PR TECHNOLOGIES

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EXTRA HIGH VOLTAGE POWER LINE MARKERS

Model 24EHV & Model 36EHV

Application

Power line markers warn pilots of the presence of power lines so the pilots can avoid collisions. Most power line markers are mounted on shield wires. FAA Circular 70/7460-IG recommends that "Spheres should be displayed on the highest wire". However some lines do not have shield wires so the spheres must be mounted on energized lines.

Extensive tests and experience has shown that when standard markers are mounted on energized lines above 150-200 KV, corona develops on the sharp edges of markers, developing corona severe enough to burn down the marker. The Model 24EHV and Model 36EHV extra high voltage markers were developed to operate successfully on high voltage energized power lines.

Corona

Corona is caused by electrical leakage from sharp edges on electrical equipment. It has been

established that corona can be photographed at sharp

edges on markers at around 40 KV. As voltage rises. corona leakage increases until at 150-200 KV the audible corona is severe enough to cause enough heat to burn the marker down.

EHV

The Model 24EHV and Model 36EHV markers have been developed to reduce the effects of corona leakage. The inside of the marker is coated with a specially formulated conductive coating, creating a uni-potential sphere which distributes the voltage over the whole sphere. Second, indents are molded into the marker for the bolt hole connectors so that the bolts holding the markers together are inside of the uni-potential sphere.

Suffice to say that the EHV design greatly reduces corona damage at high voltages. EHV markers have been successfully installed on lines up to 500 KV. It seldom happens that a non-EHV marker bums down at voltages as low as 135-150 KV, however it has happened, possibly due to factors as sharp edges created by hunter's bullets, bird's nests, acid rain contaminants, etc. In any event, and in order to be conservative, whenever power line markers must be installed on energized lines above 115 KV, it is now recommended that EHV markers be installed.

Models

Model 24EHV 24" Diameter

Model 36EHV 36" Diameter

Specify

Model, Line Size, Material of Line (i.e. I/O ACSR) Color of Marker (Orange, Yellow, White)