

How to Use the UL White Book

Q I know you can use only one conductor per terminal in a wire connector on a molded case circuit breaker and other distribution equipment unless the equipment is marked otherwise; however, I can't find where it says that in the White Book. Where can I find that information in the UL White Book?

A The 2006 UL White Book is *the* Companion Tool to the 2005 *NEC*. The White Book is a very powerful reference source for the AHJ, specifier and the installer, and can be used to answer many of the questions that may arise regarding UL Listed electrical products, if you know how to use the book. Last edition of the UL Question Corner featured the Practical Application of the White Book in the Field, located on page xxxv. To answer this question, we'll walk through using the White Book to find an answer and let you follow along.

If you are looking for information specific to a type of product, in this case molded case circuit breakers, you should always start your search in the UL Guide Information for the product. The application specific product category Guide Information should be able to answer your questions, if not they will include direction on where to look for additional information.

Since we are looking for molded case circuit breakers let's look in the Index of UL Product Categories starting on page 359 in the UL White Book. We see that on page 361 there is a reference for the product category "Circuit Breakers, Molded Case and Circuit Breaker Enclosures" located on page 45 of the 2006 UL White Book. Reviewing the Guide Information on

page 45 for the product category Circuit Breakers, Molded Case and Circuit Breaker Enclosures (DIVQ), we see that there is a lot of useful information there; however, there is no information regarding more than one conductor under a wire terminal. There is a heading in the Guide Information titled "Additional Information" that refers us to Circuit Breakers (DHJR) and Electrical Equipment for Use in Ordinary Locations (AALZ).

Following those recommendations, we review the Guide Information for Circuit Breakers (DHJR) located on page 44 in the White Book and see a lot of useful information on terminations, however, not the issue of more than one conductor under a terminal. Circuit Breakers (DHJR) is the main category for all the circuit breaker categories and supplements all the sub-categories Guide Information, such as (DIVQ).

The other category for additional information is Electrical Equipment for Use in Ordinary Locations (AALZ) located on page 6. (AALZ) includes useful information that applies to all product categories for electrical equipment for use in unclassified (ordinary) locations in accordance with the *National Electrical Code*, (*NEC*). Instead of repeating this information in the Guide Information of each individual product category, UL created the (AALZ) product category Guide Information as a "Super Guide" with a reference to it in each ordinary location equipment product category Guide Information.

Let's look at the Guide Information for (AALZ) on page 6 in the White Book and let's see what information is common to all ordinary location electrical equipment. There is information on Investigation Requirements and

Standards, giving a general overview of the scope of Listing investigations and standards used for ordinary location electrical equipment.

(AALZ) includes an explanation of all the environmental enclosure types that appear in *NEC* Table 430.91 as well as other UL environmental ratings. In addition, general information on Appliances and Utilization Equipment Terminations, Distribution and Control Equipment Terminations as well as other important general information applicable to all ordinary location electrical equipment.

In (AALZ) under the heading for Distribution and Control Equipment Terminations, there is information on what type of conductors and rating of conductors can be used as well as how the terminals will be identified. There is also a subheading titled "Terminals" which will provide the answer to our question.

"Terminals — Product terminals, including wire connectors and terminal screws, are acceptable for connection of only one conductor, unless there is marking or a wiring diagram indicating the number of conductors which may be connected."

The UL White Book can be used to answer many of the questions you may have for UL Listed electrical equipment, just take a few minutes to learn how to use the book and you'll have an encyclopedia of electrical information at your fingertips.

This information can also be obtained from UL's Online Certification Directory at www.ul.com/database and entering each category code discussed above in the category code search field and click on search. The category code is the 4 letter code after each product category title such as (DVIQ), (DHJR) and (AALZ).