

2.1 High Voltage Filter Capacitors :

STHVF : with screw Nut at Capacitor both Ends

STHVF-A : with Copper Lead at Capacitor both Ends (Axial Lead)

Applications :

- By-pass DC / AC Filtering, Transient and Harmonic Damping
- Coupling and Decoupling
- Filter applications
- Voltage Multiplier
- Induction heating
- X-Ray power supplies
- Electrostatic air cleaners

Features :

- Polypropylene film dielectric
- low inductance
- excellent Frequency Response
- RMS Current Rating
- high peak Pulse Current Ratings (dv/dt)
- higher Temperature range
- M6, M8 and M10 screw threads/nut as capacitor electrical terminal

When compare with traditional Paper Dielectric, Oil Impregnated and Metal Enclosure Capacitor :

- Plastic enclosure : safer when compare with oil impregnated capacitor.
- Dry construction : Epoxy Resin end seal and doesn't have impregnant liquid leakage problem
- Plastic enclosure and Epoxy Resin are flame retardant UL94-V0 grade
- compact size and light weight
- higher Insulation Resistance and Insulation Voltage
- low capacitor loss



Electrical Characteristics : STHVF series

Voltage range :

6000Vdc	8000Vdc	10,000Vdc	12,000Vdc	15,000Vdc	20,000Vdc	25,000Vdc	30,000Vdc
1350Vac	1500Vac	1700Vac	2000Vac	2500Vac	3000Vac	4000Vac	5000Vac

Capacitance range : 0.025uF – 1uF

Tolerance : +/-10% +/-5% at 25C

Rated Temperature : -25C to +85C / -40C to +105C

Insulation Resistance : 250Vdc +25C >= 300,000Mohm
 250Vdc +85C >= 50,000Mohm
 250Vdc +105C >= 5,000Mohm

Testing Voltage Terminal to Terminal : Voltage Vdc < 20kVdc : 2.15 x rated Vdc 60 seconds at 105C
 > 20kVdc : 1.75 x rated Vdc 60 seconds at 105C
 Voltage Vac : 1.75 x rated Vac 60 seconds at 105C

Accelerated Life : 1.25 x Vdc or Vac at 105C for 2,000 hours

RMS Current - I_{rms} : up to 65Arms

Peak discharge current - I_{peak} : up to 2200A

Low ESR and series Inductance : refer to the data listed below

Temperature range : -25C to +70C / -25C to +85C / -40C to +105C

Pulse Voltage rise & fall time dV/dt : detail information available on require

Electrical Characteristics : STHVF-A series : Copper lead at Capacitor both ends (Axial Lead)

Voltage range :

4000Vdc	6000Vdc	8,000Vdc	10,000Vdc	12,000Vdc	15,000Vdc	20,000Vdc
1800Vac	2500Vac	3000Vac	3500Vac	4500Vac	5500Vac	6500Vac

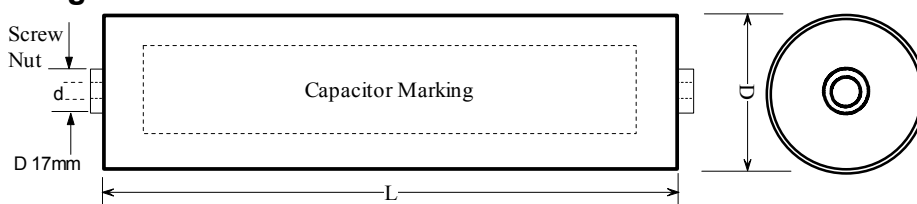
Capacitance range : 0.025uF – 0.82uF

Tolerance : +/-10% +/-5% at 25C

Rated Temperature : -25C to +70C / -25C to +85C / -40C to +105C

Max. ripple current I_{rms} : up to 10A

Drawing : STHVF series



STHVF Specifications and Size : 1350Vac / 6000Vdc

Capacitance uF	Diameter D mm	Length L mm	dv/dt v/us	I _{peak} A 105C	Irms 100kHz 85C	Irms 100kHz 105C	ESR mohm 100kHz	Electrical connection Thread / Nut d
0.1	65	120	2700	270	8	6	9	M6
0.12	65	120	2700	324	9	7	7.7	M6
0.15	65	120	2700	405	11	8	7	M6
0.2	65	120	2700	540	15	11	6.5	M6
0.22	65	120	2700	594	16	12	6	M6
0.25	65	120	2700	675	19	14	5.5	M6
0.3	65	120	2700	810	22	16	5	M6
0.33	65	120	2700	891	25	18	4.5	M6
0.5	90	120	2700	1350	37	28	4.5	M6
0.68	65	210	1350	918	50	38	4	M6
1.0	90	210	1350	1350	65	56	4	M6

STHVF Specifications and Size : 1500Vac / 8000Vdc

Capacitance uF	Diameter D mm	Length L mm	dv/dt v/us	I _{peak} A 105C	Irms 100kHz 85C	Irms 100kHz 105C	ESR mohm 100kHz	Electrical connection Thread / Nut d
0.1	65	120	3400	240	9	6	8	M6
0.12	65	120	3400	408	11	8	7.2	M6
0.15	65	120	3400	510	14	10	6.5	M6
0.2	65	120	3400	680	19	13	6	M6
0.22	65	120	3400	748	20	14	5.5	M6
0.25	65	120	3400	850	23	16	5	M6
0.3	90	120	3400	1020	28	19	4.5	M6
0.33	90	120	3400	1122	31	21	4	M6
0.5	65	210	1700	850	47	33	3.5	M6

STHVF Specifications and Size : 1700Vac / 10000Vdc

Capacitance uF	Diameter D mm	Length L mm	dv/dt v/us	I _{peak} A 105C	Irms 100kHz 85C	Irms 100kHz 105C	ESR mohm 100kHz	Electrical connection Thread / Nut d
0.1	65	120	4300	430	11	7	7.5	M6
0.12	65	120	4300	516	13	9	7	M6
0.15	65	120	4300	645	16	11	6	M6
0.2	65	120	4300	860	22	15	5.5	M6
0.22	65	120	4300	946	24	17	5	M6
0.25	90	120	4300	1075	27	19	5	M6
0.27	90	120	4300	1161	30	21	5	M6
0.3	90	120	4300	1290	33	23	4.5	M6
0.33	90	120	4300	1419	36	25	4	M6
0.5	90	210	2150	1075	55	38	3.5	M6

STHVF Specifications and Size : 2000Vac / 12000Vdc

Capacitance uF	Diameter D mm	Length L mm	dv/dt v/us	I _{peak} A 105C	Irms 100kHz 85C	Irms 100kHz 105C	ESR mohm 100kHz	Electrical connection Thread / Nut d
0.05	65	210	5900	295	9	6	25	M6
0.1	65	210	5900	590	19	11	20	M6
0.12	65	210	5900	708	18	12	18	M6
0.15	65	210	5900	885	23	15	15	M6
0.2	90	210	5900	1180	30	20	13	M6
0.22	90	210	5900	1298	33	21	12	M6
0.25	90	210	5900	1475	38	24	12	M6

STHVF Specifications and Size : 2500Vac / 15000Vdc

Capacitance uF	Diameter D mm	Length L mm	dv/dt v/us	I _{peak} A 105C	Irms 100kHz 85C	Irms 100kHz 105C	ESR mohm 100kHz	Electrical connection Thread / Nut d
0.05	65	210	8250	412	9	6	25	M6
0.1	65	210	8250	825	19	13	20	M6
0.12	65	210	8250	990	18	13	18	M6
0.15	90	210	8250	1237	23	16	15	M6
0.2	90	210	8250	1650	31	22	13	M6
0.22	90	210	8250	1815	34	24	12	M6

STHVF Specifications and Size : 3000Vac / 20000Vdc

Capacitance uF	Diameter D mm	Length L mm	dv/dt v/us	I _{peak} A 105C	I _{rms} 100kHz 85C	I _{rms} 100kHz 105C	ESR mohm 100khz	Electrical connection Thread / Nut d
0.025	65	210	12200	305	7	5	35	M6
0.33	65	210	12200	402	9	7	30	M6
0.05	65	210	12200	610	14	10	25	M6
0.1	65	210	12200	1220	23	17	20	M6
0.12	90	210	12200	1464	28	21	18	M6
0.15	90	210	12200	1830	35	26	15	M6

STHVF Specifications and Size : 4000Vac / 25000Vdc

Capacitance uF	Diameter D mm	Length L mm	dv/dt v/us	I _{peak} A 105C	I _{rms} 100kHz 85C	I _{rms} 100kHz 105C	ESR mohm 100khz	Electrical connection Thread / Nut d
0.025	65	296	14000	350	10	7	60	M6
0.33	65	296	14000	462	13	9	55	M6
0.05	65	296	14000	700	14	10	50	M6
0.75	90	296	14000	1050	22	15	40	M6
0.1	90	296	14000	1400	29	20	36	M6
0.12	90	296	14000	1680	35	25	30	M6
0.15	90	296	14000	2100	38	26	30	M6

STHVF Specifications and Size : 5000Vac / 30000Vdc

Capacitance uF	Diameter D mm	Length L mm	dv/dt v/us	I _{peak} A 105C	I _{rms} 100kHz 85C	I _{rms} 100kHz 105C	ESR mohm 100khz	Electrical connection Thread / Nut d
0.025	65	296	18500	463	9	6	60	M6
0.33	65	296	18500	610	12	8	55	M6
0.05	90	296	18500	925	19	13	50	M6
0.1	90	296	18500	1850	29	20	40	M6
0.12	90	296	18500	2220	34	24	30	M6