

## Automatic Changeover Assemblies for Rail Signalling

Standard Blakley AMF and ATS automatic changeover assemblies incorporate pairs of contactors or ACBs controlled by a Deep Sea Electronics controller. The Deep Sea device is very flexible and can be configured on site, which is useful if the exact characteristics of the generator, or any other aspects of the installation, are not completely finalised at the time of supply.

However, when exact requirements are known, or if the requirements are outside the scope of the Deep Sea device, we can produce automatic changeover assemblies with bespoke control circuitry. Some examples of such assemblies were recently supplied to a Rail Signalling Project, where the automatic changeover assemblies had to be designed and manufactured to meet the strict performance requirements of the installation.

The assemblies in question were rated at 63A, 100A, 150A and 200A, with some designed to operate on 400V supplies and some to operate on 650V. The bespoke enclosures had to provide protection to IP54 with bottom cable entry and exit. Suitable pilot lights and control switches were fitted to the main door, enabling the availability status of the different supplies to be determined and to facilitate easy manual changeover or override.

The changeover parameters were developed with the client, who wished to maintain a degree of manual control but with the priority of ensuring as far as possible that the load was provided with a supply at all times. In normal operation, if the mains supply was lost for more than 3 seconds, the panel switched source, automatically, to the stand-by generator. The source remained on the stand-by generator until a manual key switch was operated, which returned the source to the mains. However, if the generator supply failed for any reason (such as running out of fuel) and the mains was available, the source automatically switched back to mains i.e. without the need for manual intervention. The pilot lights and control switches fitted to the front of the panel clearly show the source that is feeding the load and the availability of mains power. The assemblies also incorporated phase failure protection, under voltage / over voltage protection and an Emergency Stop button.

If you have a requirement for an Automatic Changeover Switch assembly and would like to discuss the merits of using a standard controller or developing bespoke circuitry, please contact our Projects Team who would be pleased to assist.



Automatic Changeover Assembly,  
200A, 400V



Automatic Changeover Assembly, 150A,  
650V, Single-phase, Shield Plate Removed