

ALUMINUM ELECTROLYTIC CAPACITORS

LNC

Screw Terminal Type, 85°C Smaller-sized
Higher ripple current



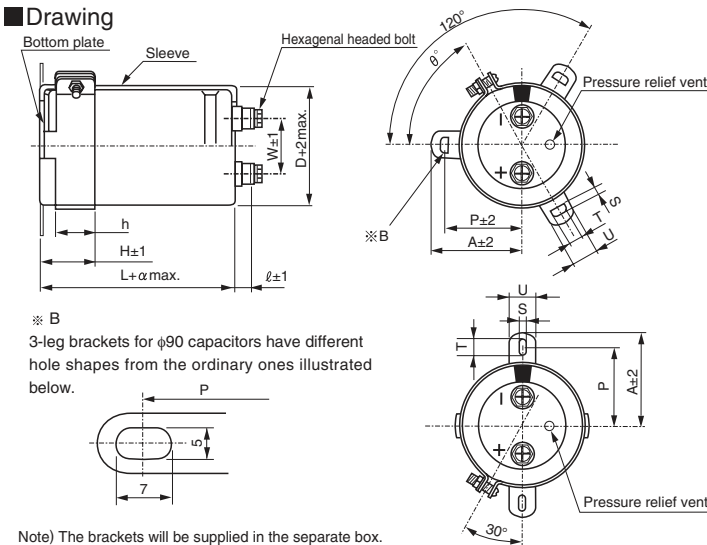
- Suited for use in industrial power supplies for inverter circuitry, etc.
- Load life 5000 hours application of ripple current at 85°C.
- Smaller sized / High ripple current than LNX, LNK.
- Coped with loading of high speed charge-discharge.
- Suited for high frequency regenerative voltage for AC servomotor, general inverter.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).



Specifications

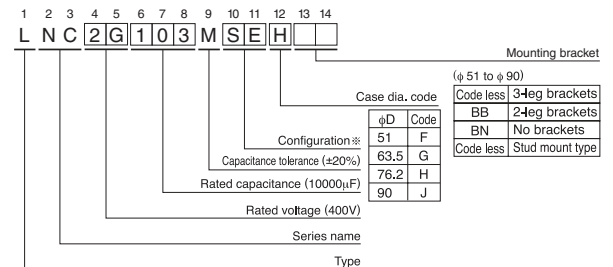
| Item | Performance Characteristics | | |
|--|--|----------------------------|---|
| Category Temperature Range | - 40 to +85°C | | |
| Rated Voltage Range | 350 to 500V | | |
| Rated Capacitance Range | 1000 to 22000μF | | |
| Capacitance Tolerance | ±20% at 120Hz, 20°C | | |
| Leakage Current | After 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). [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 500 | |
| | Impedance ratio (max.) | $Z(-40°C) / Z(+20°C)$ 8 | |
| 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 5000 hours at 85°C, the peak voltage shall not exceed the rated voltage. | Capacitance change | Within ±20% of the initial capacitance value |
| | | tan δ | 200% or less than the initial specified value |
| | | Leakage current | Less than or equal to 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 | 200% or less than the initial specified value |
| | | Leakage current | Less than or equal to the initial specified value |
| Endurance of charge-discharge behavior | After an application of charge-discharge voltage for 50million times (charge-discharge voltage difference(ΔV)=rated voltage × 0.3, cycle 3Hz) capacitors shall meet the characteristics requirement listed at right. | Capacitance change | Within ±20% of the initial capacitance value |
| | | tan δ | 200% or less than the initial specified value |
| | | Leakage current | Less than or equal to the initial specified value |
| Marking | Printed with white color letter on black sleeve. | | |

Drawing



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

Type numbering system (Example : 400V 1000μF)



※ Configuration

| | |
|----|-------------------------|
| SE | standard specifications |
| TE | stud mount type |

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 | M 5 |
| 63.5 | 28.6 | 6 | 3 | M 5 |
| 76.2 | 31.8 | 6 | 3 | M 5 |
| 90 | 31.8 | 6 | 3 | M 5 |

About product of stud bolt
 • Nylon nut and nylon washer attachment are shown in the standard specifications.
 (Please refer to the Guidelines for Aluminum Electrolytic Capacitors)
 • It is not attached to the bracket.
 • Field 13 and 14 become blank in Type number system.

• Dimensions of mounting bracket (mm)

| Symbol | Leg shape φD | 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.

LNC

■ Dimensions

| 350V(2V) | | | | | |
|-----------|-----------------|---------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Rated ripple (Arms) | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 55 | 8.4 | 0.20 | 1.77 | LNC2V102MSEF |
| 1200 | 51 × 60 | 8.6 | 0.20 | 1.94 | LNC2V122MSEF |
| 1500 | 51 × 65 | 9.3 | 0.20 | 2.17 | LNC2V152MSEF |
| 1800 | 51 × 75 | 10.3 | 0.20 | 2.38 | LNC2V182MSEF |
| 2200 | 51 × 85 | 11.9 | 0.20 | 2.63 | LNC2V222MSEF |
| 2700 | 51 × 95 | 13.3 | 0.20 | 2.91 | LNC2V272MSEF |
| | 63.5 × 70 | 13.7 | 0.20 | 2.91 | LNC2V272MSEG |
| 3300 | 51 × 115 | 13.6 | 0.20 | 3.22 | LNC2V332MSEF |
| | 63.5 × 80 | 14.0 | 0.20 | 3.22 | LNC2V332MSEG |
| 3900 | 63.5 × 85 | 14.9 | 0.20 | 3.50 | LNC2V392MSEG |
| | 76.2 × 70 | 14.3 | 0.20 | 3.50 | LNC2V392MSEH |
| 4700 | 63.5 × 100 | 16.4 | 0.20 | 3.84 | LNC2V472MSEG |
| | 76.2 × 80 | 15.7 | 0.20 | 3.84 | LNC2V472MSEH |
| 5600 | 63.5 × 115 | 18.1 | 0.20 | 4.20 | LNC2V562MSEG |
| | 76.2 × 90 | 17.6 | 0.20 | 4.20 | LNC2V562MSEH |
| 6800 | 63.5 × 135 | 20.3 | 0.20 | 4.62 | LNC2V682MSEG |
| | 76.2 × 100 | 19.7 | 0.20 | 4.62 | LNC2V682MSEH |
| 8200 | 76.2 × 115 | 22.2 | 0.20 | 5.00 | LNC2V822MSEH |
| | 90 × 90 | 24.2 | 0.20 | 5.00 | LNC2V822MSEJ |
| 10000 | 76.2 × 135 | 25.2 | 0.20 | 5.00 | LNC2V103MSEH |
| | 90 × 100 | 27.1 | 0.20 | 5.00 | LNC2V103MSEJ |
| 12000 | 76.2 × 155 | 28.2 | 0.20 | 5.00 | LNC2V123MSEH |
| | 90 × 120 | 30.1 | 0.20 | 5.00 | LNC2V123MSEJ |
| 15000 | 90 × 145 | 35.4 | 0.20 | 5.00 | LNC2V153MSEJ |
| 18000 | 90 × 165 | 39.2 | 0.20 | 5.00 | LNC2V183MSEJ |
| 22000 | 90 × 205 | 43.4 | 0.20 | 5.00 | LNC2V223MSEJ |

| 400V(2G) | | | | | |
|-----------|-----------------|---------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Rated ripple (Arms) | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 60 | 8.6 | 0.20 | 1.89 | LNC2G102MSEF |
| 1200 | 51 × 65 | 9.3 | 0.20 | 2.07 | LNC2G122MSEF |
| 1500 | 51 × 80 | 10.8 | 0.20 | 2.32 | LNC2G152MSEF |
| 1800 | 51 × 85 | 12.0 | 0.20 | 2.54 | LNC2G182MSEF |
| 2200 | 51 × 100 | 13.0 | 0.20 | 2.81 | LNC2G222MSEF |
| | 63.5 × 70 | 12.8 | 0.20 | 2.81 | LNC2G222MSEG |
| 2700 | 63.5 × 80 | 14.5 | 0.20 | 3.11 | LNC2G272MSEG |
| | 76.2 × 65 | 14.3 | 0.20 | 3.11 | LNC2G272MSEH |
| 3300 | 63.5 × 90 | 14.9 | 0.20 | 3.44 | LNC2G332MSEG |
| | 76.2 × 70 | 15.3 | 0.20 | 3.44 | LNC2G332MSEH |
| 3900 | 63.5 × 100 | 16.5 | 0.20 | 3.74 | LNC2G392MSEG |
| | 76.2 × 80 | 17.1 | 0.20 | 3.74 | LNC2G392MSEH |
| 4700 | 63.5 × 120 | 18.8 | 0.20 | 4.11 | LNC2G472MSEG |
| | 76.2 × 90 | 18.3 | 0.20 | 4.11 | LNC2G472MSEH |
| 5600 | 63.5 × 135 | 20.9 | 0.20 | 4.48 | LNC2G562MSEG |
| | 76.2 × 100 | 20.2 | 0.20 | 4.48 | LNC2G562MSEH |
| 6800 | 63.5 × 165 | 23.8 | 0.20 | 4.94 | LNC2G682MSEG |
| | 76.2 × 120 | 23.1 | 0.20 | 4.94 | LNC2G682MSEH |
| 8200 | 90 × 90 | 26.3 | 0.20 | 4.94 | LNC2G682MSEJ |
| | 76.2 × 145 | 26.1 | 0.20 | 5.00 | LNC2G822MSEH |
| 10000 | 90 × 105 | 29.5 | 0.20 | 5.00 | LNC2G822MSEJ |
| | 76.2 × 165 | 29.5 | 0.20 | 5.00 | LNC2G103MSEH |
| 12000 | 90 × 120 | 33.2 | 0.20 | 5.00 | LNC2G103MSEJ |
| | 90 × 145 | 37.1 | 0.20 | 5.00 | LNC2G123MSEJ |
| 15000 | 90 × 185 | 42.9 | 0.20 | 5.00 | LNC2G153MSEJ |
| 18000 | 90 × 205 | 48.2 | 0.20 | 5.00 | LNC2G183MSEJ |

| 450V(2W) | | | | | |
|-----------|-----------------|---------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Rated ripple (Arms) | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 70 | 9.3 | 0.20 | 2.01 | LNC2W102MSEF |
| 1200 | 51 × 80 | 9.9 | 0.20 | 2.20 | LNC2W122MSEF |
| 1500 | 51 × 90 | 10.4 | 0.20 | 2.46 | LNC2W152MSEF |
| 1800 | 51 × 105 | 11.5 | 0.20 | 2.70 | LNC2W182MSEF |
| | 63.5 × 70 | 11.9 | 0.20 | 2.70 | LNC2W182MSEG |
| 2200 | 63.5 × 85 | 12.3 | 0.20 | 2.98 | LNC2W222MSEG |
| | 76.2 × 65 | 12.5 | 0.20 | 2.98 | LNC2W222MSEH |
| 2700 | 63.5 × 90 | 13.7 | 0.20 | 3.30 | LNC2W272MSEG |
| | 76.2 × 75 | 13.7 | 0.20 | 3.30 | LNC2W272MSEH |
| 3300 | 63.5 × 115 | 15.6 | 0.20 | 3.65 | LNC2W332MSEG |
| | 76.2 × 85 | 15.5 | 0.20 | 3.65 | LNC2W332MSEH |
| 3900 | 63.5 × 135 | 17.3 | 0.20 | 3.97 | LNC2W392MSEG |
| | 76.2 × 90 | 17.0 | 0.20 | 3.97 | LNC2W392MSEH |
| 4700 | 63.5 × 145 | 19.2 | 0.20 | 4.36 | LNC2W472MSEG |
| | 76.2 × 115 | 19.2 | 0.20 | 4.36 | LNC2W472MSEH |
| 5600 | 63.5 × 165 | 21.4 | 0.20 | 4.76 | LNC2W562MSEG |
| | 76.2 × 135 | 21.6 | 0.20 | 4.76 | LNC2W562MSEH |
| | 90 × 95 | 24.2 | 0.20 | 4.76 | LNC2W562MSEJ |
| 6800 | 76.2 × 145 | 23.8 | 0.20 | 5.00 | LNC2W682MSEH |
| | 90 × 115 | 27.5 | 0.20 | 5.00 | LNC2W682MSEJ |
| 8200 | 76.2 × 185 | 27.2 | 0.20 | 5.00 | LNC2W822MSEH |
| | 90 × 135 | 30.5 | 0.20 | 5.00 | LNC2W822MSEJ |
| 10000 | 90 × 155 | 34.1 | 0.20 | 5.00 | LNC2W103MSEJ |
| 12000 | 90 × 185 | 38.2 | 0.20 | 5.00 | LNC2W123MSEJ |
| 15000 | 90 × 215 | 43.1 | 0.20 | 5.00 | LNC2W153MSEJ |

| 500V(2H) | | | | | |
|-----------|-----------------|---------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Rated ripple (Arms) | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 85 | 10.3 | 0.20 | 2.12 | LNC2H102MSEF |
| 1200 | 63.5 × 70 | 10.4 | 0.20 | 2.32 | LNC2H122MSEG |
| 1500 | 63.5 × 80 | 11.6 | 0.20 | 2.59 | LNC2H152MSEG |
| 1800 | 63.5 × 90 | 12.7 | 0.20 | 2.84 | LNC2H182MSEG |
| 2200 | 63.5 × 100 | 14.2 | 0.20 | 3.14 | LNC2H222MSEG |
| 2700 | 76.2 × 90 | 15.8 | 0.20 | 3.48 | LNC2H272MSEH |
| 3300 | 76.2 × 105 | 17.8 | 0.20 | 3.85 | LNC2H332MSEH |
| 3900 | 76.2 × 120 | 19.9 | 0.20 | 4.18 | LNC2H392MSEH |
| 4700 | 90 × 105 | 23.6 | 0.20 | 4.59 | LNC2H472MSEJ |
| 5600 | 90 × 120 | 26.4 | 0.20 | 5.00 | LNC2H562MSEJ |
| 6800 | 90 × 145 | 30.0 | 0.20 | 5.00 | LNC2H682MSEJ |
| 8200 | 90 × 165 | 33.7 | 0.20 | 5.00 | LNC2H822MSEJ |
| 10000 | 90 × 205 | 38.3 | 0.20 | 5.00 | LNC2H103MSEJ |

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 |