



PFIM Type B for EV-chargers

Modern and future-oriented transportation does not only affect road traffic, but also the electrical installations of today when charging stations for electric vehicles are used.

General information

With the purchase of an electric vehicle, the existing electrical installation must be evaluated so that the installed equipment and vehicle meets the necessary protection level to provide personal protection. It must ensure that any fault in the installation can be detected and handled accordingly.

According to the standard, the charging stations or “wall boxes” must be provided with a residual current device that can detect DC currents. The solution here is to install an Eaton’s PFIM Type B all-current-sensitive residual current circuit breaker.

Why type B?

DC residual and leakage currents must be expected during the charging process of an electric vehicle. Residual currents carry an enormous safety risk for life, equipment and the vehicle. Leakage currents are caused by line filters of the charging electronics of the charging station in the wall box or the electric vehicle. These currents cannot be detected or will affect a conventional RCCBs and may even hinder correct tripping.

Many charging stations have a built-in residual current detection for DC currents on board, which is sufficient according to the standard. However, the flood of new electric vehicles and the further development of the charging electronics of these vehicles can cause the wall boxes and charging stations, available on the market, to trip incorrectly. Nobody wants to wake up the next morning with an “empty battery”!

Eaton is not relying on a solution that meets the standard, but is focused on the highest safety levels and the future-oriented electrical installation!

Advantages of the PFIM type Bfq

Eaton’s PFIM type B meets the highest safety standards when used for fault or additional protection and achieves the highest accuracy through its digital detection, thus preventing unwanted false tripping and ensuring maximum system availability. Furthermore, the electrical installation is ready for the future.



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