

CASE STUDY DATA SHEET

Assemblies Incorporating 500A and 800A Single Pole Connectors

When a stand-by generator or a piece of heavy plant needs to be connected in a hurry, the use of very large, multicore, flexible cables fitted with multipin connectors is often impractical due to the weight and bending radius of the cable and the size of the connectors. An alternative solution is to utilise single-pole (SP) connectors (one each per phase, neutral end earth), which are available in ratings of up to 800A. Although single-core cables at this rating are still substantial, they are very much easier to handle and manipulate than the equivalent multicore cables.

- SP connectors are rated to IP67 and are supplied in male (drain) and female (source) formats, with panel mounted and cable mounted options. Rubber caps are available to protect connectors from moisture, dirt and abrasion (when uncoupled).
- They are available in ratings of 500A and 800A with cable acceptance of up to 300mm².
- SP connectors are keyed to prevent cross connection and colour coded for easy identification (usually Brown, Black, Grey, Blue and Green). Other colours are also available (Red, Yellow, White).
- SP connectors are finger proof to IP2X and have locking mechanisms to prevent accidental disconnection under load.
- Suitable for voltages of up to 1000V AC and short-circuit currents of up to 35kA.

We have incorporated SP connectors in to a range of specialist assemblies, including: (i) simple surface mounted intake panels, which are fitted to buildings and provide the means to connect a stand-by generator; (ii) manual changeover switch assemblies with hard wired mains connections and SP connectors for a generator connection; (iii) high IP rating distribution assemblies with auto changeover arrangements and multiple outgoing circuits both hard wired and plug-in; (iv) GMDA series ground mounted distribution assemblies incorporating SP connectors, to feed outdoor events, etc., in the Public Realm.

All of these assemblies are made to order and the Blakley Project team would be pleased to discuss any requirements.



500A TP+N+E SP Inlets for connection to a stand-by generator



2 no. sets of 500A TP+N+E SP Inlets for a military distribution assembly



Free-standing, 800A Distribution Assembly in a Crash Frame with 2 no. sets of 800A 3P+N+E SP inlets on the incoming side feeding an Auto Changeover arrangement, supplied via 2 no. generators (duty / stand-by)



1 set of 500A SP outlets, 3P+N+E, mounted within a GMDA series ground mounted distribution assembly



Cable mounted 800A SP connectors fitted to 300mm2 single core flexible cable



6 no. sets of 500A SP inlets, 3P+N, providing a stand-by supply for a bus bar trunking system rated at 2400A

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