

Electromagnetic releaseAbstract

An electromagnetic drive is described which is particularly suitable for a residual current circuit breaker. The said drive has a plunger (20), which is loaded by a spring (23) in the release direction, a permanent magnet arrangement (15), a coil (13) and a yoke (11, 12), the coil (13) generating in the yoke (11, 12) a magnetic flux opposed to the permanent magnet arrangement (15) when it is driven or released, so that the spring force overcomes the attraction force of the permanent magnet arrangement (15). The permanent magnet arrangement (15) and the pole shoe (14) conducting the magnetic flux to the plunger (20) are assigned to the yoke (11, 12) and the plunger (20) in such a way that, in a first position, the plunger (20) is located in the active range of the permanent magnet arrangement (15) and of the pole shoe (14) and, in a second position, is located at least partly in the active range of the pole shoe (14). Thus, in a first position, both the magnetic flux of the coil (13) and that of the permanent magnet arrangement (15), the latter at least partly, run through the plunger (20) and, in the second position of the plunger (20), a closed magnetic circuit is formed by the yoke (11, 12), the plunger (20), the pole shoe (14) and the permanent magnet arrangement (15). This achieves two advantages: firstly, the working point of the permanent magnet arrangement (15) is maintained even in the release position, that is to say the second position, and, secondly, the permanent magnet arrangement (15) can be magnetized by means of the coil (13).

Significant figure: Fig. 3

This Sheet Has Been Replaced

