

Generator Connection Unit up to 800 amps Rating

The Blakley Projects Team were recently involved in developing a Generator Connection Unit (GCU) for a major infrastructure project. The requirement was for the GCU to be located on the outside of a building with the load side permanently wired to one side of a changeover switch located within the building (the other side of the switch was connected to the mains supply). The supply to the GCU had to be plug-in with the connectors compatible with those fitted to the stand-by generator. There was also a requirement for access to the incoming plug-in connections to be "controlled", in order to prevent unauthorised disconnection or other interference.

The resulting GCU had an overall current rating of 800 amps and was housed within a robust, purpose built, IP55 rated, sheet steel enclosure with a high quality, outdoor duty paint finish. The lower section of the enclosure had a side hinged, padlockable door, behind which were located a set of 5 no. single-pole, panel mounted, IP67, powerlock "drain" connectors rated at 800 amps. The powerlock connectors were colour coded Brown, Black, Grey, Blue and Green and individually keyed, so that they only accept a matching "source" connector from the generator. Once the cable mounted source connectors have been mated with the panel mounted drains, the door can be fastened shut and padlocked if required. The supply cables pass through an opening in the underside of the enclosure and caps are available for the single pole connectors when they are not in use.

The upper section of the GCU is segregated from the lower section and has a screw-fixed front cover. The section incorporates a set of heavy duty, outgoing, copper bar terminals, which are directly connected to the powerlock single pole connectors. The upper section incorporates a removable gland plate at the top of the enclosure and one to the rear, giving the installer maximum choice.

GCUs can also be fitted with powerlock connectors rated at 500 amps. In addition, sequentially interlocked powerlocks rated at 500 amps or 800 amps can be incorporated, which require the earth to be mated first followed by neutral, L1, L2 and L3. To disconnect the supply the sequence is reversed with the earth being removed last.

If you have a requirement for a Generator Connection Unit, please contact the Blakley Projects Team, who would be pleased to discuss your requirements in detail.



S070075 - Generator Connection Unit, 800A



S070075 - Generator Connection Unit Door open giving access to powerlock connectors. Image shows the earth "source" connected.



Optional sequential powerlocks where connectors must be connected / disconnected in sequence (earth is first in and last out)