



LIGHTNING ARRESTORS, INC.

P. O. BOX 750

BIG SPRING, TEXAS 79721

SURGE CAPACITOR INFORMATION

A surge capacitor is a device designed to absorb surges and/or reduce the steepness of their wave front. A capacitor is able to absorb and hold a charge of electricity, returning it to the circuit at a later time. Since the surge capacitor is always connected to the power circuit, current flows at all times. When a surge occurs, added current flows to the capacitor thereby lowering the intensity of the surge voltage. The amount of current the capacitor can absorb depends on the size of the capacitor, and the amount of voltage pushing the current.

If the surge is of a low current relative to its voltage intensity, the capacitor will absorb it. If the surge has high current, the capacitor cannot absorb it.

By contrast, our lightning arrestor takes no current from the line during normal operation. When a surge occurs, the arrestor turns on to provide a discharge path. When the surge is gone, the arrestor turns off. The arrestor will handle unlimited amount of current, although amounts exceeding 100,000 amps will generally damage the arrestor.

The main advantage of a capacitor is that there is no time delay in turning on as it always conducts. The disadvantage is that the amount of current it can handle is limited to 3000 amps, depending on the surge voltage. For this reason, an arrestor should always be installed with a capacitor to protect it from intense surges.

We offer three surge capacitors: 250 volt, single phase; 600 volt, three phase; 650 volt, three phase. An internal discharge circuit is provided. Mounting is facilitated by a pipe thread nipple at the top of the unit. The black wires connect to the circuits, and the white wire connects to a ground. The housing is made of a non-conductive cylinder. Mounting brackets are available for each model of surge capacitor at an additional charge. They may be obtained by adding the part number **MB** to the end of the surge capacitor model number.