

HHC

High Voltage Fuses for Capacitor Applications

Application Range Types

The new HHA-BC current-limiting "Back-Up" rated series fuse line has been designed for optimum capacitor circuit protection for the North American market meeting requirements for indoor and outdoor usage.

Rated Voltage

The HHA-BC capacitor fuse voltage rating is equal to or greater than the maximum open circuit voltage that the system can provide across a fuse that operated clearing the fault current. An example for individual capacitor protection follows;

- System voltage 13.8kV phase – phase
- Capacitor bank "wye" or star connected with the neutral solidly grounded.
- The voltage rating of the fuse need to be equal to or greater than $13.8\text{kV}/\sqrt{3} = 7.9\text{kV}$, HHA-BC fuse rated 8.3kV should be selected.

Rated Current

When selecting the proper current rating of the fuse, the following parameters must be considered in accordance with the IEC 549 standard and IEEE C37.48b standard;

- Tolerance of capacitor apparent power, $S_n + 15\%$
- Tolerance of application voltage , $U_n + 10\%$
- Harmonic content
- Peak inrush/outrush

The HHA-BC capacitor fuse voltage ratings are available in the ranges; 4.8kV, 5.5kV, 7.2kV, 8.3kV, 15.5kV and 23kV. Different styles of mounting are available;

- Threaded, tapped both ends, 1/2" UNC or M16
- L-Bracket, both ends, one end w/50N striker, threaded, tapped other end 1/2" UNC or M16

Fuses equipped with 50N striker provides a means of determining fuse fault clearing operation visually as the striker is colored bright red, and / or by activating a microswitch assembly for remote monitoring.

- New - all capacitor fuses equipped with 50N strikers have incorporated a thermal limiter that activates the striker on overload conditions that cause the internal temperature of the fuse to exceed prescribed