S      | 5.0   | 5.0  | 5.0  | 5.0  | 4.5   | 4.5  | 4.5  | 4.5 |
| U      | 12    | 14   | 14   | 18   | 14    | 14   | 14   | 14  |
| θ      | 60    | 60   | 60   | 60   | 30    | 30   | 30   | 30  |
| H      | 20    | 25   | 30   | 35   | 25    | 35   | 35   | 35  |
| h      | 15    | 20   | 24   | 25   | 15    | 20   | 20   | 20  |

● Dimension table in next page.

CAT.8100N

LNY

## ■ Dimensions

| 350V (2V)    |                     |                        |       |                         |              |
|--------------|---------------------|------------------------|-------|-------------------------|--------------|
| Cap.<br>(μF) | Size<br>φD × L (mm) | Rated ripple<br>(Arms) | tan δ | Leakage Current<br>(mA) | Code         |
| 1500         | 51 × 60             | 9.3                    | 0.25  | 2.17                    | LNY2V152MSEF |
| 1800         | 51 × 70             | 10.0                   | 0.25  | 2.38                    | LNY2V182MSEF |
| 2200         | 51 × 80             | 11.1                   | 0.25  | 2.63                    | LNY2V222MSEF |
| 2700         | 51 × 90             | 12.2                   | 0.25  | 2.92                    | LNY2V272MSEF |
|              | 63.5 × 65           | 11.9                   | 0.25  | 2.92                    | LNY2V272MSEG |
| 3300         | 51 × 105            | 13.8                   | 0.25  | 3.22                    | LNY2V332MSEF |
|              | 63.5 × 75           | 13.1                   | 0.25  | 3.22                    | LNY2V332MSEG |
| 3900         | 51 × 130            | 14.8                   | 0.25  | 3.50                    | LNY2V392MSEF |
|              | 63.5 × 80           | 14.1                   | 0.25  | 3.50                    | LNY2V392MSEG |
| 4700         | 51 × 140            | 15.9                   | 0.25  | 3.84                    | LNY2V472MSEF |
|              | 63.5 × 90           | 15.8                   | 0.25  | 3.84                    | LNY2V472MSEG |
|              | 76.2 × 70           | 15.7                   | 0.25  | 3.84                    | LNY2V472MSEH |
| 5600         | 63.5 × 100          | 17.1                   | 0.25  | 4.20                    | LNY2V562MSEG |
|              | 76.2 × 85           | 17.0                   | 0.25  | 4.20                    | LNY2V562MSEH |
| 6800         | 63.5 × 125          | 19.2                   | 0.25  | 4.62                    | LNY2V682MSEG |
|              | 76.2 × 95           | 18.8                   | 0.25  | 4.62                    | LNY2V682MSEH |
| 8200         | 63.5 × 145          | 20.6                   | 0.25  | 5.00                    | LNY2V822MSEG |
|              | 76.2 × 105          | 20.2                   | 0.25  | 5.00                    | LNY2V822MSEH |
| 10000        | 63.5 × 165          | 23.2                   | 0.25  | 5.00                    | LNY2V103MSEG |
|              | 76.2 × 125          | 23.5                   | 0.25  | 5.00                    | LNY2V103MSEH |
|              | 90 × 95             | 23.5                   | 0.25  | 5.00                    | LNY2V103MSEJ |
| 12000        | 76.2 × 150          | 24.0                   | 0.25  | 5.00                    | LNY2V123MSEH |
|              | 90 × 110            | 24.1                   | 0.25  | 5.00                    | LNY2V123MSEJ |
| 15000        | 76.2 × 190          | 28.0                   | 0.25  | 5.00                    | LNY2V153MSEH |
|              | 90 × 140            | 29.2                   | 0.25  | 5.00                    | LNY2V153MSEJ |
| 18000        | 76.2 × 210          | 30.2                   | 0.25  | 5.00                    | LNY2V183MSEH |
|              | 90 × 155            | 31.1                   | 0.25  | 5.00                    | LNY2V183MSEJ |
| 22000        | 90 × 190            | 35.4                   | 0.25  | 5.00                    | LNY2V223MSEJ |

| 400V (2G)    |                     |                        |       |                         |              |
|--------------|---------------------|------------------------|-------|-------------------------|--------------|
| Cap.<br>(μF) | Size<br>φD × L (mm) | Rated ripple<br>(Arms) | tan δ | Leakage Current<br>(mA) | Code         |
| 1000         | 51 × 60             | 6.4                    | 0.25  | 1.89                    | LNY2G102MSEF |
| 1200         | 51 × 65             | 7.1                    | 0.25  | 2.07                    | LNY2G122MSEF |
| 1500         | 51 × 75             | 8.1                    | 0.25  | 2.32                    | LNY2G152MSEF |
| 1800         | 51 × 85             | 8.7                    | 0.25  | 2.54                    | LNY2G182MSEF |
|              | 63.5 × 65           | 9.1                    | 0.25  | 2.54                    | LNY2G182MSEG |
| 2200         | 51 × 95             | 9.6                    | 0.25  | 2.81                    | LNY2G222MSEF |
|              | 63.5 × 75           | 10.1                   | 0.25  | 2.81                    | LNY2G222MSEG |
| 2700         | 51 × 115            | 10.5                   | 0.25  | 3.11                    | LNY2G272MSEF |
|              | 63.5 × 85           | 11.6                   | 0.25  | 3.11                    | LNY2G272MSEG |
| 3300         | 51 × 145            | 12.4                   | 0.25  | 3.44                    | LNY2G332MSEF |
|              | 63.5 × 95           | 13.0                   | 0.25  | 3.44                    | LNY2G332MSEG |
| 3900         | 51 × 170            | 13.8                   | 0.25  | 3.74                    | LNY2G392MSEF |
|              | 63.5 × 105          | 14.2                   | 0.25  | 3.74                    | LNY2G392MSEG |
|              | 76.2 × 85           | 14.6                   | 0.25  | 3.74                    | LNY2G392MSEH |
| 4700         | 63.5 × 125          | 16.1                   | 0.25  | 4.11                    | LNY2G472MSEG |
|              | 76.2 × 95           | 16.2                   | 0.25  | 4.11                    | LNY2G472MSEH |
| 5600         | 63.5 × 140          | 16.9                   | 0.25  | 4.48                    | LNY2G562MSEG |
|              | 76.2 × 105          | 17.6                   | 0.25  | 4.48                    | LNY2G562MSEH |
| 6800         | 63.5 × 165          | 19.1                   | 0.25  | 4.94                    | LNY2G682MSEG |
| 8200         | 63.5 × 210          | 21.2                   | 0.25  | 5.00                    | LNY2G822MSEG |
|              | 76.2 × 150          | 21.2                   | 0.25  | 5.00                    | LNY2G822MSEH |
|              | 90 × 120            | 21.0                   | 0.25  | 5.00                    | LNY2G822MSEJ |
| 10000        | 76.2 × 170          | 22.4                   | 0.25  | 5.00                    | LNY2G103MSEH |
|              | 90 × 130            | 22.0                   | 0.25  | 5.00                    | LNY2G103MSEJ |
| 12000        | 76.2 × 220          | 26.0                   | 0.25  | 5.00                    | LNY2G123MSEH |
|              | 90 × 155            | 26.0                   | 0.25  | 5.00                    | LNY2G123MSEJ |
| 15000        | 90 × 190            | 28.3                   | 0.25  | 5.00                    | LNY2G153MSEJ |
| 18000        | 90 × 230            | 30.6                   | 0.25  | 5.00                    | LNY2G183MSEJ |

| 450V (2W)    |                     |                        |       |                         |              |
|--------------|---------------------|------------------------|-------|-------------------------|--------------|
| Cap.<br>(μF) | Size<br>φD × L (mm) | Rated ripple<br>(Arms) | tan δ | Leakage Current<br>(mA) | Code         |
| 820          | 51 × 60             | 4.9                    | 0.25  | 1.82                    | LNY2W821MSEF |
| 1000         | 51 × 70             | 5.5                    | 0.25  | 2.01                    | LNY2W102MSEF |
| 1200         | 51 × 75             | 6.0                    | 0.25  | 2.20                    | LNY2W122MSEF |
| 1500         | 51 × 85             | 6.8                    | 0.25  | 2.46                    | LNY2W152MSEF |
|              | 63.5 × 65           | 7.9                    | 0.25  | 2.46                    | LNY2W152MSEG |
| 1800         | 51 × 95             | 7.9                    | 0.25  | 2.70                    | LNY2W182MSEF |
|              | 63.5 × 75           | 8.9                    | 0.25  | 2.70                    | LNY2W182MSEG |
| 2200         | 51 × 125            | 9.2                    | 0.25  | 2.98                    | LNY2W222MSEF |
|              | 63.5 × 85           | 9.8                    | 0.25  | 2.98                    | LNY2W222MSEG |
| 2700         | 51 × 145            | 10.3                   | 0.25  | 3.30                    | LNY2W272MSEF |
|              | 63.5 × 90           | 10.8                   | 0.25  | 3.30                    | LNY2W272MSEG |
| 3300         | 51 × 170            | 11.1                   | 0.25  | 3.65                    | LNY2W332MSEF |
|              | 63.5 × 105          | 12.0                   | 0.25  | 3.65                    | LNY2W332MSEG |
|              | 76.2 × 85           | 12.6                   | 0.25  | 3.65                    | LNY2W332MSEH |
| 3900         | 63.5 × 125          | 13.5                   | 0.25  | 3.97                    | LNY2W392MSEG |
|              | 76.2 × 95           | 14.0                   | 0.25  | 3.97                    | LNY2W392MSEH |
| 4700         | 63.5 × 145          | 15.2                   | 0.25  | 4.36                    | LNY2W472MSEG |
|              | 76.2 × 105          | 15.6                   | 0.25  | 4.36                    | LNY2W472MSEH |
| 5600         | 63.5 × 165          | 17.0                   | 0.25  | 4.76                    | LNY2W562MSEG |
|              | 76.2 × 125          | 17.6                   | 0.25  | 4.76                    | LNY2W562MSEH |
| 6800         | 63.5 × 210          | 19.1                   | 0.25  | 5.00                    | LNY2W682MSEG |
|              | 76.2 × 150          | 19.6                   | 0.25  | 5.00                    | LNY2W682MSEH |
|              | 90 × 120            | 19.5                   | 0.25  | 5.00                    | LNY2W682MSEJ |
| 8200         | 76.2 × 170          | 20.1                   | 0.25  | 5.00                    | LNY2W822MSEH |
|              | 90 × 130            | 20.1                   | 0.25  | 5.00                    | LNY2W822MSEJ |
| 10000        | 76.2 × 210          | 23.0                   | 0.25  | 5.00                    | LNY2W103MSEH |
|              | 90 × 155            | 22.9                   | 0.25  | 5.00                    | LNY2W103MSEJ |
| 12000        | 90 × 190            | 26.0                   | 0.25  | 5.00                    | LNY2W123MSEJ |
| 15000        | 90 × 220            | 29.6                   | 0.25  | 5.00                    | LNY2W153MSEJ |

Rated ripple current (Arms) at 85°C 120Hz

## ● Frequency coefficient of rated ripple current

| Frequency (Hz) | 50   | 60   | 120  | 360  | 1k   | 10k or more |
|----------------|------|------|------|------|------|-------------|
| Coefficient    | 0.80 | 0.82 | 1.00 | 1.20 | 1.35 | 1.40        |