

Assemblies with Interlocked Socket Outlets for the Construction Sector

BS 7375 is the British Standard covering the Distribution of Electricity on Construction and Demolition Sites. Its origins date back over 50 years to Code of Practice CP1017, which was a ground breaking British Standard that helped to spearhead the use of 110V on construction sites. One of the Standard's lesser known requirements is the use of interlocked mains voltage sockets at currents above 32A and those requirements still exist in BS 7375 and also in the Tunnelling Standard, BS 6164.

The requirement for interlocked sockets at 63A and above stems from the risks associated with operatives inserting or withdrawing high current plugs on load. Removing the risk of this practice was and still is seen by many as a safety essential. Some users also require the use of interlocked sockets at ratings of 16A and 32A. In craft workshops and educational establishments, or where operatives are classified as "ordinary persons", this can also extend to the use of interlocked sockets at 110V.

Most interlocked sockets incorporate mechanical switches but interlocking can also be achieved electrically and this approach utilises the pilot pin that is incorporated into 63A and 125A plugs and sockets. Electrical interlocking can be at extra low voltage and allows the use of standard 63A and 125A panel mounted sockets, which significantly reduces space requirements. However, plugs need to incorporate a link between live and pilot or pilot and earth (depending on the system adopted), which can complicate matters on site and is one of the reasons why mechanically interlocked sockets are more common.

As equipment designers and manufacturers, the incorporation of interlocked sockets can be quite challenging, particularly above 32A rating and especially so at 125A. The attached images show various site distribution assemblies fitted with 63A and 125A mechanically interlocked 400V sockets. As you can see, we are able to adapt our designs in various ways to meet different customer requirements.

We also offer a standard range of Mains Distribution Assemblies with incomers rated up to 250A, fitted with 16A, 32A and 63A socket outlets. Where 63A sockets are fitted, these are available with mechanical interlock, in order to meet with the requirements of BS 7375.

Our Safelink series of standalone, RCD protected combination sockets rated from 16A to 125A are available with mechanically interlocked switches and are widely used by construction and other industries.

If you have a requirement to provide single or multi-outlet assemblies with interlocked sockets, please contact the Blakley Projects Team who would be pleased to discuss requirements.



A7293017 Power Cluster with 250A incoming switch and 1 x 125A and 2 x 63A interlocked sockets



A7040225 125kVA Tunnel Transformer fitted with 1 no. 125A and 1 no. 63A interlocked socket



A7085039 Double-sided 400A MDA fitted with 3 x 125A and 6 x 63A interlocked sockets