

4. High Voltage Energy Discharge Capacitors : STHVE-AN series

Applications :

- High Voltage and High Current application
- Can be used for repetition frequency 1Hz to 25Hz
- High Voltage Switch Absorption
- Filter applications
- Pulse Discharge Circuit and Vibration
- Can be used in High-End Medical equipments
- Can be used in Semiconductor Industry
- Can be used in large electromechanical equipment protection facilities

Features :

- Polypropylene film dielectric
- Low inductance
- Excellent Frequency Response
- RMS Current Rating
- High peak Pulse Current Ratings (dv/dt)
- Higher Temperature range
- DC Blocking / Ultra-Low Leakage version on request

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 leakage problem
- Plastic enclosure and Epoxy Resin are flame retardant UL94-V0 grade
- higher Insulation Resistance and Insulation Voltage

Electrical Characteristics :

Rated Voltage : 10kVdc – 20kVdc

Capacitance range : 0.1uF – 0.68uF with **Tolerance :** +/-10% at 23C

Rated Temperature : +70C / +85C

Insulation Resistance : 250Vdc +23C >= 50,000Mohm

Testing Voltage Terminal to Terminal : Vpeak : 1.4 x rated Vdc 10 seconds at 23C

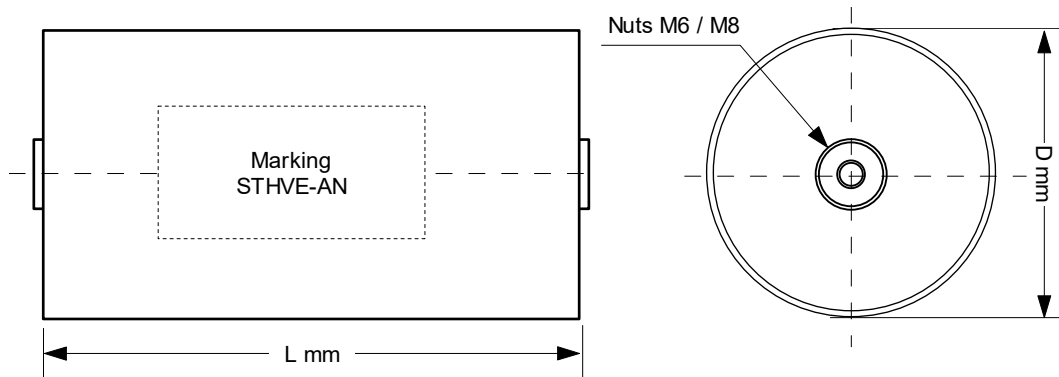
Accelerated Life : 1.25 x Vdc or Vac at rated Temperature for 2,000 hours

Maximum Ripple Current : up to 50A

Peak discharge current - I peak : up to 4650A

Temperature range : -25C to +70C / -25C to +85C (depends on capacitor raw materials)

Ultra-Low Leakage version is available on request



Specifications and Size :
STHVE-AN : 10kVdc / 2500Vac

| P/N : | Cn uF | Diameter D mm | Length L mm | dv/dt v/us | Peak Current I _{p-p} A | ESL nH | ESR (mohm) 100KHz | Max. Amp 70C | Max. Amp 85C |
|------------------|----------|------------------|----------------|---------------|---------------------------------------|-----------|-------------------------|--------------------|--------------------|
| STHVE-AN224K10kD | 0.22 | 65 | 185 | 5500 | 1210 | 45 | 5.5 | 20 | 15 |
| STHVE-AN254K10kD | 0.25 | 90 | 185 | 5500 | 1370 | 45 | 5.1 | 20 | 15 |
| STHVE-AN334K10kD | 0.33 | 90 | 185 | 5500 | 1810 | 45 | 4.6 | 30 | 25 |
| STHVE-AN404K10kD | 0.4 | 90 | 185 | 5500 | 2200 | 45 | 4.3 | 40 | 35 |
| STHVE-AN504K10kD | 0.5 | 90 | 185 | 5500 | 2750 | 45 | 3.9 | 45 | 40 |
| STHVE-AN684K10kD | 0.68 | 90 | 230 | 4300 | 2920 | 55 | 3.6 | 50 | 45 |

STHVE-AN : 12kVdc / 3000Vac

| P/N : | Cn uF | Diameter D mm | Length L mm | dv/dt v/us | Peak Current I _{p-p} A | ESL nH | ESR (mohm) 100KHz | Max. Amp 70C | Max. Amp 85C |
|------------------|----------|------------------|----------------|---------------|---------------------------------------|-----------|-------------------------|--------------------|--------------------|
| STHVE-AN224K12kD | 0.22 | 65 | 230 | 6000 | 1320 | 55 | 5.2 | 20 | 15 |
| STHVE-AN254K12kD | 0.25 | 65 | 230 | 6000 | 1500 | 55 | 4.8 | 20 | 15 |
| STHVE-AN334K12kD | 0.33 | 90 | 230 | 6000 | 1980 | 55 | 4.4 | 30 | 25 |
| STHVE-AN404K12kD | 0.4 | 90 | 230 | 6000 | 2400 | 55 | 4 | 40 | 35 |
| STHVE-AN504K12kD | 0.5 | 90 | 230 | 6000 | 3000 | 55 | 3.7 | 45 | 40 |

STHVE-AN : 15kVdc / 3500Vac

| P/N : | Cn uF | Diameter D mm | Length L mm | dv/dt v/us | Peak Current I _{p-p} A | ESL nH | ESR (mohm) 100KHz | Max. Amp 70C | Max. Amp 85C |
|------------------|----------|------------------|----------------|---------------|---------------------------------------|-----------|-------------------------|--------------------|--------------------|
| STHVE-AN154K15kD | 0.15 | 65 | 295 | 6500 | 970 | 80 | 5.6 | 20 | 15 |
| STHVE-AN224K15kD | 0.22 | 90 | 295 | 6500 | 1430 | 80 | 5.2 | 25 | 20 |
| STHVE-AN334K15kD | 0.33 | 90 | 295 | 6500 | 2140 | 80 | 4.7 | 40 | 35 |
| STHVE-AN504K15kD | 0.5 | 90 | 295 | 6500 | 3250 | 80 | 4.2 | 50 | 40 |

STHVE-AN : 20kVdc / 4000Vac

| P/N : | Cn uF | Diameter D mm | Length L mm | dv/dt v/us | Peak Current I _{p-p} A | ESL nH | ESR (mohm) 100KHz | Max. Amp 70C | Max. Amp 85C |
|------------------|----------|------------------|----------------|---------------|---------------------------------------|-----------|-------------------------|--------------------|--------------------|
| STHVE-AN104K20kD | 0.1 | 65 | 295 | 9300 | 930 | 80 | 6 | 15 | 10 |
| STHVE-AN124K20kD | 0.12 | 65 | 295 | 9300 | 1110 | 80 | 5.5 | 15 | 10 |
| STHVE-AN154K20kD | 0.15 | 90 | 295 | 9300 | 1390 | 80 | 5 | 20 | 15 |
| STHVE-AN224K20kD | 0.22 | 90 | 295 | 9300 | 2040 | 80 | 4.6 | 30 | 25 |
| STHVE-AN254K20kD | 0.25 | 90 | 295 | 9300 | 2320 | 80 | 4.2 | 40 | 35 |
| STHVE-AN274K20kD | 0.27 | 90 | 295 | 9300 | 2510 | 80 | 3.9 | 40 | 35 |
| STHVE-AN334K20kD | 0.33 | 90 | 295 | 9300 | 3060 | 80 | 3.8 | 40 | 35 |
| STHVE-AN454K20kD | 0.45 | 90 | 295 | 9300 | 4180 | 80 | 3.6 | 40 | 35 |
| STHVE-AN504K20kD | 0.5 | 90 | 295 | 9300 | 4650 | 80 | 3.4 | 45 | 40 |

For any Capacitance, Voltage, dv/dt and Peak Pulse Discharge Current not listed, please contact us for a suggestion.