

2023

Specialists in Central Power Systems and Emergency Lighting

## **ABOUT US...**



#### Providing light at times of emergency since 1968

When you are considering your emergency lighting and back-up power requirements, you need to be sure you are in safe hands. The responsibility of operating a building or facility with public access can be wearing at times. You need the reassurance that in the event of an emergency the proactive steps you have taken to mitigate risk are backed-up by equipment you can trust. As an established and dedicated supplier and manufacturer of emergency lighting and power systems, BLE can offer you over 55 years experience.

At BLE, we're passionate about delivering high quality products and services tailored to your needs. Our team boasts extensive technical know-how and stays up-to-date on industry and legislative standards, ensuring we provide fully compliant solutions for projects of all sizes. Plus, our speedy service won't keep you waiting! With next-day delivery to UK Mainland and a large inventory, we've got you covered when you need it most. Our products are meticulously designed, manufactured, and tested according to the highest standards, allowing you to purchase with confidence and stay in line with the latest regulations.

## Our products are meticulously designed, manufactured, and tested according to the highest standards.

#### Quality

Here at BLE Lighting & Power Ltd, we know that sustaining a robust Quality Management System in all our operations is vital to our accomplishments and reputation. We are devoted to delivering a service that meets and exceeds your needs and expectations. To uphold this dedication, we have implemented a documented Management System that aligns with the standards of BS EN ISO 9001: 2015.

#### **Technical Expertise**

Our vast and in-depth knowledge of the emergency lighting industry standards enable our technical experts to advise and support you, ensuring you have high quality systems and products in place in case of an emergency situation. With the increased focus on safety equipment functionality and the importance of being able to evacuate buildings safely, here at BLE we aim to make your life easier and assist you in meeting all current legislation for emergency lighting. It is this attention to the finer details coupled with such a wide offering of emergency lighting solutions which helps differentiate us from other emergency lighting suppliers.

#### Service

Drawing on a solid foundation of 50 years in the industry, BLE Lighting & Power Ltd brings you unparalleled expertise in emergency lighting standards. Our mission is to help you navigate and meet all legal requirements, while also simplifying your life by equipping you with high quality safety systems. In today's world, as focus intensifies on functional safety equipment and smooth building evacuations, we stand out from the competition by meticulously addressing the finer points and offering an extensive array of emergency lighting solutions. At BLE, we're not just another supplier – we're your trusted partner in ensuring safety and ease during emergencies.

#### **Accreditations**

At BLE Lighting & Power Ltd, we take pride in our ISO 9001 accreditation and being a founding member of the Industry Committee for Lighting (ICEL), where we continue to have a representative on the board. We're also an active member of the Lighting Industry Association (LIA). In 2021, we were awarded with the Constructionline Gold Status and Safe Contractor Approval. Our strong affiliations within the industry ensure that we stay ahead with the latest standards and legislation, delivering nothing but the finest quality products and services.













#### **FULL TURNKEY**

#### SOLUTION













Design Manufacture

Supply

Installation

Commissioning

Servicing

#### WE OFFER A FULL TURNKEY SOLUTION

At BLE, we take pride in manufacturing high quality products by adhering to the highest standards and conducting rigorous in-house testing. We collaborate closely with our clients throughout every stage of the project, from initial design to on-site installation and commissioning. Our adaptable product line-up caters to the unique requirements of each customer and project.

No matter if it's a refurbishment, upgrade, or new construction, our seasoned team of sales and technical experts work hand-in-hand with clients to develop designs and solutions that perfectly suit their needs while ensuring seamless system maintenance throughout its lifespan.

Countless sectors rely on BLE for dependable emergency lighting and backup power solutions. Our extensive experience covers a wide range of industries, including:

- Airports
- Universities
- Council Buildings
- MOD Facilities
- Cinemas
- Rail Infrastructure
- Sports Stadiums
- Retail
- Hospitality Venues
- Hospitals
- Production Facilities



Our adaptable product line-up caters to the unique requirements of each customer and project.



#### SERVICE AND MAINTENANCE

#### **PACKAGES**



#### Don't get left in the dark

A backup power system exists to ensure a dependable power supply during unforeseen power outages.

Consequently, it is crucial to conduct regular maintenance on the equipment to guarantee its efficient and ongoing operation.

At BLE, we've tailored two service and maintenance packages, designed with our customers in mind, allowing you to select the coverage that best fits your business requirements. By securing a BLE Service Contract, you can experience the confidence and reassurance that your system will perform optimally when it is needed most!

#### **SILVER COVER**

Response Hours: 9am – 5pm Response Days: Monday to Friday (excluding Bank Holidays)

#### **RESPONSE TIME: 48HRS**

- Calls logged before 10am receive a 48 hour response
- All travel and labour costs included (excluding battery work)
- Inverter technical support service (office hours)
- One planned visit per annum to provide preventative maintenance and testing (during normal office hours)

#### **GOLD COVER**

Response Hours: 7am – 7pm Response Days: Monday to Sunday

#### **RESPONSE TIME: 24HRS**

- Calls logged before 10am receive a next day response
- All travel and labour costs included (excluding battery work)
- Inverter technical support service (office hours)
- One planned visit per annum to provide preventative maintenance and testing (during normal office hours)
- Access to a weekend emergency call out number (out of hours)

All prices are available on request.

We can also offer bespoke service and maintenance packages. Please contact us for full details.

#### **MADE IN BRITAIN**

In the heart of Sheffield lies our state-of-the-art production facility, where we passionately create an array of top quality, British made products. Our impressive line up includes Emergency Lighting, Inverters, Central Battery Units, and the innovative BLE Connect, our Fully Automated Emergency Lighting System. We take immense pride in supporting the local economy and job market by sourcing many of our products and components from the UK.



#### Why Choose Made in Britain products?

- Experience peace of mind with a 5-year warranty backed by a trustworthy UK manufacturer
- Rest assured that our products are designed, crafted, and tested to the highest standards
- Enjoy modern advancements with the addition of LiFePO4 batteries
- Convenient and reliable customer service and after-sales care
- Support British jobs and contribute to a thriving economy
- Go green with a lower carbon footprint!





#### **EMERGENCY LIGHTING**

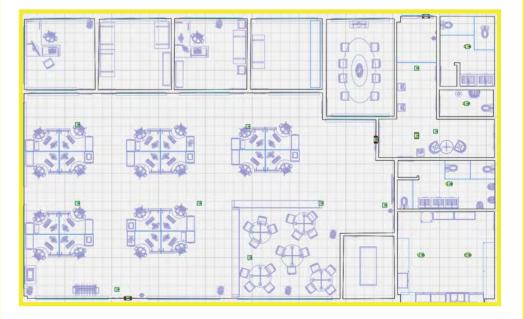
#### **DESIGN SERVICE**

Having reliable and efficient emergency lighting is an absolute necessity, regardless of whether it's for a single office space or an extensive building complex. Here at BLE Lighting & Power, we take immense pride in providing a complimentary emergency lighting design service, to ensure your compliance with BS5266-1.

Our highly qualified team of experts boast an impressive range of experience in designing emergency lighting systems tailored to various environments and industries. Be it a commercial or industrial setting, we have you covered. We aim to simplify the planning process for you by offering convenient spacing tables for all our emergency lighting products, allowing you to incorporate them into your own lighting design plans.







Be it a commercial or industrial setting, we have you covered with our expertise.

#### THE INNOVATIVE

#### ePIM SYSTEM

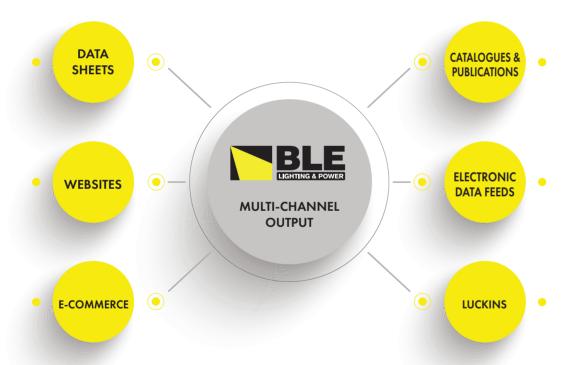
We are thrilled to announce that BLE Lighting & Power has recently become a proud subscriber to the innovative ePIM System. This cutting edge platform is not only user friendly but also incredibly powerful, acting as a one-stop solution for organising, managing, and enriching product data in preparation for multi-channel distribution.



What sets ePIM apart is its ability to serve as a centralised source of truth for all our valuable data, easily accessible by various stakeholders such as Manufacturers, Wholesalers, Distributors, and Marketing & Data Teams. This helps streamline our processes and ensures that everyone is on the same page.

ePIM's advanced automation capabilities guarantee that our data sheets stay up-to-date at all times. This means that our partners and clients can rely on us for relevant and accurate information, ultimately enhancing their overall experience.

In short, our subscription to the ePIM System signifies a step towards increased efficiency and a more interconnected work environment for everyone involved in BLE Lighting & Power's operations.



We are thrilled to announce that BLE Lighting & Power has recently become a proud subscriber to the innovative ePIM System.

## We have switched to LiFePO4 Batteries across our range of emergency lighting luminaires.

Some of the standout benefits of incorporating LiFePO4 batteries into our emergency lighting include:

#### **Longer Life Span:**

An impressive, extended life span that ensures reliability and long-term performance

#### **Maintenance:**

Elimination of regular maintenance, saving both time and resources

#### **Extremely Safe:**

Unparalleled safety features that reduce the risk of accidents or malfunctions

#### Lightweight:

A lightweight design that makes installation and transportation a breeze

#### **Improved Discharge:**

Enhanced discharge capabilities for efficient power use during emergencies

#### **Charge Efficiency:**

Superior charge efficiency to guarantee optimal performance at all times

#### **Environmentally Friendly:**

Environmentally friendly technology, contributing to a greener and more sustainable future

Experience these incredible benefits first hand by choosing our emergency lighting solutions featuring advanced LiFePO4 battery technology.

#### WHAT IS BLE CONNECT?



## Simplify the **maintenance** of your emergency lighting.







MEET LEGISLATIVE REQUIREMENTS WITH EASE

MONITOR BATTERY HEALTH

FULL REPORTING
IN REAL TIME

All industrial, commercial and public buildings require emergency lighting, which needs to be regularly inspected and tested. Meeting legislative requirements is very labour intensive, especially if you **maintain multiple facilities.** 

Simplify the process with BLE Connect, our new Fully Automated Emergency Lighting System.

BLE Connect operates using a self healing wireless mesh. Each luminaire automatically detects its neighbour to build the network. If a device is added, removed, or fails, the network will automatically re-organise and find the most efficient route.

#### What are the benefits of BLE Connect?

#### **SELF HEALING WIRELESS MESH**

Each luminaire automatically detects its neighbour to build the network. If a device is removed or fails, the network will automatically re-organise and find the most efficient route.

#### **EASY INSTALLATION**

With no additional wiring, the system facilitates a straightforward installation.

#### **NO MONTHLY FEES**

BLE Connect has no ongoing monthly or subscription fees.

#### **BATTERY HEALTH**

A battery reaching the end of its life can be replaced prior to failure.

#### **HIGHLY SECURE**

In the wireless mesh all messages are encrypted and authenticated. The nodes are only discoverable by our router

#### NO SINGLE POINT OF FAILURE

There are numerous connection possibilities across the network, meaning no single device is relied upon. If one fails, another device will maintain the connection.

#### PREDICTIVE MAINTENANCE

Knowing about any fault prior to arriving on site offers a time saving advantage.

#### **ADAPTIVE FREQUENCIES**

BLE Connect avoids interference by dynamically switching channels when needed.

#### MANAGE MULTIPLE FACILITIES

The user friendly portal allows for the easy maintenance of multiple facilities, with the ability to view each location and drill down to individual luminaires.

#### **UNLIMITED CONNECTIONS**

There is literally no limit on the number of devices that can be used in a network.

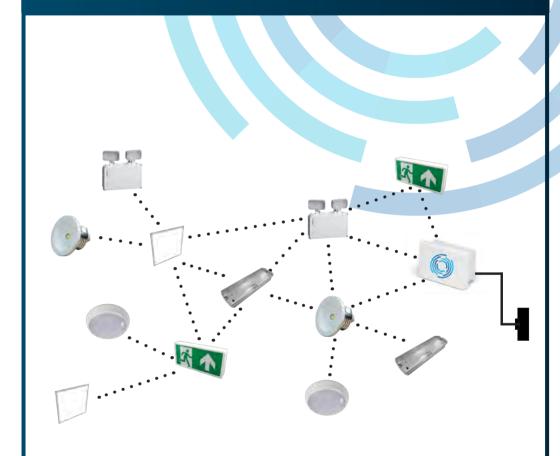
#### **REAL TIME REPORTING**

BLE Connect reports faults in real time and sends alerts to the designated responsible person by email or via the user portal.

#### **How Does BLE Connect Work?**

#### **DECENTRALISED OPERATION**

The core of the technology is 'decentralised' operation. We distribute all network management tasks to each device in the network. Devices are smart enough to make all decisions locally. Based on the local measurements, they decide how to form, maintain and operate the network. Every device can be a router at any time and can send and receive data within the network.



#### SELF HEALING WIRELESS MESH

Each luminaire automatically detects its neighbour to build the network. If a device is added, removed, or fails, the network will automatically re-organise to find the most efficient route.

There are numerous connection possibilities across the network, meaning no single device is relied upon. If one fails, another device will maintain the connection.

#### How Do I Use the BLE Connect Portal?

#### View all building and luminaires

Designed with simplicity in mind, the BLE Connect Portal can be easily accessed online from any device.

Every building being maintained by a customer can be viewed, with details of each individual luminaire within.

Each luminaire has a unique identifier with the ability to see if it has passed the latest monthly or annual test, along with other key information.



#### A dashboard view

A simple dashboard view is available for each building, showing the percentage of healthy and failed fittings along with the battery health, allowing for planned maintenance.

#### What can I do within the BLE Connect portal?

Users within the BLE Connect portal are given access to all the areas required to manage and maintain their emergency lighting. This includes adding new fittings to a building and viewing the status of every luminaire.

The BLE Connect team are on-hand to assist with additional requirements and settings.







Receive reports



Run tests



Set up schedules Add fittings

#### What Does BLE Connect Report on?



#### **LUMINAIRE STATUS**

A simple indicator system advises if each luminaire is operational and has passed the latest functional test.



#### **LUMINAIRE LOCATION**

The location of each luminaire across all sites can be viewed from the portal.



#### **TESTING SCHEDULE**

The schedule can be seen at a glance showing the last performed test for each luminaire and also when the next one is due.



#### **BATTERY STATUS**

**BLE Connect reports** on whether the battery in each luminaire is charging.



#### **BATTERY HEALTH**

**BLE Connect uniquely** reports on battery health, providing advanced warning when battery health is low.



#### **PERFORM A TEST**

A simple click will instruct a luminaire or site to perform an unscheduled test.



#### **LIGHT SENSOR**

BLE Connect can sense if the light is present from the LEDs as well as checking the mains supply is present.



#### What products are compatible with BLE Connect?



A comprehensive list of compatible products can be found on the BLE website, as well as in this catalogue wherever you see the BLE Connect enabled symbol.

BLE Connect is fully operational across our range of core BLE emergency lighting products, such as the NORFOLK LED Emergency Bulkhead, THORNCLIFFE LED Exit Box, OXLEY LED Amenity Light, and many more.

If your requirement is of a bespoke nature, speak to our team of experts to discuss where we can support requirements for BLE Connect compatibility.

NO WIRES, NO RESTRICTIONS, NO LIMITS

## PRODUCT SELECTOR







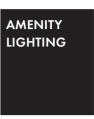












































ESCAPE ROUTE LIGHTING



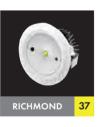






























Please contact the sales team to discuss our range in more detail

01246 432325

#### PRODUCT **SFIFCTOR**

POWER **SYSTEMS** 





















RINGWOOD











NETHERTHORPE 97







POOLSBROOK 100

POOLSBROOK 102

POOLSBROOK 104









#### FREQUENTLY ASKED QUESTIONS

#### WHAT IS AN EMERGENCY LIGHTING CENTRAL BATTERY UNIT?

An emergency lighting central battery unit is a type of backup power system used to provide power to emergency lighting fixtures in the event of a power outage or other disruptions to the primary power source.

The central battery unit typically consists of a battery bank, a charging system, and a distribution system that delivers power to the emergency lighting fixtures. The battery bank may include one or more rechargeable batteries, which are designed to provide power for a specified duration, typically 180 minutes, as required by most building codes and safety standards.

During normal operation, the battery bank is charged by the charging system, which may be connected to the building's primary power source or a dedicated standby power source. In the event of a power outage, the distribution system switches to the battery bank, which provides power to the connected emergency lighting fixtures, allowing them to remain illuminated and visible in the event of an evacuation.

Emergency lighting central battery units are commonly used in a variety of settings, including commercial and industrial buildings, hospitals, schools, and other facilities where emergency lighting is required for safety purposes. They are designed to provide a reliable source of backup power to ensure that emergency lighting remains functional during power outages or other disruptions, thereby ensuring the safety of occupants and minimising the risk of injury or damage.

#### WHAT IS THE DURATION OF A CENTRAL BATTERY SYSTEM?

The duration of a central battery system depends on several factors, including the size of the battery bank, the capacity of the individual batteries, and the power consumption of the connected devices or equipment. In general, central battery systems are designed to provide backup power for a limited amount of time, typically ranging from 60 minutes to 3 hours.

A central battery system powering emergency lighting may be designed to provide backup power for a duration of 180 minutes, which is the minimum duration required by most building codes and safety standards. In this case, the system will include a battery bank with sufficient capacity to power the connected lighting fixtures for 180 minutes, as well as a charging system to maintain the battery's charge during normal operation.

#### WHERE IS THE BEST LOCATION FOR A STATIC INVERTER?

The best place to locate a static inverter depends on several factors, including the size, weight and capacity of the inverter, the type of equipment it will be powering, and the layout of the building or space where it will be installed.

In general, it is recommended to locate a static inverter as close as possible to the equipment it will be powering, in order to minimise the length of the AC wiring runs and reduce the risk of voltage drop or other issues. This may involve installing the inverter in a nearby electrical room or closet, or in some cases, mounting it directly near the equipment itself.

It is also important to consider factors such as ventilation and cooling when selecting a location for a static inverter. Inverters generate heat during operation, so it is important to ensure that the location has adequate ventilation and cooling to prevent overheating and potential damage to the equipment. Additionally, it may be necessary to install the inverter in a location that is accessible for maintenance and servicing, as well as secure, to prevent unauthorised access.

#### **ICON GUIDE**

Please see below for a guide to the icons that we use throughout the lighting section of the catalogue.



**BATTERY** WARRANTY



**PRODUCT** WARRANTY



IP RATING



**IK RATING** 



LIFETIME **HOURS** 



SELECTABLE **COLOUR TEMP** 



COLOUR **TEMPERATURE** 



**BEAM ANGLE** 



**CUT OUT** 



DIAMETER



WATTAGE SELECTABLE



CENTRAL **BATTERY SYSTEM** LUMINAIRE



LUMINAIRE



LiFePO4 **BATTERY** 



**SELF TEST** LUMINAIRE



**UNIFIED GLARE RATING** 



**MICROWAVE** SENSOR



**DUSK TO DAWN** SENSOR (PHOTOCELL)



STEP DIM **MICROWAVE SENSOR** 

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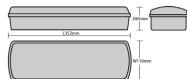












#### **EMERGENCY BULKHEAD**

- Green LED healthy charge indicator
- Low power consumption
- Easy install hinged gear tray
- Traditional design

**NORFOLK** 

- Ideal for retrofit applications
- Supplied with self adhesive BS EN ISO 7010 exit legend pack







**EMERGENCY** 

Discover our vast selection of emergency lighting, which includes bulkheads, downlights, and twin spots, offering a solution for every need. Our "Made in Britain" collection is a favourite, and we're proud that the majority of our range now

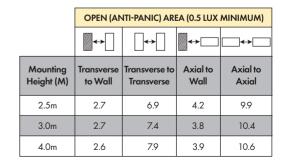
boasts LiFePO4 batteries and an impressive

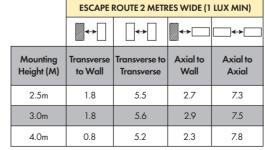
LIGHTING

5-year warranty.

Input Voltage:	220 - 240V
Wattage:	6W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

70 CRI
Maintained/Non-Maintained
356lm
112lm
LiFeP04 3.2V 1.5Ah





**EMERGENCY LIGHTING** 

#### **CROOKSMOOR**

#### **EMERGENCY BULKHEAD WITH SELF TEST**











- Low power consumption
- Easy install hinged gear tray
- Traditional design
- Self test as standard



#### See page 29 for accessories



CODE	DESCRIPTION	
EL-110250	CROOKSMOOR LED Emergency Bulkhead with Self Test	

#### **VIEWING DISTANCE**



#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	5W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Maintained/Non-Maintained
Lumen Output:	350lm
Emergency Lumen Output:	138lm
Battery Type:	LiFeP04 3.2V 1.5Ah

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
	<b>↔</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	2.5	8	2.7	7
3.0m	2.6	7.8	2.7	7.5
4.0m	2.3	7.8	2.5	7.6

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
				<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	3.7	10.5	3.5	8.7
3.0m	3.7	11.1	3.7	9.4
4.0m	3.7	11.2	3.9	10.4

#### **RUSKIN**

#### **EMERGENCY BULKHEAD**









- Green LED healthy charge indicator
- Wall or ceiling mounted
- Hinged gear tray
- Surface mounted
- Low power consumption







CODE	DESCRIPTION	
EL-112950	RUSKIN LED Emergency Bulkhead	

Input Voltage:	220-240V
Wattage:	3.5W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	80 CRI
Mode of Operation:	Maintained/Non-Maintained
Lumen Output:	190lm
Emergency Lumen Output:	130lm
Battery Type:	Lithium 3.7V 1.5Ah

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
				<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	2.8	7.6	2.1	5.6
3.0m	3.0	7.5	2	5.9
4.0m	2.6	8.3	1.4	5.9

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
	<b>*</b>	<b>+</b>	<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	4.2	9.1	2.8	6.9
3.0m	3.7	10.1	2.9	7.5
4.0m	4.3	10.8	2.9	8.3

- 9MGK. 6000К
  - **50,000** HOURS

- Prismatic diffuser with Fresnel Optics
- Traditional design suitable for retrofit applications
- Supplied with an exit legend sticker, BS EN ISO7010 Format
- European manufacture
- Suitable for use with central battery systems

#### See page 29 for accessories





CODE	DESCRIPTION
EL-110301-24	CROOKES LED Emergency Bulkhead, 24V Slave
EL-110301-50	CROOKES LED Emergency Bulkhead, 50V Slave
EL-110301-110	CROOKES LED Emergency Bulkhead, 110V Slave
EL-110301-230	CROOKES LED Emergency Bulkhead, 230V Slave

<sup>\*</sup> Formerly the SOLAR

24

#### **SPECIFICATION**

Wattage:	1W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

#### **VIEWING DISTANCE** CRI: 70 CRI

180lm

Lumen Output:

19M	ゕ゚゚゚゚゚゚゚	
7000	4	

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
	<b>₩</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	2.6	7.3	2.7	6.8
3.0m	2.6	7.3	2.8	<i>7</i> .1
4.0m	2.6	7.5	2.5	<i>7</i> .9

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
				<b>─</b>
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	3.6	9.8	3.4	8.4
3.0m	3.6	10.3	3.5	9.3
4.0m	3.8	10.1	3.9	10

#### **GLEN**

#### **EMERGENCY BULKHEAD**













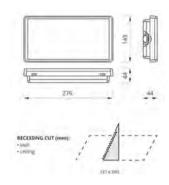


- Plexi glass and polycarbonate body
- Supplied with exit legend sticker BS EN ISO7010 Format
- Recessing kit and drop exit legend available
- European manufacture
- Suitable for use with central battery systems

#### See page 29 for accessories







CODE	DESCRIPTION	INPUT VOLTAGE	WATTAGE	BATTERY TYPE	MODE OF OPERATION
EL-110501	GLEN LED Emergency Bulkhead, 1W	220-240V	1W	NiCD 3.6V 1.5Ah	Maintained/Non-Maintained
EL-110502	GLEN LED Emergency Bulkhead, 2W	220-240V	2W	NiCD 3.6V 2.5Ah	Maintained/Non-Maintained
EL-110503-24	GLEN LED Emergency Bulkhead, 24V Slave	24V	1W	-	CBU Controlled
EL-110503-50	GLEN LED Emergency Bulkhead, 50V Slave	50V	1W	-	CBU Controlled
EL-110503-110	GLEN LED Emergency Bulkhead, 110V Slave	110V	1W	-	CBU Controlled
EL-110503-230	GLEN LED Emergency Bulkhead, 230V Slave	230V	1W	-	CBU Controlled

<sup>\*</sup> Formerly the HORIZON

#### **SPECIFICATION**

Operating Temperature:	0 to +40°C
Material:	Polycarbona
CRI:	80 CRI

Lumen Output: 175lm (1W) 285lm (2W)

	ESCAPE ROUTE 2 METRES WIDE (1			LUX MIN)	
1W	<b>**</b>		<b>*</b>	<b>□</b> ↔□	
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial	
2.5m	2.9	7.5	2.9	7.5	
3.0m	3.0	7.9	3	7.9	
4.0m	2.8	8.4	2.8	8.4	

2W version	available	on request

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)				
1W	<b>₩</b>		<b>*</b>	<b>□</b> ↔□	
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial	
2.5m	3.7	9.3	3.7	9.3	
3.0m	3.9	10	3.9	10	
4.0m	4.2	11.1	4.2	11.1	

**VIEWING DISTANCE** 

T: 01246 432325 | E: SALES@BLELIGHTING.CO.UK | WWW.BLELIGHTING.CO.UK

**EMERGENCY LIGHTING** 

#### **HOLLINSEND**

#### **RECESSED EMERGENCY BULKHEAD**

- Green LED healthy charge indicator Fully recessed design Metal ceiling box assembly Dual circuit technology

See page 29 for back box only



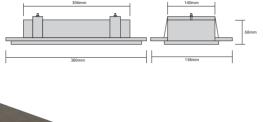














#### **SPECIFICATION**

**EMERGENCY LIGHTING** 

Wattage:	3W
Operating Temperature:	0 to +40°C
Material:	Metal
CRI:	80 CRI

Mode of Operation:	Maintained/Non-Maintained	
	or CBU Controlled	
Lumen Output:	250lm	
Emergency Lumen Output:	105lm	
Battery Type:	LiFePO4 3.2V 2.0Ah	

3HR	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
EMERGENCY	<b>↔</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	3.1	7.5	1.8	4.7
3.0m	3.6	8.4	1.8	5.0
4.0m	1.4	8.2	0.1	4.9

OPEN (ANTI-PANIC) AREA (0.5 LUX MIN			MINIMUM)	
EMERGENCY	<b>□</b> ↔□ □↔□		<b>\$</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	3.8	8.3	2.3	6.1
3.0m	4.2	9.7	2.5	6.4
4.0m	4.9	11.5	2.6	7.0

Slave Bulkhead version available on request

CODE	DESCRIPTION		
EL-110402	HOLLINSEND Emergency Bulkhead, 3hr emergency, Self Test, Prismatic Diffuser		
EL-110403	HOLLINSEND Emergency Bulkhead, 3hr emergency, Self Test, Opal Diffuser		
EL-110404	HOLLINSEND Emergency Bulkhead, 3hr emergency, Prismatic Diffuser		
EL-110408	HOLLINSEND Emergency Bulkhead, 3hr emergency, Opal Diffuser		
SUFFIX	DESCRIPTION		
-BR	Brass		
-CH	Chrome		
-WH	White		

CODE	DESCRIPTION
EL-110406	HOLLINSEND Emergency Slave Bulkhead, Prismatic Diffuser
EL-110407	HOLLINSEND Emergency Slave Bulkhead, Opal Diffuser
SUFFIX	DESCRIPTION
-BR-24	24V Brass
-CH-24	24V Chrome
-WH-24	24V White
-BR-50	50V Brass
-CH-50	50V Chrome
-WH-50	50V White
-BR-110	110V Brass
-CH-110	110V Chrome
-WH-110	110V White
-BR-230	230V Brass
-CH-230	230V Chrome
-WH-230	230V White

CODE	ACCESSORY DESCRIPTION
EL-110410-OP	Opal Diffuser
EL-110410-PR	Prismatic Diffuser
EL-110411-BR	Brass Bezel
EL-110411-CH	Chrome Bezel
EL-110411-WH	White Bezel

# **EMERGENCY LIGHTING**

#### **FOXHILL**

#### HIGH OUTPUT

#### **EMERGENCY BULKHEAD**















CODE	DESCRIPTION
EL-114850	FOXHILL High Output LED Emergency Bulkhead

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	10W
Operating Temperature:	+5 to +45°C
Material:	Polycarbonate

CRI:	80 CRI
Mode of Operation:	Non-Maintained
Emergency Lumen Output:	1000/1500lm
Battery Type:	LiFePO4 6.4V 6.6Ah

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
at 1587lm	<b>*</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
3.0m	6.0	14.2	7.7	18.7
4.0m	6.9	16	8.7	21.2
6.0m	7.3	18. <i>7</i>	9.8	24.7

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
at 1587lm	<b>₩</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
3.0m	7.4	17.3	9.6	22.8
4.0m	8.3	19.7	10.7	25.9
6.0m	9.9	23.2	12.5	30.7

#### **ACCESSORIES**

#### **EMERGENCY BULKHEADS**

#### DARNALL Bulkhead Accessories

• Legends for use with NORFOLK, CROOKSMOOR, RUSKIN and CROOKES Emergency Bulkheads

CODE	DESCRIPTION	
EL-194502	DARNALL Self Adhesive Deluxe Exit Legend Kit, European Signs Directive Format	** ** ** ** ** ** ** ** ** ** ** ** **
EL-194503	DARNALL Self Adhesive Deluxe Exit Legend Kit, BS EN ISO7010 Format. 20M Viewing Distance.	₹ •
EL-194501	DARNALL Self Adhesive Deluxe Exit Legend Kit BS EN ISO7010.  19M Viewing Distance.	2 <b>*</b>
EL-194504	DARNALL Semi Recessing Kit For NORFOLK, CROOKSMOOR & RUSKIN Emergency Bulkheads	1 (00.1

#### **GLEN Bulkhead Accessories**

• For use with **GLEN** Bulkhead

CODE	DESCRIPTION		
EL-110504	<b>GLEN</b> Drop Legends	S V	
EL-110505	GLEN Recessing Kit		

#### **MOUNT LED Back Box**

- LED Back Box for Recessed Fittings HOLLINSEND and PARKWOOD
- Fully recessed design
- Metal box ceiling assembly

CODE	DESCRIPTION	
EL-194301	Maintained/Non-Maintained, LiFePO4 3.2V Battery	
EL-194303	Maintained/Non-Maintained, LiFePO4 3.2V Battery, Self Test	
EL-194302-24	Slave, 24V	No.
EL-194302-50	Slave, 50V	
EL-194302-110	Slave, 110V	
EL-194302-230	Slave, 230V	

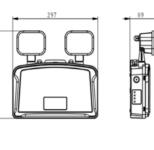
#### **DEVONSHIRE**

#### **EMERGENCY TWIN SPOT**

- Green LED healthy charge indicator
- Easy installation
- Adjustable lamp heads







CODE	DESCRIPTION
EL-142150	<b>DEVONSHIRE</b> LED Emergency Twin Spot

#### **SPECIFICATION**

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Input Voltage:	220-240V
Wattage:	4W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Non-Maintained
Emergency Lumen Output:	297lm
Battery Type:	LiFePO4 3.2V 5.5Ah

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
AT 40°	<b>₩</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
3.0m	3.5	11.6	-	-
4.0m	4.1	11.8	•	-
6.0m	4.1	11.9	-	-

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM			
AT 40°	<b>₩</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
3.0m	4.5	15.1	-	-
4.0m	4.9	15.7	-	-
6.0m	5.4	16.2		-

#### **STANNINGTON**

#### **EMERGENCY TWIN SPOT** WITH SELF TEST



- Low power consumption
- Adjustable lamp heads
- Lightweight fitting for easy installation
- Self test as standard



**50,000** HOURS



CODE	DESCRIPTION
EL-142250	STANNINGTON LED Emergency Twin Spot with Self Test

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	4W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Non-Maintained
Emergency Lumen Output:	350lm
Battery Type:	LiFePO4 3.2V 5.5Ah

	ESCAPE ROUTE 2 METRES WIDE			
AT 40°	<b>*</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
3.0m	3.7	11.9	-	-
4.0m	4.3	12.1	-	-
6.0m	4.2	12.5	-	-

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMU			
AT 40°	<b>↔</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
3.0m	4.9	15.6	-	-
4.0m	5.3	16.1	•	-
6.0m	6.0	17.1	-	-

**EMERGENCY LIGHTING** 

#### **CASE STUDY**

#### **\$20 THE BOUNDARY**

**BLE Lighting & Power were asked to** provide the newly developed \$20 The Boundary with emergency lighting

S20 The Boundary is a newly developed purpose-built indoor cricket centre in Sheffield. The facility comprises of eight cricket lanes and offers state of the art facilities, meeting English Cricket Board (ECB) standards.



When developing the space from the former Quick Play sports centre, BLE Lighting & Power were approached to resolve the all-important issue of the emergency lighting compliance. With a new staircase in place and various changes of usage, there were several obstacles for the design team to consider when planning the most suitable emergency lighting system for the premises.



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The BLE design team opted for the stylish CONCORD recessed exit blade to direction throughout the route walkway areas, the NORFOLK bulkheads in the general areas, and the THORNCLIFFE exit boxes at each emergency exit



"Dealing with BLE was a pleasure from start to finish. Their teams were professional throughout and offered continuous feedback and support when needed"

> Jimmy Pearson, **Business Owner.**

#### WATERTHORPE

#### **EMERGENCY DOWNLIGHT**















- Green LED healthy charge indicator
- Low power consumption
- Recessed mounting
- Modern and discreet design



\* Formerly the BC10

CODE	DESCRIPTION
EL-153501-WH	WATERTHORPE LED Emergency Downlight in White
EL-153501-BL	WATERTHORPE LED Emergency Downlight in Black

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	1.4W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Non-Maintained
Emergency Lumen Output:	11 <i>7</i> lm
Battery Type:	NiCD 3.6V 2.0Ah

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
	<b>□</b> ↔□ □↔□			<b>□</b> ↔
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	2.9	7.5	2.8	7.3
3.0m	2.9	7.8	2.9	7.7
4.0m	2.7	8.2	2.7	8.0

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	3.8	9.5	3.7	9.4
3.0m	4.0	10.3	3.9	10.1
4.0m	4.1	10.9	4.1	10.7

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#### **BEAUCHIEF**

#### **EMERGENCY DOWNLIGHT**

- Green LED healthy charge indicator
- Small size
- Easy installation



CODE	DESCRIPTION
EL-153250-WH	BEAUCHIEF LED Emergency Downlight in White
EL-153250-BL	BEAUCHIEF LED Emergency Downlight in Black

6500K | IP40

PCB

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	1.7W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI	
Mode of Operation:	Non-Maintained	
Emergency Lumen Output:	119lm	
Battery Type:	LiFePO4 3.2V 1.5Ah	

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
			<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5	2.9	7.4	2.8	7.4
3.0	2.9	7.8	2.8	7.8
4.0	2.7	8.1	2.6	8.1

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
	<b>□</b> ↔□ □↔□		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5	3.8	9.2	3.7	9.3
3.0	4.0	9.9	3.9	10.0
4.0	4.1	10.9	4.0	10.9

#### **LONGLEY**

#### **EMERGENCY DOWNLIGHT**















- Green LED healthy charge indicator
- Low power consumption
- Recessed mounting
- Modern and discreet design





#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	6W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
				<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	2.2	5.4	2.2	5.5
3.0m	2.4	5.9	2.4	5.9
4.0m	2.8	6.7	2.8	6.7

CODE	DESCRIPTION
EL-152301-M3	LONGLEY LED Emergency Downlight
EL-152302-M3	LONGLEY LED Emergency Downlight, Self Test

<sup>\*</sup> Formerly the BC8

CRI:	70 CRI
Mode of Operation:	Maintained/Non-Maintained
Lumen Output:	200lm
Emergency Lumen Output:	200lm
Battery Type:	NiCD 3.6V 3.0Ah

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
			<b>→</b>	
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	2.7	6.9	2.7	6.8
3.0m	2.9	7.3	2.9	7.3
4.0m	3.3	8.1	3.3	8.1

**EMERGENCY LIGHTING** 

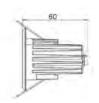
#### **SYCAMORE**

#### **EMERGENCY DOWNLIGHT** WITH SELF TEST

- Green LED healthy charge indicator
- Recessed mounting
- Supplied with self test as standard
- Discreet design









CODE	DESCRIPTION
EL-153050	SYCAMORE LED Emergency Downlight with Self Test

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	5W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Non-Maintained
Emergency Lumen Output:	250lm
Battery Type:	LiFeP04 3.2V 3.0Ah

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
	<b>*</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	4.1	10.3	4.2	10.4
3.0m	4.2	11.1	4.4	11.1
4.0m	4.2	12.0	4.4	12.1

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
			<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	5.1	12.6	5.3	11.7
3.0m	5.5	13.6	5.6	13.3
4.0m	6	15.4	6.1	15.5

#### **RICHMOND**

#### **EMERGENCY DOWNLIGHT**















- Green LED healthy charge indicator
- Unique shape design
- Small size
- Convenient and time saving installation
- Downlight can be connected and fixed without opening the housing







CODE	DESCRIPTION
EL-152450-WH	RICHMOND LED Emergency Downlight in White
EL-152450-BL	RICHMOND LED Emergency Downlight in Black

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	2.5W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Non-Maintained
Emergency Lumen Output:	119lm
Battery Type:	LiFePO4 3.2V 1.5Ah

		ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
		<b>↔</b>		<b>*</b>	<b>□</b> ↔□
	Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
	2.5m	2.6	8.0	2.8	8.1
	3.0m	2.1	7.9	2.2	8.1
	4.0m	-	-	-	-

	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
	<b>₩</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	4.0	10.6	4.1	10.6
3.0m	3.9	11.1	4.1	11.2
4.0m	3.3	11.2	3.5	11.5

**EMERGENCY LIGHTING** 

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#### **HEELEY**

## EMERGENCY DOWNLIGHT WITH SELF TEST

- Green LED healthy charge indicator
- Replaceable lens
- Supports surface and recessed mounting
- Overcharge and over-discharge protection
- Cut Out: 125-135mm when recessed











AREA

SURFACE MOUNT

CODE	DESCRIPTION
EL-153150	HEELEY LED Emergency Downlight, Self Test

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	6W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Non-Maintained
Emergency Lumen Output:	270lm
Battery Type:	Lithium 3.7V 2.2Ah

	ESCAPE ROUTE 2 METRES WIDE (1 LUX MIN)			
CORRIDOR LENS	<b>**</b>		<b>*</b>	<b>□</b> ↔□
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial
2.5m	-	-	5.4	11.5
3.0m	-	-	5.6	13.0
4.0m	-	-	5.8	15.6

	-	OPEN (ANTI-PANIC) AREA (0.5 LUX MINIMUM)			
OPEN AREA LENS	<b>→</b>		<b>*</b>	<b>□</b> ↔□	
Mounting Height (M)	Transverse to Wall	Transverse to Transverse	Axial to Wall	Axial to Axial	
2.5M	5.6	13.8	5.6	11.8	
3.0M	5.9	14.9	6	13.3	
4.0M	6.1	16.5	6.3	16.1	

## **NEW!**



#### HEELEY

### LED EMERGENCY DOWNLIGHT

**PRODUCT CODE: EL-153150** 



DIMENSIONS: 142.5mm Dia x 48mm Deep













## **ESCAPE ROUTE** LIGHTING

Discover the versatility of our Escape Route Lighting collection, tailored for every application. Experience the incredible capabilities of our new MEERSBROOK product, boasting a 5-in-1 solution and customisable exit legends to suit all your needs. Plus, explore our "Made in Britain" range that offers a diverse colour selection to perfectly match any setting.

#### **THORNCLIFFE**

#### **EMERGENCY EXIT BOX WITH SELF TEST**













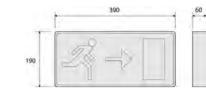






- Green LED healthy charge indicator
- Highly energy efficient
- Low power consumption
- Supplied with down arrow legend
- Traditional design

#### See page 52-53 for a choice of exit legends





#### **VIEWING DISTANCE**



CODE	DESCRIPTION
EL-131350	THORNCLIFFE LED Emergency Exit Box with Self Test

Input Voltage:	220-240V
Wattage:	3.8W
Operating Temperature:	0 to +40°C
Material:	Metal &
	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Maintained/Non-Maintained
Lumen Output:	35lm
Emergency Lumen Output:	20lm
Battery Type:	LiFeP04 3.2V 1.5Ah

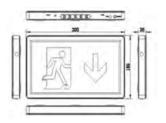
#### **FIRTH**

#### SLIMLINE EMERGENCY EXIT BOX WITH SELF TEST

- Green LED healthy charge indicator
- Highly energy efficient
- Modern and slimline design

See page 52-53 for a choice of exit legends







CODE	DESCRIPTION
EL-131250	FIRTH LED Slimline Emergency Exit Box with Self Test

#### **VIEWING DISTANCE**



#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	3.5W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI	
Mode of Operation:	Maintained/Non-Maintained	
Lumen Output:	55lm	
Emergency Lumen Output:	36lm	
Battery Type:	LiFePO4 3.2V 1.5Ah	

#### **FLOCKTON**

### **EMERGENCY EXIT SIGN**





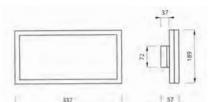














- Deep discharge protection
- Can be wall recessed
- Surface mounted
- Plexiglass and white polycarbonate body
- Supplied with BS EN ISO7010 Format legend sticker
- European manufacture



CODE	DESCRIPTION
EL-131401	FIRTH LED Emergency Exit Sign

<sup>\*</sup> Formerly the INFINITY

#### **VIEWING DISTANCE**



#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	1.3W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	80 CRI
Mode of Operation:	Maintained/Non-Maintained
Battery Type:	NiCD 3.6V 1.5Ah

**ESCAPE ROUTE LIGHTING** 

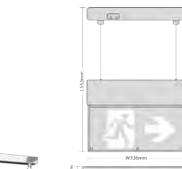
#### **BINGHAM**

## EMERGENCY HANGING EXIT SIGN

- Green LED healthy charge indicator
- Adjustable drop length (250mm as standard)
- High quality engraved legend

#### See page 52-53 for a choice of exit legends







#### **VIEWING DISTANCE**

MADE IN BRITAIN



#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	3W
Operating Temperature:	0 to +40°C
Material:	Aluminium enclosure and chains

CRI:	80 CRI
Mode of Operation:	Maintained/Non-Maintained or CBU controlled
Emergency Lumen Output:	28lm
Battery Type:	LiFeP04 3.2V 2.0Ah

CODE	DESCRIPTION	
EL-132001	BINGHAM 3hr Emergency Exit Sign	
EL-132002	BINGHAM 3hr Emergency Exit Sign with Self Test	
SUFFIX	DESCRIPTION	
-BL	Black	
-BR	Brass	
-CH	Chrome	
-WH	White	

CODE	DESCRIPTION
EL-132003	BINGHAM Slave Exit Sign
SUFFIX	DESCRIPTION
-BR-24	24V Brass
-CH-24	24V Chrome
-WH-24	24V White
-BL-24	24V Black
-BR-50	50V Brass
-CH-50	50V Chrome
-WH-50	50V White
-BL-50	50V Black
-BR-110	11OV Brass
-CH-110	110V Chrome
-WH-110	110V White
-BL-110	110V Black
-BR-230	230V Brass
-CH-230	230V Chrome
-WH-230	230V White
-BL-230	230V Black

**ESCAPE ROUTE LIGHTING** 

#### **MEERSBROOK**

#### **5 IN 1 EXIT SIGN WITH SELF TEST**











- Green LED healthy charge indicator
- Five mounting options supplied as standard
- Includes three kinds of brackets
- Lightweight and easy to install
- Adjustable hanging length 1 metre as standard
- Supplied with BS EN ISO 7010 format exit legend pack
- Supplied with directional arrows and blank legend for all options of single or double sided signage













CEILING MOUNT

#### **VIEWING DISTANCE**



CODE	DESCRIPTION
EL-131950	MEERSBROOK 5 in 1 Exit Sign with Self Test

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	2.8W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Mode of Operation:	Maintained/Non-Maintained
Lumen Output:	37lm
Emergency Lumen Output:	27lm
Battery Type:	LiFePO4 3.2V 1.5Ah

## **NEW!**

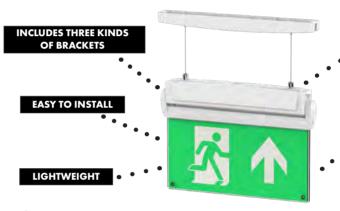


## **MEERSBROOK** 5 IN 1 LED EXIT SIGN

**PRODUCT CODE: EL-131950** 

## THE ONLY

**EXIT SIGN YOU'LL EVER NEED** 



SUPPLIED WITH ISO LEGEND PACK

**ADJUSTABLE** 

HANGING LENGTH









**CEILING MOUNT** 

**SUPPLIED WITH DIRECTIONAL ARROWS AND BLANK LEGEND FOR** ALL OPTIONS OF SINGLE OR DOUBLE SIDED SIGNAGE.

















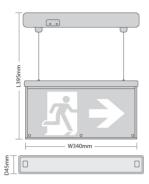
#### **WESTON**

#### **EMERGENCY EXIT SIGN** WITH SELF TEST

- Green LED healthy charge indicator
- Adjustable drop length 1 metre max
- Supplied with down arrow legend

#### See page 52-53 for a choice of exit legends





#### **VIEWING DISTANCE**

**ESCAPE ROUTE LIGHTING** 



CODE	DESCRIPTION
EL-131850	WESTON LED Emergency Exit Sign with Self Test

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	3W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI	
Mode of Operation:	Maintained/Non-Maintained	
Emergency Lumen Output:	47lm	
Emergency Lumen Output:	27lm	
Battery Type:	LiFePO4 3.2V 1.0Ah	

#### **CONCORD**

#### **EMERGENCY EXIT SIGN**











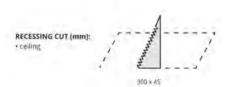






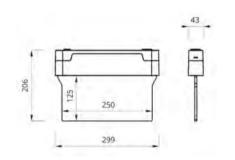
- Green LED healthy charge indicator
- Deep discharge protection
- Modern and contemporary design
- Plexi glass and white polycarbonate body
- Supplied with BS EN ISO7010 Format legend sticker
- European manufacture











#### **VIEWING DISTANCE**



CODE	DESCRIPTION		
EL-131701	CONCORD LED Emergency Exit Sign, Surface Mount		
EL-131702	CONCORD LED Emergency Exit Sign, Recessed		

<sup>\*</sup> Formerly the SPECTRUM

Input Voltage:	220-240V
Wattage:	1.3W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	80 CRI
Mode of Operation:	Maintained/Non-Maintained
Battery Type:	NiCD 3.6V 1.5Ah

#### **PARKWOOD**

## MADE IN BRITAIN



















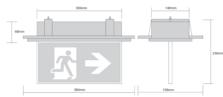


Green LED healthy charge indicator

**EMERGENCY EXIT SIGN** 

- Fully recessed design
- Metal ceiling box assembly
- Supplied with high quality engraved legend

See page 52-53 for a choice of exit legends





#### **VIEWING DISTANCE**





#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	3W
Operating Temperature:	0 to +40°C
Material:	Metal

80 CRI
Maintained/Non-Maintained or CBU controlled
32lm
LiFePO4 3.2V 2.0Ah

CODE	DESCRIPTION		
EL-133804	PARKWOOD 3hr Emergency Exit Sign		
EL-133807	PARKWOOD 3hr Emergency Exit Sign, Self Test		
SUFFIX	DESCRIPTION		
-BR	Brass		
-CH	Chrome		
-WH	White		

CODE	DESCRIPTION	
EL-133805	PARKWOOD Slave Exit Sign	
SUFFIX	DESCRIPTION	
-BR-24	24V Brass	
-CH-24	24V Chrome	
-WH-24	24V White	
-BR-50	50V Brass	
-CH-50	50V Chrome	
-WH-50	50V White	
-BR-110	110V Brass	
-CH-110	110V Chrome	
-WH-110	110V White	
-BR-230	230V Brass	
-CH-230	230V Chrome	
-WH-230	230V White	

CODE	ACCESSORIES
EL-133809-BR	Brass Bezel
EL-133809-CH	Chrome Bezel
EL-133809-WH	White Bezel

**ESCAPE ROUTE LIGHTING** 

#### **ACCESSORIES**

#### **EMERGENCY EXIT SIGNS**

#### THORNCLIFFE Exit Legends

• For use with the **THORNCLIFFE** Exit Box

CODE	DESCRIPTION	DIRECTION	
EL-131305-DO	European Signs Directive Format	Down	*
EL-131305-LR	European Signs Directive Format	Left/Right	トド メー
EL-131305-UP	European Signs Directive Format	Up	<b>₹</b> ↑
EL-131306-DO	BS EN ISO7010 Format	Down	<b>5</b> •
EL-131306-LR	BS EN ISO7010 Format	Left/Right	← 🔁
EL-131306-UP	BS EN ISO7010 Format	Up	<b>5</b> 1

#### **THORNCLIFFE Bezels**

• For use with the **THORNCLIFFE** Exit Box

CODE	DESCRIPTION	
EL-131304-BC	Brushed Chrome Bezel	
EL-131304-BR	Brass Bezel	
EL-131304-CH	Chrome Bezel	

#### FIRTH Exit Legends

• For use with the **FIRTH** Slimline Exit Box

CODE	DESCRIPTION	DIRECTION	
EL-131203-LR	BS EN ISO7010 Format	Left/Right	←2 5→
EL-131203-UP	BS EN ISO7010 Format	Up	5 个

#### **WOODHOUSE** Exit Legends

- For use with the **BINGHAM** and **PARKWOOD** Exit Signs
- Engraved double-sided exit legend

CODE	DESCRIPTION	DIRECTION	
EL-194404-DO	European Signs Directive Format	Down	<b>₹</b> +■
EL-194404-LR	European Signs Directive Format	Left/Right	<b>■←</b> 九
EL-194404-UP	European Signs Directive Format	Up	A↑ ■
EL-194405-DO	BS EN ISO7010 Format	Down	<b>5</b> •
EL-194405-LR	BS EN ISO7010 Format	Left/Right	<b>₽</b>
EL-194405-UP	BS EN ISO7010 Format	Up	点个

#### **WESTON Exit Legends**

• For use with the **WESTON** Exit Sign

CODE	DESCRIPTION	DIRECTION	
EL-131802-DO	BS EN ISO7010 Format	Down	₩ ಔ
EL-131802-LR	BS EN ISO7010 Format	Left/Right	<b>←</b> □ □ →
EL-131802-UP	BS EN ISO7010 Format	Up	小 包
EL-131803-UP	European Signs Directive Format	Up	<b>■↑</b> %
EL-131803-LR	European Signs Directive Format	Left/Right	<b>■</b> ←

#### **MOUNT LED Back Box**

- LED Back Box for Recessed Fittings **HOLLINSEND** and **PARKWOOD**
- Fully recessed design
- Metal box ceiling assembly

CODE	DESCRIPTION	
EL-194301	Maintained/Non-Maintained, LiFePO4 3.2V Battery	
EL-194303	Maintained/Non-Maintained, LiFePO4 3.2V Battery, Self Test	
EL-194302-24	Slave, 24V	N.
EL-194302-50	Slave, 50V	
EL-194302-110	Slave, 110V	
EL-194302-230	Slave, 230V	



## **AMENITY** LIGHTING

Explore the BLE Amenity Light collection, offering a wide selection of products, primarily from our "Made in Britain" range. These contemporary and stylish designs offer versatile options for both indoor and outdoor settings, seamlessly enhancing any space.

#### **CHELSEA**



















- Reduced power consumptionSurface mounted
- Impact modified polycarbonate opal diffuser

LOW PROFILE AMENITY LIGHT

- High quality metal housing
- Microwave sensor version available
- Emergency version available







CODE	DESCRIPTION
EL-121001-BR	CHELSEA 230V Mains, Brass
EL-121001-CH	CHELSEA 230V Mains, Chrome
EL-121001-WH	CHELSEA 230V Mains, White
SUFFIX	DESCRIPTION
-MW	Microwave Sensor
-M3	3hr Emergency
-M3-MW	3hr Emergency, Microwave Sensor

Input Voltage:	220-240V
Wattage:	14W
Operating Temperature:	0 to +40°C

	Material:	Powder Coated Aluminium
	CRI:	70 CRI
_	Battery Type:	LiFePO4 3.2V 2.0Ah

































- Microwave sensor version available
- Step dim microwave sensor version available
- Emergency version available
- 3CCT





**FORGE** 

- Low power consumption
- Surface mounted

**OXLEY** 

- Polycarbonate opal diffuser
- Microwave sensor version available
- Step dim microwave sensor version available

**CIRCULAR AMENITY LIGHT** 

- Emergency version available
- 3CCT



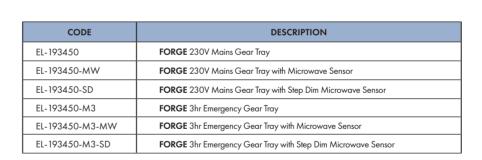


CODE	DESCRIPTION
EL-120651	OXLEY 230V Mains Circular Amenity Light
EL-120651-MW	OXLEY 230V Mains Circular Amenity Light with Microwave Sensor
EL-120651-SD	OXLEY 230V Mains Circular Amenity Light with Step Dim Microwave Sensor
EL-120651-M3	OXLEY 3hr Emergency Circular Amenity Light
EL-120651-M3-MW	OXLEY 3hr Emergency Circular Amenity Light with Microwave Sensor
EL-120651-M3-SD	OXLEY 3hr Emergency Circular Amenity Light with Step Dim Microwaye Sensor

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	15W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	80 CRI
Lumen Output:	1500lm (4000K)
Emergency Lumen Output:	180lm (4000K)
Battery Type:	LiFeP04 3.2V 2.0Ah



#### **SPECIFICATION**

Input Voltage:	220-240V	
Wattage:	15W	
Operating Temperature:	+5 to +45°C	
Material:	Aluminium	

CRI:	80 CRI
Lumen Output:	2100lm (4000K)
Emergency Lumen Output:	260lm (4000K)
Battery Type:	LiFePO4 3.2V 2.0Ah

**AMENITY LIGHTING** 

#### **ENDCLIFFE**























- Reduced power consumption
- Surface mounted
- Impact modified polycarbonate housing and diffuser
- Microwave sensor version available

**CIRCULAR AMENITY LIGHT** 

- Emergency version available
- Photocell version available



CODE	DESCRIPTION	
EL-120701-BL	ENDCLIFFE 230V Mains Amenity Light, Black, Opal Diffuser	
EL-120701-WH	ENDCLIFFE 230V Mains Amenity Light, White, Opal Diffuser	
EL-120702-BL	ENDCLIFFE 230V Mains Amenity Light, Black, Prismatic Diffuser	
EL-120702-WH	ENDCLIFFE 230V Mains Amenity Light, White, Prismatic Diffuser	
SUFFIX	DESCRIPTION	
-MW	ENDCLIFFE Microwave Sensor	
-DD	ENDCLIFFE Photocell	
-M3	ENDCLIFFE 3hr Emergency	
-M3-MW	ENDCLIFFE 3hr Emergency, Microwave	
-M3-DD	ENDCLIFFE 3hr Emergency, Photocell	

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	15W
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

CRI:	70 CRI
Lumen Output:	1090lm
Emergency Lumen Output:	230lm
Battery Type:	LiFeP04 3.2V 2.0Ah

#### **WHIRLOW**

## MADE IN BRITAIN













- Reduced power consumption
- Surface mounted
- Impact modified polycarbonate housing and diffuser
- Emergency version available
- Microwave sensor version available

**SQUARE AMENITY LIGHT** 

Photocell version available



**AMENITY LIGHTING** 



CODE	DESCRIPTION	
EL-120901-BL	WHIRLOW 230V Mains Amenity Light, Black, Opal Diffuser	
EL-120901-WH	WHIRLOW 230V Mains Amenity Light, White, Opal Diffuser	
EL-120902-BL	WHIRLOW 230V Mains Amenity Light, Black, Prismatic Diffuser	
EL-120902-WH	WHIRLOW 230V Mains Amenity Light, White, Prismatic Diffuser	
SUFFIX	DESCRIPTION	
-MW	WHIRLOW Microwave Sensor	
-DD	WHIRLOW Photocell	
-M3	WHIRLOW 3hr Emergency	
-M3-MW	WHIRLOW 3hr Emergency, Microwave	
-M3-DD	WHIRLOW 3hr Emergency, Photocell	

40V
.0°C
rbonate

CRI:	80 CRI
Lumen Output:	1090lm
Emergency Lumen Output:	230lm
Battery Type:	LiFePO4 3.2V 2.0Ah

**DIECAST AMENITY LIGHT** 

• High quality diecast aluminium base and hood • Impact modified polycarbonate opal diffuser

Microwave sensor version available

Emergency version available

Photocell version available

Reduced power consumption

















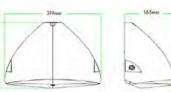






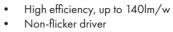












Wattage selectable

**WALL LIGHT** 

- Modern and minimalist design
- Suitable for rear and side cable entry
- Suitable for conduit and BESA box installation
- PCB integrated with diffuser for easy installation
- 2CCT

	6 330mm
	Removeable Eyelid

CODE	DESCRIPTION	
EL-120801	DORE 230V Mains Diecast Amenity Light	
SUFFIX	DESCRIPTION	
-MW	DORE Microwave Sensor	
-DD	<b>DORE</b> Photocell	
-M3	DORE 3hr Emergency	
-M3-MW	DORE 3hr Emergency, Microwave Sensor	
-M3-DD	DORE 3hr Emergency, Photocell	

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	14W
Operating Temperature:	0 to +40°C
Material:	Diecast Aluminium

CRI:	70 CRI
Lumen Output:	550/1090lm (eyelid/non-eyelid)
Emergency Lumen Output:	90/180lm (eyelid/non-eyelid)
Battery Type:	LiFePO4 3.2V 2.0Ah



CODE	DESCRIPTION	
EL-121101-AN	ECCLESALL Diecast Wall Light, Anthracite	
EL-121101-AN-M3	ECCLESALL Diecast Wall Light, Anthracite, 3hr Emergency	
EL-121101-WH	ECCLESALL Diecast Wall Light, White	

#### **SPECIFICATION**

Input Voltage:	220-240V
Wattage:	13/18/28W
Operating Temperature:	0 to +40°C
Material:	Diecast Aluminium

T: 01246 432325 | E: SALES@BLELIGHTING.CO.UK | WWW.BLELIGHTING.CO.UK

80 CRI
1700-3500lm
275lm
LiFePO4 6.4V 1.5Ah



## **LINEAR** FITTINGS

Experience our LED Non-Corrosive and Batten Fittings, designed to illuminate your space precisely where it's needed. With an effortless installation process, you'll be enjoying your newly lit surroundings in no time!

#### **GREENHILL**













- Stylish tube design, suitable for multi-purpose applications
- Push-fit terminals and clip-on gear tray for fast installation
- White powder coated steel body with opal diffuser
- 20mm conduit entry points at each end
- Efficiency up to 100lm/w
- Opal diffuser provides a consistent light uniformity whilst protecting the high performance LED array





CODE	DESCRIPTION	WATTAGE	LUMENS	EMERGENCY LUMENS
EL-182801	GREENHILL LED 230V Mains Batten Fitting	32W	3200lm	-
EL-182801-M3	GREENHILL LED 3hr Emergency Batten Fitting	32W	3200lm	150lm
EL-182802	GREENHILL LED 230V Mains Batten Fitting	60W	6000lm	-
EL-182802-M3	GREENHILL LED 3hr Emergency Batten Fitting	60W	6000lm	150lm

Input Voltage:	220-240V	
Operating Temperature:	0 to +40°C	
Material:	Steel	

CRI:	80 CRI	
Battery Type:	NiCD 3.6V 2.0Ah	

#### **ELLESMERE**

#### **NON-CORROSIVE FITTING**



- Slim design with high efficiency prismatic diffuser
- Polycarbonate body for durability and strength
- Robust stainless steel clips
- Easy installation
- Clips can be locked by screws
- Metal gear tray
- Wattage selectable







CODE	DESCRIPTION	WATTAGE	LUMEN OUTPUT AT 4000K
EL-172704	ELLESMERE LED Non-Corrosive Fitting, 4ft	23/29/34/40W	2760/3480/4080/4800lm
EL-172705	ELLESMERE LED Non-Corrosive Fitting, 5ft	34/42/51/60W	4080/5040/6120/7200lm
EL-172706	ELLESMERE LED Non-Corrosive Fitting, 6ft	37/46/56/70W	4440/5520/6720/8400lm
SUFFIX	DESCRIPTION	-	-
-MW	ELLESMERE LED Non-Corrosive Fitting with Microwave Sensor	-	-
-M3	ELLESMERE LED 3hr Emergency Non-Corrosive Fitting	-	-
-M3-MW	<b>ELLESMERE</b> LED 3hr Emergency Non-Corrosive Fitting with Microwave Sensor	-	-

#### **SPECIFICATION**

Input Voltage: 220-240V	
Operating Temperature:	0 to +40°C
Material:	Polycarbonate

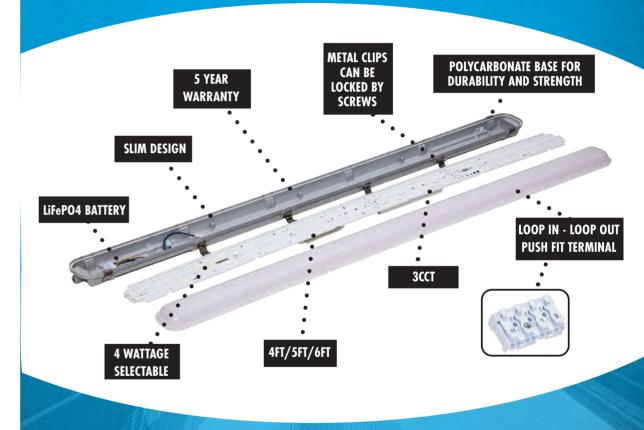
CRI:	80 CRI
Emergency Lumen Output:	200lm
Battery Type:	LiFePO4 6.4V 1.0Ah

## **12 IN 1**



## **ELLESMERE NON-CORROSIVE FITTING**

PRODUCT CODE: EL-172704/5/6



**EMERGENCY AND MICROWAVE SENSOR VERSIONS AVAILABLE** 













## **COMMERCIAL** LIGHTING

Illuminate your commercial space with our energy-efficient LED panels, available in sleek round or square designs. Their low profile ensures versatile adaptability to any project or installation, enhancing the ambience and vibrancy of your environment.

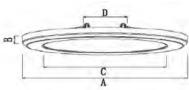
#### **BROADFIELD**

#### **CIRCULAR PANEL**





- Adjustable colour temperature Warm White, Cool White, Day Light
- Adjustable wattage 10W, 13W, 16W
- Even light output
- Slim design
- Over voltage and short circuit protection
- Ideal for retrofit applications
- Class I



A - 235mm

B - 16mm

C - 175mm

D - 65-205mm



CODE	DESCRIPTION
EL-162601	BROADFIELD LED Circular Panel

Input Voltage:	220-240V
Wattage:	10/13/16W
Operating Temperature:	-20 to +40°C

Material:	Polycarbonate
CRI:	80 CRI
umen Output:	950-1800lm
omen corpon	700 10001111

#### **WESTWOOD**

#### **BACK-LIT PANEL**

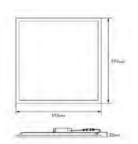
- Cost saving backlit LED panel with white powder coated frame
- High efficiency up to 100lm/w
- Even light distribution for multiple applications
- Flicker free
- Low maintenance, instant light output with 50,000 hours average life
- Over voltage and short circuit protection
- 3CCT

**COMMERCIAL LIGHTING** 

Wattage selectable









CODE	сст	LUMEN OUTPUT	WATTAGE	TP RATING	UGR<19
EL-162501	4000K	3600lm	36W	TPb	No
EL-162502	3000/4000/5700K	3000-4100lm	30-40W Adjustable	TPa	Yes

#### **SPECIFICATION**

Input Voltage:	220-240V	Material:	Steel
Operating Temperature:	-10 to +40°C	CRI:	80 CRI

#### **BOWMAN**

#### **EMERGENCY CONVERSION PACKS**











- Green LED healthy charge indicator
- Suitable for use with solid or stranded cables 1.5mm<sup>2</sup>
- Molded in black UL94\_V0 rated polycarbonate



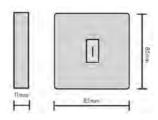
CODE	DESCRIPTION	WATTAGE	BATTERY
EL-193650	<b>BOWMAN</b> Emergency Conversion Pack, for use with the <b>BROADFIELD</b> Circular Panel	5W	LiFePO4 6.4V 3.6Ah
EL-193651	BOWMAN Emergency Conversion Pack, for use with the WESTWOOD Back-Lit Panel	3W	LiFePO4 3.2V 4.4Ah

Input Voltage:	220-240V
Operating Temperature:	+5 to +35°C
Material:	Polycarbonate

#### **HERDINGS**

#### MANUAL TEST SWITCH

- Simple test switch unit
- Key activation provides visual indication
- Extremely cost effective solution for testing luminaires
- A number of luminaires can be tested together





CODE	DESCRIPTION
EL-191601	HERDINGS Backing Box - 30mm
EL-191602	HERDINGS Backing Box - 16mm
EL-191603	HERDINGS Fish Key
EL-191604	HERDINGS Plate, Supplied with fixings
EL-191604	HERDINGS Switch

## **ABBEYFIELD**BATTERIES







- High temperature batteries
- Suitable for emergency lighting applications

CODE	DESCRIPTION
EL-193301	ABBEYFIELD 2 Cell Battery Pack, In Line, Nickel Cadmium, 2.4V 4.0Ah, With Flying Leads
EL-193302	ABBEYFIELD 2 Cell Battery Pack, In Line, Nickel Metal Hydride
EL-193303	ABBEYFIELD 2 Cell Battery Pack, Side by Side, Nickel Cadmium, 2.4V 4.0Ah, With Flying Leads
EL-193304	ABBEYFIELD 3 Cell Battery Pack, In Line, Nickel Cadmium, 3.6V 4.0Ah, With Flying Leads
EL-193305	ABBEYFIELD 3 Cell Battery Pack, Side by Side, Nickel Cadmium, 3.6V 4.0Ah, With Flying Leads
EL-193306	ABBEYFIELD 4 Cell Battery Pack, In Line, Nickel Cadmium, 4.8V 4.0Ah, With Flying Leads
EL-193307	ABBEYFIELD 4 Cell Battery Pack, Side by Side, Nickel Cadmium, 4.8V 4.0Ah, With Flying Leads
EL-193308	ABBEYFIELD Sub C Battery, NiCD 3 Cell 1.6Ah, 3.6V
EL-193309	ABBEYFIELD LiFePO4 Battery, 3.2V, 2.0Ah

#### **CASE STUDY**

#### CONRAD LONDON ST JAMES HOTEL

BLE Lighting and Power recently supplied 160 Recessed Exit Signs for the Conrad London St James Hotel

We recently supplied 160 LED Recessed Exit Signs to a customer of ours for an upcoming job they had with a hotel in London. The Hotel was the luxury Conrad London St James Hotel. This hotel is apposite St James Park, less than a ten-minute walk to the Houses of Parliament, and a short stroll to Trafalgar Square.

We are proud to have provided emergency lighting that fully conforms to the standards required in such a prestigious and beautiful hotel.



When the fittings were originally put into production, we advised the customer there would be 4 to 5 week turnaround. We were able to drastically improved on this, and the order was completed in just over 2 weeks.

The hotel underwent a major internal refurbishment to include new wiring and new emergency lighting on all floors.

Both our customer and the hotel were impressed with the turnaround on the production time.

We are proud to have provided emergency lighting that fully conforms to the standards required in such a prestigious and beautiful hotel.

BLE Lighting & Power





# **POWER** SYSTEMS

Explore our versatile range of power systems, specifically designed to provide crucial back-up power when it matters most. With options to fit any size of premises and customisable solutions for all client applications.

# **CASE STUDY**

# SOUTH AYRSHIRE COUNCIL

BLE Lighting and Power recently carried out work for South Ayrshire Council to provide a solution to replace the failed central battery system at County Buildings in Ayr. Upon inspection, the failed system was situated on the first floor with access via a staircase which created a few logistical challenges.

We supplied a 1.6KVA system which our engineers fitted and commissioned. The removed failed system was brought back to BLE to be recycled.

Our range of Single Phase Static Inverters are manufactured to a high standard, providing a cost effective integrated solution for emergency power for escape and emergency lighting systems where a minimum of 3 hours duration and less than 24 hours full recharging is required.



Our contact at South Ayrshire Council said that "The project was seamless from start to finish, and as a result we have asked BLE to provide a solution for another failed central battery system".

BLE is committed to delivering high quality products and services and we have the technical expertise and knowledge on industry and legislative standards to ensure that we are supplying you with a fully compliant solution to meet the needs of all projects, no matter how big or small.

"The project was seamless from start to finish, and as a result we have asked BLE to provide a solution for another failed central battery system".

**South Ayrshire Council** 







# **STANFORD**

# SINGLE PHASE STATIC INVERTERS

- Designed for emergency lighting applications
- Compact design for ease of installation in a restricted space
- Smart battery charge management to optimise battery life
- Transformer based design
- Low maintenance
- Output configuration active standby
- Complies with BS EN 50171:2021
- Batteries comply with EN 60896-21 and EN 60896-22
- Sealed lead acid batteries rated for 10 years service life
- Digital system status display



# **INPUT CHARACTERISTICS**

Input Voltage:	220-240V	
THD (Linear Load):	<5%	
Frequency:	50Hz	
Phase:	Single Phase	
МСВ Туре:	Type C/D	
DC Supply:	192V Nominal	

# **GENERAL**

Colour:	Blue / Grey
Display Type:	LCD with User Interface
Fixing Locations:	Floor Standing
Cable Entry:	Bottom Entry
Warranty:	1 Year

# **BATTERIES**

Battery Type:	Sealed Lead Acid
Battery Duration:	3 Hours
Battery Service Life	10 Years

# **OUTPUT CHARACTERISTICS**

or Step Down Package) 50Hz 5ingle Phase 163.2V 8 Hours 5+/- 0.5% Asynchronous 5+/-2% Synchronous
Single Phase 163.2V B Hours ++/- 0.5% Asynchronous
63.2V B Hours c+/- 0.5% Asynchronous
B Hours C+/- 0.5% Asynchronous
<+/- 0.5% Asynchronous
,
+/-2% Synchronous
3:1
Pure Sine Wave
)-100% Dynamic Load 100%
20% continuously for > 1 hour
50% continuously for 10 minutes
200% continuously for <1 minute
90%
0.70
Maintained/Non-Maintained
Circuit Breaker
3

# **ENVIRONMENTAL**

Operating Temperature	0 to +22 °C
Relative Humidity	30-90% non-condensing
Altitude:	<1000M
Noise:	45-65dBA
IP Rating:	IP22
Ventilation:	Forced Air

CODE	DESCRIPTION	MAX INPUT CURRENT	OUTPUT CURRENT	INVERTER CUBICLE DIMENSIONS (H X W X D)	INVERTER CUBICLE WEIGHT	BATTERY CABINET DIMENSIONS (H X W X D)	BATTERY CABINET QTY	BATTERY CABINET WEIGHT (INC BATTERIES)
PS-140501	1.6KVA (1.3KW) Single Phase Static Inverter Package, 192V (16 x 24Ah 12V Batteries)	20A	<i>7</i> A	740 x 343 x 630mm	93Kg	1350 x 780 x 470mm	1	201 Kg
PS-140503	2.6KVA (2.2KW) Single Phase Static Inverter Package, 192V (16 x 36Ah 12V Batteries)	26A	11.5A	740 x 343 x 630mm	93Kg	1350 x 780 x 470mm	1	281 Kg
PS-140505	3.8KVA (3.2KW) Single Phase Static Inverter Package, 192V (16 x 64Ah 12V Batteries)	32A	16A	740 x 343 x 630mm	93Kg	1350 x 780 x 470mm	1	465Kg
PS-140507	5.5KVA (4.7KW) Single Phase Static Inverter Package, 192V (16 x 100Ah 12V Batteries)	45A	24A	1002 x 343 x 630mm	150Kg	1350 x 780 x 470mm	1	641 Kg
PS-140509	7.6KVA (6.3KW) Single Phase Static Inverter Package, 192V (32 x 64Ah 12V Batteries)	53A	33A	1002 x 343 x 630mm	150Kg	1350 x 780 x 470mm	2	930Kg
PS-140511	11 KVA (9.3KW) Single Phase Static Inverter Package, 192V (32 x 100Ah 12V Batteries)	55A	48A	1160 x 480 x 720mm	200Kg	1350 x 780 x 470mm	2	1332Kg
PS-140513	16.6KVA (14.1KW) Single Phase Static Inverter Package, 192V (48 x 100Ah 12V Batteries)	86A	72A	1160 x 480 x 720mm	200Kg	1350 x 780 x 470mm	3	1923Kg

SUFFIX	DESCRIPTION
-NB	Inverter Only, No Batteries
-BO	Battery Package Only with Isolator, Shrouds, Links & Leads
-24	Step Down Transformer Package including Enclosure, Fuses, Fuse Holders - 24V Output
-48	Step Down Transformer Package including Enclosure, Fuses, Fuse Holders - 48V Output
-110	Step Down Transformer Package including Enclosure, Fuses, Fuse Holders – 110V Output

CODE	ACCESSORY DESCRIPTION
PS-140515-RT	STANFORD Remote Test for Static Inverters 1.8KVA, 2.6KVA and 3.8KVA
PS-140516-RT	STANFORD Remote Test for Static Inverters 5.5KVA & 7.6KVA
PS-140517-RT	STANFORD Remote Test for Static Inverters 11 KVA & 16.6KVA

**POWER SYSTEMS** 

# **POWER SYSTEMS**

# **RENISHAW**

# THREE PHASE STATIC INVERTERS

- Designed for Emergency Lighting applications
- Smart battery charge management to optimise battery life
- Transformer based design
- Low maintenance
- Output configuration active standby
- Complies with BS EN 50171: 2021
- Batteries comply with EN 60896-21 and EN 60896-22
- Touch screen digital display indicating system status and menus
- High specification technical control circuit



# **INPUT CHARACTERISTICS**

Input Voltage:	400V AC
THD (Linear Load):	<5%
Frequency:	50Hz
Phase:	3 Phase & Neutral
МСВ Туре:	C/D Type
Input Terminal Size:	6mm
DC Supply:	384V Nominal

# **GENERAL**

Colour:	Blue / Grey	
Display Type:	Touch Screen	
Fixing Locations:	Floor Standing	
Cable Entry:	Bottom Entry	
Warranty:	1 year	

#### **BATTERIES**

Battery Type:	Sealed Lead Acid	
Battery Duration:	3 Hours	
Battery Service Life	10 Years	

# **OUTPUT CHARACTERISTICS**

400V AC
50Hz
3 Phase & Neutral
325V
3 Hours
<+/- 0.5% Asynchronous
<+/- 2% Synchronous
3:1
Pure Sine Wave
0-100% Dynamic Load 100%
150% continuously for 10 minutes
200% continuously for 1 minute
>90%
>0.70
Continuous Output
Circuit Breaker

# **ENVIRONMENTAL**

Operating Temperature:	0 to +22°C
Relative Humidity:	30-90% non-condensing
Noise:	45dBA
IP Rating:	IP22
Ventilation:	Forced Air

CODE	DESCRIPTION	MAX INPUT CURRENT	OUTPUT CURRENT	INVERTER CUBICLE DIMENSIONS (H X W X D)	INVERTER CUBICLE WEIGHT	BATTERY CABINET DIMENSIONS (H X W X D)	BATTERY CABINET QTY	BATTERY CABINET WEIGHT (INC BATTERIES)
PS-140601	3.3KVA (2.8KW) Three Phase Static Inverter Package, 384V (32 x 24Ah 12V Batteries)	9.5A / Phase	6A / Phase	1220 x 555 x 725mm	93Kg	1350 x 780 x 470mm	1	345Kg
PS-140603	5.3KVA (4.5KW) Three Phase Static Inverter Package, 384V (32 x 36Ah 12V Batteries)	15A / Phase	10A / Phase	1220 x 555 x 725mm	223Kg	1350 x 780 x 470mm	1	505Kg
PS-140605	7.6KVA (6.5KW) Three Phase Static Inverter Package, 384V (32 x 64Ah 12V Batteries)	19A / Phase	12A / Phase	1220 x 555 x 725mm	223Kg	1350 x 780 x 470mm	2	930Kg
PS-140607	11 KVA (9.3 KW) Three Phase Static Inverter Package, 384V (32 x 100Ah 12V Batteries)	25A / Phase	16A / Phase	1220 x 555 x 725mm	270Kg	1350 x 780 x 470mm	2	1282Kg
PS-140608	17KVA (14KW) Three Phase Static Inverter Package, 384V (64 x 64Ah 12V Batteries)	40A / Phase	22A / Phase	1220 x 555 x 725mm	300Kg	1350 x 780 x 470mm	4	2160Kg
PS-140609	22KVA (19.7KW) Three Phase Static Inverter Package, 384V (64 x 100Ah 12V Batteries)	50A / Phase	32A / Phase	1220 x 555 x 725mm	300Kg	1350 x 780 x 470mm	4	2564Kg
PS-1406011	33KVA (28KW) Three Phase Static Inverter Package, 384V (96 x 100Ah 12V Batteries)	75A / Phase	48A / Phase	1510 x 650 x 700mm	333Kg	1350 x 780 x 470mm	6	3846Kg
PS-1406013	44KVA (37.4KW) Three Phase Static Inverter Package, 384V (128 x 100Ah 12V Batteries)	100A / Phase	64A / Phase	1510 x 650 x 700mm	360Kg	1350 x 780 x 470mm	8	5128Kg
PS-1406015	50KVA (40KW) Three Phase Static Inverter Package, 384V (160 x 100Ah 12V Batteries)	110A / Phase	73A / Phase	1510 x 650 x 700mm	370Kg	1350 x 780 x 470mm	10	6410Kg

SUFFIX	DESCRIPTION
-NB	Inverter Only, No Batteries
-BO	Battery Package Only with Isolator, Shrouds, Links & Leads

# **STAVELEY**

# MADE IN BRITAIN

# MINI LED INVERTERS

- Engineered to suit LED lighting
- Cost effective solution to powering unmodified LED Luminaires in the event of mains failure
- Multi-functional LCD display
- 32 bit micro-controller
- Overload and short circuitry protection
- Compatible with optional remote hold-off relays
- Steel housing

**POWER SYSTEMS** 

- Designed in accordance with BS EN 50171:2021
- 3 hour emergency duration
- Wall mount or free standing
- One fused output, 5A input
- Additional fused outputs available on request
- Remote alarm monitoring and test options available on request





50W, 120W, 200W & 400W



CODE	DESCRIPTION	MAX INPUT CURRENT	INVERTER CUBICLE DIMENSIONS (H X W X D)	BATTERY CABINET DIMENSIONS (H X W X D)	BATTERY CABINET QUANTITY	TOTAL WEIGHT
PS-130401	STAVELEY 50W Mini LED Inverter (2 x 12Ah 12V Batteries)	< 3.0A	305 x 472 x 166mm	Integral	N/A	25.5Kg
PS-130402	STAVELEY 120W Mini LED Inverter (2 x 24Ah 12V Batteries)	< 3.0A	305 x 472 x 166mm	238 x 472 x 174mm	1	41.5Kg
PS-130403	STAVELEY 200W Mini LED Inverter (2 x 36Ah 12V Batteries)	< 5.0A	305 x 472 x 166mm	238 x 472 x 174mm	1	51.5Kg
PS-130404	STAVELEY 400W Mini LED Inverter (4 x 36Ah 12V Batteries)	< 5.0A	305 x 472 x 166mm	238 x 472 x 174mm	2	86.5g
PS-130405	STAVELEY 800W Mini LED Inverter (2 x 100Ah 12V Batteries)	< 5.0A	773 x 510 x 386mm	Integral	N/A	112Kg

# **INPUT CHARACTERISTICS**

Input Voltage:	220-240V
Frequency:	50Hz
Phase:	Single Phase
Float Voltage:	27.5V
MCB Type:	13A Fused Spur
Input Terminal Size:	4mm
DC Supply:	24V
Efficiency at 100% Load:	>95%

# **GENERAL**

Colour:	White
Display Type:	LCD
Fixing Locations:	Wall Mount / Free Standing
Cable Entry:	Top / Side
Warranty:	1 year

#### **BATTERIES**

Battery Type:	Sealed Lead Acid
Battery Duration:	3 Hours
Battery Service Life:	10 Years

# **OUTPUT CHARACTERISTICS**

Output Voltage:	220-240V
Output Frequency:	50Hz
Output Regulation:	1-5% Dependent on Load
Phase:	Single Phase
Low Voltage Disconnect:	19.2V
System Duration:	3 Hours
Overload Capacity:	20% continuously for > 1 hour
	150% continuously for 10 minutes
	200% continuously for <1 minute
Efficiency (100% Load):	<95%
Output Category:	Maintained
Change Over Time:	0.05 Seconds
Output Protection:	Fuse

#### **ENVIRONMENTAL**

Operating temperature:	0 to +22-C
Relative Humidity:	90% non-condensing
Altitude:	<1000M
Noise:	20dBA at 1 MdBA
IP Rating:	IP22
Ventilation:	Forced Air

# **RESEARCH**

# & DEVELOPMENT

At BLE Lighting & Power, our R&D team is dedicated to providing new and innovative products to our customers. The newly developed R&D Facility was created for our skilled team, not only to enhance productivity but also to foster creativity, ensuring that their talents are utilised to the fullest potential.

Complete with state-of-the-art tools like a 3D printer, for faster and more efficient prototyping, allowing a seamless workflow that ultimately translates into delivering better products and services to our valued clients.

The introduction of an Oscilloscope into our R&D facility has significantly improved our diagnostic capabilities. As it allows us to "listen" to the heartbeat of static inverters, we can easily pinpoint any anomalies and mitigate issues before they escalate.

The BLE Connect product is a testament to the ingenuity and dedication of our R&D team. By keeping up with the latest technological advancements, we remain at the forefront of innovation within the industry.

This commitment to improvement and investment in new technology demonstrates the ambition of BLE Lighting & Power – delivering outstanding experiences and solutions for our customers.







# **HEATHCOTE**

# MINI CENTRAL BATTERY UNIT

- Designed and manufactured at BLE using quality components
- Safe, reliable and secure source of emergency power for escape and emergency lighting systems
- Meets the requirements of BS EN 50171:2021
- Housed in a robust steel cabinet, finished in a durable neutral coloured textured finish – RAL 7032
- Efficient, easily operated unit
- Low maintenance costs
- High voltage and low voltage alarm
- Low voltage disconnect with zero standby current



#### INPUT CHARACTERISTICS

#### **SYSTEM CHARACTERISTICS**

System Duration:	Total 3 Hour Load
Mode of Operation:	Maintained / Non-Maintained

#### **BATTERIES**

Battery Type:	Sealed Lead Acid	
Battery Voltage:	12V	
Battery Duration:	3 Hours	
Battery Service Life:	10 Years	

#### **GENERAL**

Colour:	Neutral RAL 7032
Cable Entry:	Top / Side
Warranty:	1 Year

#### **OUTPUT CHARACTERISTICS**

Output Voltage: 24V AC/DC

#### **ENVIRONMENTAL**

Operating Temperature:	0 to +22°C
Rating:	IP22
entilation:	Vented

#### **DIMENSIONS & WEIGHT**

/idth:	500mm
epth:	250mm
eight:	500mm

CODE	DESCRIPTION	3 HOUR DURATION WATTS	TOTAL SYSTEM WEIGHT
PS-120201	HEATHCOTE 24V DC Mini Central Battery Unit, 160W (2 x 24Ah 12V Batteries)	24V DC Voltage – 160W	88Kg
PS-120202	HEATHCOTE 24V DC Mini Central Battery Unit, 250W (2 x 36Ah 12V Batteries)	24V DC Voltage – 250W	98Kg
PS-120203	HEATHCOTE 24V DC Mini Central Battery Unit, 400W (2 x 64Ah 12V Batteries)	24V DC Voltage – 400W	121 Kg

# **HOLMEBROOK**

# **CENTRAL BATTERY UNIT**

- Designed and manufactured at BLE using quality components
- Safe, reliable and secure source of emergency power for escape and emergency lighting systems
- Meets the requirements of BS EN 50171:2021
- Housed in a robust steel cabinet, finished in a durable neutral coloured textured finish – RAL 7032
- Efficient, easily operated unit
- Low maintenance costs
- Choice of emergency output voltage 24V, 48V & 108V DC
- Silicone controlled rectifier (SCR)
- Multi-function digital meter, measuring charge current, discharge current, battery voltage and mains voltage
- Automatic test timer, with selectable time durations 10 minutes, 1 hour or 3 hours
- High voltage and low voltage alarm
- Low voltage disconnect with zero standby current





# INPUT CHARACTERISTICS

Input Voltage: 230V (400V on request)

#### SYSTEM CHARACTERISTICS

System Duration:	Total 3 Hour Load
Mode of Operation:	Maintained / Non-Maintained

#### **GENERAL**

Colour:	Neutral RAL 7032
Cable Entry:	Top / Side
Warranty:	1 Year

# **ENVIRONMENTAL**

ed

#### **BATTERIES**

Battery Type:	Sealed Lead Acid	
Battery Voltage:	12V	_
Battery Duration:	3 Hours	_
Battery Service Life:	10 Years	_

CODE	DESCRIPTION	OUTPUT VOLTAGE	3 HOLIP DIJECTION   DIMENSIONS		TOTAL SYSTEM WEIGHT
PS-120301	HOLMEBROOK 24V DC Central Battery Unit, 160W (2 x 24Ah 12V Batteries)	24V AC	24V DC Voltage - 160W	650 x 450 x 850mm	94Kg
PS-120302	HOLMEBROOK 24V DC Central Battery Unit, 250W {2 x 36Ah 12V Batteries}	24V AC	24V DC Voltage - 250W	650 x 450 x 850mm	104Kg
PS-120303	HOLMEBROOK 24V DC Central Battery Unit, 450W (2 x 64Ah 12V Batteries)	24V AC	24V DC Voltage - 450W	650 x 450 x 850mm	127Kg
PS-120304	HOLMEBROOK 24V DC Central Battery Unit, 620W (2 x 100Ah 12V Batteries)	24V AC	24V DC Voltage - 620W	650 x 450 x 850mm	149Kg
PS-120305	HOLMEBROOK 48V DC Central Battery Unit, 320W (4 x 24Ah 12V Batteries)	50V AC	48V DC Voltage - 320W	650 x 450 x 850mm	112Kg
PS-120306	HOLMEBROOK 48V DC Central Battery Unit, 500W (4 x 36Ah 12V Batteries)	50V AC	48V DC Voltage - 500W	1000 x 500 x 1250mm	166Kg
PS-120307	HOLMEBROOK 48V DC Central Battery Unit, 900W (4 x 64Ah 12V Batteries)	50V AC	48V DC Voltage - 900W	1000 x 500 x 1250mm	212Kg
PS-120308	HOLMEBROOK 48V DC Central Battery Unit, 1240W (4 x 100Ah 12V Batteries)	50V AC	48V DC Voltage - 1240W	1000 x 500 x 1250mm	365.5Kg
PS-120309	HOLMEBROOK 108V DC Central Battery Unit, 720W (9 x 24Ah 12V Batteries)	110V AC	108V DC Voltage - 720W	1000 x 500 x 1250mm	191 Kg
PS-120310	HOLMEBROOK 108V DC Central Battery Unit, 1125W [9 x 36Ah 12V Batteries]	110V AC	108V DC Voltage - 1125W	1000 x 500 x 1250mm	236Kg
PS-120311	HOLMEBROOK 108V DC Central Battery Unit, 2025W (9 x 64Ah 12V Batteries)	110V AC	108V DC Voltage - 2025W	1000 x 500 x 1250mm	339.5Kg
PS-120312	HOLMEBROOK 108V DC Central Battery Unit, 2790W (9 x 100Ah 12V Batteries)	110V AC	108V DC Voltage - 2790W	1000 x 500 x 1250mm	438.5Kg



**POWER SYSTEMS** 



# **BATTERIES**& ACCESSORIES

Our range of SLA high-efficiency batteries are perfect for emergency lighting and uninterruptible power supply applications. Our battery cabinet enclosures are crafted specifically for battery systems. With a variety of options at your disposal, you can ensure every system perfectly complements your unique project needs.

# We now supply Yuasa VRLA Batteries

**SWL Range** 

Specially designed for emergency lighting

Industrial applications

For use alongside our range of power systems





For more information on the range available, please speak to a member of the sales team

01246 432325

# BATTERIES & ACCESSORIES

# **BREARLEY**

# **SEALED LEAD ACID BATTERIES**

- Ideal for emergency lighting, fire alarm and UPS applications
- Monobloc design for economy of installation and maintenance
- Recharge in less than 24 hours
- One-way pressure-relief for safety and long life
- Glue seal case-to-cover bond to eliminate leakage
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance
- UL Recognised Component
- Complies to BS EN 60896-21 and BS EN 60896-22
- Can be mounted in any position



# **GENERAL**

Nominal Voltage:	12V
Capacity Affected by Temperature:	40ºC - 102%
	25°C - 100%
	0°C - 85%
Service Life:	15 years (floating) at 25°C
Constant Voltage Charge – Standby:	No limit on initial charging current
	Voltage 13.5~13.8V at 25°C
	Temperature Coefficient -20mV/°C

CODE	DESCRIPTION	DIMENSIONS (L X W X H)	WEIGHT	STANDARD TERMINALS	BOLT TYPE	TORQUE
PS-110101	BREARLEY 12V 2.2Ah Sealed Lead Acid Battery	178 x 35 x 60mm	0.93Kg	F1 Fasten Tab No 187E (F1)	N/A	N/A
PS-110102	BREARLEY 12V 3.2Ah Sealed Lead Acid Battery	135 x 67 x 61 mm	1.34Kg	F1 Fasten Tab No 187E (F1)	N/A	N/A
PS-110103	BREARLEY 12V 7Ah Sealed Lead Acid Battery	151 x 65 x 95mm	2.15Kg	F1 Fasten Tab No 187E (F1)	N/A	N/A
PS-110104	BREARLEY 12V 24Ah Sealed Lead Acid Battery	175 x 165 x 126mm	9Kg	Threaded Terminal	M5	55" - 1lb (6.2Nm)
PS-110105	BREARLEY 12V 36Ah Sealed Lead Acid Battery	198 x 166 x 172mm	14Kg	Threaded Terminal	M5	55" - 1lb (6.2Nm)
PS-110106	BREARLEY 12V 64Ah Sealed Lead Acid Battery	259 x 168 x 208mm	25.5Kg	Threaded Terminal	M6	75" - 1lb (8.5Nm)
PS-110107	BREARLEY 12V 100Ah Sealed Lead Acid Battery	407 x 174 x 238mm	36.5Kg	Threaded Terminal	M6	75" - 1lb (8.5Nm)
PS-110108	BREARLEY 12V 150Ah Sealed Lead Acid Battery	532 x 207 x 214mm	55Kg	Threaded Terminal	M8	110" - 1lb (12.4Nm)
PS-110115	BREARLEY 12V 200Ah Sealed Lead Acid Battery	522 x 240 x 219mm	67.5Kg	Threaded Terminal	М8	110" - 1lb (12.4Nm)

CODE	DESCRIPTION
PS-110109	BREARLEY Battery Links for 1.6KVA Static Inverter
PS-110110	BREARLEY Battery Links for 2.6KVA Static Inverter
PS-110111	BREARLEY Battery Links for 3.8KVA Static Inverter
PS-110112	BREARLEY Battery Links for 5.5KVA Static Inverter
PS-110113	BREARLEY Battery Links for 24V Static Inverter
PS-110114	BREARLEY Battery Links for 48V Static Inverter
PS-110116	BREARLEY Battery Links for 110V Static Inverter

# **TAPTON**

# **BATTERY CABINETS**

- Designed and built for battery systems
- Compact footprint and easy to assemble
- High load capacity
- Manufactured to IP21
- Manufactured from high quality steel
- Easy to assemble and disassemble
- Can be used for a wide range of battery ratings
- Rubber clad runners



CODE	BATTERY CAPACITY	BATTERY QTY	STRUCTURE	LAYER NUMBER	DIMENSIONS (L X W X D)	WEIGHT
PS-150701	17Ah/24Ah/38Ah or 65Ah/100Ah	5/3/2 or 1	Integral	1	435 x 210 x 270mm	3.3Kg
PS-150702	17Ah/24Ah/38Ah	6/4/3	Integral	1	540 x 210 x 230mm	7Kg
PS-150703	17Ah/24Ah	3/2	Integral	1	280 x 190 x 220mm	2.2Kg
PS-150704	17Ah/24Ah/38Ah or 65Ah/100Ah	10/6/4 or 2	Combination	1	450 x 470 x 320mm	7Kg
PS-150705	17Ah/24Ah/38Ah or 65Ah/100Ah	14/8/6 or 3	Combination	1	585 x 470 x 320mm	9Kg
PS-150706	17Ah/24Ah/38Ah or 65Ah/100Ah	20/12/8 or 4	Combination	2	450 x 470 x 615mm	13Kg
PS-150707	17Ah/24Ah/38Ah or 65Ah/100Ah	28/16/12 or 6	Combination	2	585 x 470 x 615mm	18Kg
PS-150708	17Ah/24Ah/38Ah or 65Ah/100Ah	36/20/16 or 8	Combination	2	780 x 470 x 615mm	21 Kg
PS-150709	17Ah/24Ah/38Ah or 65Ah/100Ah	44/28/20 or 10	Combination	2	950 x 470 x 615mm	24Kg
PS-150710	24Ah/38Ah or 65Ah/100Ah	30/24 or 12	Combination	3	780 x 470 x 900mm	32Kg
PS-150711	24Ah/38Ah or 65Ah/100Ah	40/32 or 16	Combination	4	780 x 470 x 1190mm	45Kg
PS-150712	24Ah/38Ah or 65Ah/100Ah	56/40 or 20	Combination	4	950 x 470 x 1190mm	50Kg
PS-150713	65Ah/100Ah	24	Combination	4	1150 x 470 x 1190mm	90Kg
PS-150714	65Ah/100Ah	32	Combination	4	780 x 880 x 1190mm	95Kg
PS-150715	65Ah/100Ah	40	Combination	4	950 x 880 x 1190mm	100Kg

# LINACRE

# STANDARD BATTERY RACKING

- Designed to safely accommodate all types of industrial batteries
- We utilise basic structural calculations to ensure the rack is designed and manufactured to be capable of supporting the requisite battery system, whilst providing adequate access for maintenance purposes
- Adjustable feet
- Acid resistant epoxy coating
- Multiple sizes of backing box available
- Racks are constructed in a terraced manner to permit easy viewing of electrolyte levels and great access for when topping up
- The relevant parts of BS6133 are used in the design of the racks
- All fasteners are supplied with insulating plastic caps and wall or floor stabilising brackets can be specified optionally
- All open racks are provided with insulating electrolyte resistant rubber capping for the support rails in compliance with EN50272-2 (2021) battery insulation.



#### **GENERAL**

Materials:	Square and rectangular hollow section steel ranging from 1.5mm to 3mm thickness
	Tubing for high yield strength complies with BS EN 10113: 1993: Part 1
	Tubing for lower yield strength complies with BS6323 Part 5: 1982 ERW1
Coating:	Epoxy coated Satin Black (RAL9011)
	Minimum thickness 70µm

CODE	DESCRIPTION
PS-160801	LINACRE Standard Battery Racking

**BATTERIES & ACCESSORIES** 

# **RINGWOOD**

# **BATTERY ISOLATOR**

- Offers protection between the inverter unit and batteries
- Protects equipment in the event of a short circuit or overload
- DC Voltage range: 192-432V



CODE	DESCRIPTION	DIMENSIONS (W X H X D)
PS-201201	RINGWOOD Battery Isolator, 16A, 1 String	194 x 240 x 110mm
PS-201202	RINGWOOD Battery Isolator, 32A, 1 String	194 x 240 x 110mm
PS-201203	RINGWOOD Battery Isolator, 40A, 1 String	194 x 240 x 110mm
PS-201204	RINGWOOD Battery Isolator, 16A, 2 Strings	194 x 240 x 110mm
PS-201205	RINGWOOD Battery Isolator, 32A, 2 Strings	194 x 240 x 110mm
PS-201206	RINGWOOD Battery Isolator, 40A, 2 Strings	194 x 240 x 110mm
PS-201207	RINGWOOD Battery Isolator, 50A, 2 Strings	300 x 300 x 150mm
PS-201208	RINGWOOD Battery Isolator, 63A, 2 Strings	300 x 300 x 150mm
PS-201209	RINGWOOD Battery Isolator, 125A, 2 Strings	300 x 300 x 150mm
PS-2012010	RINGWOOD Battery Isolator, 50A, 3 Strings	300 x 300 x 150mm
PS-201211	RINGWOOD Battery Isolator, 63A, 3 Strings	400 x 300 x 200mm
PS-201212	RINGWOOD Battery Isolator, 80A, 3 Strings	400 x 300 x 200mm

# **BATTERY**

**CYCLING** 

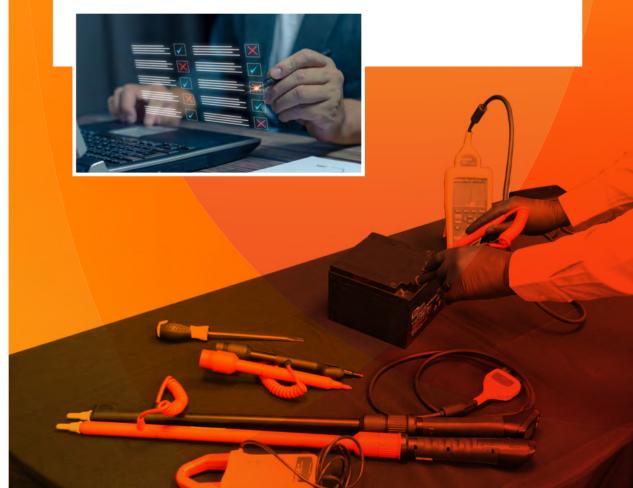


Here at BLE we operate a specialised battery cycling facility that is designed to cycle, test, and analyse the performance of batteries under various conditions.

Our battery cycling facility plays a critical role in the development and optimisation of our batteries. By subjecting batteries to realistic conditions and analysing their performance in real-time, our engineers can identify ways to improve battery design and performance, ultimately leading to more efficient and reliable batteries for a wide range of applications.

We use specialised software and equipment to track key performance metrics such as voltage, current, and temperature. By analysing the data, our engineers can identify patterns and trends that can help them optimise battery design and performance.

We also test using different charging and discharging protocols to optimize battery life and reduce the risk of damage or failure.





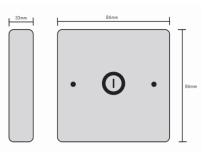
# POWER SYSTEM ACCESSORIES

Our range of accessories are designed to seamlessly integrate with our exceptional range of power systems. From Circuit Failure Monitoring Units to Bypass Switches, we've got you covered with a comprehensive solution for all your backup power needs.

# **THORPE**

# **SEMI-AUTOMATIC TEST SWITCH**

- Cost effective solution for testing luminaires
- Fail-safe method of operation
- Flush or surface mount options available
- Clear LED indication for duration test
- Choice of time settings: 10 minutes, 30 minutes, 1 hour, 3 hours
- Optional audio buzzer alert for completion of duration test
- DIN Mount option available on request





# GENERAL

Input Voltage:	220-240V
Colour / Finish:	White
Material:	Polycarbonate
Dimensions (L x W x D):	86 x 86 x 33mm

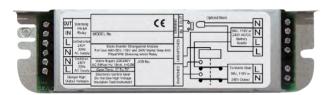
CODE	DESCRIPTION
EL-193701	THORPE Semi-Automatic Emergency Lighting Test Switch

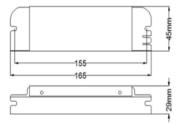
\*PRODUCT SUPPLIED MAY DIFFER FROM IMAGE SHOWN

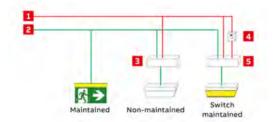
**ACCESSORIES** 

# CIRCUIT FAILURE MONITORING

- Static inverter changeover module
- Suitable for 50V, 110V or 230V AC or DC systems
- In the event of local sub-circuit supply failure the local emergency lighting circuit is energised (irrespective of the position of the local switch)
- Compact and easy to install
- Supplied either as a changeover module, which can be integrally mounted within the luminaire, or housed in a fire rated
  enclosure for remote mounting
- Emergency lighting changeover relays with an additional dimming inhibition relay that will restore a fitting that was running in a mains dimmed state, to full brightness for emergency operation
- Compatible with fluorescent and LED loads
- The associated control gear must be capable of being run from the emergency voltage







#### **GENERAL**

ACCESSORIES

Emergency Voltage from Static Inverter:	50V, 110V or 240V AC (50/60Hz) or DC
Ambient Temperature (°C)	0 to +35°C
Mains Supply:	230V-240V AC 50/60Hz
Changeover Relay Rating:	3A 240V (not suitable for high in-rush currents,
	monitor only, not load carrying)
Power Rating:	19mA = 0.58
Dimension (L x W x D):	165 x 45 x 29mm
Weight:	320g

CODE	DESCRIPTION	AMPS	NO OF WAYS	REMOTE ENCLOSURE DIMENSIONS (L X W X H)
PS-170901-INV	WHITECOTES Circuit Failure Monitoring Unit, PCB with Enclosure	3 Amp	1 Way	150 x 150 x 225mm
PS-170901-LC	WHITECOTES Circuit Failure Monitoring Unit, Contactor	12 Amp	1 Way	150 x 150 x 225mm
PS-170902-INV	WHITECOTES Circuit Failure Monitoring Unit, PCB with Enclosure	3 Amp	4 Way	300 x 400 x 200mm
PS-170902-LC	WHITECOTES Circuit Failure Monitoring Unit, Contactor	12 Amp	4 Way	300 x 400 x 200mm
PS-170903-INV	WHITECOTES Circuit Failure Monitoring Unit, PCB with Enclosure	3 Amp	8 Way	800 x 600 x 200mm
PS-170904-INV	WHITECOTES Circuit Failure Monitoring Unit, PCB with Enclosure	3 Amp	12 Way	800 x 600 x 200mm
PS-170905-INV	WHITECOTES Circuit Failure Monitoring Unit, PCB with Enclosure	3 Amp	16 Way	800 x 600 x 200mm
PS-170906-INV	WHITECOTES Circuit Failure Monitoring Unit, PCB with Enclosure	3 Amp	20 Way	On application
PS-170907-INV	WHITECOTES Circuit Failure Monitoring Unit, PCB with Enclosure	3 Amp	24 Way	On application
PS-170908-INV	WHITECOTES Circuit Failure Monitoring Unit, PCB with Enclosure	3 Amp	30 Way	On application

# **Sub-Circuit Monitoring**

It is a mandatory requirement that Emergency Lighting is energised in the event of a local sub-distribution failure, not just on total building supply failure. Hold-off and sub-circuit monitoring relays are used to energise luminaires in the case of local supply failure. They may be used to feed more than one luminaire on the same switched circuit.

# **Hold-Off Relays**

Non-maintained luminaires are connected to a localised sub-circuit hold-off relay fed from a maintained battery system. These luminaires are only energised when the supply to the hold-off relay fails.

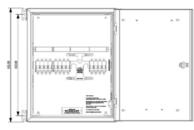
# HILLTOP

# **COMPACT BYPASS SWITCHES**

- Perfect for small to mid-size three phase systems typically 10kVA to 40kVA
- Easy installation
- Compact size

ACCESSORIES

- Top/bottom full size gland plates
- Top/bottom cable access
- Mechanical key interlock
- All labels engraved
- IP2X voltage measurement holes







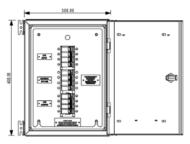


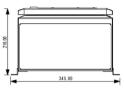
CODE	DESCRIPTION	DIMENSIONS (L X W X D)
PS-181001	HILLTOP 63A Compact Bypass Switch	505 x 445 x 150mm
PS-181002	HILLTOP 80A Compact Bypass Switch	505 x 445 x 150mm

# **NETHERTHORPE**

# **SLIMLINE BYPASS SWITCHES**

- Perfect for smaller single phase and three phase systems
- Easy installation
- Compact size
- Top/bottom full size gland plates
- Top/bottom cable access
- Aux contacts on manual bypass and UPS output
- All labels engraved
- IP2X voltage measurement holes









CODE	DESCRIPTION	DIMENSIONS (L X W X D)
PS-181101	NETHERTHORPE 32A Slimline Bypass Switch, Single Phase	400 x 300 x 210mm
PS-181102	NETHERTHORPE 63A Slimline Bypass Switch, Single Phase	400 x 300 x 210mm
PS-181103	NETHERTHORPE 63A Slimline Bypass Switch, Three Phase	400 x 300 x 210mm
PS-181104	NETHERTHORPE 32A Slimline Bypass Switch, Three Phase	400 x 300 x 210mm



# UPS UNINTERRUPTIBLE POWER SUPPLY

Introducing the Single Phase Online UPS with integrated battery - your ultimate power protection solution! This true double conversion UPS safeguards mission-critical devices ranging from sensitive networks, to servers and telecommunication systems. With its pure sine wave output, you can confidently connect any type of load, ensuring compatibility and reliable performance.

# **FREQUENTLY ASKED**

# **QUESTIONS**

#### WHAT IS A STATIC INVERTER?

A static inverter is an electronic device that converts DC (direct current) power into AC (alternating current) power. Static inverters are commonly used in a variety of applications, including emergency lighting backup power systems, renewable energy systems, and electric vehicles.

Static inverters typically consist of a DC input, an inverter circuit, AC output, as well as control circuitry and alarm PCBs. The DC input may come from a battery or other DC power source, and the inverter circuit uses electronic switches and other components to convert the DC power into AC power that can be used to power AC devices or equipment, such as emergency lighting.

#### WHAT IS A SEALED LEAD ACID BATTERY?

A sealed lead acid battery (SLA) is a type of rechargeable battery that uses lead and lead oxide as electrodes, and sulfuric acid as the electrolyte. As the name suggests, the battery is sealed, meaning that it does not require periodic maintenance or refilling of electrolyte like traditional lead acid batteries.

SLA batteries are commonly used in a variety of applications, including backup power systems, emergency lighting, uninterruptible power supplies (UPS), and electric vehicles. They are known for their high energy density, low self-discharge rate, and long service life.

#### WHAT IS THE DIFFERENCE BETWEEN AN EMERGENCY LIGHTING STATIC INVERTER AND A UPS?

An emergency lighting static inverter and an UPS (Uninterruptible Power Supply) are both backup power systems that can provide power to connected devices or equipment in the event of a power outage or other disruptions to the primary power source. However, there are some differences between the two systems.

An emergency lighting static inverter is specifically designed to power emergency lighting fixtures during a power outage or other disruptions to the primary power source in accordance with BS EN 50171: 2001.

A UPS, on the other hand, is a more general-purpose backup power system that can be used to power a wide range of devices and equipment in the event of a power outage or other disruptions to the primary power source.

Another difference is their capacity. A static inverter is typically designed to provide power to a relatively small number of emergency lighting fixtures for a specified duration, typically 180 minutes, while a UPS is typically designed to provide power to a larger number of devices or equipment for a specified duration, which can range from a few minutes to several hours.

# WHAT IS THE DIFFERENCE BETWEEN A MAINTAINED AND A NON-MAINTAINED CENTRAL BATTERY SYSTEM?

Maintained and non-maintained are two modes of operation for emergency lighting connected to a central battery system. In a maintained system, the emergency lighting is connected to maintained circuitry. The central battery system provides continuous power to the emergency lighting fixtures, even when the normal lighting circuit is off. In this mode, the emergency lighting fixtures are always on, and central systems batteries are continuously charged.

In a non-maintained system, the emergency lighting is connected to the central battery system, and is not connected to the normal lighting circuit. In normal operation, the emergency lighting fixtures are off, and the batteries are kept on standby, ready to power the fixtures in the event of a power outage. When a power outage occurs, the central battery system activates and provides power to the emergency lighting fixtures. In this mode, the emergency lighting fixtures are only on when there is a power outage.

The choice between maintained and non-maintained mode depends on the specific requirements of the building and the emergency lighting system. For example, a maintained system may be more appropriate in buildings where there is a need for continuous lighting, such as hospitals, while a non-maintained system may be more appropriate in buildings where lighting is only required in the event of a power outage, such as office buildings.

# **POOLSBROOK**

# 1KVA SINGLE PHASE ONLINE UPS WITH BUILT-IN BATTERY

- True double conversion UPS providing power to fully protect mission critical devices such as sensitive networks, small computer centres, servers and telecommunication applications
- The pure sine wave output guarantees compatibility for all types of loads
- LCD display screen with large format and easy to read interface
- Emergency power off function to secure equipment in an emergency
- Monitoring software capable of showing battery voltage, frequency, load and temperature
- Provides early-warning fault analysis on batteries enabling timely preventive maintenance



CODE	DESCRIPTION	
PS-221501	POOLSBROOK 1 KVA Single Phase Online UPS with Built-In Battery	

# **GENERAL**

GENERAL		
Capacity:	1000VA / 800W	
UPS Autonomy:	7 minutes	
Colour:	Black	
Warranty:	1 year	
INPUT SPECIFICATION		
Voltage Range - Low Line Transfer:	160V AC / 140V AC / 120V AC / 110V AC +/- 5%	
Voltage Range - Low Line Come Back:	168V AC / 148V AC / 128V AC / 118V AC +/-5%	
Voltage Range - High Line Transfer:	300V AC +/- 5%	
Voltage Range - High Line Come Back:	290V AC +/- 5%	
Frequency Range:	40-70Hz	
Phase:	Single Phase with Ground	
Power Factor:	≥ 0.99 @ Nominal Voltage (Input Voltage)	
OUTPUT SPECIFICATION		
Output Voltage:	200 / 208 / 220 / 230 / 240V AC	
AC Voltage Regulation:	+/- 1% (Battery Mode)	
Frequency Range (Synchronised Range):	47-53Hz @ 50Hz / 57-63Hz @ 60Hz	
Frequency Range (Synchronised Range).	50Hz +/- 0.25Hz / 60Hz +/- 0.3Hz	
Overload:	100-110%: audible warning	
	110-130%: UPS shuts down in 60 seconds at battery mode or transfer to bypass	
	when utility is normal	
	>130%: UPS shuts down immediately at battery mode or transfer to bypass mode when utility is normal	
Current Crest Ratio:	3:1 Max	
Harmonic Distortion:	≤ 3% THD (linear load); ≤ 6% THD (non-linear load)	
Transfer Time: AC Mode to Battery Mode:	Oms	
Transfer Time: Invert to Bypass:	4ms	
Waveform (Battery Mode):	Pure Sine Wave	
vvavelottii (ballery Mode).	rule Sille vydve	
EFFICIENCY		
Efficiency AC Mode:	87%	
Efficiency Battery Mode:	83%	
DATTERIES		
BATTERIES		
Battery Type:	12V 9.0Ah	
Battery Quantity:	2	
Recharge Time:	4 hours recovery to 90% capacity	
Charging Current:	1A Max	
Charging Voltage:	41.0V DC +/- 1%	
Total Battery Voltage:	24V	
ENVIRONMENT		
Operation Humidity:	0-90% RH @ 0-40° C (non-condensing)	
Noise Level:	Less than 50dB (A) @1M	
Operating Temp:	0-40°C (battery life cycle will be shorter when temperature is above 25°C)	
Operation Altitude:	<1000m	
<u> </u>	. • • • • • • • • • • • • • • • • • • •	
MANAGEMENT		
Smart RS232 or USB:	Windows 2000/2003/XP/Vista/2008, Windows 7/8, Linux, Unix, MAC	
Optional SNMP:	Power management from SNMP manager and web browser	
DIMENSIONS & WEIGHT		
Dimensions (D x W x H):	282 x 145 x 220mm	
Weight:	9.4Kg	

# **POOLSBROOK**

# **6KVA SINGLE PHASE ONLINE UPS WITH BUILT-IN BATTERY**

- True double conversion UPS providing power to fully protect mission critical devices such as sensitive networks, small computer centres, servers and telecommunication applications
- The pure sine wave output guarantees compatibility for all types of loads
- LCD display screen with large format and easy to read interface
- Emergency power off function to secure equipment in an emergency
- Monitoring software capable of showing battery voltage, frequency, load and temperature
- Provides early-warning fault analysis on batteries enabling timely preventive maintenance



CODE	DESCRIPTION
PS-221503	POOLSBROOK 6KVA Single Phase Online UPS with Built-In Battery

Capacity:	6000VA / 4800W
UPS Autonomy:	5 minutes
Colour:	Black
Warranty:	1 year
INPUT SPECIFICATION	
Voltage Range - Low Line Transfer:	110V AC +/- 3% at 50% Load / 176V AC +/- 3% at 100% Load
/oltage Range - Low Line Come Back:	Low Line Loss Voltage +10V
Voltage Range - High Line Transfer:	300V AC +/- 3%
Voltage Range - High Line Come Back:	High Line Loss Voltage - 10V
Frequency Range:	46-54Hz @ 50Hz / 56-64Hz @ 60Hz
Phase:	Single Phase with Ground
Power Factor:	≥ 0.99 @ 100% Load
Output Voltage: AC Voltage Regulation: Frequency Range (Synchronised Range):	208 / 220 / 230 / 240V AC +/- 1% 46-54Hz @ 50Hz / 56-64Hz @ 60Hz
1 , 0 . , 0 .	· · · · · · · · · · · · · · · · · · ·
Frequency Range (Battery Mode):  Overload AC Mode:	50Hz +/- 0.1Hz / 60Hz +/- 0.1Hz 100-110%: 10 min, 110-130%: 1 min, > 130%: 1 sec
Overload AC Mode:	100-110%: 10 min, 110-130%: 1 min, > 130%: 1 sec
Overload Battery Mode: Current Crest Ratio:	3:1 Max
Harmonic Distortion:	≤ 3% @ 100% linear load; ≤ 6% @ 100% non-linear load
Transfer Time: AC Mode to Battery Mode:	Oms
Transfer Time: Invert to Bypass:	Oms
Waveform (Battery Mode):	Pure Sine Wave
, , , , , , , , , , , , , , , , , , ,	
EFFICIENCY	
Efficiency AC Mode:	89%
Efficiency Battery Mode:	88%
incidity ballery Mode.	3070
BATTERIES	
Battery Type:	12V 7.0Ah
Battery Quantity:	16
Recharge Time:	4 hours recovery to 90% capacity

Battery Type:	12V 7.0Ah
Battery Quantity:	16
Recharge Time:	4 hours recovery to 90% capacity
Charging Current:	Default: 1A+/- 10%, Max: 2A +/- 10%
Charging Voltage:	218.4V DC +/- 1%
Total Battery Voltage:	192V

#### **ENVIRONMENT**

Operation Humidity:	< 95% and non-condensing
Noise Level:	< 55dB (A) @ 1M
Operating Temp:	0-40°C (battery life cycle will be shorter when temperature is above 25°C)
Operation Altitude:	<1000m

# **MANAGEMENT**

Smart RS232 or USB:	Windows 2000/2003/XP/Vista/2008, Windows 7/8, Linux, Unix, MAC
Optional SNMP:	Power management from SNMP manager and web browser

#### **DIMENSIONS & WEIGHT**

Dimensions (D $\times$ W $\times$ H):	369 x 190 x 688mm
Weight:	72Kg

# **POOLSBROOK**

# 1KVA SINGLE PHASE RACK MOUNT / TOWER ONLINE UPS WITH BUILT-IN BATTERY

- True double conversion UPS providing power to fully protect mission critical devices such as sensitive networks, small computer centres, servers and telecommunication applications
- The pure sine wave output guarantees compatibility for all types of loads
- LCD display screen with large format and easy to read interface
- Emergency power off function to secure equipment in an emergency
- Monitoring software capable of showing battery voltage, frequency, load and temperature
- Provides early-warning fault analysis on batteries enabling timely preventive maintenance
- This unit offers a unique design allowing it to be used as either a rack mount or tower design due to the freely rotating 90° LCD display screen and multi-functional tower base brackets





CODE	DESCRIPTION
PS-221502	POOLSBROOK 1KVA Single Phase Rack Mount / Tower Online UPS with Built-In Battery

Capacity:	1000VA / 800W
UPS Autonomy:	7 minutes
Colour:	Black
Warranty:	1 year
INPUT SPECIFICATION	
Voltage Range - Low Line Transfer:	160V AC / 140V AC / 120V AC / 110V AC +/- 5%
Voltage Range - Low Line Come Back:	168V AC / 148V AC / 128V AC / 118V AC +/-5%
Voltage Range - High Line Transfer:	300V AC +/- 5%
Voltage Range - High Line Come Back:	290V AC +/- 5%
Frequency Range:	40-70Hz
Phase:	Single Phase with Ground
Power Factor:	≥ 0.99 @ Nominal Voltage (Input Voltage)
Frequency Range (Battery Mode):  Overload:	50Hz +/- 0.25Hz / 60Hz +/- 0.3Hz  100-110%: audible warning  110-130%: UPS shuts down in 60 seconds at battery mode or transfer to bypass when utility is normal >130%: UPS shuts down immediately at battery mode or transfer to bypass mode
	when utility is normal
Current Crest Ratio:	3:1 Max
Harmonic Distortion:	≤ 3% THD (linear load); ≤ 6% THD (non-linear load)
Transfer Time: AC Mode to Battery Mode:	Oms
Transfer Time: Invert to Bypass:	4ms
EFFICIENCY	
Efficiency AC Mode:	87%
Efficiency Battery Mode:	83%
BATTERIES	
Battery Type:	12V 9.0Ah
Battery Quantity:	2
Recharge Time:	4 hours recovery to 90% capacity

Battery Type:	12V 9.0Ah	
Battery Quantity:	2	
Recharge Time:	4 hours recovery to 90% capacity	
Charging Current:	1A Max	
Charging Voltage:	41.0V DC +/- 1%	
Total Battery Voltage:	24V	

# **ENVIRONMENT**

Operation Humidity:	< 95% and non-condensing
Noise Level:	Less than 50dB (A) @ 1M
Operating Temp:	0-40°C (battery life cycle will be shorter when temperature is above 25°C)
Operation Altitude:	<1000m

# **MANAGEMENT**

Smart RS232 or USB:	Windows 2000/2003/XP/Vista/2008, Windows 7/8, Linux, Unix, MAC
Optional SNMP:	Power management from SNMP manager and web browser

# **DIMENSIONS & WEIGHT**

Dimensions (D $\times$ W $\times$ H):	380 x 438 x 88mm
Weight:	13Kg



# **CAR**CHARGERS

Discover our versatile Electric Car Chargers, perfect for both commercial and residential use, indoors and outdoors. The **GRASSMOOR** fits into any UK 3-pin power socket, bringing the effortless convenience of charging your car wherever you go.

# **GRASSMOOR**

# PORTABLE ELECTRIC CAR CHARGER

- Plugs directly into a UK 3-pin power socket, making charging your car from anywhere simple and convenient
- Adjustable current version
- LED indicator and LCD display
- Current leakage protection
- High quality PC and anti-UV
- Portable, plug and play
- Charging status indicator
- IEC 62196-2 charging plug and 4.5M cable



# **GENERAL**

Input Voltage:	220-240V
Frequency:	50Hz
Input Current:	16A
Output Current	8/10/13/16A
Operating Temperature:	-30 to +50°C
Humidity:	Max 95% RH
Altitude:	≤ 2000M
IP Rating	IP65
Cooling Method:	Natural Cooling
Charging Outlet:	4.5M Charging Cable
Charging Interface:	IEC 62196-2, Type 2 Plug
RCD:	DC6mA
Multiple Protection:	Over current, under voltage, over voltage, residual current, surge protection, short circuit, over temperature, ground fault, current leakage protection
Certificate:	IEC 61851
Dimension (L x W x D):	200 x 100 x 57mm
Cable Length:	4.5M
Weight:	2.7Kg

CODE		DESCRIPTION	
	PS-211301	GRASSMOOR Portable Electric Car Charger	

# **HIGHFIELD**

# **ELECTRIC CAR CHARGER**

- Ideal for indoor or outdoor use making EV charging easy, reliable and cost effective
- It has a IEC 62196-2 compliant type 2 plug with a 5M cable
- Pure PC material
- Anti-UV treatment
- IKO8 and IP54 enclosure
- 32A to 16A by switch, 32A to 6A by TCP server
- LAN standard, WI-FI
- 4.3" LCD screen for better user experience
- OCPP 1.6J, successfully connected with 30+ global EVC platforms



# **GENERAL**

CAR CHARGERS

Input Voltage:	220-240V
Frequency:	50Hz
Maximum Power Output:	7kW
Operating Temperature:	-30 to +50°C
Humidity:	Up to 95% non-condensing
IP Rating:	IP54
Charging Interface:	IEC 62196-2 Compliant, Type 2 Socket or Plug
RCD:	DC6mA
Multiple Protection:	UVP, OVP, RCD (DC 6mA), SPD, Ground Fault Protection OCP, OTP, Control Pilot Fault Protection
Certificate:	IEC 61851-1, IEC 61851-21-2
Dimensions (L x W x D):	350 x 250 x 130mm
Cable Length:	5M
Weight Cable:	5.2Kg
Weight Socket:	3.7Kg
Warranty:	l year

CODE	DESCRIPTION
PS-211401	HIGHFIELD Electric Car Charger – Commercial Use

# **HIGHFIELD**

# **ELECTRIC CAR CHARGER**

- Ideal for indoor or outdoor use making EV charging easy, reliable and cost effective
- It has a IEC 62196-2 compliant type 2 plug with a 5M cable
- Pure PC material
- Anti-UV treatment
- IK08 and IP54 enclosure
- 32A to 16A by switch, 32A to 6A by TCP server
- Wi-Fi & Bluetooth



# **GENERAL**

Input Voltage:	220-240V	
Frequency:	50Hz	
Maximum Power Output:	7kW	
Operating Temperature:	-30 to +50°C	
Humidity:	Up to 95% non-condensing	
IP Rating:	IP54	
Charging Interface:	IEC 62196-2 Compliant, Type 2 Socket or Plug	
RCD:	DC6mA	
Multiple Protection:	UVP, OVP, RCD (DC 6mA), SPD, Ground Fault Protection OCP, OTP, Control Pilot Fault Protection	
Certificate:	IEC 61851-1, IEC 61851-21-2	
Dimensions (L x W x D):	355 x 250 x 112mm	
Cable Length:	5M	
Weight Cable:	4.8Kg	
Weight Socket:	5.8Kg	
Warranty:	1 year	

CODE	DESCRIPTION	
PS-211402	HIGHFIELD Electric Car Charger – Residential Use	

# **IP RATING**

# **CHART**

The IP Rating system provides a means of classifying the degrees of protection from solids and liquids afforded by electrical equipment and enclosures. They are represented by combining the first and second digits of the following columns. See example below.

FIRST DIGIT - SOLID OBJECTS  Degree of protection against solid objects		SECOND DIGIT - LIQUIDS  Degree of protection against water	
1	Protected against a solid object greater than 50mm such as a hand.	1	Protected against vertical falling drops of water. Limited ingress permitted.
2	Protected against a solid object greater than 12.5mm such as a finger.	2	Protected against vertical falling drops of water with enclosure tilted up to 15 degrees from the vertical. Limited ingress permitted.
3	Protected against a solid object greater than 2.5mm such as a screwdriver.	3	Protected against sprays of water up to 60 degrees from the vertical. Limited ingress permitted.
4	Protected against a solid object greater than 1 mm such as a wire.	4	Protected against water splashes from all directions. Limited ingress permitted.
5	Dust protected. Limited ingress of dust permitted. Will not interfere with operation of the equipment.	5	Protected against jets of water. Limited ingress permitted.
6	Dust tight. No ingress of dust.	6	Protected against powerful jets of water. Limited ingress permitted.
	_	7	Watertight against the effects of immersion in water between 15cm and 1m for 30 minutes.
IP <mark>O</mark> S		8	Watertight against the effects of immersion in water under pressure for long periods.

# **IK RATING**

# **CHART**

The IK Rating system is an international standard that indicates how resistant a product is to impact. See example below.

IK Number	Energy		Equivalent Impact
00	Non-protected		Non-protected
01	Protected against 0.14 joules impact	0.25Kg	Equivalent to impact of 0.25kg mass dropped from 56mm above impacted surface
02	Protected against 0.2 joules impact	0.25Kg	Equivalent to impact of 0.25kg mass dropped from 80mm above impacted surface
03	Protected against 0.35 joules impact	0.25Kg	Equivalent to impact of 0.25kg mass dropped from 140mm above impacted surface
04	Protected against 0.5 joules impact	0.25Kg	Equivalent to impact of 0.25kg mass dropped from 200mm above impacted surface
05	Protected against 0.7 joules impact	0.25Kg	Equivalent to impact of 0.25kg mass dropped from 280mm above impacted surface
06	Protected against 1 joules impact	0.25Kg	Equivalent to impact of 0.25kg mass dropped from 400mm above impacted surface
07	Protected against 2 joules impact	0.5Kg	Equivalent to impact of 0.5kg mass dropped from 400mm above impacted surface
08	Protected against 5 joules impact	1.7Kg	Equivalent to impact of 1.7kg mass dropped from 300mm above impacted surface
09	Protected against 10 joules impact	www.ooz	Equivalent to impact of 5kg mass dropped from 200mm above impacted surface
10	Protected against 20 joules impact	2Kg	Equivalent to impact of 5kg mass dropped from 400mm above impacted surface

111

# **EXIT LEGENDS**

# **EXPLAINED**

It is not enough that a safety sign can be seen. It is essential that each sign is quickly understood and that an installation of signs quickly and clearly conveys their intention and continues to confirm the message.

Research has identified that the key requirements for an acceptable safety sign are:-

- Conspicuity: The capacity of a sign to stand out or be distinguishable from its surroundings and thus be readily
  discovered by the eye. It is the noticeable contrast between a sign and its background, attributed to an exogenous
  (unplanned) or andogenous (planned) mind-set, with the display having features that attract attention to the sign.
  Conspicuity is considered a subjective outcome.
- **Visibility:** The physical attributes of a sign and its contents that allow for detection at a given distance, although legibility may be uncertain. Visibility is considered an objective stimulus.
- Legibility: The physical attributes of a sign that allow for differentiation of its letters, words, numbers, or graphics
  and that directly relate to an observer's visual acuity. Legibility is considered an objective stimulus.
- Understandability: That which enables the observer to correctly perceive the information content of letters,
  numbers or symbols grouped together, or other meaningful relationships on the sign. Understandability is
  the character of a sign that leads to comprehension of its intended message, and depends on legibility and other
  considerations of contents and time restraints. It is considered a subjective outcome.

ICEL Recommendation for the UK - BS EN ISO 7010 Format



European Signs Directive Format – EU Adopted 92/58/EEC



For the full version of the ICEL Technical Statement, please visit www.thelia.org.uk

# **EMERGENCY LIGHTING**

# **CHECKLIST**

When luminaires have been sited to cover the locations below, additional luminaires may be required to ensure minimum liahtina levels are achieved.

Escape route corridors etc: 1 lux minimum on the centre line escape route.

Open areas: 0.5 lux minimum in the central core to within 0.5m of the walls.

Exit signs: Should apply to either BS EN ISO 7010 or the European Signs Directive and be either back illuminated or have an emergency luminaire within 2m of horizontal height. Signs should be the same format throughout the building.



The lighting only operates when the normal mains supply fails (emergency lighting only).



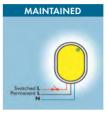
Panic bars, locks etc need to be illuminated to allow them to be easily seen and operated.



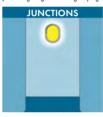
Install externally within 2m horizontal distance of any final exits. Sufficient light will be needed to muster a roll call



To provide emergency illuminations in



The lighting operates normally and continues to operate when the normal mains supply fails (mains lighting and emergency lighting).



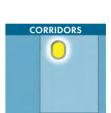
The luminaire must illuminate in both directions at the change of direction or intersection.



Fire alarms, first aid points and fire-fighting equipment, install within 2 metre horizontal distance.



Motor generator, control and plant rooms for essential and safety services.



This guide should be used in conjunction with the nationally recognised standards

and should not be used solely as a

demonstration of compliance.

The luminaire must illuminate in both directions at the change of direction or intersection.



Should not be used as an escape route but requires the same illumination to protect users on it when the supply fails.



Open rooms either with a particula hazard, an escape route passing through or larger than  $60\text{m}^2$ .



Install within 2 metres horizontal distance of change in floor level or stairs (each tread to receive direct light).



Disabled toilets or multiple 'closets' without borrowed light should have at least one luminaire.



Areas of high risk should be illuminated to 10% of normal lighting or 15 lux, whichever is greater.

# BLE LIGHTING AND POWER LTD CONDITIONS OF SALE

#### 1 GENERAL

In these conditions 'the company' means [BLE Lighting & Power Limited] (company number 00934071), and 'the registered office' means the registered office for the time being of the company. The 'Buyer' means a company, firm or person who places an order with the company or accepts the quotation or tender provided but the company for the manufacture and or supply of any acods.

#### 2. THE COMPANY'S CONDITIONS.

- a) These terms and conditions shall apply to all contracts for the sale of goods entered into by the company to the exclusion of all other terms and conditions that the Buyer seeks to impose or incorporate, or which are implied by trode, custom, practice, course of dealing or whether express or implied by law or other means.
- b) No variation of or additions to these terms and conditions shall be binding upon the company unless expressly accepted by the company in writing under the hand of an authorised official of the company.
- c) Where the company agrees to provide an installation and/or commissioning service in addition to the sale of goods, these conditions shall apply to the part of the transaction relating to the sale of goods only, installation, commissioning and/or servicing shall be governed by a separate set of conditions.

#### 3. ACCEPTANCE

#### Fither:

a) Unless previously withdrawn by the company (in writing), quotations and tenders are open for acceptance by the Buyer for the period stated therein or if no specific period is stated then the period shall be within thin; (30) days from the date thereof. Acceptance by the Buyer shall be in writing and subject to these conditions, the date of acceptance shall be the point the contract for the sale of goods shall come into existence.

#### Or:

b) All orders must be in writing and must be accompanied by sufficient information to enable the company to proceed without delay with the execution of the order. Orders soll not be binding upon the company (they shall be considered only as 'offers') unless accepted by the company in writing and shall be deemed to be subject to these conditions. The Order shall only be accepted when the Seller issues a written acceptance of the Order ("Order Acceptance"), the date of the Order Acceptance shall be the point the contract for the sale of acodes shall come into existence.

#### 4. SPECIFICATIONS AND PERFORMANCE.

- a) The quantity, quality, design, materials used and description of and any specification for the goods shall be those set out in the company's quantition or tender, or alternatively, as contained in the company's Order Acceptance to the Buyer's order. The company reserves the right to change the design, materials used and specification of the goods to conform with any applicable change in legislation, for commercial reasons (acting reasonably) and/or as the market requires from time to fine.
- b) Subject to clause 4(c), the company warrants that the goods will be of satisfactory quality and the company has used reasonable skill and care in the design of the goods
- c) The warranty in clause 4(b) is subject to the following conditions:
- the company shall be under no liability in respect of any defect in the goods arising from or in connection with any drawing, design, information, data or specification supplied by the Buyer (or any third party acting on behalf or an instruction of the Ruser):
- ii) the company shall be under no liability in respect of defects in the goods due to the company's design so far as it proves that the company has used reasonable skill and care to ensure that the design complied with the information provided by the Buyer (or any third party acting on behalf or on instruction of the Buyer);
- iii) the company shall be under no liability in respect of any defect arising from deliberate default, wilful misconduct, wilful damage or negligence of the Buyer (or any third party acting on behalf or an instruction of the Buyer), ahonomal working conditions, failure to follow the company's instructions (whether and or in witting), misuse, alteration or repair of the goods (except where such alteration or repair is carried out by the company);
- iv) the done warranty does not extend to parts, materials, equipment or to items not supplied by the company and/or goods that have been serviced or maintained by the Buyer or any third party (after than the company or other third party instructed by the company to act on behalf of the company); and v) the warranty does not extend to any defect, loss and/or domage arising from any works or services completed by or on behalf of the Buyer by the Buyer or any third party (with the exception of any works or services carried out or commissioned by the company).
- d) In the event that any information provided by the Buyer (or any third party acting on behalf of or on the instruction of the Buyer) in relation to the quantity, quality, design, materials used, description and/or specification (including, but not limited to, measurements, Txinas, fittinas and/or fabric of the buildina/

- structure for the installation) of the goods is incorrect, insufficient and/or inaccurrice, the Buyer shall indemnify and keep indemnified the company against all actions, proceedings, costs, claims, demands, liabilities, barm, losses, expenses, interest, deductions, penalities, damages, commercial disadventage and/or any other liability whatsoever or howsever caused arising from or in connection with the information provided. For the woodance of doubt, the Buyer shall be liable to pay for the goods supplied in accordance with the order, Order Acceptance, autotation and  $\Delta t$  tender
- e) Other than as set out in these conditions, all warranties, conditions, and other terms implied by law (statutory or otherwise), are hereby excluded to the fullest extent permitted by law.
- f) The company reserves the right to change its specifications from time to time without prior notice to the Buyer as conditions warrant.
- g) Any performance data, instructions, or advice as to the suitability or use of goods given in the company's literature or included in the company's quotations, tender, Order Acceptance and/or elsewhere shall not form part of this contract unless specifically stated so to do in writing by the company.
- h) Any timescales given by either party in relation to the manufacture and/or delivery of Goods are for information only and not intended to be relied upon. Any timescales given are not: terms of the contract, warranted, conditional or guaranteed by the company.

#### 5. PRICE.

- a) All prices include only such goods, occessories and work as are specified in the Order Acceptance, tender or quotation (as applicable) and are for the quantities expressed in conjunction with them. Any variation in quantity must be agreed in writing and may entail the company varying the price of the goods.
- b) All prices are subject to revision or withdrawal without notice
- c) All prices in respect of orders for forward delivery are subject to the company's
- d) All prices are quoted ex works unless otherwise agreed.
- e) All prices are subject to VAT at the appropriate rate if applicable
- f) At any time before delivery has been completed the company shall be entitled to vary the price of the goods to consider of all or any of the following factors:
- i) where goods are imported, any variation of the official currency, exchange rates or special taxes or charges imposed by any government.
- ii) increased costs resulting from the prohibition or other actions of any
- iii) increased labour costs.
- iv) increased material costs; and v) variation in the rate of VAT or any other tax and/or levee due.
- g) The company reserves the right not to manufacture, deliver and/or supply any goods to the Buyer in the event the company has not received full and dear payment of funds for the goods and/or any other acts word by the Buyer. The company shall not be liable in any way for any actions, proceedings, costs, claims, demands, liabilities, harm, losses, expenses, interest, deductions, penalties, damages and/or commercial disalvantage (including any direct, indirect or consequential losses, loss of profit/sovings, loss of reputation, any interest, penalties and/or other costs and expenses softered or incurred (whether actual or anticipated)) that the Buyer incurs or may incur in the future of any type whotsoever and howsoever caused by or in connection with any delay to manufacture, deliver and/or supply any goods where the Buyer's has failed to pay any amount due to the company.
- h) All invoiced price discrepancies and/or any disputed sum must be notified by the Buyer to the company in writing within five (5) working days of the date of the lower to the event that the Buyer does not notify the company of a price discrepancies and/or any disputed sum within five (5) working days, the Buyer shall be deemed to have accepted the invoice.

#### 6. CARRIAGE AND METHOD OF FREIGHT.

Orders, quotations, and tenders for delivery of goods within or outside the United Kingdom will be subject to an additional delivery charge unless otherwise agreed in writing between the company and the Buver.

#### 7. DELIVERY

- a) The company shall not be liable for in any way for any actions, proceedings, costs, claims, demands, liabilities, harm, losses, expenses, interest, deductions, penalities, admage and/or commercial disadvantupe (including any direct, indirect or consequential losses, loss of profit/sovings, loss of reputation, any interest, penalities and/or other costs and expenses suffered or incurred (whether could or anticipacity) that the Buyer incurs or may incur in the future of any type whatsoever and howsoever caused by or in connection with any delay in delivering the goods or by their non-tellney whether or not time of delivery is or shall have been made of the sessance of the contract.
- b) It is the Buyer's duty to inform the company regarding delivery dates and arrangements in advance and to provide due warning and notice of any change in respect of such arrangements. If by reason of the Buyer's default, unreasonable

- expectation or failure to notify, goods have not been taken up or delivered by the agreed delivery date the company may of its discretion (without prejudice to its rights to claim damages) suspend delivery of the goods or treat the contract as repudiated with regard to those goods, or store the goods at the expense of the Buyer until they are taken up, or do any combination of the foregoing.
- c) The company reserves the right to make a reasonable charge for storage if the delivery instructions are not provided by the purchaser within three (3) working days of a request by the company for such instructions.

#### 8. RETENTION OF TITLE AND PASSING OF RISK

- a) The company shall retain title to and ownership of the goods until it has received payment in full in cash or cleared funds of all sums due for the goods sunnlied.
- b) Until full payment of the all the sums due:
- i) the Buyer shall be the bailee of the goods for the company and the goods shall be stored separately from any goods which belong to the Buyer or any third party and shall be clearly marked and readily identifiable as being the
- ii) the Buyer shall not permit the goods to be charged or encumbered in any way whether by operation of law or otherwise.
- c) The Buyer grants to the company an irrevocable licence at any time to enter on any premises owned or controlled by the Buyer to inspect (or, where the Buyer's night to possession of the goods has terminated, to remove and recover) any goods located there to which the company retains title under this Clause 8.
- d) If the Buyer fails to make any payment to the company when due under these conditions compounds with its ceditors, executes an assignment for the benefit of its ceditors, hos obmicutery or demode against it or, being a company, exters into voluntary or compulsory liquidation or has an administrator or administrative neceiver or receiver appointed over all or part of its assets or takes or suffers any similar action in consequence of debr or becomes insolvent or if the company has reasonable cause to believe that any of these events is likely to occur, the Buyer's night to possession of the goods shall terminate immediately and the company shall have the right, without pepidice to any other remedie:
- i) to enter without prior notice any premises where goods owned by it may be, and to repossess and dispose of any goods owned by it so to discharge any sums owed to it by the Buver oursuant to the contract and these conditions:
- ii) to require the Buyer not to resell or part with possession of any goods owned by the company until the Buyer has paid in full all sums owed by it to the company pursuant to the contract and these conditions; and
- iii) to withhold delivery of any undelivered goods and stop any goods in transit to the Buyer and recover them.
- e) Unless the company expressly elects otherwise, any contract between it and the Buyer for the supply of goods shall remain in existence notwithstanding (but subject to) any exercise by the company of its rights under this Clause 8.
- f) Except as otherwise provided in these conditions, the risk of loss or damage to the goods shall pass to the Buyer upon delivery of the goods.
- g) Once risk in the goods has passed to the Buyer in accordance with Clause 8(e) or otherwise, the goods shall be and remain at the Buyer's risk at all times unless and until the company has retoken passession of them. The Buyer shall keep the goods in a satisfactory condition and shall insue the goods against all normal risks with a reputable insuer. The company shall be entitled to have produced to it evidence that such insurance is in place and provide appropriate cover. The Buyers shall hold in trust for the company any monies received in respect of the goods under any such insurance policy.

#### 9. PAYMENT.

- a) Poyment shall be made before the expiration of thirty (30) days from the date of invoice or in accordance with other terms ontified to the Buyer and shall be without deductions. In default of poyment on the due does specified in the invoice the company, without prejudice to its rights hereunder may charge the buyer interest on overdue occounts at the rate of 5% over bank rate for the time being or 15% whichever the greater. The company shall at its discretion (without prejudice to the company's point of the time being or 15% whichever the greater. The company shall are did chain dramages be entitled to withhold despatch of goods until all monies owing to it by the Buyer shall be poid in full. Without prejudice to any other provision of these conditions the company may in its absolute discretion if doubts orise as to the Buyer's solvency suspend deliveries herunder until satisfactory security has been given for due performance by the Buyer of its obligations hereunder.
- b) No special terms of payment will be operative unless confirmed in writing by a director of the company.

#### 10. CURRENCY AND PLACE OF PAYMENT.

All payments must be made in sterling to the company at its registered office or its nominated bank account.

#### 11. DESPATCH IN LOTS

The company shall have the right to despatch any portion of the goods covered by the contract and to invoice the Buyer for such portion so despatched on the same terms and conditions set forth herein.

# 12. LOSS OR DAMAGE IN TRANSIT AND NON-DELIVERY OF THE GOODS.

 a) No responsibility or liability will be accepted by the company whatsoever or howsoever caused:

- for any shortage, loss or damage occurring in transit except where the company has arganised transit and the Buyer makes a claim in writing providing full particulars on both the carriers and the company at its registered office within three (3) working days of receipt of the goods.
- ii) for non-delivery of the goods except where the company has organised transit and the Buyer makes a claim in writing providing full particulars on both the curies and the company at its registered office not less than three (3) and not more than five (5) working days after the expected date of delivery provided in the company's delivery ordice note: and/or
- iii) where goods are collected by the Buyer or any third party acting on behalf or on instruction of the Buyer, no claim for shortages, loss or damage will be
- b) If on investigation into a claim for any shortage, loss or damage occurring in transit or non-delivery of goods where the company has organised transit, the company finds that a claim for shortage, loss or damage or non-delivery is incarrest, false or misleading, the Buyer shall pay any and all casts and expenses incurred by the company in investigating and establishing such claim is incorrest, false or misleading on an indemnity basis (including, but not limited to, administration charges, staff time, legal fees, flights, accommodation and subsistence casts).
- c) Any claim by the Buyer which is based on any defect in the quality or condition of the goods or their failure to correspond with the specification shall be notified to the company within seven (7) days from the date of delivery or, where the defect was not apparent on reasonable inspection, within a reasonable time after discovery of the defect and the company shall be entitled to replace or repoir the goods free of charge or, at the company's sole discretion, refund to the Buyer the price of the goods (or a proportionate part of the price), but the company shall have no further liability to the Buyer whatsever. If the Buyer does not notify the company of continue, the Buyer shall not be entitled to reject the goods and the company shall have no liability for such defect or failure, and the Buyer shall be bound to pay the sums due as if the goods had been commissioned in occordance with the control and these conditions with the control and these conditions.

#### 13. RETURN OF GOODS.

In no circumstances may goods supplied be returned without the Buyer having first applied for and obtained the written consent of the company. A handling charge may be deducted from any certail clowed by the company where the goods returned ore not in the original pockaging, of a resubble condition or where it is established that the reason for the return of the goods was not the subject of clows 12 hieredo or due to any error on the part of the company.

#### 14. CANCELLATION.

Any order may be concelled or varied by the Buyer only with the consent of the company and an payment of reasonable cancellation or variation charges. Such charges shall take into account expenses incurred and commitments made by the company and all other losses due to such cancellation or variation. Concellation cannot be accepted for purpose built goods.

#### 15. FORCE MAJEURE.

The company shall not be in breach of the contract or these conditions nor liable for delay in performing, or failure to perform, any of its obligations under the contract or these conditions if such delay or failure results from events, circumstances or couses beyond its reasonable control, and in such circumstances the company shall be entitled to a reasonable extension of the time for performing such obligations. In the event of a period of continuous delay or failure to perform of more than three (3) calendor months, the Buyer may elect to cancel the contract in accordance with the concellation provisions contained in these conditions or allow the order to remain on the company's backs and to be completed at some later date at on adjusted price. Where the Buyer elects to allow the order to remain on the books, the Buyer may at a later date elect to cancel the order subject to the said concellation terms set forth herein.

#### 16. GUARANTEE AND LIMITATION OF LIABILITY.

- a) The Buyer shall have the benefit of and be subject to such product guarantee as the company from time to time provides and the Buyer is deemed to have full knowledge of the terms of such guarantees, copies of which will be supplied by the company on request and which are subject always to the Buyer maintaining the goods supplied in accordance with the company's instructions.
- b) All goods supplied by the company must be checked on delivery and before installation. After installation, the function of the goods supplied must be rechecked before the Buyer sets in operation safety systems of which the goods supplied form a part.
- c) In the event of the Buyer not holding himself out as acquiring the goods in the course of business and not acquiring them in the course of business, clause 15 hereof does not and will not affect his statutory rights.
- d) Subject to this Clause 16, the company's liability for any actions, proceedings, costs, claims, demands, liabilities, harm, losses, expenses, interest, deductions, penallies, danages and/or commercial disdourdange and/or up other liability arising out of the performance or non-performance by the company of its obligations under the contract and these conditions (whether by write of negligence or otherwise) shall be limited up to a monitume of 100% of the price paid for otherwise) shall be limited up to a monitume of 100% of the price paid for

the relevant Goods supplied to the Buyer under the relevant Order Acceptance, augustation or tender (excluding corrigge costs and VAT)

- e) The company shall have no liability to the Buyer for any actions, proceedings, costs, claims, demands, liabilities, harm, losses, expenses, interest, deductions, penalties, damages, commercial disadvantage and/or any other liability that the Buyer incurs or may incur in the future of any type whotsoever and houseswer caused by ar in connection with performance or non-performance by the company of any of its obligations under these conditions (whether by virtue of negligence or otherwise) which falls within our of the following categories.
- any implied warranty and/or condition;
- ii) loss of business opportunity.
- iii) loss of anticipated savinas.
- iv) loss of profit (whether actual or anticipated);
- v) loss of data, equipment, or property.
- vi) economic loss.
- vii) loss of interest or revenue.
- ix) loss or damage suffered by third parties: or
- x) indirect, consequential, or special loss or damage of any nature.
- f) Nothing in these conditions shall limit the company's liability to the Buyer for:
  i) death or injury resulting from the company's negligence.
- ii) fraud or fraudulent misrepresentation.
- any matter, liability for which the company cannot legally limit or exclude or attempt to limit or exclude.

#### 17. CONSEQUENTIAL LOSS.

The Buyer shall indemnify and keep indemnified the company against all actions, proceedings, costs, claims, demands, liabilities, harm, losses, expenses, interest, deductions, penalties, damages, commercial disadvantage and/or any other liability whotsoever whether arising in tort (including negligence and statutory duty) debuul or breach of the contact or these conditions, or the goods or their storage, installation, use, operation or maintenance, sowe where the same is caused salely by the negligence of the company.

#### 18. SUBSTITUTIONS

If the company in its absolute discretion chooses to use alternate materials or parts, a substitute deemed by the company to be suitable for the intended purpose will be supplied if variable and shall be accepted by the Buyer in full satisfaction and performance of the contract or that part thereof for which it is a substitute as the case may be. In the event that the company is unable to obtain a satisfactory substitute for unavailable materials or parts, the company's obligations to complete performance of the contract shall upon notification in writing to the Buyer be suspended until such times as the unavailable material or parts or a subtides substitute becomes available, and the price shall be adjusted accordingly.

#### 19. ENTIRE AGREEMENT CLAUSE.

Any terms and/or conditions set out in the Buyer's enquiries, purchase acters or communications are excluded from the contract and these conditions. The conditions and the contract constitute the entire agreement between the parties and supersedes and extinguishes all previous drafts, agreements, arrangements, and understandings between them, whether written or out, relating to its subject matter. Each party acknowledges that in entering into these conditions and the contract if does not rely on, and shall have no remedies in respect of, any representation or wormoutly (whether made innocently or negligently) that is not set out in these conditions and the contract. No party shall have any claim for innocent or negligent misrepresentation to wood condition and the contract.

#### 20 INDEPENDENT STATUS

20. INDEPENDENT STATUS
The Buyer is an independent contractor, and nothing shall constitute the creation, establishment or relationship of partnership, ogency, joint venture or employer and employee between the parties.

#### 21. SUB-CONTRACTING.

The company shall be free to employ sub-contractors to manufacture any goods or part thereof to be supplied hereunder or to perform any of the company's obligations hereunder.

#### 22. OVERSEAS SALES

In the case of overseas sales, the Buyer shall be solely responsible for complying with any legislation or regulations governing the importation of the goods or the payment of any duties. Levies or other sums of money on such importation.

# 23. TERMINATION

a) A party (the "Non-defaulting Party") may by notice to the other party (the "Defaulting Party") terminate this Agreement with immediate effect if:

- i) the Defaulting Party fails to pay an amount due under the contract and these conditions within 10 Days of the final date for payment set out in Clause 9;
- ii) the Defaulting Party is in material breach of any provision of the contract and these conditions which is not remediable or, if remediable, is not remedied with a period of 14 days after the Non- Defaulting Party has given notice to the Defaulting Party requiring such breach to be remedied.
- iii) the Defaulting Parry's financial position is such that either the Defaulting Parry, its directors, sheeholders or ceditors take or one entitled to take steps to institute formal insolvency proceedings with respect to the Defaulting Parry of a type provided for by the Insolvency Act 1986 (or any similar or analogous legislation, whether under English low or otherwise), including without limitation doministration, laudetion, administrative receiveship, evereship, voluntary to the province of the

arrangement, scheme of arrangement or bankruptcy, or if the Defaulting Party is unable to pay its debts within the meaning of section 123 of the Insolvency

- iv) the Defaulting Party appears to the Non-Defaulting Party to be unable to pay his debts (whether within the meaning of section 266 of the Insolvency Act 1986, or upon any other reasonable grounds including without limitation where a debt owing by the Defaulting Party to the Non- Defaulting Party or to a third party has become due and poyable and has not been met on the due date therefor), or presents his own or has presented against him in bankupty petition or a bankrupty order is made against him in bankupty petition or a bankrupty order is made against him in bankrupty petition or a bankrupty order is made against him in bankrupty petition or a bankrupty order is made against him in bankrupty petition or a bankrupty order is made against him in bankrupty petition or a bankrupty order is made against him has well as the substance of the sub
- b) Any termination of the contract for any reason shall not affect any accrued rights or liabilities of either party whether under statute, in contract tort or otherwise. nor prevent either party from pursuing other remedies available to it.
- c) Termination of these conditions and/or the contract shall not affect the operation or continuance of Clauses 2 to 30 (inclusive) which shall remain in full force and effect.

#### 24. VARIATION

No variation of these conditions shall be effective unless it is in writing and sinned by the notice

#### 25. ASSIGNMENT

These conditions are personal to the parties and neither party shall assign, transfer, mortgage, charge, or deal in any other manner with any of its rights and obligations under this Agreement without the prior written consent of the other party.

#### 26. NOTICE

Any notice or document required or permitted to be given or served under these conditions may be given or served personally or by leaving the same or by sending the same by first class recorded delivery post or by e-mail in accordance with the details provided in the contract or as otherwise notified in writing to the other party for that purpose.

#### 27. NO WAIVER

No failure or delay by the company to exercise any right or remedy provided under these conditions or by Low shall constitute a waiver of that or any other right or remedy, nor shall if preclude or restrict the further exercise of that or any other principles of the remedy shall preclude or restrict the further exercise of that or any other right or remedy shall preclude or restrict the further exercise of that or any other right or remedy.

#### 28 SEVERANCE

If any court or competent authority finds that any provision of the contract and/ or these conditions (or part of any provision) is invalid, illegal, or unenforceable, that provision or part-provision shall, to the extent required, be deemed to be deleted, and the validity and enforceability of the other provisions of the contract and/or these conditions shall not be affected. If any invalid, unenforceable or illegal provision of the contract and/or these conditions would be valid, enforceable, and legal if some part of it were deleted, the provision shall apply with the minimum modification necessary to make it leanly valid and enforceable

#### 29. THIRD PARTY RIGHTS

A person who is not a Party to the contract and/or these conditions shall have no rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any of its terms

#### 30. GOVERNING LAW AND HIRISDICTION

The contract and/or these conditions and any dispute or claim arising out of or in connection with it or its subject matter shall be governed by and construed in accordance with the taw of England and Wales. The paries irrevocably agree that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim that arises out of or in connection with the contract and/or these conditions or its subject matter.

#### ATALOCUE DICCI AIMED

Whilst every effort has been made to ensure that the information provided in this catalogue is accurate, we do not accept liability for errors or omissions in the descriptions, data, specifications and dimensions or any other information contained within the catalogue.

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