The central power supply forms part of a life safety emergency system i.e. emergency lighting. It should not be compromised by using an inferior product which does not conform to the required standards.

“The system is manufactured to comply with BS EN 50171:2001 central power supply systems and BS 5266-1:2016 code of practice for the emergency escape lighting of premises”.

When specifying your central system it is important to ensure the following:

**Rating**
The system should be suitable to support a lighting load, lighting loads can be made up of different types of luminaries which have different electrical characteristics i.e. High frequency fluorescent luminaries have large inrush currents, some LED luminaries have poor power factors which make a difference to the size of the unit required.

Make sure the unit is rated for the required emergency lighting load total VA and Watts, and is complete with a battery to provide either a 1 or 3 hour autonomy, sized in accordance with BS EN 50171 (18v/c @ 20°C, and include for end of life performance).

It is also important to ensure that a central inverter can start the lighting load from the inverter in the mains failed mode (BS EN 50171:2001 Section 6.5.3. Inverters must be capable of permanently handling 120% of the load requirement for the rated duration.

**Fault Clearance Capability**
The design of the Inverter output performance needs to take into account and to accommodate the clearance of downstream protective devices when operating from Battery (i.e. Mains fail). If the system is not designed with this in mind then the unit may not supply the load.

**Batteries**
Minimum 10yr design life batteries, sized to meet the declared performance at end of life. At the end of the rated duration the battery voltage should not be less than 90% of the nominal voltage.

**Recharge Time**
Can the system recharge the batteries at the minimum rated input voltage for 12 hours such that immediately following the recharge the batteries shall be able to be discharged at 80% of the specified duration of the system.

With some systems the charger size is a low current (i.e. low cost) device which would not meet the requirements of BS EN 50171:2001.