



FAQ Can PT Terminals ("Pin Terminals") be used on copper wire? Are they dual-rated?

Background

In the 1960s and 1970s, aluminum cable became available and was specified to reduce weight and cost (vs copper). The aluminum cable needed to be up-sized to maintain the required ampacity, e.g. 500MCM aluminum in place of 350MCM copper. But the existing lugs were sized for the smaller copper cable. So "PT" adapters were designed with aluminum barrel for the aluminum wire, and a reduced copper pin to fit the original lugs.

Situation

In recent years it has become common to specify an oversized copper cable to counteract voltage drop in a long cable run. Then the end of the copper cable must be 'sized down' to fit into the equipment lug or circuit breaker. To reduce a copper cable (e.g. reduce 600MCM to a 500MCM) many people first think of aluminum "PT adapters" or "MacAdapts" because they have been available for many years. This raises the question stated above.

Answer

The PT Pin Terminals serve as a transition adapter from aluminum (or copper) cable to a copper pin for insertion into equipment lugs or circuit breakers. The adapter itself is an aluminum compression barrel (to accept the wire) with a pin of Class B stranded copper cable. These PT adapters are rated for 600V and 90°C, provided with a 105 °C insulation cover, and UL Listed and CSA Certified for use on either copper or aluminum cable. PT adapters are dual-rated for installation on either aluminum or copper cable.

OTHER SITUATIONS

Adapters for Copper cable

For standard Class B copper wire, use PT-R Reduce™ Step-Down Adapters. These all-copper compression adapters provide a reduced Class B copper pin on copper cable.

For flexible, high-strand copper wire, use PT-FX Shoo-Pin™ Flex-cable Adapters. These all-copper compression adapters are recommended to install a Class B copper pin onto various styles of flexible high-strand copper cable. See data sheet or the catalog.

Reducing Splices for Copper cable

One-piece all-copper ND-R Series NECK-DOWN™ Copper Reducing Splices are for use on Class B copper cables to reduce by one or two wire sizes, e.g. from 4/0-to-3/0 or 4/0-2/0.

All-copper CRK Copper Reducing Kits can also splice (or install a reduced copper tip on) Class B copper cable, where the size reduction is extreme or when immediate availability is needed. These kits consist of a copper barrel splice and CRA adapter inserts(s).

Reducing Splices for Aluminum cable

Dual-rated one-piece aluminum compression AC-R Reducing Splices are available for moderate or extreme aluminum-to-aluminum or aluminum-to-copper reductions.

ACK kits are also available for use to splice/reduce aluminum cable to copper cable. These kits consist of an aluminum barrel splice and copper CRA adapter inserts(s).

Custom sizes

Custom sizes are available in PT-R, PT-FX, CRK, AC-R and ACK series.

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