

Technical

Journal

If that circuit breaker bargain sounds too good to be true . . .

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The National Electrical Code (NEC) requires that branch circuit protective devices, such as circuit breakers, have approval from a recognized electrical testing laboratory and be 'listed' by that organization. Underwriters Laboratories (UL), is widely recognized as such a testing laboratory. "Molded-Case Circuit Breakers, Molded-Case Switches and Circuit-Breaker Enclosures" is the title for UL standard 489. This is the standard followed by all molded case circuit breaker manufacturers who wish to obtain a UL Listing mark for their circuit breakers to comply with the NEC. Considerable time and expense is involved in meeting the UL testing requirements.

The latest version of UL489 is the Tenth Edition dated April 25, 2002 and contains revisions through and including June 30, 2006. It is approximately 278 pages with all appendices. It is the culmination of decades of work and is intended to provide confidence that UL Listed circuit breakers are effective circuit protective devices under many different types of electrical system faults.

What does all this mean to you? These are facts that you can take for granted when you purchase UL Listed molded case circuit breakers through factory authorized channels. No one wants to pay more than they have to, everyone likes a bargain. However, circuit breakers obtained through unauthorized channels are unknowns and, worst case, could be counterfeit. Electrical circuit protection is critical, especially with modern power distribution systems where available fault currents are higher than ever. Millions of dollars of property damage are a small part of the potential cost of electrical system faults. The highest cost is the almost 1000 injuries that occur every year, and tragically, 250 deaths.

Do you want to take the chance that a counterfeit or 'refurbished' circuit breaker might not meet all 278 pages of UL489? What shortcuts did someone have to take in order to offer a 'bargain'? Loss of life, injuries, property damage, lawsuits, loss of insurance coverage, and OSHA fines are some of the potential consequences of a wrong choice.

Computerized records make it easier than ever to track electrical equipment through the supply chain. Buying from an unauthorized supplier can have minor consequences such as loss of warranty coverage for a failed part or major consequences – loss of life and multi-million dollar lawsuits.

If that circuit breaker bargain sounds too good to be true . . .

Get a true bargain – buy only through authorized channels. The peace of mind is no extra charge.