

Field Power & Lighting for the UK Military

When the UK Military deploys in the field, there is a significant requirement for power and lighting equipment. Systems need to be quick to install, scalable, safe and easy to use, ruggedly constructed, provide power for many different types of user and be re-usable with minimal maintenance.

Blakley Electrics has been a major supplier of power and lighting equipment to the UK military since the 1990s. Primary distribution assemblies are located outdoors and comprise of heavy duty, steel cased, free-standing assemblies rated up to 3200A, capable of accepting mains power from Host Nations or locally generated power from military or industrial generator farms. A series of steel cased plug-in sub-distribution assemblies distribute power around camps, providing 400V, 230V and 110V and these feed all-insulated, final distribution assemblies within shelters. For special locations, final distribution assemblies can incorporate supplementary earth connections with earth bars visible through windows.

Developments in Design

Although the designs of these assemblies are well established, in recent times additional optional features have been added. Larger distribution assemblies can incorporate sturdy crash frames to reduce damage in use and in transit. Surge protection devices can be deployed to protect sensitive equipment from lightning strikes and other voltage spikes. Due to the widespread use of 230V equipment within shelters, higher current internal units have been introduced (rated up to 125A). Free standing, Automatic Mains Failure panels rated up to 800A have also been developed to back-up critical supplies.

Overleaf are additional images of updated products, including LED based shelter lighting.



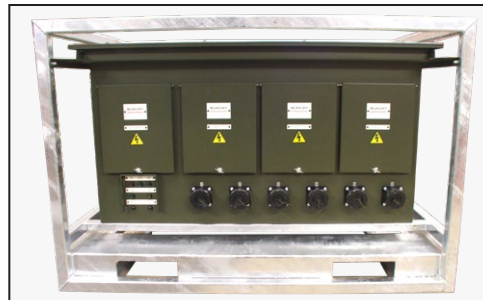
IDA series Final Distribution Assemblies housed in all insulated polypropylene enclosures. For special locations, some assemblies incorporate supplementary earth connections.



Automatic Mains Failure Assembly, rated at 800A, free-standing with protective crash frame



Distribution Assembly, rated at 800A, free-standing with protective crash frame, RCD protected sockets



Generator Interface Unit with protective crash frame, accepts supplies from 3 no. 40kW FEPS generators



Generator Interface Unit supplied from military FEPS generators, fitted with protective crash frame and RCD protected industrial sockets

Experts in **high performance**
power and lighting products

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Shelter Lighting

In addition to distribution equipment, Blakley Electrics also supply internal shelter lighting, utilising our unique Flori-67 3 pin or 4 pin plug-in lighting supply systems.

Flori-67 4 pin

Where fittings incorporate integral battery back-up to provide maintained emergency lighting, supply systems should be based on our Flori-67/4P 4 pin lighting system. The 4 pin variant of Flori-67 allows all fittings (especially emergencies) to be switched off without discharging batteries. The 4 pin system enables lighting arrays or tubes to be switched off, whilst maintaining an unswitched supply to the battery back-up system within each luminaire. Emergency fittings can also incorporate battery isolation switches, to prevent batteries from discharging whilst camps are being transported and built in the field.

Flori-67 3 pin

Flori-67 3 pin is widely used in LAPDS and in the new Field Lighting Festoon Kits. It utilises a 3 core cable and is usually used when fittings do not incorporate integral battery back-up, as it is not possible to switch off the supply to tubes or lamps without causing the battery back-up to discharge.

LED Luminaires

The latest developments in LED technology enable light levels in shelters to be raised and load levels to be lowered. LAPDS shelter lighting has always utilised 5' fluorescent luminaires. However, today, high output LEDs mounted within compact 2' luminaires can be supplied. Such LED arrays are rated at 67W and have an output of 8340 lumens, with an opaque diffuser to reduce glare. Fittings can also incorporate red and white LED arrays and the colour of array can be selected from remote lighting control assemblies. LED luminaires can be used in conjunction with Flori-67 3 pin or 4 pin, although fittings with integral emergency back-up should only be used with Flori-67 4 pin, unless the emergency lights are left on 24/7.

If you would like further information on shelter lighting, please contact the Blakley Project Team.



600mm 67W IP65 LED Luminaire



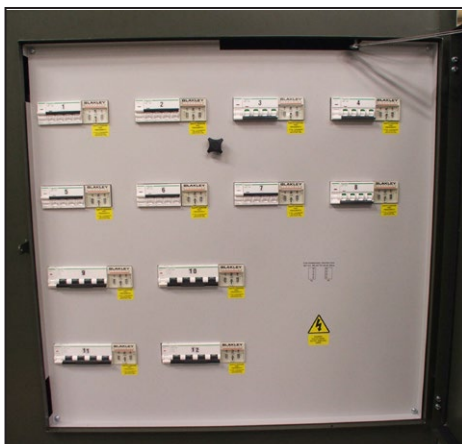
Emergency LED Luminaires with 4 pin Adaptor



V Formation of LEDs to Maximise Light Spread



FEPS-LAPDS Generator Interface Unit enabling 3 no. 40kW FEPS generators to supply 7 no. 63A industrial socket outlets with RCD protection.



Free-standing, 800A rated, distribution assembly, mounted within a crash frame, fitted with 4 no. 125A sockets and 8 no. 63A sockets, individually protected by 4P MCB with variable time and current RCD protection



FEPS-LAPDS GIUs incorporate complex input interlocking circuitry, surge protection devices and variable time and current RCD protection.