Central Battery and Inverter Systems

We supply a wide range of AC/DC and AC/AC central systems

Designed to meet the requirements of specific applications. Central systems have advantages over self-contained emergency luminaires as follows;

- Mains luminaires can be used in place of conventional emergency luminaires allowing higher light levels to be obtained.
- The central system and battery cubicles, being centrally located, make maintenance, control and monitoring easier.
- With a wide range of battery types and sizes the design life of the battery and duration of discharge can be specifically designed around the parameters of the individual application.
- The luminaires being mounted remotely from their power source can be placed in environments where a battery may not be capable of correct operation due to extreme heat or cold.

Low Power DC Systems

We offer two ranges of lower power systems

Using sealed recombination lead acid batteries. The LPDC5 uses the 5-year design life battery and the LPDC10 the-10 year design life battery. All Central Systems available with 10 year design life battery's to order.

Tables below show the standard ranges but these can be augmented with alternative batteries and durations if required.

Cabinet sizes (millimetres)

W1 - Height 455 x Width 405 x Depth 210; W2 - Height 555 x Width 750 x Depth 250

LPDC5 Range

Model*	Power Rating (W) for 1 hour	Power Rating (W) for 3 hours	Nominal Output Voltage	Cabinet Type
LPDC5/12/15	140	55	12	W1
LPDC5/24/6	84	38	24	W1
LPDC5/24/15	216	90	24	W1
LPDC5/24/24	300	150	24	W2
LPDC5/24/38	480	234	24	W2
LPDC5/24/48	550	300	24	W2
LPDC5/24/65	960	432	24	W2

High Power DC Systems

Features:

- NM, M single or dual output versions for optimum system flexibility
- Lift off cubicle covers provide easy access for maintenance
- Separate battery and gear compartments for safer operation
- Cubicles are manufactured from sheet steel and are epoxy powder coated for a long life in RAL-7032
- Choice of Contactors to BS5424 as standard, BS764 types available.
- A wide battery choice to give optimum flexibility
- A range of pre-engineered options to allow complete control and monitoring.

*Specify NM, M operation and duration required (ie. NM3) e.g.. HPDC/24/30/NM1/VR = 24V 480 watts Non maintained operation for 1 hour

To select a model in the HPDC range, insert either NM or M describing the system operation and the system duration 1,2 or 3 hours. Options required should be specified using the relevant suffix e.g. "/LE" = Low Electrolyte alarm, e.g. HPDC/110/ 46/M3VR/LE is a 110V Maintained system supplying 1350 watts for 3 hours via its Value Regulated, lead acid battery and has a Low Electrolyte alarm facility

Trouble free operation with a wide choice of batteries

Our high power systems are manufactured to the highest standards from the UK's leading systems supplier. They offer long trouble free operation with a wide choice of batteries and options for specific applications.

HPDC - Valve regulated Lead Acid (VR) range

System Normal Range	Model Description	Power Rating (W) 1 Hour	Power Rating (W) 2 Hours	Power Rating (W) 3 Hours	Battery Capacity Ah	Cabinet Type
24 Volts	HPDC/24/22/*VR	340	195	35	22	F1
12 Cells	HPDC/24/30/*VR	480	280	190	30	F1
	HPDC/24/46/*VR	750	430	300	46	F1
	HPDC/24/68/*VR	1050	610	420	68	F1
	HPDC/24/84/*VR	1350	790	545	84	F1
	HPDC/24/98/*VR	1550	925	635	98	F1
	HPDC/24/120/*VR	1925	1120	780	120	F1
50 Volts	HPDC/50/22/*VR	680	390	270	22	F1
24 Cells	HPDC/50/30/*VR	960	560	380	30	F1
	HPDC/50/46/*VR	1500	860	600	46	F1
	HPDC/50/68/*VR	2100	1220	840	68	F1
	HPDC/50/84/*VR	2700	1580	1090	84	F2
	HPDC/50/98/*VR	3150	1850	1270	98	F2
	HPDC/50/120/*VR	3850	2250	1560	120	F2
	HPDC/50/152/*VR	4700	2800	1960	152	F3
110 Volts	HPDC/110/22/*VR	1500	890	610	22	F2
54 Cells	HPDC/110/30/*VR	2150	1250	870	30	F2
	HPDC/110/46/*VR	3350	1950	1350	46	F2
	HPDC/110/68/*VR	4800	2750	1900	68	F3
	HPDC/110/84/*VR	6100	3550	2450	84	F3
	HPDC/110/98/*VR	7150	4150	2850	98	(2)F4
	HPDC/110/120/*VR	8700	5050	3500	120	(2)F4

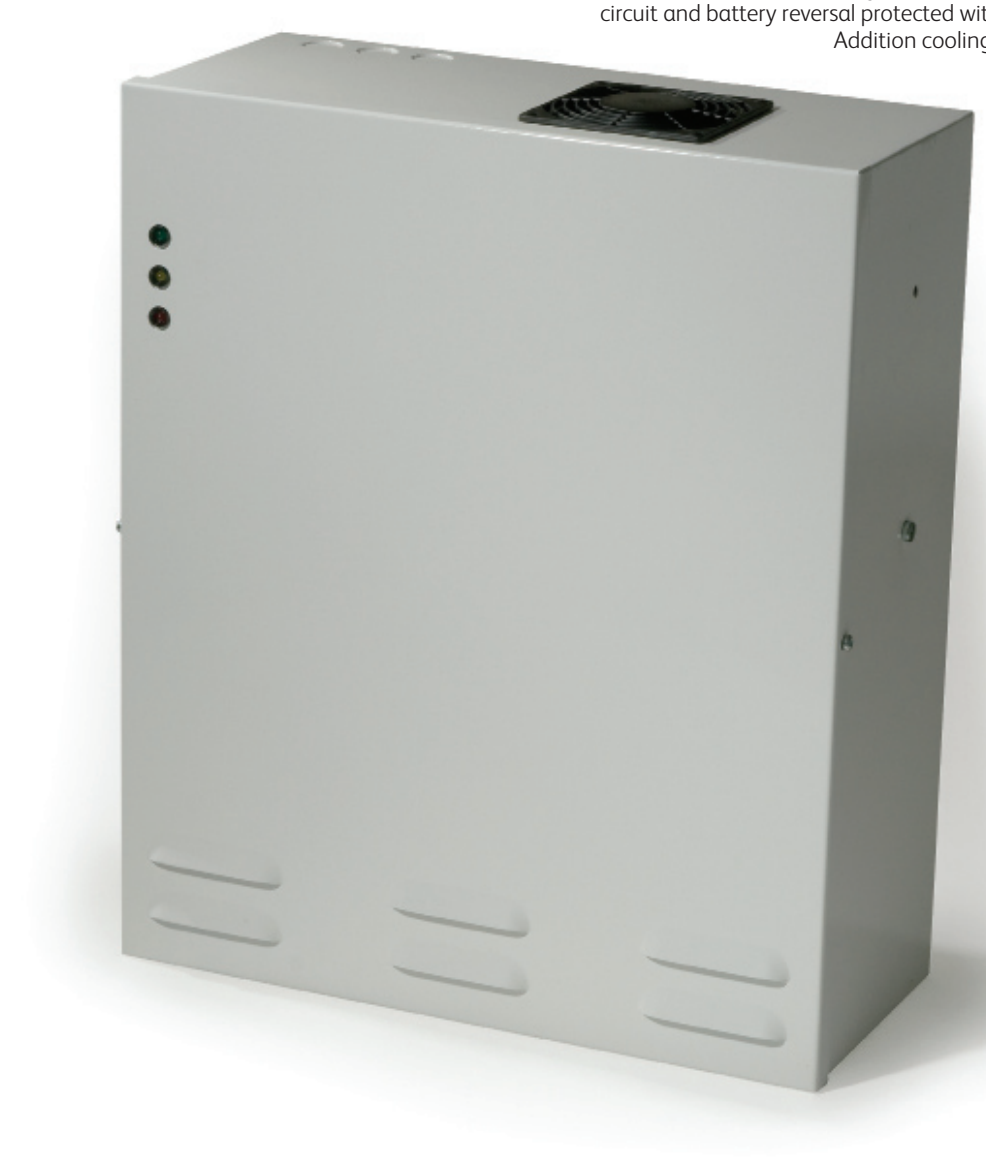
* Specify mode and duration e.g. NM1, M3, etc.

Mini-Sine

A mini static inverter emergency lighting unit for loads up to 150 watts

Orbik low power compact **Mini Sine** is a Mini Static inverter system designed to operated loads upto 150W at 230V. This popular unit is available in 2 versions, either for 1 or 3 hour duration on mains failure.

A purpose designed lead acid charger provides a float voltage of 27V within a tolerance of 1% with a sustainable charge current of 5A and over current protection. The charger is short circuit and battery reversal protected with the addition of thermal shutdown protection. Addition cooling for the charger during early charging stages is provided by a quiet chassis mounted fan.



A high efficiency soft start modified sine wave inverter provides the emergency back up making it suitable for inductive loads. Output is 230V ± 10% 50Hz ± 1%. It is able to provide continues loading up to 150W and includes overload protection. The sine wave inverter includes over temperature and short circuit protection and is suitable for operation in an ambient of up to 30°c.

The front panel provides a number of indictors displaying healthy supply, power failure battery disconnect/charger failure and over a charge indicator that extinguishes when the charge current falls below 1 Amp.

Additional fault monitoring is provided via a set of volt free contacts allowing for remote monitoring of the **Mini Sine**.

Mini Sine is supplied with Lead Acid Batteries which are housed within its robust high quality steel enclosure that is supplied in a white finish.

Mini Sine has advantages compared to self-contained systems for emergency lighting which include lower maintenance being a central unit, mains luminaires can be used with higher light outputs compared to conventional emergency luminaires which typically produce lower ballast lumen factors. Also with integral batteries the **Mini Sine** can operate luminaires which maybe placed in environments unsuitable for batteries due to extreme heat or cold.

Mini Sine has also been successfully utilised to operate with certain discharge luminaires. (Please contact our technical department for assistance)

Ordering Codes

Cat No	Description	Batteries
MS150/1	150W 1 Hour Static Inverter Emergency Lighting Unit	2x12V 12Ah
MS150/3	150W 3 Hour Static Inverter Emergency Lighting Unit	2x12V 25Ah

Dimensions: 375mm x 440mm x 160mm
Weight: 21Kg (MS150/1 including batteries)
30Kg (MS150/3 including batteries)

AC Systems

With intelligent Datlog™ technology

Our range of static inverter systems are designed to provide emergency lighting (1 to 3 hours as required) at 230VAC (or selected Voltage) at 50Hz and includes the latest version of the acclaimed Datlog™ system monitoring and data logging software. The range is designed as the safe option (AC output under emergency conditions).

Datlog™ will automatically monitor the load and the battery at a specified time and date if required. Yearly, monthly or weekly testing if required ensures that all luminaires and the battery are correctly functioning. The test results and alarms are stored in an internal non-volatile memory. With the optional external printer, the events log can be printed out for permanent record keeping.

Datlog™ also monitors the battery for continuity and provides temperature compensation and deep discharge protection to ensure maximum life from the batteries. The user-interface is easy to use with scroll buttons to read all operational parameters (available in different languages). Additionally standard alarm outputs allow integration into most building management systems.

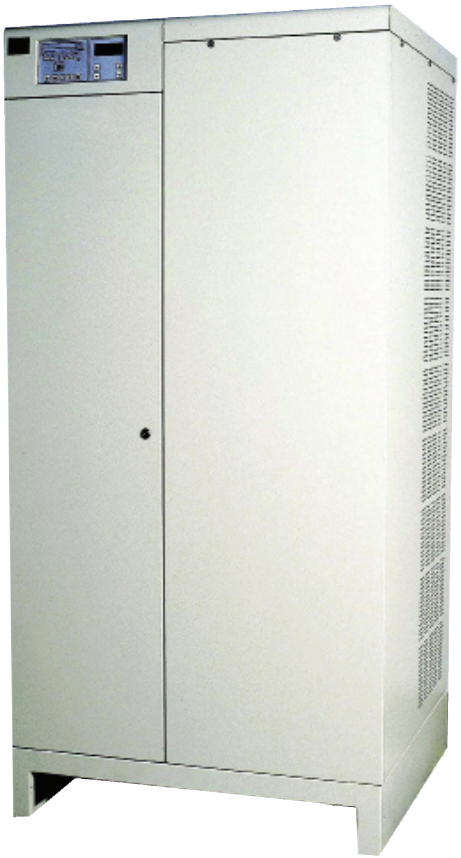
Where price is an issue systems can be supplied without the Datlog™ facility.

Our range of high power static inverter central AC systems are active, off-line sine-wave interters and provide the ultimate solution in emergency lighting for medium to large premises. Producing a sinusoidal waveform with <5% harmonic distortion into a linear load, the HPAC range is ideal for use with the latest high frequency ballasts and offers a no-break option, for high-pressure discharge lighting schemes.

HPAC systems are active and offline and use a static switch to supply a by-passed supply during normal conditions with a contactor for the non-maintained output. When there is a power failure the contactor connects the non-maintained load to the inverter that continues to supply the lead

As standard the HPAC range covers single and three-phase outputs, from 1.6kVA to 200kVA. Single or three phase inputs with a single phase output are available up to 25kVA and three phase inputs with three phase outputs are available from 10kVA to 200kVA.

It should be noted that in order to comply with EN60598.2-22, it is essential that luminaires must not use glow starters or 2 pin lamps with integral starters, therefore electronic ballasts or electronic starters are required.



Ordering Codes: High Power Systems

Cat No	Input Phases	Watts VA	Battery Volts
HPAC3/1/#	Single	2400	192
HPAC4/1/#	Single	3200	192
HPAC6/1/#	Single	4800	264
HPAC8/1/#	Single	6400	264
HPAC10/1/#	Single	8000	264
HPAC12/1/#	Single	9600	264
HPAC15/3/#	Three	12000	480
HPAC20/3/#	Three	16000	480
HPAC25/3/#	Three	20000	480
HPAC30/3/#	Three	24000	480
HPAC40/3/#	Three	32000	480
HPAC60/3/#	Three	48000	480

Low Power Systems

Cat No	Max VA	Max Watts
LPAC/10/#	150	120
LPAC/20/#	300	240
LPAC/30/#	450	360
LPAC/40/#	600	480
LPAC/50/#	750	600
LPAC/60/#	950	750
LPAC/80/#	1250	1000
LPAC/100/#	1500	1200