

NXR Series

• 105°C 4,000 ~ 7,000Hrs assured.

- Low Impedance.
- For SMPS, IP-Board, Adaptor, Automotive equipment.
- RoHS compliant.
- Halogen-free capacitors are also available.

• AEC-Q200 compliant : Please contact us for more details, test data, information.

NXP
(LXZ)

Solvent-
proof

NXR

Low Imp.
Downsized



SPECIFICATIONS

Item	Characteristics												
Rated Voltage Range	6.3 ~ 35 V _{DC}												
Operating Temperature Range	-55 ~ +105°C												
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)												
Leakage Current	I = 0.01CV (μA) or 3μA, whichever is greater. Where, I:Max. Leakage current(μA) C:Nominal capacitance(μF) V:Rated voltage(V _{DC}) (at 20°C, 2 minutes)												
Dissipation Factor (Tanδ)	<table border="1"><tr><td>Rated Voltage(V_{DC})</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td></tr><tr><td>TANδ(Max.)</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td></tr></table> When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase. (at 20°C, 120Hz)	Rated Voltage(V _{DC})	6.3	10	16	25	35	TANδ(Max.)	0.22	0.19	0.16	0.14	0.12
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Temperature Characteristics (Capacitance change ratio)	<table border="1"><tr><td>Rated Voltage(V_{DC})</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td></tr><tr><td>Z(-55°C)/Z(+20°C)</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table> (at 20°C, 120Hz)	Rated Voltage(V _{DC})	6.3	10	16	25	35	Z(-55°C)/Z(+20°C)	4	3	3	3	3
Rated Voltage(V _{DC})	6.3	10	16	25	35								
Z(-55°C)/Z(+20°C)	4	3	3	3	3								
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) at 105°C for the specified period of time. <table><tr><td>Capacitance change ≤ ±20% of the initial value</td><td>∅ D</td><td>Life Time</td></tr><tr><td>Tanδ ≤ 200% of the initial specified value</td><td>∅ 10</td><td>4,000 hours</td></tr><tr><td>Leakage Current ≤ The initial specified value</td><td>∅ 12.5</td><td>5,000 hours</td></tr><tr><td></td><td>∅ 16, 18</td><td>7,000 hours</td></tr></table>	Capacitance change ≤ ±20% of the initial value	∅ D	Life Time	Tanδ ≤ 200% of the initial specified value	∅ 10	4,000 hours	Leakage Current ≤ The initial specified value	∅ 12.5	5,000 hours		∅ 16, 18	7,000 hours
Capacitance change ≤ ±20% of the initial value	∅ D	Life Time											
Tanδ ≤ 200% of the initial specified value	∅ 10	4,000 hours											
Leakage Current ≤ The initial specified value	∅ 12.5	5,000 hours											
	∅ 16, 18	7,000 hours											
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤ ±20% of the initial value Tanδ ≤ 200% of the initial specified value Leakage Current ≤ The initial specified value												
Others	Satisfied characteristics KS C IEC 60384-4												

DIMENSIONS OF NXR Series

Unit(mm)

OMRON

Technical drawing of a capacitor showing side and end views with dimensions:

- Side View:** Shows a cylindrical body with a "Safety vent" and a "Sleeve". Dimensions include $\varnothing D'$, L' , 15min. , 4min. , and $\varnothing d \pm 0.05$.
- End View (Left):** Shows a circular cross-section with a diameter of $\varnothing 10$ and a feature dimension of $F \pm 0.5$.
- End View (Right):** Shows a circular cross-section with a diameter of $\geq \varnothing 12.5$ and a feature dimension of $F \pm 0.5$.

Marking : DARK BROWN SLEEVE, SILVER INK

$\varnothing D$	10	12,5	16	18
$\varnothing d$	0.6	0.6	0.8	0.8
F	5.0	5.0	7.5	7.5
$\varnothing D'$	$\varnothing D + 0.5 \text{ max.}$			
L'	$L + 2.0 \text{ max.}$			



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

RATINGS OF NXR Series

$\varnothing D \times L (mm)$	6.3			10			16		
	μF	IMP.	Ripple	μF	IMP.	Ripple	μF	IMP.	Ripple
10 × 12.5	1,500	0.063	960	1,000	0.063	960	820	0.063	960
10 × 16	2,200	0.049	1,240	1,800	0.049	1,240	1,200	0.049	1,240
10 × 20	3,300	0.035	1,550	2,200	0.035	1,550	1,800	0.035	1,550
10 × 25	3,900	0.033	1,740	2,700	0.033	1,740	2,200	0.033	1,740
12.5 × 20	4,700	0.029	1,890	3,900	0.029	1,890	2,700	0.029	1,890
12.5 × 25	5,600	0.022	2,350	4,700	0.022	2,350	3,300	0.022	2,350
16 × 20	6,800	0.026	2,330	4,700	0.026	2,330	3,900	0.026	2,330
18 × 20	8,200	0.025	2,640	6,800	0.025	2,640	5,600	0.025	2,640
16 × 25	10,000	0.019	2,760	6,800	0.019	2,760	5,600	0.019	2,760
18 × 25	12,000	0.018	2,850	8,200	0.018	2,850	8,200	0.018	2,850

$\varnothing D \times L (mm)$	25			35		
	μF	IMP.	Ripple	μF	IMP.	Ripple
10 × 12.5	470	0.063	960	330	0.063	960
10 × 16	820	0.049	1,240	680	0.049	1,240
10 × 20	1,200	0.035	1,550	820	0.035	1,550
10 × 25	1,500	0.033	1,740	1,200	0.033	1,740
12.5 × 20	1,800	0.029	1,890	1,500	0.029	1,890
12.5 × 25	2,700	0.022	2,350	1,800	0.022	2,350
16 × 20	2,700	0.026	2,330	1,800	0.026	2,330
18 × 20	3,300	0.025	2,640	2,200	0.025	2,640
16 × 25	3,900	0.019	2,760	2,700	0.019	2,760
18 × 25	4,700	0.018	2,850	3,300	0.018	2,850

Rated Ripple Current (mA rms/105°C, 100kHz)
Impedance (Ω max./20°C, 100kHz)
Nominal Capacitance(μF)

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Cap. (μF) \ Freq. (Hz)	120	1k	10k	50k	100k
330 ~ 470	0.50	0.85	0.94	0.96	1.00
680 ~ 1,800	0.60	0.87	0.95	0.97	1.00
2,200 ~ 3,900	0.75	0.90	0.95	0.97	1.00
4,700 ~ 12,000	0.85	0.95	0.98	0.99	1.00