

nichicon

Screw Terminal Type, 105°C
High Voltage, Smaller Sized.
[series](#)



- Suited for use in industrial power supplies for inverter circuitry, etc.
- Rated voltage range up to DC525V.
- Load life of 5000 hours application of ripple current at 105°C.
- High voltage / Smaller sized than NT series.
- 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).



Item	Performance Characteristics								
Category Temperature Range	- 40 to +105°C								
Rated Voltage Range	400 to 525V								
Rated Capacitance Range	680 to 18000μF								
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) [C : Rated Capacitance(μF), V : Voltage (V)]								
Tangent of loss angle (tan δ)	0.2MAX. (120Hz at 20°C)								
Stability at Low Temperature	<table border="1"> <tr> <td>Rated voltage(V)</td><td>400 to 525</td></tr> <tr> <td>Impedance ratio ZT/Z20(MAX.)</td><td>Z - 40°C / Z+20°C</td></tr> <tr> <td></td><td>8</td></tr> </table>	Rated voltage(V)	400 to 525	Impedance ratio ZT/Z20(MAX.)	Z - 40°C / Z+20°C		8	Measurement frequency : 120Hz	
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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 105°C, the peak voltage shall not exceed the rated voltage.	<table border="1"> <tr> <td>Capacitance change</td><td>Within ±20% of the initial capacitance value</td></tr> <tr> <td>tan δ</td><td>200% or less than the initial specified value</td></tr> <tr> <td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr> </table>	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	
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Shelf Life	After storing the capacitors under no load at 105°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.	<table border="1"> <tr> <td>Capacitance change</td><td>Within ±20% of the initial capacitance value</td></tr> <tr> <td>tan δ</td><td>200% or less than the initial specified value</td></tr> <tr> <td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr> </table>	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	
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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.	<table border="1"> <tr> <td>Capacitance change</td><td>Within ±20% of the initial capacitance value</td></tr> <tr> <td>tan δ</td><td>200% or less than the initial specified value</td></tr> <tr> <td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr> </table>	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	
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Leakage current	Less than or equal to the initial specified value								
Marking	Printed with white color letter on black sleeve								

Technical drawings of capacitors showing side, top, and bottom views with dimensions and labels.

Side View: Shows the capacitor assembly with labels: Bottom plate, Sleeve, Hexagonal headed bolt. Dimensions: $W \pm 1$, $D \pm 2 \text{ MAX}$, h , $H \pm 1$, $L + \alpha \text{ MAX}$, $\phi \pm 1$.

Top View: Shows the capacitor with dimensions: 120° , 0° , Pressure relief vent, $P \pm 2$, $A \pm 2$, $T \pm S$, U , C . A note $\ast B$ points to the mounting holes.

Bottom View: Shows the capacitor with dimensions: U , S , L , P , $A \pm 2$, 30° , Pressure relief vent.

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

Hole Shape Diagram: Shows a cross-section of a hole with dimensions: P , u , 7 .

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

- Nylon nut and nylon washer attachment become the standard specifications. (cf. P.328)
- It is not attached to the bracket.
- Field 13 and 14 become blank in Type number system.

The diagram shows a 14-pin connector with pins numbered 1 to 14. The pins are labeled as follows: 1: L, 2: U, 3: N, 4: 2, 5: H, 6: 4, 7: 7, 8: 2, 9: M, 10: S, 11: E, 12: H, 13: (blank), 14: (blank). The pins are connected to various specifications:

- Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 are connected to the **Mounting bracket** (φ 51 to φ 90).
- Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 are connected to the **Case dia. code** table.
- Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 are connected to the **Configuration** table.
- Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 are connected to the **Rated Capacitance (4700μF)**.
- Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 are connected to the **Rated voltage (500V)**.
- Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 are connected to the **Series name**.
- Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 are connected to the **Type**.

Case dia. code

φD	Code
51	F
63.5	G
76.2	H
90	J

Configuration

Code	Configuration
BB	2-leg brackets
BN	No brackets
Code less	Stud mount type

※ Configuration

standard specifications	stud mount type
SE	TE

Leg shape Symbol	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

CAT.8100D

NU series

■ Dimensions

400V (2G)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (Arms)	tan δ	Leakage Current (mA)	Code
2700	63.5 × 80	11.9	0.20	3.12	LNU2G272MSEG
3300	63.5 × 95	13.6	0.20	3.45	LNU2G332MSEG
	76.2 × 75	13.1	0.20	3.45	LNU2G332MSEH
3900	63.5 × 100	14.6	0.20	3.75	LNU2G392MSEG
	76.2 × 85	14.3	0.20	3.75	LNU2G392MSEH
4700	63.5 × 120	16.1	0.20	4.11	LNU2G472MSEG
	76.2 × 95	15.8	0.20	4.11	LNU2G472MSEH
5600	63.5 × 135	17.7	0.20	4.49	LNU2G562MSEG
	76.2 × 105	17.1	0.20	4.49	LNU2G562MSEH
6800	76.2 × 125	19.5	0.20	4.95	LNU2G682MSEH
	90 × 105	18.8	0.20	4.95	LNU2G682MSEJ
8200	76.2 × 170	24.2	0.20	5.00	LNU2G822MSEH
	90 × 125	23.1	0.20	5.00	LNU2G822MSEJ
10000	90 × 145	25.9	0.20	5.00	LNU2G103MSEJ
12000	90 × 165	30.1	0.20	5.00	LNU2G123MSEJ
15000	90 × 195	33.5	0.20	5.00	LNU2G153MSEJ
18000	90 × 235	38.0	0.20	5.00	LNU2G183MSEJ

450V (2W)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (Arms)	tan δ	Leakage Current (mA)	Code
2700	63.5 × 100	13.1	0.20	3.31	LNU2W272MSEG
3300	63.5 × 120	15.0	0.20	3.66	LNU2W332MSEG
	76.2 × 95	14.4	0.20	3.66	LNU2W332MSEH
3900	63.5 × 135	16.3	0.20	3.97	LNU2W392MSEG
	76.2 × 105	15.4	0.20	3.97	LNU2W392MSEH
4700	63.5 × 165	18.5	0.20	4.36	LNU2W472MSEG
	76.2 × 130	17.9	0.20	4.36	LNU2W472MSEH
5600	76.2 × 150	20.5	0.20	4.76	LNU2W562MSEH
	90 × 105	19.6	0.20	4.76	LNU2W562MSEJ
6800	76.2 × 170	23.4	0.20	5.00	LNU2W682MSEH
	90 × 125	22.5	0.20	5.00	LNU2W682MSEJ
8200	76.2 × 195	25.7	0.20	5.00	LNU2W822MSEH
	90 × 145	24.7	0.20	5.00	LNU2W822MSEJ
10000	90 × 165	27.3	0.20	5.00	LNU2W103MSEJ
12000	90 × 195	29.9	0.20	5.00	LNU2W123MSEJ
15000	90 × 235	34.5	0.20	5.00	LNU2W153MSEJ

500V (2H)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (Arms)	tan δ	Leakage Current (mA)	Code
680	51 × 75	4.0	0.20	1.75	LNU2H681MSEF
1000	51 × 90	5.0	0.20	2.12	LNU2H102MSEF
1200	51 × 115	5.7	0.20	2.32	LNU2H122MSEF
	63.5 × 80	5.7	0.20	2.32	LNU2H122MSEG
1500	51 × 135	6.6	0.20	2.60	LNU2H152MSEF
	63.5 × 90	6.6	0.20	2.60	LNU2H152MSEG
1800	63.5 × 100	7.4	0.20	2.85	LNU2H182MSEG
	76.2 × 70	7.4	0.20	2.85	LNU2H182MSEH
2200	63.5 × 120	8.5	0.20	3.15	LNU2H222MSEG
	76.2 × 95	8.5	0.20	3.15	LNU2H222MSEH
2700	63.5 × 135	9.6	0.20	3.49	LNU2H272MSEG
	76.2 × 105	9.6	0.20	3.49	LNU2H272MSEH
3300	63.5 × 165	10.9	0.20	3.85	LNU2H332MSEG
	76.2 × 130	10.9	0.20	3.85	LNU2H332MSEH
3900	76.2 × 145	12.4	0.20	4.19	LNU2H392MSEH
	90 × 105	12.4	0.20	4.19	LNU2H392MSEJ
4700	76.2 × 165	13.9	0.20	4.60	LNU2H472MSEH
	90 × 125	13.9	0.20	4.60	LNU2H472MSEJ
5600	90 × 145	15.8	0.20	5.00	LNU2H562MSEJ
6800	90 × 165	18.5	0.20	5.00	LNU2H682MSEJ
8200	90 × 205	20.2	0.20	5.00	LNU2H822MSEJ

525V (N7)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (Arms)	tan δ	Leakage Current (mA)	Code
680	51 × 85	4.4	0.20	1.75	LNUN7681MSEF
1000	51 × 95	5.4	0.20	2.12	LNUN7102MSEF
1500	63.5 × 95	7.2	0.20	2.60	LNUN7152MSEG
1800	63.5 × 105	8.0	0.20	2.85	LNUN7182MSEG
2200	63.5 × 135	9.2	0.20	3.15	LNUN7222MSEG
	76.2 × 100	9.2	0.20	3.15	LNUN7222MSEH
2700	76.2 × 115	10.6	0.20	3.49	LNUN7272MSEH
3300	76.2 × 140	12.1	0.20	3.85	LNUN7332MSEH
4700	76.2 × 185	15.2	0.20	4.60	LNUN7472MSEH
	90 × 135	15.2	0.20	4.60	LNUN7472MSEJ
5600	90 × 155	17.5	0.20	5.00	LNUN7562MSEJ

Rated ripple current (Arms) at 105°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	1.30	1.40