

TLF Series

- 105°C 5,000Hrs assured.

- Non-solvent proof.
- Downsized.
- For OBC, SMPS, Inverter.
- RoHS compliant.
- Halogen-free capacitors are also available.

TLC

TLF

High Ripple, Downsized

**SPECIFICATIONS**

Item	Characteristics	
Rated Voltage Range	450 ~ 500 V _{DC}	
Operating Temperature Range	-40 ~ +105°C	
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)	
Leakage Current	I = 0.02CV or 3mA, whichever is smaller. Where, I: Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(V _{DC}) (at 20°C, 5 minutes)	
*Dissipation Factor(Tanδ)	Rated voltage(V _{DC})	450 ~ 500
	Tanδ(Max.)	0.20
	(at 20°C, 120Hz)	
Temperature Characteristics (Max. Impedance ratio)	Rated voltage(V _{DC})	450 ~ 500
	Z(-25°C)/Z(20°C)	8
	Z(-40°C)/Z(20°C)	16
	(at 120Hz)	
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) for 5,000 hours at 105°C Capacitance change ≤ ±25% of the initial value Tanδ ≤ 250% of the initial specified value Leakage current ≤ The initial specified value	
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the exposing them at 105°C for 1,000 hours 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 ≤ 150% of the initial specified value Leakage current ≤ The initial specified value	
Others	Satisfied characteristics KS C IEC 60384-4	

* For capacitors with CV products > 100,000 higher Tanδ value may apply.
When the capacitance exceeds 1,000μF, 0.01 shall be added every 1,000μF increase.

RATED RIPPLE CURRENT

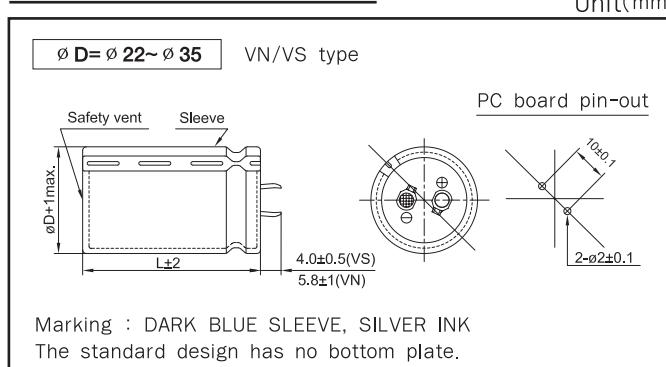
When capacitors are operated in any other conditions at 120Hz, the maximum ripple current must be multiplied by the figure shown in the table.

Frequency multiplying factor

V _{DC}	Freq.(Hz)	60	120	300	1k	10k~
450~500		0.77	1.00	1.16	1.30	1.41

DIMENSIONS OF TLF Series

Unit(mm)





LARGE SIZED ALUMINUM ELECTROLYTIC CAPACITORS

RATINGS OF TLF Series

VDC μF	450				500			
	22	25.4	30	35	22	25.4	30	35
82					22×35 0.56			
100					22×40 0.65	25.4×30 0.63		
120					22×45 0.75	25.4×35 0.73		
150	22×35 0.68				22×50 0.87	25.4×40 0.85	30×30 0.84	
180	22×40 0.78	25.4×30 0.76				25.4×45 0.97	30×35 0.97	
220	22×45 0.90	25.4×35 0.88				25.4×50 1.12	30×40 1.12	35×30 1.09
270	22×50 1.04	25.4×40 1.03	30×30 1.01				30×45 1.29	35×35 1.27
330		25.4×45 1.18	30×35 1.17				30×50 1.48	35×40 1.47
390		25.4×50 1.33	30×40 1.33	35×30 1.30				35×45 1.66
470			30×45 1.52	35×35 1.50				35×50 1.89
560			30×50 1.72	35×40 1.71				
680				35×45 1.96				
820				35×50 2.24				

Case Size ØD×L(mm)
Rated Ripple Current(Arms/105°C, 120Hz)