

SPD installation in conjunction with RCD protected circuits

An SPD installed on the load side of RCD produces a current spike during switch-on which is sufficient to trip the RCD. Regulation 534.2.6 requires the use of RCDs that will withstand a 3 kA 8/20 μ s pulse – see Fig 1. There are 2 possible solutions: Note 1 in the Regulations assumes that it is safe to use a selective RCCB e.g. Selective RCCBs cannot be used on circuits requiring 30mA protection.

Type S RCCB: see clause 534.2.6 Note 1

Selective or time delayed RCCB's are normally used in applications where RCDs have to be connected in series to achieve discrimination between upstream and downstream devices. They should have an immunity to transient wave forms <5kA 8/20 μ s and therefore are suitable for use with SPDs.

Type KV RCCB: see clause 534.2.6. Note 2

These RCCBs have an immunity to surge currents <3kA 8/20 μ s and a response delay of 10ms and can be manufactured with 30, 100, 300 and 500mA trips. These devices are suitable for use in applications involving SPDs, where a Selective RCCB would not meet the disconnection times, required under the IET Wiring Regulations.

Chaz Andrews - Technical Manager

Doepke UK Ltd.

Tel: 01628 829 133

email: sales@doepke.co.uk

Web: www.doepke.co.uk

