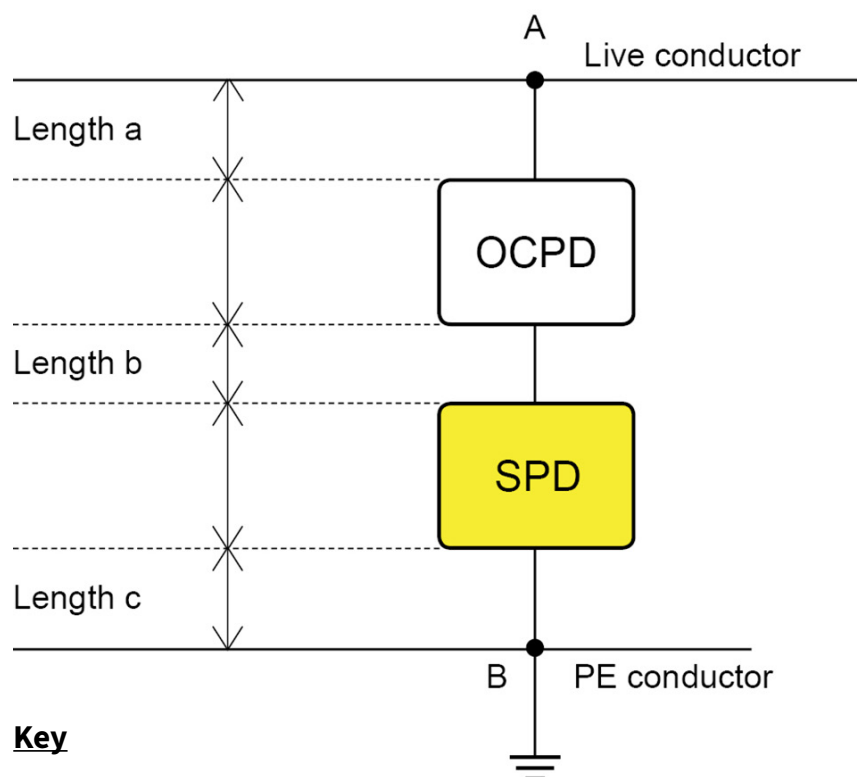
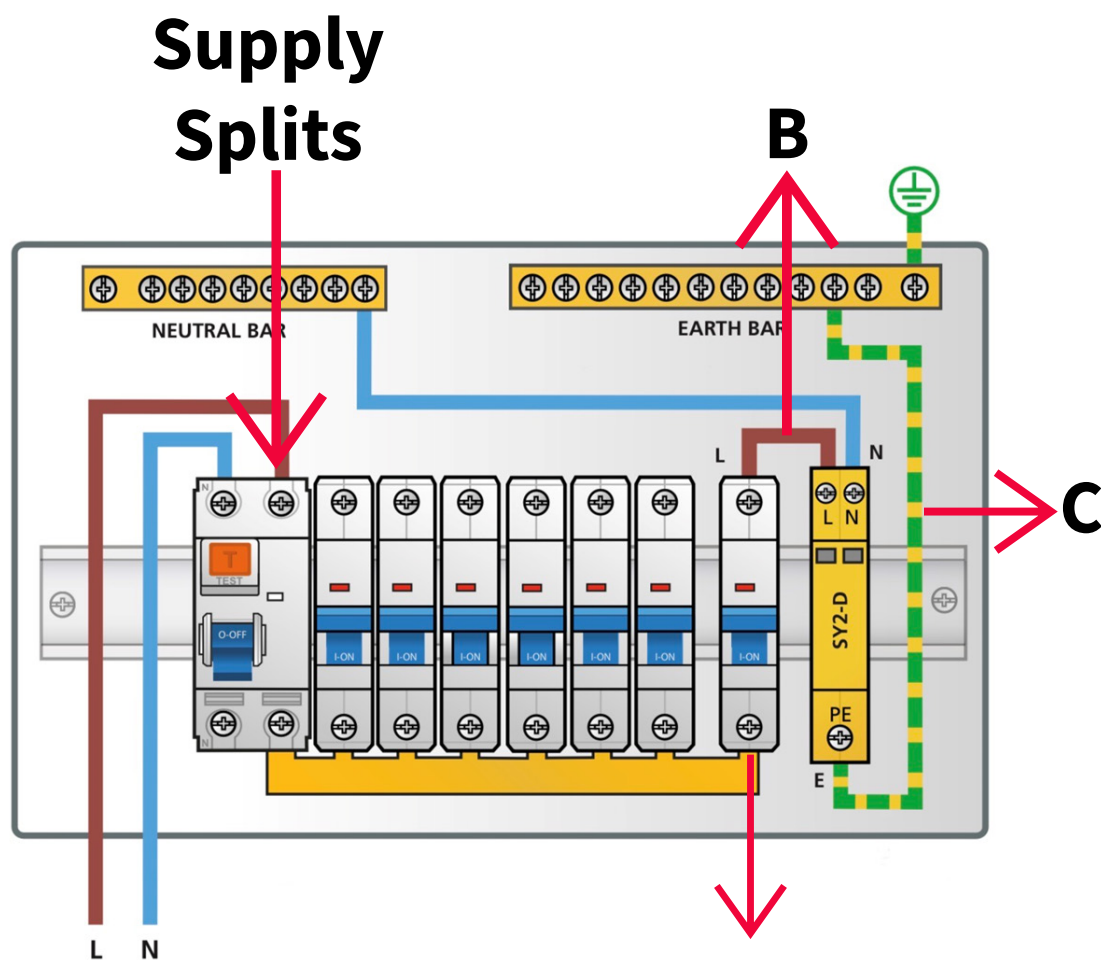


EXPLANATION SHEET CABLE LENGTHS



BS 7671: 2018 534.4.5.1:

SPD installations shall be protected against overcurrent with respect to short-circuit currents. This protection may be internal and/or external to the SPD according to the manufacturer's instructions.



Key

- OCPD** – Overcurrent Protection Device (MCB)
- SPD** – Surge Protection Device
- PE** - Earth
- A and B** – Connection Points of the assembly

If the live conductor is attached directly to the OCPD using a busbar, Length A=0

Explanation

A = 0

We have 3 lengths A,B & C. When these are added together the length should not exceed 1 meter.

Length A is from where the supply splits, so if in a consumer unit, Length A would start at the main switch (where the supply splits to feed to circuits) If we are working with a henley block before the consumer unit, then Length A would start at the henley block. This is then measured to the MCB supplying the SPD. If the MCB is on the busbar, like above, Length A =0, because we are only including cable.

Length B is from the MCB to to SPD, so in a consumer unit is very short, but can be longer if the device is in an enclosure. If it is a three phase installation , so three cables from the MCB to the SPD, it is still only measured once, so just the length of one of the cables becomes length B.

Length C is from the SPD to the closest earth point. In a consumer unit, this would be the earth bar, in a larger installation, it can be bonded to the metal enclosure (which is then earthed back) but we only count the length of cable from the SPD to the closest earth bond.

The Neutral cable is not included within the calculation.

For more information, including images and further explanation, please see our installation guide which is available on our website:

www.surgedevices.co.uk
Or by scanning the QR code:

