

2.1 High Voltage AC Power Capacitors : STHVA-AN series

Applications :

- High Voltage and High RMS Current applications
- Medium Frequency range and RMS Current rating
- High Voltage Medium Frequency Power applications
- High Voltage Resonant Circuits
- High Voltage Induction applications
- Voltage Multiplier
- act as discharge capacitor to trigger laser, X-Ray and Tesla Coil
- for high voltage capacitor bank or array
- High Voltage Power Supplies



Features :

- low inductance
- excellent Frequency Response
- RMS Current Rating
- higher Temperature range

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

- Plastic enclosure : safer when compare with oil impregnated capacitor, especially high voltage application.
- Dry construction : Epoxy Resin end seal and doesn't have impregnant 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
- DC Blocking / Ultra-Low Leakage version on request

Electrical Characteristics :

Rated Voltage : 1100Vrms – 3500Vrms / 1600Vac – 5000Vac

Capacitance : 0.01uF – 0.15uF

Maximum RMS Current : up to 45A (Continuous Duty)

Reactive Power up to 105kVAR

Testing Voltage : 1.4 x Uac 30 sec (can be customized design)

Low ESR and series Inductance

Temperature range : +70C / +85C / +105C (depends on capacitor raw materials)

Application Frequency range available on request

Pulse Voltage rise & fall time dv/dt : detail information available on request

Ultra-Low Leakage version is available on request

Specifications and Size :

STHVA-AN 1100Vrms 1600Vpeak

P/N :	Cn uF	Diameter D mm	Length L mm	Cont. Irms +70C	Rθ C/W +70C	Cont. Power KVAR +70C	Cont. Irms +85C	Rθ C/W +85C	Cont. Power KVAR +85C	Cont. Irms +105C	Rθ C/W +105C	Cont. Power KVAR +105C	ESR mohm 100khz 25C	Stray Inductance nH
STHVA-AN503K1100VR	0.05	65	65	15	6.1	16.2	12	8.8	13.5	10	14.9	11.3	3.8	20
STHVA-AN683K1100VR	0.068	65	65	15	6.1	16.5	12	9.5	13.2	10	16.4	11.0	3.65	20
STHVA-AN753K1100VR	0.075	65	65	15	6.3	16.5	12	9.9	13.2	10	17.1	11.0	3.5	20
STHVA-AN823K1100VR	0.082	65	65	15	6.5	16.5	12	10.2	13.2	10	17.6	11.0	3.4	20
STHVA-AN104K1100VR	0.1	90	65	25	2.4	27.5	20	3.8	22.0	15	8.1	16.5	3.3	20
STHVA-AN124K1100VR	0.12	90	65	30	1.8	33.0	25	2.5	27.5	20	4.8	22.0	3.15	20
STHVA-AN154K1100VR	0.15	90	65	40	1.1	44.0	30	1.9	33.0	25	3.3	27.5	2.9	20

STHVA-AN 1700Vrms 2500Vpeak

P/N :	Cn uF	Diameter D mm	Length L mm	Cont. Irms +70C	Rθ C/W +70C	Cont. Power KVAR +70C	Cont. Irms +85C	Rθ C/W +85C	Cont. Power KVAR +85C	Cont. Irms +105C	Rθ C/W +105C	Cont. Power KVAR +105C	ESR mohm 100khz 25C	Stray Inductance nH
STHVA-AN503K1700VR	0.05	65	120	18	3.6	30.6	15	5.2	25.5	12	9.7	20.4	4.3	37
STHVA-AN683K1700VR	0.068	65	120	18	3.7	30.6	15	5.3	25.5	12	9.9	20.4	4.2	37
STHVA-AN753K1700VR	0.075	65	120	25	2.0	42.5	20	3.1	34.0	15	6.7	25.5	4.0	37
STHVA-AN104K1700VR	0.1	90	120	35	1.1	59.7	25	2.2	42.5	20	4.2	34.0	3.6	37
STHVA-AN124K1700VR	0.12	90	120	35	1.2	59.5	25	2.4	42.5	20	4.4	34.0	3.4	37
STHVA-AN154K1700VR	0.15	90	120	45	0.8	76.5	35	1.3	59.5	28	2.4	47.6	3.2	37

STHVA-AN 1900Vrms 2800Vpeak

P/N :	Cn uF	Diameter D mm	Length L mm	Cont. Irms +70C	Rθ C/W +70C	Cont. Power KVAR +70C	Cont. Irms +85C	Rθ C/W +85C	Cont. Power KVAR +85C	Cont. Irms +105C	Rθ C/W +105C	Cont. Power KVAR +105C	ESR mohm 100khz 25C	Stray Inductance nH
STHVA-AN503K1900VR	0.05	65	120	15	5.3	28.5	12	8.3	22.8	10	15.8	18.1	4.2	37
STHVA-AN683K1900VR	0.068	65	120	15	5.6	28.5	12	8.7	22.8	10	16.6	18.1	4.0	37
STHVA-AN753K1900VR	0.075	65	120	20	3.3	38.0	15	5.8	28.5	12	11.0	22.8	3.8	37
STHVA-AN104K1900VR	0.1	90	120	30	1.5	57.0	25	2.2	47.5	20	4.2	38.0	3.6	37
STHVA-AN124K1900VR	0.12	90	120	30	1.6	57.0	25	2.3	47.5	20	4.3	38.0	3.45	37
STHVA-AN154K1900VR	0.15	90	120	35	1.2	66.5	30	1.7	57.0	25	2.9	47.5	3.3	37

For any Capacitance, Voltage, Ampere, kHz and kVAR not listed, please contact us for a suggestion.

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STHVA-AN 2100Vrms 3000Vpeak

P/N :	Cn uF	Diameter D mm	Length L mm	Cont. Irms +70C	Rθ C/W +70C	Cont. Power KVAR +70C	Cont. Irms +85C	Rθ C/W +85C	Cont. Power KVAR +85C	Cont. Irms +105C	Rθ C/W +105C	Cont. Power KVAR +105C	ESR mohm 100khz 25C	Stray Inductance nH
STHVA-AN333K2100VR	0.033	65	175	18	2.5	37.8	13	4.8	27.3	10	9.7	21.0	6.2	55
STHVA-AN503K2100VR	0.05	65	175	20	2.4	42.0	15	4.3	31.5	12	8.0	25.2	5.2	55
STHVA-AN683K2100VR	0.068	90	175	30	1.2	63.0	25	1.8	52.5	18	4.1	37.8	4.5	55
STHVA-AN753K2100VR	0.075	90	175	30	1.4	63.0	25	2.1	52.5	18	4.7	37.8	3.9	55
STHVA-AN104K2100VR	0.1	90	175	40	0.9	84.0	35	1.1	73.5	25	2.7	52.5	3.6	55

STHVA-AN 2500Vrms 3600Vpeak

P/N :	Cn uF	Diameter D mm	Length L mm	Cont. Irms +70C	Rθ C/W +70C	Cont. Power KVAR +70C	Cont. Irms +85C	Rθ C/W +85C	Cont. Power KVAR +85C	Cont. Irms +105C	Rθ C/W +105C	Cont. Power KVAR +105C	ESR mohm 100khz 25C	Stray Inductance nH
STHVA-AN253K2500VR	0.025	65	230	18	1.6	45.0	13	3.1	32.5	10	6.4	25.0	9.4	75
STHVA-AN333K2500VR	0.033	65	230	18	2.2	45.0	13	4.2	32.5	10	8.5	25.0	7.1	75
STHVA-AN503K2500VR	0.05	90	230	25	1.4	62.5	20	2.1	50.0	15	4.5	37.5	5.9	75
STHVA-AN683K2500VR	0.068	90	230	30	1.1	75.0	25	1.6	62.5	20	3.1	50.0	4.9	75
STHVA-AN753K2500VR	0.075	90	230	30	1.3	75.0	25	1.9	62.5	20	3.5	50.0	4.3	75

STHVA-AN 2650Vrms 3750Vpeak

P/N :	Cn uF	Diameter D mm	Length L mm	Cont. Irms +70C	Rθ C/W +70C	Cont. Power KVAR +70C	Cont. Irms +85C	Rθ C/W +85C	Cont. Power KVAR +85C	Cont. Irms +105C	Rθ C/W +105C	Cont. Power KVAR +105C	ESR mohm 100khz 25C	Stray Inductance nH
STHVA-AN253K2650VR	0.025	65	230	16	2.0	42.4	12	3.6	31.8	10	6.3	26.5	9.6	75
STHVA-AN333K2650VR	0.033	65	230	16	2.6	42.4	12	4.7	31.8	10	8.1	26.5	7.4	75
STHVA-AN503K2650VR	0.05	90	230	20	2.0	53.0	15	3.6	39.8	12	6.7	31.8	6.2	75
STHVA-AN683K2650VR	0.068	90	230	25	1.6	66.3	20	2.5	53.0	15	5.2	39.8	5.1	75
STHVA-AN753K2650VR	0.075	90	230	30	1.2	79.5	25	1.8	66.3	20	3.3	53.0	4.5	75

STHVA-AN 3100Vrms 4500Vpeak

P/N :	Cn uF	Diameter D mm	Length L mm	Cont. Irms +70C	Rθ C/W +70C	Cont. Power KVAR +70C	Cont. Irms +85C	Rθ C/W +85C	Cont. Power KVAR +85C	Cont. Irms +105C	Rθ C/W +105C	Cont. Power KVAR +105C	ESR mohm 100khz 25C	Stray Inductance nH
STHVA-AN153K3100VR	0.015	65	287	13	2.0	40.3	10	3.4	31.0	8	7.4	23.3	14.5	90
STHVA-AN223K3100VR	0.022	65	287	15	2.0	46.5	12	3.2	37.2	9	6.7	27.9	11.0	90
STHVA-AN253K3100VR	0.025	90	287	18	1.6	55.8	13	3.0	40.3	9	7.5	27.9	9.9	90
STHVA-AN333K3100VR	0.033	90	287	20	1.6	62.0	15	2.9	46.5	11	6.5	34.1	7.6	90
STHVA-AN503K3100VR	0.05	90	287	30	0.9	93.0	25	1.3	77.5	18	3.0	55.8	6.1	90

STHVA-AN 3500Vrms 5000Vpeak

P/N :	Cn uF	Diameter D mm	Length L mm	Cont. Irms +70C	Rθ C/W +70C	Cont. Power KVAR +70C	Cont. Irms +85C	Rθ C/W +85C	Cont. Power KVAR +85C	Cont. Irms +105C	Rθ C/W +105C	Cont. Power KVAR +105C	ESR mohm 100khz 25C	Stray Inductance nH
STHVA-AN103K3500VR	0.01	65	287	13	2.0	45.5	10	3.3	35.0	8	6.3	28.0	15	90
STHVA-AN123K3500VR	0.012	65	287	13	2.5	45.5	10	4.2	35.0	8	7.8	28.0	12	90
STHVA-AN153K3500VR	0.015	90	287	15	2.3	52.5	11	4.2	38.5	9	8.5	29.8	9.8	90
STHVA-AN223K3500VR	0.022	90	287	20	1.6	70.0	15	2.8	52.5	12	5.2	42.0	8.0	90
STHVA-AN253K3500VR	0.025	90	287	25	1.2	87.5	18	2.3	63.0	14	4.6	49.0	6.6	90
STHVA-AN333K3500VR	0.033	90	287	30	1.0	105.0	22	1.8	77.0	17	3.6	59.5	5.8	90

For any Capacitance, Voltage, RMS Current and Reactive Power not listed, please contact us for a suggestion.