**Bitesize Guide**

# 18th Edition Amendment 4

Have you got questions regarding the changes to the Wiring Regulations?

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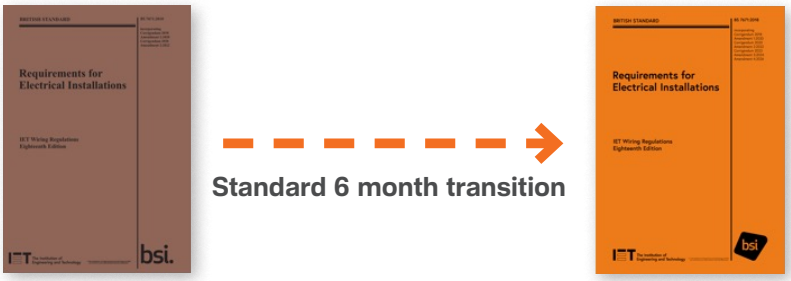
# Introduction to BS 7671 Amendment 4

**BS 7671:2018+A4:2026** Requirements for Electrical Installations was issued on 15th April 2026 and may be implemented immediately.

**BS 7671:2018+A2:2022**, including the May 2023 Corrigendum and Amendment 3 (2024) remains current but will be withdrawn on the 15th October 2026.




During this transition period, designers or installers may use either edition to demonstrate compliance for an installation. However, they must clearly select one edition and apply it in full, as it is not permitted to mix requirements or clauses from different editions.

The Regulations apply to the design, erection, and verification of electrical installations, including additions and alterations to existing installations.

Existing installations that were installed in accordance with previous editions of the Regulations may not comply fully with the requirements of the current edition. This does not necessarily mean that such installations are unsafe for continued use or that they require upgrading.

# Table of Contents

# Scope

**Regulation 110.11 deals with the scope of what the Regulations apply to and has been expanded to include:**

- Stationary secondary batteries for storage and supply of electrical installations
- Power over Ethernet.

# Definitions

**Definitions (Part 2) have been expanded and modified which is mostly due to the introduction of the following new content:**

**Section 545** Functional earthing & bonding for ICT equipment and systems

**Chapter 57** Stationary secondary batteries

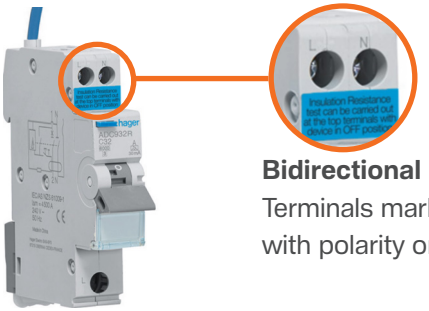
**Section 716** Power over ethernet

**Chapter 81** Functional aspects- energy efficiency
**Part 8-1**

**Also included in Part 2 are the definitions introduced with Amendment 3 (2024) for bidirectional energy flow, as follows:**

## Bidirectional protective device

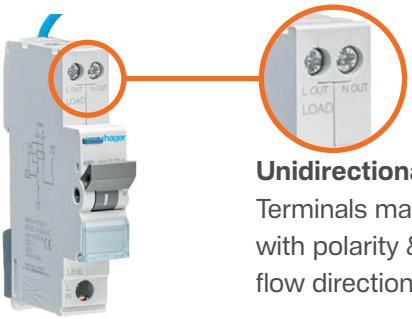
A protective device where it is intended by the manufacturer that a source of supply is connected to either or both sets of connection terminals.




**Bidirectional**
Terminals marked with polarity only.

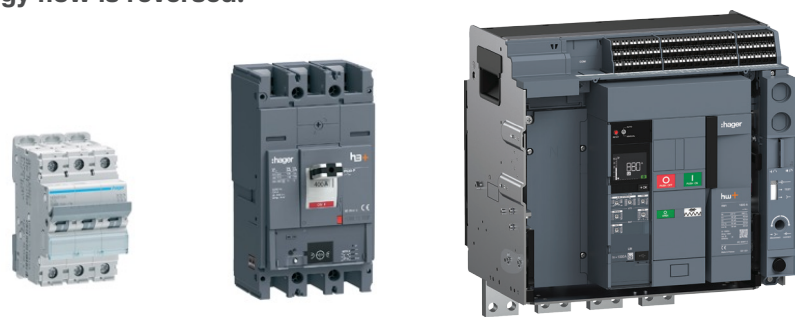
## Unidirectional protective device

A protective device where it is intended by the manufacturer that a source of supply is only connected to one defined set of connection terminals.




**Unidirectional**
Terminals marked with polarity & current flow direction.

**During the introduction of AMD 3 (2024) which warned about bidirectional energy flow, there was some concern that the breaking capacity of some circuit-breakers could be compromised when energy flow is reversed.**



All Hager circuit-breakers for overcurrent protection are designed for bidirectional applications with no compromise on performance.

**A new definition has been provided for isolating switches (taken from BS EN 60669-2-4), as follows:**

## Isolating switch

Switch designed to provide isolation of the installation or part of the installation and equipment from the supply and to carry and to make and break the current in all line current carrying poles.


Hager isolating switch to BS EN 60669-2-4 with the correct markings and symbol as required by standard.

**Regulation 12 of EAWR requires isolation devices to have the capability to positively establish an air gap or other effective dielectric which, together with adequate creepage and clearance distances, will ensure that there is no likely way in which the isolation gap can fail electrically.**

# Protection for safety

## Arc Fault Detection Devices (AFDD)

**Regulation 421.1.7 (a)** has been changed from higher risk residential buildings, to high rise residential buildings.

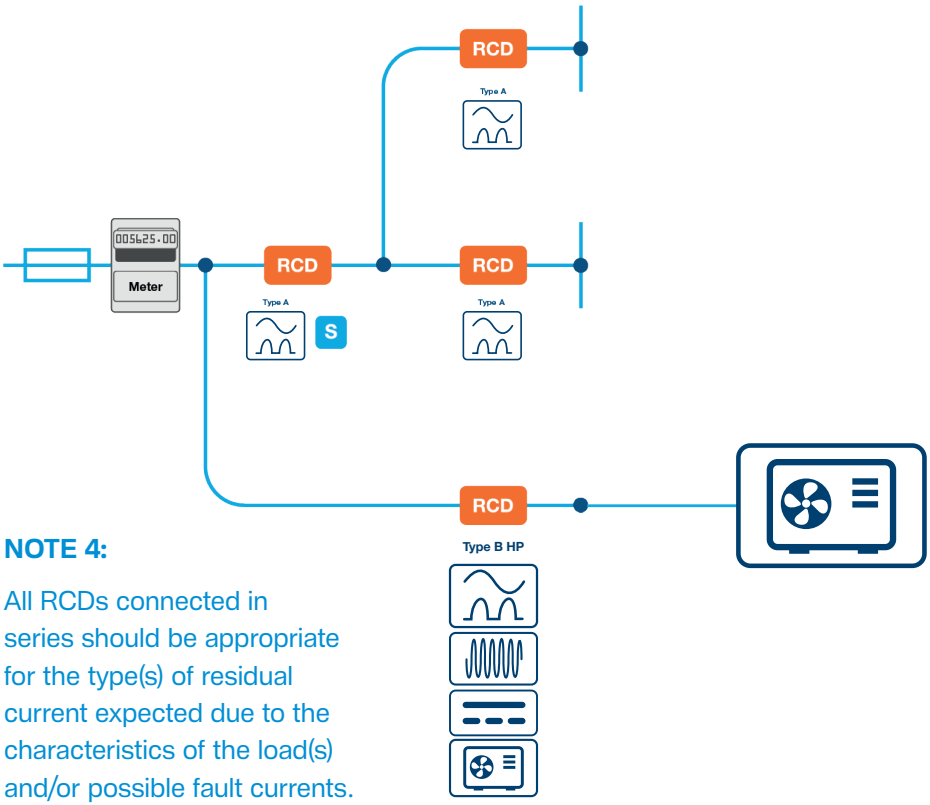
This is to avoid confusion with the Building Safety Act 2022 and Supplementary Provisions Regulations 2023 which define Higher-risk Buildings.

Retaining the term “higher risk” could lead to the unintended consequence of requiring AFDD protection in other higher-risk buildings, as defined by the Building Safety Act 2022 and the Building Safety (Supplementary Provisions) Regulations 2023.

However, it is worth noting that the use of AFDDs conforming to BS EN 62606 remains a recommendation for single-phase AC final circuits supplying socket-outlets rated at up to 32 A in all other premises.

# Selection of RCDs

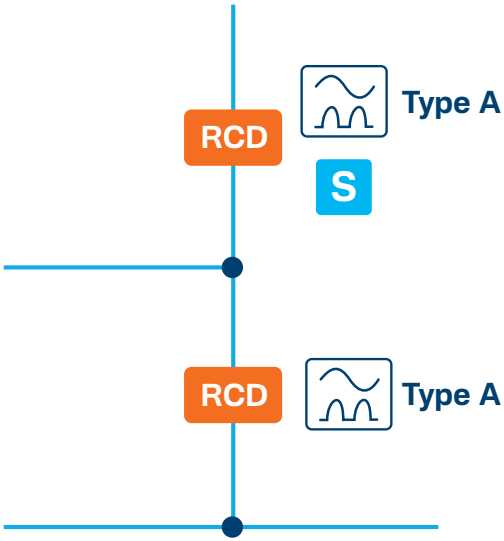
**A new note has been added to Regulation 531.3.3 which deals with different types of RCD, as follows:**




**NOTE 4:**

All RCDs connected in series should be appropriate for the type(s) of residual current expected due to the characteristics of the load(s) and/or possible fault currents.

**There is also a new note added to Regulation 536.4.1.4(b) relating to RCD selectivity for residual currents, as follows:**




**NOTE 4:**

To achieve selectivity between an upstream Type-S RCD and any downstream RCD with respect to both a line to earth and a neutral to earth fault, the downstream RCD shall switch all live conductors (including the neutral).

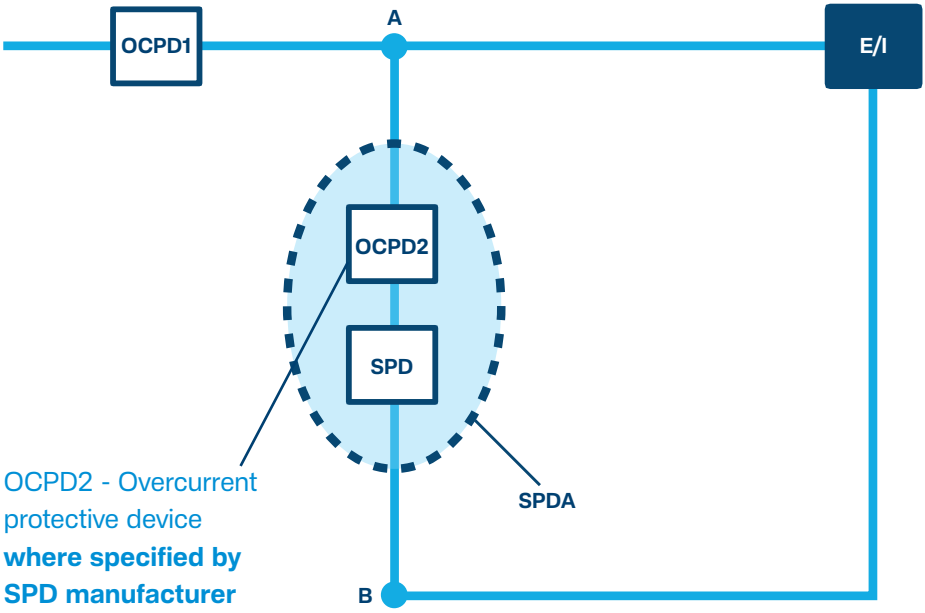
**Selectivity in case of residual currents is given under the following conditions:**

**(a)** the upstream RCD is of selective type (type S or time-delayed type with appropriate time delay setting); and

**(b)** the ratio of the rated residual operating current of the upstream RCD to that of the downstream RCD is at least 3:1.

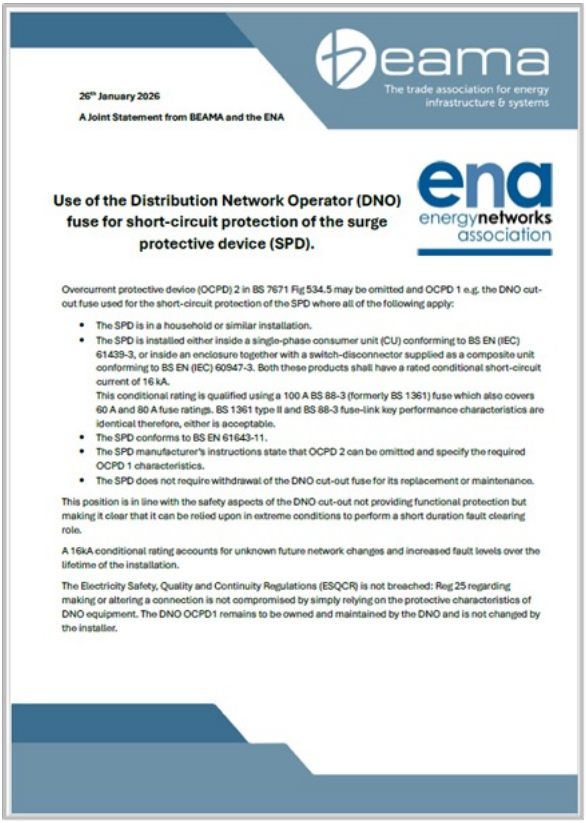
# Surge Protective Device Assembly (SPDA)

**The component description key associated with Figure 534.5, which illustrates the connection points of an SPD assembly, has been amended. The previous wording was misleading, as it implied that overcurrent protective device 2 (OCPD2) was always required. The text has now been revised to state "where specified by the manufacturer"**



This aligns with Hager's innovative SPD solutions, which meet the requirements of the Energy Networks Association (ENA).

Use of the Distribution Network Operator (DNO) fuse for short-circuit protection of the surge protective device (SPD).



beama
The trade association for energy infrastructure & systems

26th January 2026

A Joint Statement from BEAMA and the ENA

ena energynetworks association

**Use of the Distribution Network Operator (DNO) fuse for short-circuit protection of the surge protective device (SPD).**

Overcurrent protective device (OCPD) 2 in BS 7671 Fig 534.5 may be omitted and OCPD 1 e.g. the DNO cut-out fuse used for the short-circuit protection of the SPD where all of the following apply:

- The SPD is in a household or similar installation.
- The SPD is installed either inside a single-phase consumer unit (CU) conforming to BS EN (IEC) 61439-3, or inside an enclosure together with a switch-disconnector supplied as a composite unit conforming to BS EN (IEC) 60947-3. Both these products shall have a rated conditional short-circuit current of 16 kA.
  This conditional rating is qualified using a 100 A BS 88-3 (formerly BS 1361) fuse which also covers 60 A and 80 A fuse ratings. BS 1361 type II and BS 88-3 fuse-link key performance characteristics are identical therefore, either is acceptable.
- The SPD conforms to BS EN 61643-11.
- The SPD manufacturer's instructions state that OCPD 2 can be omitted and specify the required OCPD 1 characteristics.
- The SPD does not require withdrawal of the DNO cut-out fuse for its replacement or maintenance.

This position is in line with the safety aspects of the DNO cut-out not providing functional protection but making it clear that it can be relied upon in extreme conditions to perform a short duration fault clearing role.

A 16kA conditional rating accounts for unknown future network changes and increased fault levels over the lifetime of the installation.

The Electricity Safety, Quality and Continuity Regulations (ESQCR) is not breached: Reg 25 regarding making or altering a connection is not compromised by simply relying on the protective characteristics of DNO equipment. The DNO OCPD1 remains to be owned and maintained by the DNO and is not changed by the installer.

# Rated current of low voltage switchgear and controlgear assemblies

**Regulation 536.4.202 covers the coordination between low voltage switchgear and controlgear assemblies and the overload protective device.**

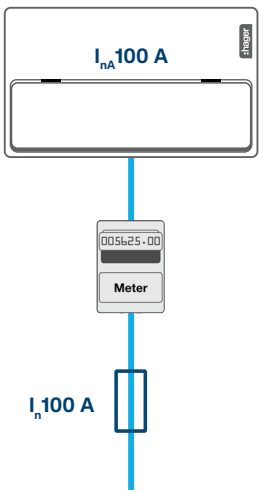
**$I_{nA}$ and $I_{nc}$ are terms from the assembly standard BS EN IEC 61439 and are defined as:-**

$I_{nA}$ is the marked rated current of the assembly.

$I_{nc}$ is the rated current of an outgoing unit (for example, RCCB) enclosed inside the assembly which may be lower than the actual value written on the device itself.

**In order to protect assemblies from overload, one of the following conditions shall be satisfied:**

**(a)** The rated current or current setting of the upstream protective device ($I_n$) is less than or equal to the rated current of the assembly ($I_{nA}$) and any outgoing unit ($I_{nc}$). See example:

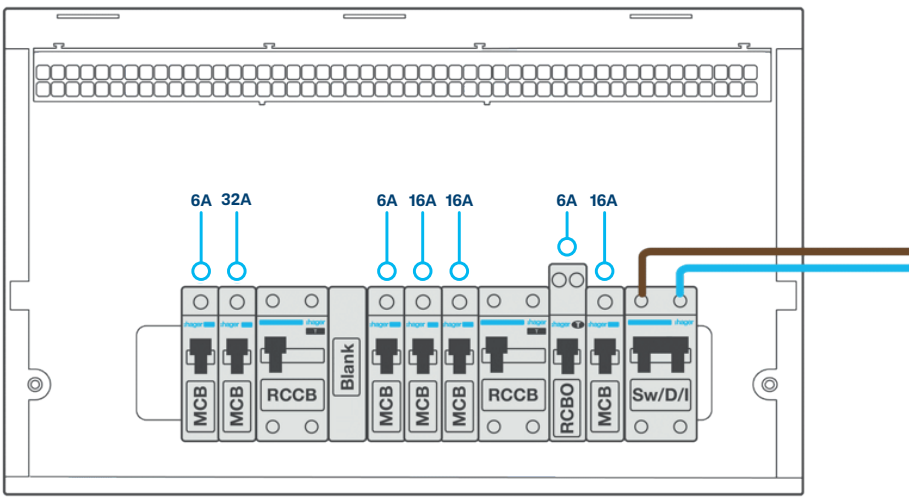




**RCCB is an example of an outgoing unit ($I_{nc}$)**

**(b)** Load curtailment shall be used to limit the maximum current demand for the assembly. See example showing how dynamic load management is used across a cluster of charge points to prevent overload of the assembly.


**(c)** The total connected load without diversity does not exceed the rated current of the assembly ($I_{nA}$) and any outgoing unit ($I_{nc}$). See example:




**6 + 32 + 6 + 16 + 16 +6 + 16 = 98 A < 100 A $I_{nA}$**

# Low voltage generating sets

**Regulation 551.7.1 has been redrafted. An indent (c) has been added which requires a suitable protective device where energy flow is bidirectional.**

**In addition, an indent (d) has been added which prohibits the connection of a source to the load side of an RCD under certain conditions.**

**Regulation 551.7.2.1 prescribes that the generating set shall be installed on the supply side of all the protective devices for the final circuits of a distribution board and for the purposes of this regulation, stationary secondary batteries in accordance with Chapter 57 shall be considered a generating set and not a load.**

**Regulation 551.7.2.2 sets out the requirements for the low voltage switchgear and controlgear assembly when a generating set is used as an additional source of supply in parallel with another source and the generating set is connected via LV switchgear.**

**The assembly shall be selected so that its rated current meets one of the following criteria: (This is to ensure the assembly cannot be overloaded)**

(a) $I_{nA} \geq I_{n(i)} + I_{g(s)}$

(b) $I_{nA} \geq I_{n(ii)}$

(c) $I_{nA} \geq I_{CLS(max)}$

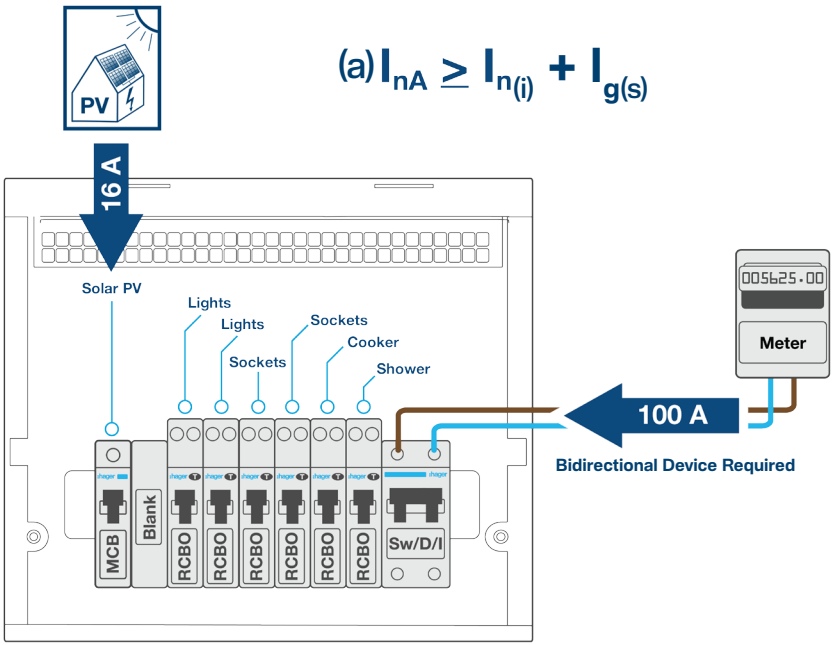
(d) $I_{nA} \geq I_{TCL}$

**Where:**

| | |
|---|---|
| $I_{nA}$ | is the rated current of the assembly |
| $I_{n(i)}$ | is the rated current or current setting of the incoming circuit overcurrent protective device either incorporated within the low voltage switchgear and controlgear assembly or upstream of it |
| $I_{g(s)}$ | is the rated output current of the generating set or sets |
| $I_{n(ii)}$ | is the rated current or current setting of a single overcurrent protective device either incorporated within the low voltage switchgear and control gear assembly or upstream of it and where all supplies, including the generating set(s) are supplied through this single overcurrent protective device |
| $I_{CLS(max)}$ | is the maximum current the assembly (e.g. switchboard/distribution board) can possibly be required to distribute, when the total load and/or export current(s) are controlled by a customer's export and import limitation scheme |
| $I_{TCL}$ | is the total connected load without diversity, including any exported current |

## 551.7.2.2 option (a)

Most consumer units are limited to an $I_{nA}$ rating of 100 A. However, Hager offers a proven and reliable 116 A solution, making it ideally suited to G98 solar PV installations.




**It should be noted this solution cannot necessarily be applied to all consumer unit manufacturers. A declaration like the one shown should be sought from the particular manufacturer to support this.**

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**MANUFACTURER'S DECLARATION:**

BS 7671:2018 Amendment 2 : 2022, regulation 551.7.2 (v) requires that

Where the generating set may operate in parallel with the supply for distribution of electricity to the public and is connected via a low voltage switchgear and controlgear assembly. The assembly shall be selected such that:

$I_{nA} \geq I_n + I_{g(s)}$

Where:

$I_{nA}$ is the rated current of the assembly

$I_n$ is the rated current or current setting of the incoming circuit overcurrent protective device either incorporated within the low voltage switchgear and controlgear assembly or upstream of it

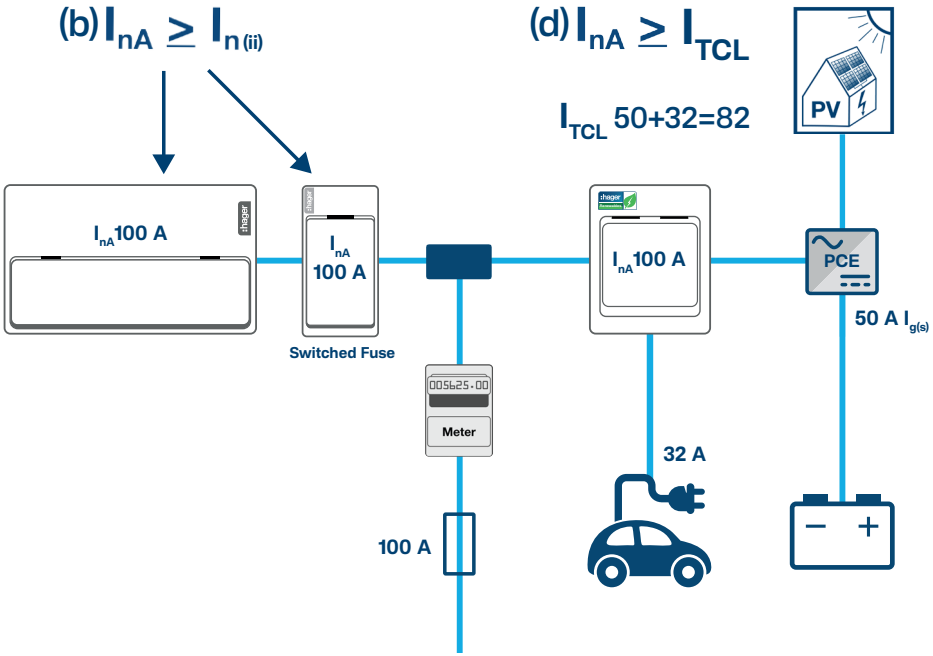
$I_{g(s)}$ is the rated output current of the generating set or sets.

Hager main switch controlled consumer units have been tested and verified with $I_{nA}$ = 116 A to meet the requirements of G98 for parallel generator installations under the following installation conditions

i) The input from the generator must be electrically farthest from the main switch.
ii) The protective device shall have a 0.8 Rated Diversity Factor (RDF) applied i.e. be a rated current of 20 A.
iii) The protective device can be either MCB or RCBO (where installation conditions require an RCBO due to the need for additional protection).
The RCBO shall be:-
- DP i.e. switch all live conductors including the neutral &
- Bidirectional which can be determined by the absence of directional marking on the terminals.
- Selected in accordance with the inverter manufacturer's instructions.

## 551.7.2.2 options (b) & (d)

The illustration below demonstrates how option (b) operates, with all supplies, including the generator set(s), fed through a single overcurrent protective device. Option (d) is also shown, illustrating that the total connected load is less than the assembly's $I_{nA}$ rating.




**Where indent (d) above is used:**

Diversity shall not be used for load control, and

A warning notice shall be attached in a visible position on the LV assembly identifying the maximum permitted connected load ($I_{nA}$), for example, where $I_{nA}$ = 100 A, "Total connected load not to exceed 100 A".

**Option (c)** relies on control by a customer's export and import limitation scheme. Refer to ENA Engineering Recommendation G100 for appropriate customer's export and import limitation scheme requirements.

# Chapter 57 Stationary secondary batteries

**Regulation 570.6.7.203** requires that stationary secondary batteries in dwellings shall be installed in a suitable location taking account of manufacturers instructions and PAS 63100.

**Regulation 570.6.2.2** deals with automatic disconnection of the supply provided by an RCD and where used for protection of the AC supply circuit, the RCD shall be of Type B according to BS EN 62423 or BS EN 60947-2, unless:

**(a)** the PCE provides at least simple separation between the AC side and the DC side; or

**(b)** at least simple separation is provided between the PCE and the RCD by means of separate windings of a Transformer; or

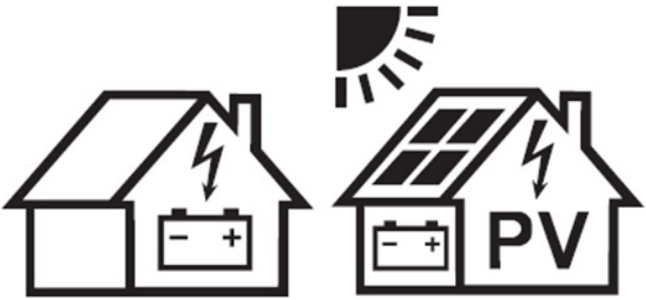
**(c)** the PCE does not require a Type B RCD as stated by the manufacturer of the PCE.

**570.6.8.201** A warning notice indicating the presence and location of a stationary secondary battery system,

**(a)** at the origin of each electrical installation;

**(b)** at each metering position, if remote from the origin;

**(c)** at each consumer unit or distribution board to which a supply from a stationary secondary battery is connected.





**570.6.8.203 Requires a warning notice to all PCE**

**WARNING - Isolate both AC and DC sides before servicing.**


Care needs to be taken with the use of DC isolation switches and it is essential to follow manufacturers instructions with respect to the voltage and current rating of these devices.

# Section 714 Outdoor lighting installations

**Regulation 714.411.3.4** states that, except for lighting supplied from a SELV source, lighting that is accessible to the public shall have additional protection by ≤30 mA RCD.

**Two new notes have been added:**

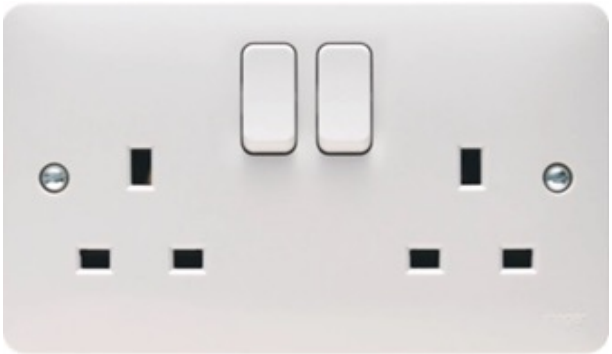
**NOTE 1:** Lighting includes luminaires, control equipment and wiring.

**NOTE 2:** Lighting is considered inaccessible if live conductors or equipment are out of reach or located within a locked or secured enclosure or housing, having a minimum impact rating of IK 08.

# Ring and Radial Final Circuit Arrangements

**A new note has been added to Appendix 15 which provides guidance on ring and radial final circuits, as follows:**

**NOTE: The total design current for a twin 13 A socket-outlet to BS 1363-2 is assumed not to exceed 20 A.**



This informative note has been added in order to avoid the potential overloading and premature failure of 2 gang socket outlets. The product standard BS 1363-2 specifies that each individual socket of a 2 gang accessory must be able to carry 13 A. The complete accessory however is rated for 20 A when using both sockets.

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# Notes

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# Notes

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