NXQ Series

• 105℃ 6,000 ~ 10,000Hrs assured.

- Non-solvent proof.
- Low impedance, High ripple.
- For LED TV BLU Inverter, IP-Board, Adaptor, LED Lighting.
- **RoHS compliant.**
- **Halogen-free capacitors are also available.**

NXH → NXQ

High Ripple



SPECIFICATIONS

Item	Characteristics
Rated Voltage Range	6.3 ~ 120 VDC
Operating Temperature Range	-40 ~ +105℃
Capacitance Tolerance	±20%(M) (at 20℃, 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(VDC) (at 20℃, 2minutes)
Dissipation Factor (Tanδ)	See table below
Temperature Characteristics (Max. Impedance ratio)	See table below
Load Life	See table below
Shelf Life	See table below
Others	Satisfied characteristics KS C IEC 60384-4

Dissipation Factor (Tanδ)

Rated Voltage(VDC)	6.3	10	16	25	35	50	63	80	100	120
Tanδ(Max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08	0.08

When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase (at 20℃, 120Hz)

Temperature Characteristics (Max. Impedance ratio)

Z(-25℃)/Z(+20℃)	2
Z(-40℃)/Z(+20℃)	3

(at 120Hz)

Load Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) at 105℃ for the specified period of time.

Rated voltage(VDC)	6.3~10	16~120
Capacitance change	≦±30% of the initial value	≦±25% of the initial value
Tanδ	≦ 200% of the initial specified value	
Leakage current	≦ The initial specified value	

ØD	Life Time		
	6.3VDC	10~50VDC	63~120VDC
Ø5~Ø6.3	6,000hours	7,000hours	6,000hours
Ø8 X 11.5L	8,000hours	9,000hours	8,000hours
Ø8 X 15L~20L	9,000hours	10,000hours	9,000hours
Ø10 X 12.5L	9,000hours		
Ø10 X 16L~25L Ø12.5~	10,000hours		

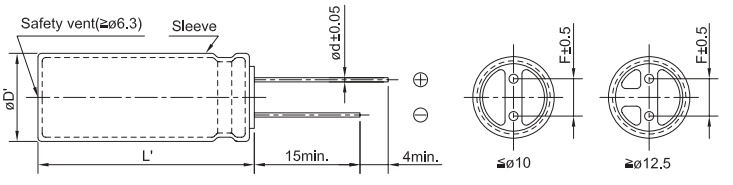
Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 105℃ 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.

Rated voltage(VDC)	6.3~10	16~120
Capacitance change	≦±30% of the initial value	≦±25% of the initial value
Tanδ	≦ 200% of the initial specified value	
Leakage current	≦ The initial specified value	

DIMENSIONS OF NXQ Series

Unit(mm)



Marking : DARK BROWN SLEEVE, SILVER INK

ØD	5	6.3	8	10	12.5	16	18
Ød	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ØD′	ØD+0.5 max.						
L′	L+1.5 max.			L+2.0 max.			

※ Ø10 x 12L, L′≦ L+1.5

RATINGS OF NXQ Series

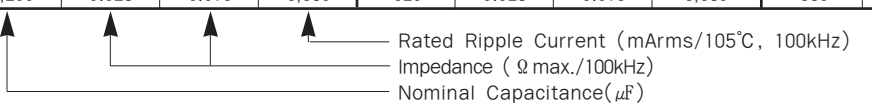
Vdc / ØD×L(mm)	6.3				10				16			
	μF	IMP.		Ripple	μF	IMP.		Ripple	μF	IMP.		Ripple
		20℃	-10℃			20℃	-10℃			20℃	-10℃	
5×11	220	0.40	1.30	345	150	0.40	1.30	450	120	0.40	1.30	450
6.3×11	470	0.17	0.51	540	330	0.17	0.51	700	270	0.17	0.51	700
8×11.5	820	0.075	0.23	945	560	0.075	0.23	1,200	470	0.075	0.23	1,200
8×15	1,000	0.059	0.18	1,250	680	0.059	0.18	1,600	560	0.059	0.18	1,600
8×20	1,500	0.041	0.13	1,500	1,000	0.041	0.13	1,960	820	0.041	0.13	1,960
10×12	1,200	0.053	0.16	1,500	820	0.053	0.16	1,700	680	0.053	0.16	1,700
10×12.5	1,200	0.053	0.16	1,500	820	0.053	0.16	1,700	680	0.053	0.16	1,700
10×16	1,800	0.038	0.12	1,760	1,200	0.038	0.12	2,000	1,000	0.038	0.12	2,000
10×20	2,700	0.028	0.084	1,960	1,800	0.028	0.084	2,500	1,500	0.028	0.084	2,500
10×25	3,300	0.024	0.072	2,250	2,200	0.024	0.072	2,900	1,800	0.024	0.072	2,900
12.5×20	3,900	0.025	0.075	2,480	2,700	0.025	0.075	2,600	2,200	0.025	0.075	2,600
12.5×25	4,700	0.019	0.057	2,900	3,300	0.019	0.057	3,050	2,700	0.019	0.057	3,050
12.5×30	5,600	0.018	0.054	3,450	4,700	0.018	0.054	3,500	3,300	0.018	0.054	3,500
12.5×35	6,800	0.016	0.048	3,570	5,600	0.016	0.048	3,600	3,900	0.016	0.048	3,600
16×20	6,800	0.021	0.063	3,250	4,700	0.021	0.063	3,250	3,300	0.021	0.063	3,250
16×25	8,200	0.017	0.051	3,630	5,600	0.017	0.051	3,630	4,700	0.017	0.051	3,630

Vdc / ØD×L(mm)	25				35				50			
	μF	IMP.		Ripple	μF	IMP.		Ripple	μF	IMP.		Ripple
		20℃	-10℃			20℃	-10℃			20℃	-10℃	
5×11	68	0.40	1.30	450	47	0.40	1.30	450	27	0.48	1.56	310
6.3×11	150	0.17	0.51	700	100	0.17	0.51	700	56	0.22	0.66	500
8×11.5	330	0.075	0.23	1,200	180	0.075	0.23	1,200	100	0.12	0.37	950
8×15	390	0.059	0.18	1,600	220	0.059	0.18	1,600	120	0.082	0.25	1,230
8×20	560	0.041	0.13	1,960	330	0.041	0.13	1,960	180	0.058	0.19	1,580
10×12	470	0.053	0.16	1,700	270	0.053	0.16	1,700	150	0.073	0.22	1,280
10×12.5	470	0.053	0.16	1,700	270	0.053	0.16	1,700	150	0.073	0.22	1,280
10×16	680	0.038	0.12	2,000	390	0.038	0.12	2,000	220	0.053	0.16	1,650
10×20	1,000	0.028	0.084	2,500	560	0.028	0.084	2,500	330	0.038	0.12	2,060
10×25	1,200	0.024	0.072	2,900	680	0.024	0.072	2,900	390	0.032	0.10	2,240
12.5×20	1,500	0.025	0.075	2,600	820	0.025	0.075	2,600	470	0.032	0.10	2,200
12.5×25	1,800	0.019	0.057	3,050	1,200	0.019	0.057	3,050	680	0.025	0.080	2,500
12.5×30	2,200	0.018	0.054	3,500	1,500	0.018	0.054	3,500	820	0.023	0.074	3,100
12.5×35	2,700	0.016	0.048	3,600	1,800	0.016	0.048	3,600	1,000	0.021	0.067	3,250
16×20	2,200	0.021	0.063	3,250	1,500	0.021	0.063	3,250	820	0.026	0.084	2,730
16×25	3,300	0.017	0.051	3,630	1,800	0.017	0.051	3,630	1,000	0.022	0.070	3,010

Vdc / ØD×L(mm)	63			
	μF	IMP.		Ripple
		20℃	-10℃	
5×11	18	0.71	3.10	240
6.3×11	47	0.28	1.30	420
8×11.5	82	0.18	0.82	720
8×15	100	0.13	0.59	990
8×20	150	0.096	0.44	1,200
10×12	120	0.11	0.44	990
10×12.5	120	0.11	0.44	990
10×16	180	0.076	0.31	1,200
10×20	270	0.056	0.22	1,570
10×25	330	0.046	0.15	1,990
12.5×20	390	0.041	0.12	1,990
12.5×25	470	0.031	0.095	2,460
12.5×30	560	0.028	0.088	2,760
12.5×35	680	0.024	0.074	3,040
16×20	560	0.032	0.101	2,150
16×25	820	0.025	0.075	2,550

RATINGS OF NXQ Series

Vdc / ØDxL(mm)	80				100				120			
	μF	IMP.		Ripple	μF	IMP.		Ripple	μF	IMP.		Ripple
		20℃	-10℃			20℃	-10℃			20℃	-10℃	
5×11	12	1.20	5.33	220	8.2	1.20	5.33	220				
6.3×11	27	0.46	2.03	370	18	0.46	2.03	370				
8×11.5	47	0.29	1.31	620	33	0.29	1.31	620	22	0.29	1.31	620
8×15	56	0.20	0.90	780	47	0.20	0.90	780	33	0.20	0.90	780
8×20	82	0.16	0.72	1,040	68	0.16	0.72	1,040	47	0.16	0.72	1,040
10×12	68	0.17	0.68	780	47	0.17	0.68	780	33	0.17	0.68	780
					56	0.17	0.68	780				
10×12.5	68	0.17	0.68	780	47	0.17	0.68	780	33	0.17	0.68	780
					56	0.17	0.68	780				
10×16	100	0.11	0.44	1,040	68	0.11	0.44	1,040	47	0.11	0.44	1,040
10×20	150	0.084	0.35	1,430	100	0.084	0.35	1,430	68	0.084	0.35	1,430
10×25	180	0.069	0.28	1,620	120	0.069	0.28	1,620	100	0.069	0.28	1,620
12.5×16	150	0.11	0.33	1,430	100	0.11	0.33	1,430	68	0.11	0.33	1,430
12.5×20	220	0.062	0.19	1,750	150	0.062	0.19	1,750	100	0.062	0.19	1,750
12.5×25	270	0.047	0.15	2,210	220	0.047	0.15	2,210	120	0.047	0.15	2,210
12.5×30	330	0.042	0.14	2,400	270	0.042	0.14	2,400	150	0.042	0.14	2,400
12.5×35	390	0.036	0.11	2,600	330	0.036	0.11	2,600	180	0.036	0.11	2,600
12.5 x 40	470	0.032	0.096	2,860	390	0.032	0.096	2,860	220	0.032	0.096	2,860
16×20	330	0.048	0.16	1,950	270	0.048	0.16	1,950	150	0.048	0.16	1,950
16×25	470	0.038	0.11	2,430	390	0.038	0.11	2,430	220	0.038	0.11	2,430
16×31.5	560	0.032	0.096	2,640	470	0.032	0.096	2,640	270	0.032	0.096	2,640
16×35.5	680	0.029	0.087	2,860	560	0.029	0.087	2,860	330	0.029	0.087	2,860
16×40	820	0.027	0.081	3,510	680	0.027	0.081	3,510	390	0.027	0.081	3,510
18×20	470	0.045	0.14	2,270	390	0.045	0.14	2,270	220	0.045	0.14	2,270
18×25	680	0.036	0.11	2,500	470	0.036	0.11	2,500	270	0.036	0.11	2,500
18×31.5	820	0.030	0.090	2,860	560	0.030	0.090	2,860	390	0.030	0.090	2,860
18×35.5	1,000	0.027	0.081	3,510	680	0.027	0.081	3,510	470	0.027	0.081	3,510
18×40	1,200	0.026	0.078	3,860	820	0.026	0.078	3,860	560	0.026	0.078	3,860



RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Freq.(Hz) / Cap.(μF)	120	1k	10k	50k	100k
8.2 ~ 33	0.42	0.70	0.90	0.93	1.00
47 ~ 270	0.50	0.73	0.92	0.95	1.00
330 ~ 680	0.55	0.77	0.94	0.96	1.00
820 ~ 1,800	0.60	0.80	0.96	0.97	1.00
2,200 ~ 8,200	0.70	0.85	0.98	0.99	1.00