

2.1 High AC Voltage 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

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.