

# Industrial Building Services Industry Focus









Protection



**Transformers** 



Site Lighting



### **Equipment for Industrial Building Applications**

Blakley Electrics designs and manufactures a wide range of standard products for the Building Services sector.

Our standard Building Services products are targeted at industrial projects, often where there is a requirement for a high IP rating or a heavy duty construction. We produce products for 110V, 230V and 400V applications.

Many standard products are held in stock at our Customer Service Centres and other products are made to order. Certain items can be ordered on line and enquiries can be forwarded to us from the website for standard or non-standard equipment.

Detailed product information, including general arrangement drawings, product data sheets, FAQ sheets, etc., can also be found on our website: www.blakley.co.uk

In addition to the standard products shown in this publication, we also manufacture variations to meet specific customer requirements. Typical variations are: uprated IP ratings, specific dimensional requirements, enclosures fabricated from stainless steel, special voltages and voltage ratios, etc. We are always happy to discuss requirements for non-standard equipment.

If you cannot find the product you are looking for or would like to discuss any aspect of our equipment, please contact our Customer Service Centres who will be pleased to assist.





### Distribution Boards IP55/IP66 Power Clusters





Power Cluster Assembly incorporating 400V, 230V and 110V sockets



SP Assembly incorporating 230V, 110V and optional 24V sockets

We manufacture two ranges of three-phase distribution board: one provides ingress protection to IP55 and the other to IP66. Incomers are 4 pole and are available in current ratings of 125A, 200A and 250A. On the outgoing, 4W, 6W, 8W, 12W, 16W or 18W TP&N Schneider pan assemblies are incorporated.

Multi-service distribution boards are also available, which combine a pan assembly with unequipped DIN rail, allowing customers to fit their own control or protection devices to the DIN rail.

Where a high number of outgoing MCBs and control devices are to be fitted, extension chambers are available, which can be fitted to the top or bottom of a board. Meter chambers are also available, which incorporate a pre-wired kWHr meter, enabling the load drawn from the board to be measured. Spreader boxes and rain canopies also form part of the standard range.

Single-phase boards are also available with ingress protection of IP55 or IP66. Incomers are rated at 125A with 10, 14 or 18 no. outgoing SP ways.

110V MCB boards are also available with ingress protection of IP55. Incomers are rated at 100A with 6, 8 or 10 no. outgoing ways.

#### **Power Clusters**

Power Clusters are factory built assemblies and incorporate a combination of 400V, 230V and 110V socket outlets, plus the associated switchgear and transformers, all combined within a composite assembly, fed from a single supply. The installation of a Power Cluster, fed from a single supply, can result in a substantial reduction in on-site labour hours and material cost.

In addition to the standard range of Power Clusters, we are also able to produce a wide range of non-standard Power Clusters, which can incorporate 24V and 50V sockets as well as different combinations of 400V, 230V and 110V sockets.

We also produce a range of SP Assemblies, which are similar to Power Clusters but are designed to be fed from a 230V supply and feature 230V and 110V sockets only, with the option of 24V sockets. IP20 and IP55 versions are offered.

Separate data sheets are available on the website for Power Clusters and SP Assemblies.



### Industrial RLV Transformers Protected Sockets





TLW series transformer assembly c/w 16A 110V sockets







Safelink series RCD and ME Protected Sockets, 230V and 400V, 16A to 125A

110V Reduced Low Voltage (RLV) has been used by the UK construction industry for many decades, to improve the safety of operatives using electric tools and machinery on site. The safety benefits of supplying equipment at RLV has lead many non-construction organisations to adopt 110V, to supply power tools in Production Areas, Plant Rooms and Workshops. Tech Data Sheet ref. TDS10 describes the theory behind RLV systems and a copy can be downloaded from our website. The source for a 110V RLV supply is usually provided by a step-down, double-wound transformer. Transformers can either be fitted with socket outlets or they can be fitted with MCBs or fuses to feed remote sockets.

#### **Transformers with Integral Sockets**

We supply wall mounting transformers fitted with different combinations of 110V sockets. Transformers incorporate overcurrent devices to protect the winding and the load circuit.

#### Transformers to Feed Remote Sockets

The TDC series combines a transformer with outgoing double-pole MCBs. TDCs are available in ratings from 2kVA to 10kVA and can be supplied in wall mounting or floor standing enclosures. We also supply a range of 110V surface sockets with or without RCD protection.

#### Protected Sockets, 200V & 400V

Our comprehensive range of Safelink RCD protected sockets incorporates outlets to BS EN 60309-2, in ratings from 16A to 125A and in voltages of 230V or 400V. Standard options include:

- RCD Protection Only
- MCB & RCD Protection
- Mechanical Interlock to prevent insertion or withdrawal of plugs on load
- Monitored Earth Protection
- Ingress Protection to IP44 or IP67

Standard RCD protected sockets are housed in all insulated enclosures but many models can be offered in steel enclosures. For special applications, we are also able to offer sockets with variable RCD protection.

To complement our Transformer and Safelink ranges, we also supply surface sockets and plugs to BS EN 60309-2, at 110V, 230V and 400V. Details can be found on our website.



## In-Ground Assemblies Pillars



In-Ground assemblies were originally developed to supply market stalls, which are often located in municipal car parks. Over the years the range has expanded and we have made In-Ground assemblies for aircraft hangars, sports venues, the grounds of stately homes and many different parts of the public realm. We offer three types of standard assembly:

- · GDA series with galvanized lift-out lid
- · GMDA series with galvanized hinged lid
- GIFA series with infilled lid (lift-out or hinged)

All three designs allow the lids to be lowered once plugs have been inserted into the sockets, which avoids creating a trip hazard.

A major benefit of assemblies with hinged lids is that sockets are "easy access" i.e. they are above ground when the lids are open, which makes inserting and withdrawing plugs far easier.

A range of In-Ground boxes have been type tested for load bearing. All Blakley In-Ground boxes are designed to be installed in locations where cars and lorries manoeuvre (FACTA Class B) and we have type test certificates for locations where heavier loads may be encountered, including passenger aircraft (FACTA Class F).



#### Pillar Enclosure and Root

#### **Pillars**

We produce a range of standard outdoor pillars, which can be supplied fully equipped with switchgear and controlgear or supplied unequipped (except for a wooden backboard) for the customer to equip on site.

Our standard pillar enclosures are available in four sizes and each provides protection to IP54. All models are fabricated from heavy gauges of mild steel, they have a natural hot dip galvanized finish, key lockable doors and are supplied complete with a root. Enclosure drawings are provided on our website. Non-standard pillar enclosures can be made to order.

Pillar enclosures can incorporate a wide range of options including: venting to IP33; sun shades; thermostatically controlled anti-condensation heaters; 3 point locking; Yale locks; padlock facility; internal gland plates; painted finish, etc.

If equipped pillars are required, we are able to incorporate a vast array of equipment, including specialist items free-issued by customers. Our Customer Service Centres would be pleased to discuss your detailed requirements.







Standard Auto Changeover Panel, 200A rating

Non-standard Auto Changeover Panel, 100A rating





Distribution Fuse Board complete with BS88 Red Spot fuse banks



CT Chamber 400A housed in a GRP enclosure

In the event of a power failure, auto changeover panels switch between the mains and a stand-by generator or between Primary and Secondary mains supplies, to minimise the time an installation is without power.

Our standard range extends from 100A to 2000A. Contactors are used to switch between the two supplies on assemblies rated up to 800A. Above 800A, the switching is performed by motor operated ACBs. All auto changeover panels incorporate mechanical and electrical interlocking to prevent simultaneous closure of both devices. Phase sequence protection is incorporated to ensure supplies have the correct phase rotation.

As standard, Deep Sea Controllers are incorporated to control the two contactors or ACBs. The controller is fully configurable on site and settings can be changed to suit the requirements of different stand-by supplies. Manual over-ride control is also incorporated. For non-standard applications, such as for LUL, we have designed our own changeover circuitry to meet the customer's specific requirements.

A range of enclosure styles is offered, including free standing assemblies mounted in protective crash frames.

We produce a variety of other standard products for permanent installations including: High Current RCDs in ratings up to 1250A; CT Chambers and CT Chambers combined with main switches or MCCBs for metering mains supplies, rated up to 1600A; Distribution Boards incorporating BS88 Red Spot Fusebanks.

High current RCDs are available in IP54 sheet steel enclosures or IP55 GRP (all-insulated) enclosures. Included in the standard range are units with multi-function meters, which record kilowatt hour consumption and can be used to help control energy consumption in an installation.

CT chambers are available to meet the requirements of different electricity suppliers and they can be combined with main switches or MCCBs.

Distribution fuse boards have been developed for the Nuclear sector but are suitable for installation in any location where high fault levels are encountered or the highest levels of reliability are required. Fuse boards are available with fuse carriers rated at 20A, 32A, 63A or 100A.





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