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ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

LNC

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

Smaller | High 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).

LNX LNK → Smaller High ripple → LNC

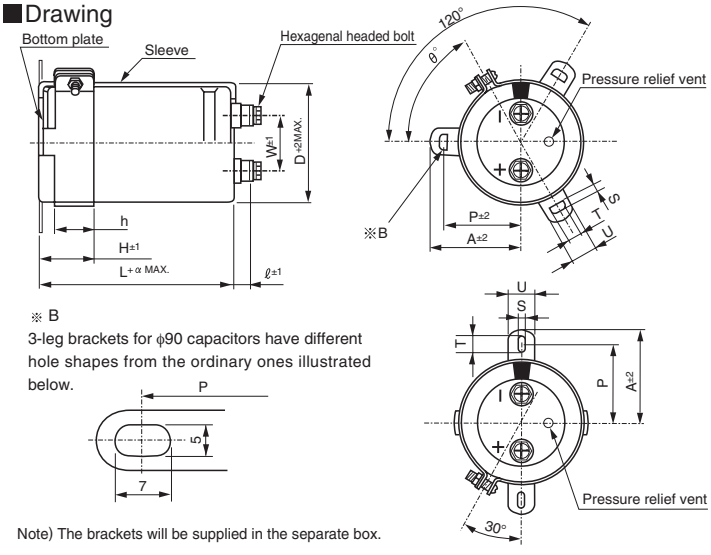
LQR → High speed charge-discharge → LNC



■ 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 ZT/Z20(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 reguirements 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



※ 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	C	2	G	1	0	3	M	S	E	H		

- Mounting bracket: (ϕ 51 to ϕ 90) Code less: 3-leg brackets; BB: 2-leg brackets; BN: No brackets; Code less: Stud mount type
- Case dia. code: ϕD 51 F; 63.5 G; 76.2 H; 90 J
- Configuration※
- Capacitance tolerance (±20%)
- Rated capacitance (10000μF)
- Rated voltage (400V)
- Series name
- Type

※Configuration

SE	standard specifications
TE	stud mount type

Please refer to page 334 for schematic of dimensions.
※ Please contact to us if PVC less 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 become the standard specifications. (cf. P.334)
- It is not attached to the bracket.
- Field 13 and 14 become blank in Type number system.

● Dimensions of mounting bracket (mm)

Leg shape / Symbol / 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.

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■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	2.92	LNC2V272MSEF
	63.5 × 70	13.7	0.20	2.92	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	3.85	LNC2V472MSEG
	76.2 × 80	15.7	0.20	3.85	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	4.63	LNC2V682MSEG
	76.2 × 100	19.7	0.20	4.63	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	1.90	LNC2G102MSEF
1200	51 × 65	9.3	0.20	2.08	LNC2G122MSEF
1500	51 × 80	10.8	0.20	2.32	LNC2G152MSEF
1800	51 × 85	12.0	0.20	2.55	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	3.12	LNC2G272MSEG
	76.2 × 65	14.3	0.20	3.12	LNC2G272MSEH
3300	63.5 × 90	14.9	0.20	3.45	LNC2G332MSEG
	76.2 × 70	15.3	0.20	3.45	LNC2G332MSEH
3900	63.5 × 100	16.5	0.20	3.75	LNC2G392MSEG
	76.2 × 80	17.1	0.20	3.75	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	4.49	LNC2G562MSEG
	76.2 × 100	20.2	0.20	4.49	LNC2G562MSEH
6800	63.5 × 165	23.8	0.20	4.95	LNC2G682MSEG
	76.2 × 120	23.1	0.20	4.95	LNC2G682MSEH
	90 × 90	26.3	0.20	4.95	LNC2G682MSEJ
8200	76.2 × 145	26.1	0.20	5.00	LNC2G822MSEH
	90 × 105	29.5	0.20	5.00	LNC2G822MSEJ
10000	76.2 × 165	29.5	0.20	5.00	LNC2G103MSEH
	90 × 120	33.2	0.20	5.00	LNC2G103MSEJ
12000	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	3.31	LNC2W272MSEG
	76.2 × 75	13.7	0.20	3.31	LNC2W272MSEH
3300	63.5 × 115	15.6	0.20	3.66	LNC2W332MSEG
	76.2 × 85	15.5	0.20	3.66	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	2.60	LNC2H152MSEG
1800	63.5 × 90	12.7	0.20	2.85	LNC2H182MSEG
2200	63.5 × 100	14.2	0.20	3.15	LNC2H222MSEG
2700	76.2 × 90	15.8	0.20	3.49	LNC2H272MSEH
3300	76.2 × 105	17.8	0.20	3.85	LNC2H332MSEH
3900	76.2 × 120	19.9	0.20	4.19	LNC2H392MSEH
4700	90 × 105	23.6	0.20	4.60	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