

ALUMINUM ELECTROLYTIC CAPACITORS

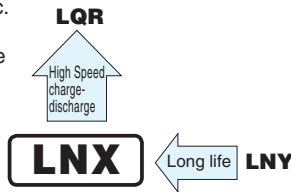
LNx

Screw Terminal Type, 85°C
High ripple longer life.



High Ripple Current Long Life

- Suited for use in industrial power supplies for inverter circuitry, etc.
- High ripple current, extra-high voltage application.
- High reliability, long life for 20,000 hours application of rated ripple current at +85°C.
- Extended range up to $\phi 100 \times 250L$ size.
- Flame retardant electrolyte type available.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).

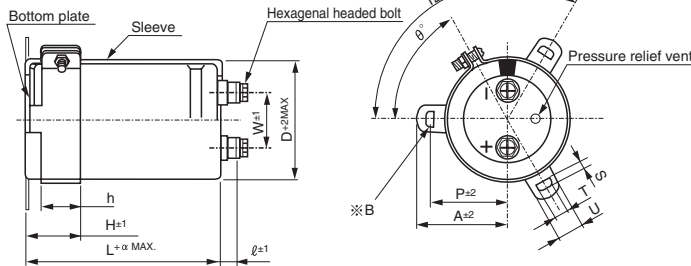


Specifications

| Item | Performance Characteristics |
|---------------------------------------|---|
| Category Temperature Range | - 25 to +85°C |
| Rated Voltage Range | 350 to 630V |
| Rated Capacitance Range | 1000 to 27000 μ F |
| Capacitance Tolerance | $\pm 20\%$ at 120Hz, 20°C |
| Leakage Current | After 5 minutes' application of rated voltage, leakage current is not more than $3\sqrt{CV}$ (μ A) or 5 mA, whichever is smaller (at 20°C). [C: Rated Capacitance(μ F), 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 630 Impedance ratio ZT/Z20(MAX.) Z - 25°C / Z + 20°C 8 |
| | Measurement frequency : 120Hz |
| Endurance | The specifications listed at right shall be met when the capacitors are restored to 20°C after the standard ripple current is applied for 20000 hours at 85°C, the peak voltage shall not exceed the rated voltage. (2000 hours at 85°C for the parts rated at 630V, 5000 hours at 85°C for the parts rated at 500V and 550V) |
| | 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 $\pm 20\%$ of the initial capacitance value |
| | tan δ 300% or less than the initial specified value |
| Shelf Life | Leakage current Less than or equal to the initial specified value |
| | 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 specified values for the endurance characteristics listed above. |
| Marking | Printed with white color letter on black sleeve. |

Drawing

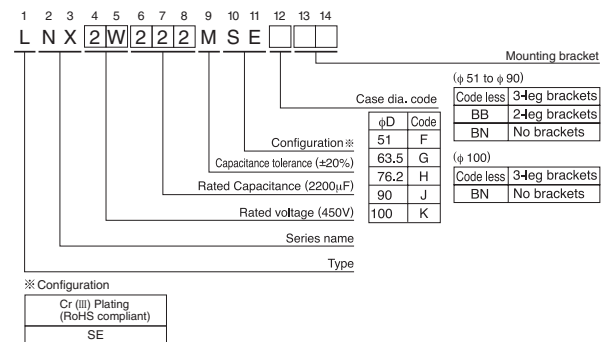
Method mount metal bracket



※ B
3-leg brackets for $\phi 90$ capacitors have different hole shapes from the ordinary ones illustrated below.



Type numbering system (Example : 450V 2200 μ F)



Please refer to page 348 for schematic of dimensions.
※ 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 |
| 100 | 41.5 | 10 | 4 | M8 |

Dimensions of mounting bracket (mm)

| Symbol | Leg shape ϕD | 3-Leg | | | | 2-Leg | | | | |
|----------------|--------------------|-------|------|------|------|-------|------|------|------|-----|
| | | 51 | 63.5 | 76.2 | 90 | 100 | 51 | 63.5 | 76.2 | 90 |
| P | | 32.5 | 38.1 | 44.5 | 50.8 | 56.3 | 33.2 | 40.5 | 46.5 | 53 |
| A | | 38.5 | 43 | 49.2 | 58.5 | 62 | 40 | 46.5 | 53 | 59 |
| T | | 7.5 | 8.0 | 7.0 | 8.0 | 8.0 | 6.0 | 7.0 | 6.0 | 6.0 |
| S | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 4.5 | 4.5 | 4.5 | 4.5 |
| U | | 12 | 14 | 14 | 18 | 16 | 14 | 14 | 14 | 14 |
| θ° | | 60 | 60 | 60 | 60 | 60 | 30 | 30 | 30 | 30 |
| H | | 20 | 25 | 30 | 35 | 36 | 25 | 35 | 35 | 35 |
| h | | 15 | 20 | 24 | 25 | 30 | 15 | 20 | 20 | 20 |

● Dimension table in next page.



■ Dimensions

| 350V (2V) | | | | | | |
|-----------|-----------------|--------------------------------------|-----------------------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Standard ripple (Arms) ^{*1} | Rated ripple (Arms) ^{*2} | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 60 | 3.5 | 4.6 | 0.2 | 1.77 | LNX2V102MSEF |
| 1200 | 51 × 70 | 4.2 | 5.3 | 0.2 | 1.94 | LNX2V122MSEF |
| 1500 | 51 × 80 | 4.9 | 6.3 | 0.2 | 2.17 | LNX2V152MSEF |
| 1800 | 51 × 90 | 5.6 | 7.3 | 0.2 | 2.38 | LNX2V182MSEF |
| 2200 | 51 × 110 | 6.7 | 8.8 | 0.2 | 2.63 | LNX2V222MSEF |
| 2700 | 51 × 130 | 8.0 | 10.3 | 0.2 | 2.91 | LNX2V272MSEF |
| | 63.5 × 90 | 7.7 | 9.9 | 0.2 | 2.91 | LNX2V272MSEG |
| 3300 | 51 × 150 | 9.2 | 12.1 | 0.2 | 3.22 | LNX2V332MSEF |
| | 63.5 × 100 | 9.0 | 11.8 | 0.2 | 3.22 | LNX2V332MSEG |
| 3900 | 63.5 × 110 | 10.4 | 12.5 | 0.2 | 3.50 | LNX2V392MSEG |
| | 76.2 × 90 | 10.3 | 12.2 | 0.2 | 3.50 | LNX2V392MSEH |
| 4700 | 63.5 × 130 | 12.0 | 14.8 | 0.2 | 3.84 | LNX2V472MSEG |
| | 76.2 × 100 | 11.9 | 14.0 | 0.2 | 3.84 | LNX2V472MSEH |
| 5600 | 63.5 × 150 | 14.0 | 17.0 | 0.2 | 4.20 | LNX2V562MSEG |
| | 76.2 × 110 | 13.5 | 16.4 | 0.2 | 4.20 | LNX2V562MSEH |
| 6800 | 63.5 × 170 | 16.3 | 19.6 | 0.2 | 4.62 | LNX2V682MSEG |
| | 76.2 × 130 | 16.0 | 19.1 | 0.2 | 4.62 | LNX2V682MSEH |
| 8200 | 76.2 × 150 | 18.7 | 22.0 | 0.2 | 5.00 | LNX2V822MSEH |
| | 90 × 130 | 18.2 | 21.4 | 0.2 | 5.00 | LNX2V822MSEJ |
| 10000 | 76.2 × 170 | 21.8 | 25.5 | 0.2 | 5.00 | LNX2V103MSEH |
| | 90 × 150 | 21.3 | 25.3 | 0.2 | 5.00 | LNX2V103MSEJ |
| 12000 | 76.2 × 190 | 25.1 | 29.1 | 0.2 | 5.00 | LNX2V123MSEH |
| | 90 × 150 | 24.8 | 28.8 | 0.2 | 5.00 | LNX2V123MSEJ |
| 15000 | 90 × 190 | 29.0 | 36.0 | 0.2 | 5.00 | LNX2V153MSEJ |
| 18000 | 90 × 220 | 32.4 | 39.7 | 0.2 | 5.00 | LNX2V183MSEJ |
| 22000 | 100 × 220 | 38.0 | 43.2 | 0.2 | 5.00 | LNX2V223MSEK |
| 27000 | 100 × 250 | 42.0 | 47.0 | 0.2 | 5.00 | LNX2V273MSEK |

| 400V (2G) | | | | | | |
|-----------|-----------------|--------------------------------------|-----------------------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Standard ripple (Arms) ^{*1} | Rated ripple (Arms) ^{*2} | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 70 | 3.8 | 5.0 | 0.2 | 1.89 | LNX2G102MSEF |
| 1200 | 51 × 80 | 4.5 | 5.8 | 0.2 | 2.07 | LNX2G122MSEF |
| 1500 | 51 × 100 | 5.3 | 6.8 | 0.2 | 2.32 | LNX2G152MSEF |
| 1800 | 51 × 110 | 6.0 | 8.2 | 0.2 | 2.54 | LNX2G182MSEF |
| 2200 | 51 × 130 | 7.0 | 9.3 | 0.2 | 2.81 | LNX2G222MSEF |
| | 63.5 × 90 | 6.8 | 8.9 | 0.2 | 2.81 | LNX2G222MSEG |
| 2700 | 63.5 × 110 | 8.2 | 10.8 | 0.2 | 3.11 | LNX2G272MSEG |
| | 76.2 × 90 | 8.1 | 10.6 | 0.2 | 3.11 | LNX2G272MSEH |
| 3300 | 63.5 × 130 | 9.6 | 12.9 | 0.2 | 3.44 | LNX2G332MSEG |
| | 76.2 × 100 | 9.3 | 12.4 | 0.2 | 3.44 | LNX2G332MSEH |
| 3900 | 63.5 × 150 | 11.0 | 14.4 | 0.2 | 3.74 | LNX2G392MSEG |
| | 76.2 × 100 | 10.5 | 13.9 | 0.2 | 3.74 | LNX2G392MSEH |
| 4700 | 63.5 × 170 | 12.6 | 16.6 | 0.2 | 4.11 | LNX2G472MSEG |
| | 76.2 × 130 | 12.3 | 16.0 | 0.2 | 4.11 | LNX2G472MSEH |
| 5600 | 63.5 × 190 | 14.7 | 18.8 | 0.2 | 4.49 | LNX2G562MSEG |
| | 76.2 × 150 | 14.3 | 18.3 | 0.2 | 4.49 | LNX2G562MSEH |
| 6800 | 76.2 × 170 | 16.7 | 21.2 | 0.2 | 4.94 | LNX2G682MSEH |
| | 90 × 130 | 16.3 | 20.7 | 0.2 | 4.94 | LNX2G682MSEJ |
| 8200 | 76.2 × 190 | 19.3 | 24.1 | 0.2 | 5.00 | LNX2G822MSEH |
| | 90 × 150 | 19.0 | 23.7 | 0.2 | 5.00 | LNX2G822MSEJ |
| 10000 | 76.2 × 220 | 22.7 | 28.3 | 0.2 | 5.00 | LNX2G103MSEH |
| | 90 × 170 | 22.2 | 28.0 | 0.2 | 5.00 | LNX2G103MSEJ |
| 12000 | 90 × 190 | 25.5 | 31.9 | 0.2 | 5.00 | LNX2G123MSEJ |
| 15000 | 100 × 190 | 29.6 | 37.0 | 0.2 | 5.00 | LNX2G153MSEK |
| 18000 | 100 × 220 | 33.0 | 40.5 | 0.2 | 5.00 | LNX2G183MSEK |
| 22000 | 100 × 250 | 41.4 | 44.7 | 0.2 | 5.00 | LNX2G223MSEK |

| 450V (2W) | | | | | | |
|-----------|-----------------|--------------------------------------|-----------------------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Standard ripple (Arms) ^{*1} | Rated ripple (Arms) ^{*2} | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 80 | 4.0 | 5.2 | 0.2 | 2.01 | LNX2W102MSEF |
| 1200 | 51 × 100 | 4.7 | 6.3 | 0.2 | 2.20 | LNX2W122MSEF |
| 1500 | 51 × 110 | 5.4 | 7.3 | 0.2 | 2.46 | LNX2W152MSEF |
| 1800 | 51 × 130 | 6.4 | 8.7 | 0.2 | 2.70 | LNX2W182MSEF |
| | 63.5 × 90 | 6.1 | 7.6 | 0.2 | 2.70 | LNX2W182MSEG |
| 2200 | 63.5 × 110 | 7.2 | 9.6 | 0.2 | 2.98 | LNX2W222MSEG |
| | 76.2 × 90 | 7.1 | 9.4 | 0.2 | 2.98 | LNX2W222MSEH |
| 2700 | 63.5 × 130 | 8.6 | 11.3 | 0.2 | 3.30 | LNX2W272MSEG |
| | 76.2 × 100 | 8.3 | 11.0 | 0.2 | 3.30 | LNX2W272MSEH |
| 3300 | 63.5 × 150 | 10.0 | 13.3 | 0.2 | 3.65 | LNX2W332MSEG |
| | 76.2 × 110 | 9.7 | 12.9 | 0.2 | 3.65 | LNX2W332MSEH |
| 3900 | 63.5 × 170 | 11.4 | 15.1 | 0.2 | 3.97 | LNX2W392MSEG |
| | 76.2 × 130 | 11.2 | 14.6 | 0.2 | 3.97 | LNX2W392MSEH |
| 4700 | 63.5 × 190 | 13.0 | 17.3 | 0.2 | 4.36 | LNX2W472MSEG |
| | 76.2 × 150 | 12.9 | 16.9 | 0.2 | 4.36 | LNX2W472MSEH |
| 5600 | 76.2 × 170 | 15.4 | 19.4 | 0.2 | 4.76 | LNX2W562MSEH |
| | 90 × 150 | 15.3 | 19.1 | 0.2 | 4.76 | LNX2W562MSEJ |
| 6800 | 76.2 × 190 | 17.3 | 22.0 | 0.2 | 5.00 | LNX2W682MSEH |
| | 90 × 150 | 17.1 | 21.6 | 0.2 | 5.00 | LNX2W682MSEJ |
| 8200 | 76.2 × 220 | 20.3 | 25.7 | 0.2 | 5.00 | LNX2W822MSEH |
| | 90 × 170 | 19.8 | 25.4 | 0.2 | 5.00 | LNX2W822MSEJ |
| 10000 | 90 × 190 | 23.0 | 29.6 | 0.2 | 5.00 | LNX2W103MSEJ |
| 12000 | 90 × 220 | 26.9 | 33.5 | 0.2 | 5.00 | LNX2W123MSEJ |
| 15000 | 100 × 220 | 31.1 | 38.0 | 0.2 | 5.00 | LNX2W153MSEK |
| 18000 | 100 × 250 | 37.0 | 41.3 | 0.2 | 5.00 | LNX2W183MSEK |

| 500V (2H) | | | | | | |
|-----------|-----------------|--------------------------------------|-----------------------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Standard ripple (Arms) ^{*1} | Rated ripple (Arms) ^{*2} | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 110 | 4.2 | — | 0.2 | 2.12 | LNX2H102MSEF |
| 1200 | 63.5 × 90 | 4.8 | — | 0.2 | 2.32 | LNX2H122MSEG |
| 1500 | 63.5 × 90 | 5.5 | — | 0.2 | 2.59 | LNX2H152MSEG |
| 1800 | 63.5 × 110 | 6.5 | — | 0.2 | 2.84 | LNX2H182MSEG |
| 2200 | 63.5 × 130 | 7.7 | — | 0.2 | 3.14 | LNX2H222MSEG |
| 2700 | 76.2 × 110 | 8.8 | — | 0.2 | 3.48 | LNX2H272MSEH |
| 3300 | 76.2 × 130 | 10.4 | — | 0.2 | 3.85 | LNX2H332MSEH |
| 3900 | 76.2 × 150 | 12.1 | — | 0.2 | 4.18 | LNX2H392MSEH |
| 4700 | 90 × 130 | 13.7 | — | 0.2 | 4.59 | LNX2H472MSEJ |
| 5600 | 90 × 150 | 15.9 | — | 0.2 | 5.00 | LNX2H562MSEJ |
| 6800 | 90 × 170 | 18.5 | — | 0.2 | 5.00 | LNX2H682MSEJ |
| 8200 | 90 × 190 | 21.4 | — | 0.2 | 5.00 | LNX2H822MSEJ |
| 10000 | 100 × 190 | 23.8 | — | 0.2 | 5.00 | LNX2H103MSEK |
| 12000 | 100 × 220 | 27.8 | — | 0.2 | 5.00 | LNX2H123MSEK |

Ripple current (Arms) at 85°C 120Hz

LNx

■ Dimensions

| 550V (2L) | | | | | | |
|-----------|-----------------|--------------------------------------|-----------------------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Standard ripple (Arms) ^{*1} | Rated ripple (Arms) ^{*2} | tan δ | Leakage Current (mA) | Code |
| 1000 | 51 × 130 | 4.3 | — | 0.2 | 2.22 | LNx2L102MSEF |
| 1200 | 63.5 × 110 | 5.0 | — | 0.2 | 2.43 | LNx2L122MSEG |
| 1500 | 63.5 × 130 | 6.0 | — | 0.2 | 2.72 | LNx2L152MSEG |
| 1800 | 76.2 × 110 | 6.7 | — | 0.2 | 2.98 | LNx2L182MSEH |
| 2200 | 76.2 × 130 | 8.0 | — | 0.2 | 3.30 | LNx2L222MSEH |
| 2700 | 76.2 × 150 | 9.4 | — | 0.2 | 3.65 | LNx2L272MSEH |
| 3300 | 76.2 × 170 | 11.0 | — | 0.2 | 4.04 | LNx2L332MSEH |
| 3900 | 90 × 150 | 12.5 | — | 0.2 | 4.39 | LNx2L392MSEJ |
| 4700 | 90 × 170 | 14.5 | — | 0.2 | 4.82 | LNx2L472MSEJ |
| 5600 | 90 × 190 | 16.6 | — | 0.2 | 5.00 | LNx2L562MSEJ |
| 6800 | 90 × 220 | 19.5 | — | 0.2 | 5.00 | LNx2L682MSEJ |
| 8200 | 100 × 220 | 21.6 | — | 0.2 | 5.00 | LNx2L822MSEK |
| 10000 | 100 × 250 | 25.2 | — | 0.2 | 5.00 | LNx2L103MSEK |

| 630V(2J) | | | | | | |
|-----------|-----------------|--------------------------------------|-----------------------------------|-------|----------------------|--------------|
| Cap. (μF) | Size φD × L(mm) | Standard ripple (Arms) ^{*1} | Rated ripple (Arms) ^{*2} | tan δ | Leakage Current (mA) | Code |
| 1000 | 63.5 × 130 | 5.9 | — | 0.3 | 2.38 | LNx2J102MSEG |
| 1200 | 76.2 × 110 | 6.7 | — | 0.3 | 2.60 | LNx2J122MSEH |
| 1500 | 76.2 × 130 | 8.1 | — | 0.3 | 2.91 | LNx2J152MSEH |
| 1800 | 76.2 × 150 | 9.6 | — | 0.3 | 3.19 | LNx2J182MSEH |
| 2200 | 90 × 130 | 10.7 | — | 0.3 | 3.53 | LNx2J222MSEJ |
| 2700 | 90 × 150 | 12.6 | — | 0.3 | 3.91 | LNx2J272MSEJ |
| 3300 | 90 × 170 | 14.7 | — | 0.3 | 4.32 | LNx2J332MSEJ |
| 3900 | 90 × 190 | 17.3 | — | 0.3 | 4.70 | LNx2J392MSEJ |
| 4700 | 100 × 220 | 21.4 | — | 0.3 | 5.00 | LNx2J472MSEK |
| 5600 | 100 × 250 | 24.7 | — | 0.3 | 5.00 | LNx2J562MSEK |

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 |

- (※ 1) • Standard ripple current:
Ripple current value allowable for the life time of 20,000 hours at 85°C.
(5,000 hours at 85°C for the voltage rating of 500V and 550V. 2,000 hours at 85°C for the voltage rating of 630V)
- (※ 2) • Maximum rated ripple current:
Ripple current value allowable for the life time of 5,000 hours at 85°C.

- 3-leg bracket is furnished as standard.
In case no-bracket or 2-leg bracket required, please put BN or BB at the end of type number.

Ex. 3-leg bracket LNx2G472MSEH
2-leg bracket LNx2G472MSEHBB
No bracket LNx2G472MSEHBN

- Flame-retardant type electrolyte is also available.
Please contact to Nichicon representative for the rated ripple current value.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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Факс: 8 (812) 320-02-42

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