

Interlocked Socket Assemblies with RCD Protection

Most RCD protected combination sockets are single gang assemblies, housed in moulded enclosures and fitted with non-interlocked sockets. However there are some installations where the standard format just doesn't tick all of the boxes.

On a recent project the Blakley team designed and produced a family of combination sockets rated at 16A and 32A, in voltages of 110V, 230V and 400V. All were housed in substantial steel enclosures, which provided a high level of mechanical protection and also allowed ample room for terminating incoming cables with a large cross section. Some assemblies featured twin socket outlets and all assemblies incorporated sockets with mechanical interlock, which prevents insertion or withdrawal of plugs on load. All assemblies, including those rated at 110V, incorporated 30mA sensitivity RCD protection. The twin units featured 16A and 32A sockets fed from a common 32A source and a 16A double-pole MCB within the enclosure provided overcurrent protection for the 16A socket.

In line with most industrial Blakley products, the assemblies are designed to meet the requirements of BS EN 61439-2, although the combination of interlocked sockets to BS EN 60309, RCCBs to BS EN 61008 and MCBs to BS EN 60898 enables the assemblies to meet with the requirements of BS EN 61439-3 and can be classified as a DBO i.e. a distribution assembly suitable for use by Ordinary Persons. The assemblies can therefore be safely used by operatives with no electrical knowledge or training or by members of the public.

The supply to the 110V sockets is classified as Reduced Low Voltage (RLV), which is defined in BS 7671 and restricts the maximum voltage to earth to 63.5V. In this instance the transformer winding was of single-phase design, which results in a maximum line to earth voltage of 55V from either leg of the secondary winding. The transformer was rated at 20kVA and based on our TDC series, which is a composite unit combining a double-wound transformer with a double-pole MCB distribution arrangement. For further information on RLV systems, please refer to Tech Data Sheet TDS10.

If you have a requirement for combination sockets that may be used by Ordinary Persons or need to meet some other specific installation requirement, please contact the Blakley Projects team who will be pleased to be of assistance.



Single and Twin Interlocked Socket Assemblies, 16A and 32A, in Voltages of 400V, 230V and 110V



A7340190 (32A 400V) and A7340237 (16A 230V)
Combination Socket Assemblies



A7340187 (32A and 16A 110V) and A7340189
(16A 110V) Combination Socket Assemblies



A7030972 Transformer Distribution Cubicle
20kVA rating, 400:110V, 24 no. DP Outgoing Ways