

Dockside Service Unit, 1600A Rating, Supplied in a GRP Outer Housing

Although many of our products are designed for temporary installation (albeit often long term), we also make a range of products for permanent outdoor installation. One of the most demanding installation locations is a Dockyard, where Dockside Service Units (DSUs) provide power whilst ships and other vessels undergo refit. DSUs are usually located on the quayside and are exposed to the full force of mother nature. On a recent project, a dockyard required a quantity of 4 no. IP55 DSUs to be housed within heavy duty, outer GRP housings. The complete assemblies were mounted on skid bases, enabling DSUs to be moved by fork lift to multiple locations around the yard.

The internal equipment of the DSUs comprised of a custom built, standalone, IP55 switchboard fabricated from grade 304 stainless steel with a painted finish. The switchboard incorporated an incoming manual changeover arrangement comprising of a 1600A mains incomer (hard wired) and a 630A generator incomer (connected via Powerlocks). The two incomers were key interlocked to prevent simultaneous closure.

The distribution arrangement provided a mixture of hard wired and plug-in outgoing ways. The outgoing MCCBs for the hard wired circuits were housed in segregated compartments with each device protected by a Blakley Electrics MRCD series variable RCD. Each MCCB supplied a dedicated termination chamber with a key lockable, side hinged shield plate. Each shield plate and its MCCB were key interlocked so that the chamber could only be opened when the associated supply MCCB was in the OFF position (which allowed the key to be released from the MCCB). Similarly, the key could only be released from the shield plate when it was closed and locked shut. Only then could the key be removed and the associated MCCB closed, which trapped the key in the MCCB.

A series of CBRs (MCCBs with variable RCDs) supplied an array of switched and interlocked sockets rated at 125A, 63A and 32A. As well as surge protection, phase indicators and panel heaters, the switchboard was configured to connect to a site-based SCADA system via a fibre optic link, providing management with key data such as the status of each breaker and total power usage. UPS backup was also provided.

The switchboard was mounted on a heavy duty base, which incorporated cable entries and fork lift pockets. The base also supported the heavy duty "outer" GRP enclosure with double access doors. An internal light was also fitted.

If you have a requirement for Dockside Service Units or similar, please contact the Blakley Projects Team, who would be pleased to be of assistance.



DSU part no. A7293182 comprising of an IP55 stainless steel enclosure mounted within a heavy duty GRP outer enclosure.



DSU part no. A7293182, switchboard doors open, all shield plates in place.



Inner switchboard of DSU part no. A7293182 prior to outer GRP enclosure being fitted. All shield plates removed.