

Components of an SMD-20 Power Fuse

The SMD-20 Power Fuse consists of a mounting and a replaceable SMU-20 Fuse Unit. See pages 18 through 23 for available mounting styles.

The mounting includes a base (or mounting bracket in the case of Overhead—Pole-Top Style), insulator(s), a latch-and-upper-contact assembly, a hinge-and-lower-contact assembly, and reusable upper and lower fuse-unit end-fittings. See Figure 5.

Overhead—Pole-Top Style Mountings are offered with a choice of porcelain or—for mountings rated 14.4 kV and 25 kV only—a composite-polymer silicone insulator. Station-Style Mountings are offered with a choice of porcelain or S&C Cypoxy™ Insulator station post insulators.

Fuse-unit end-fittings are available separately, permitting users to equip spare SMU-20 Fuse Units for quick replacement.

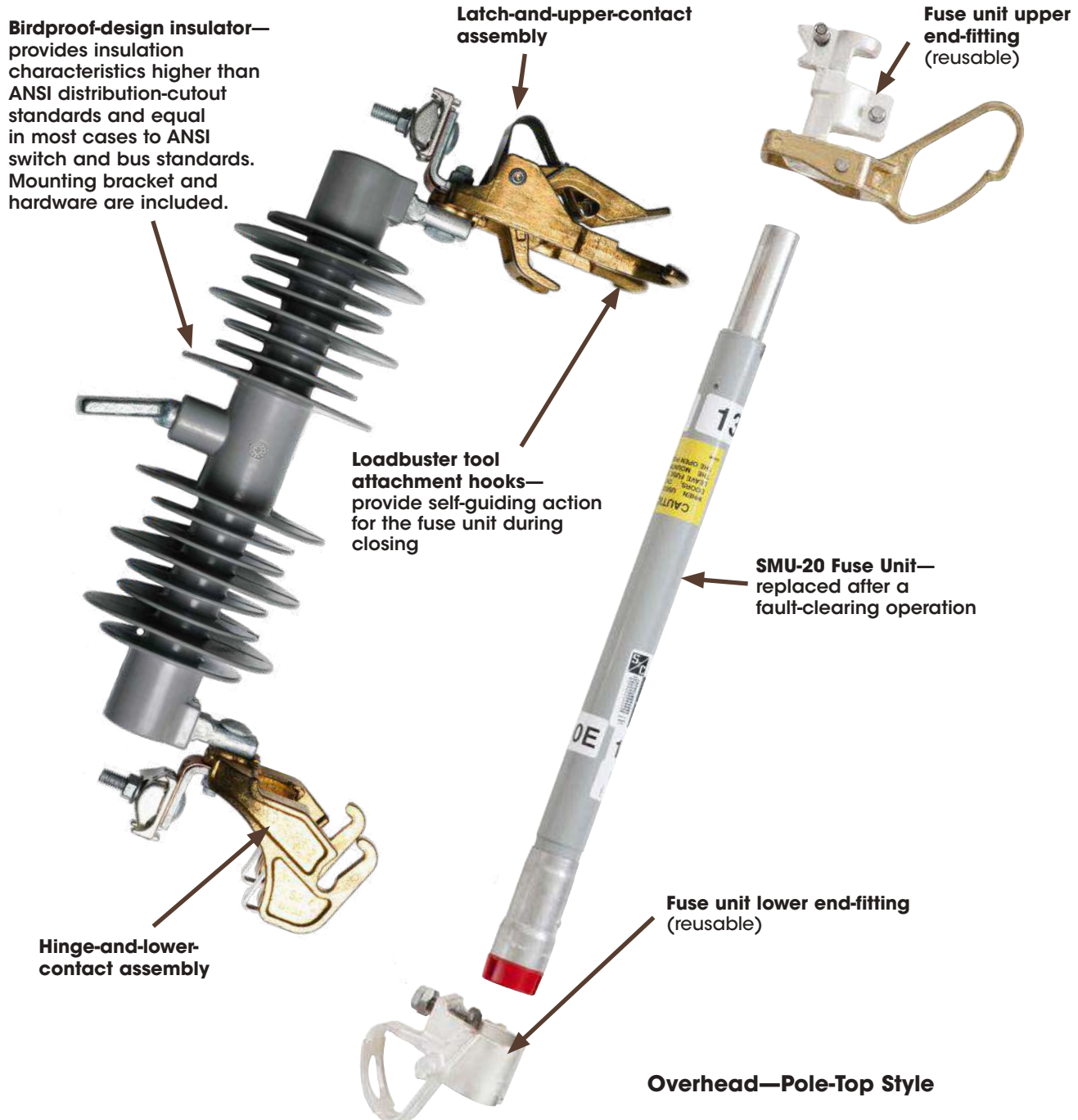


Figure 5. The components of an Overhead-Pole-Top Style SMD-20 Power Fuse.

Reliable Latching

As shown in Figures 6 and 7, the latch rides over and drops in behind the roller on the fuse-unit upper end-fitting.

The impact-absorbing action of the spring-backed contact fingers prevents the fuse unit from recoiling from the latched position during closing. The fuse unit can't drop out due to vibration or shock.

Superb Current Transfer

Superb current transfer between the SMU-20 Fuse Unit and the upper and lower contacts is ensured, even after exposure to the elements for an extended period of time.

The wiping-in, rolling-out contact design of the upper contacts results in minimal electrical resistance between the upper contact assembly and the fuse unit. As the fuse unit is closed into the upper contact assembly, silver-clad contact fingers first engage and wipe the silver-clad surface of the fuse-unit upper end-fitting. Then, during latching, as the contact fingers enter the contact detent of the upper end-fitting, a high-pressure, low-resistance contact is created by flexing of the contact fingers, with backup from the pre-stressed loading spring.

The silver-clad lower contacts feature embossed surfaces for built-in wiping action, and they are backed up by pre-stressed loading springs for efficient current transfer between the lower contact assembly and the fuse-unit lower end-fitting.

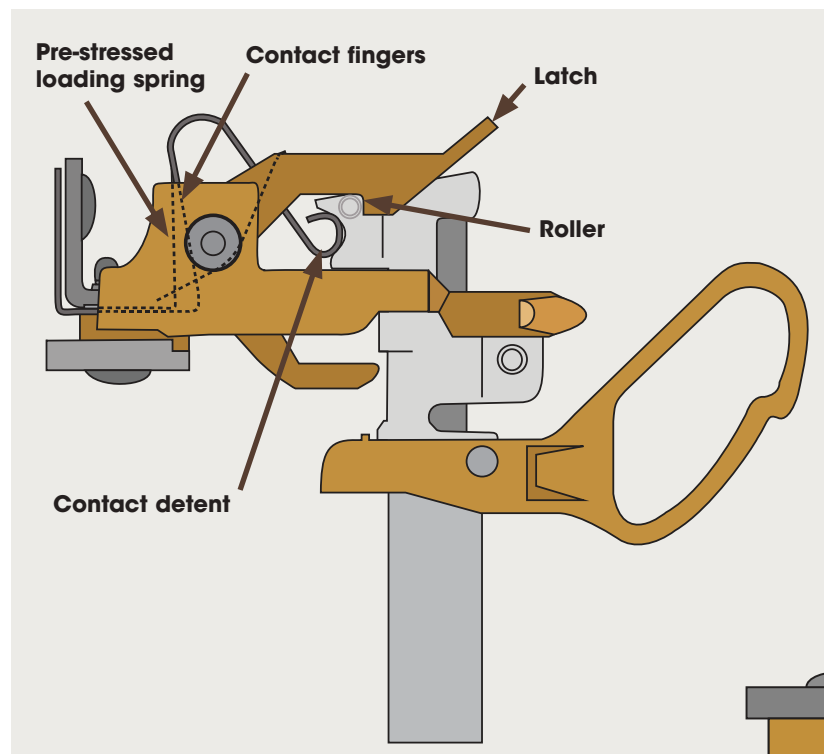


Figure 6. The latch-and-upper-contact assembly (fully closed).

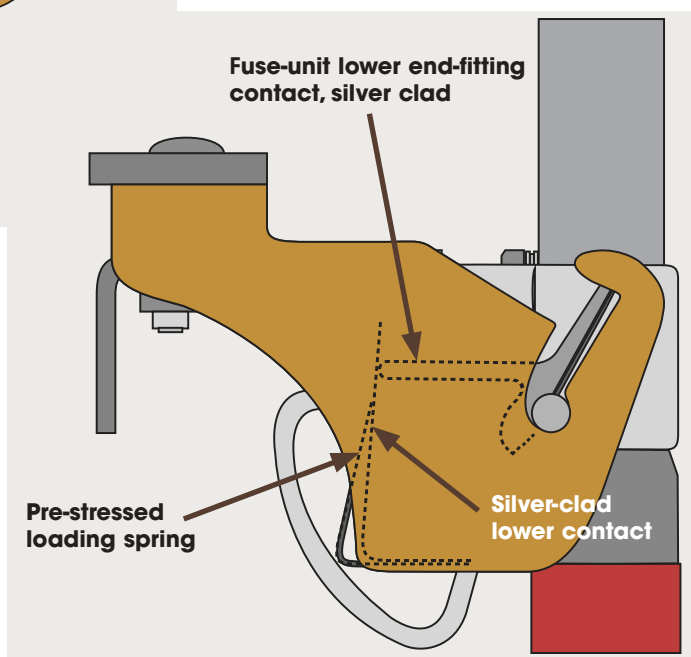


Figure 7. Lower contacts—silver-to-silver—provide a dual current path independent of the hinge pivot.