

Insulated Power Clusters with Interlocked Sockets, IP66 and IP44

Our extensive range of standard multi-outlet Power Clusters is offered in ratings of IP44 and IP55, utilising steel enclosures fitted with non-interlocked sockets to BS EN 60309-2, rated at 16A, 32A and 63A, in 230V and 400V. Power Cluster Plus assemblies are similar but also incorporate RLV transformers to provide a local source of 110V power.

On a recent project the requirement was for all-insulated Power Clusters with ingress ratings of IP44 and IP66. In addition, the sockets had to be switched and interlocked, as the assemblies were to be installed in locations where they may be used by Ordinary Persons (interlocked sockets prevent untrained users from inserting or withdrawing plugs on load). An assembly with interlocked sockets satisfied the need to meet BS EN 61439 part 3 requirements; with non-interlocked sockets the assemblies would only meet the requirements of BS EN 61439 part 2, and should not be used by an Ordinary Person (as a minimum, an operative would need to be an Instructed Person).

As with all Power Clusters, each assembly had a single supply, which terminates in an incoming main switch. Larger assemblies have a 100A 4P incoming switch and the smaller assemblies have a 63A 4P incoming switch. Different combinations of sockets were required, in ratings from 16A 3P 230V to 63A 5P 400V. Some single way socket outlet assemblies were also provided.

Each socket was protected either by an MCB / 30mA Type A RCD combination, or by an RCBO. All switchgear was located behind a hinged, lockable cover, which does not need to be opened in normal operation, as each socket has its own external ON/OFF switch. Individual sockets were labelled with the instruction to insert a plug before rotating the associated switch, and to turn the switch to the off position before removing the plug. Each socket switch also has the facility to be padlocked in the OFF position.

All outer enclosures are rated to IP66 and have an impact rating of IK08, which makes them suitable for installations where there is a reasonable risk of impact (a 1.7kg mass dropped from 300mm). Enclosures incorporate multiple cable entry points across the top and the base.

Insulated Power Clusters with interlocked sockets are a made to order item. If you would like to discuss a requirement, please contact the Blakley Projects team, who would be pleased to be of assistance.



100A incoming switch fitted with 1 x 63A, 32A and 16A 400V socket and 1 x 32A and 16A 230V socket.



Insulated Power Clusters with 63A main switch feeding combinations of sockets, and a single socket