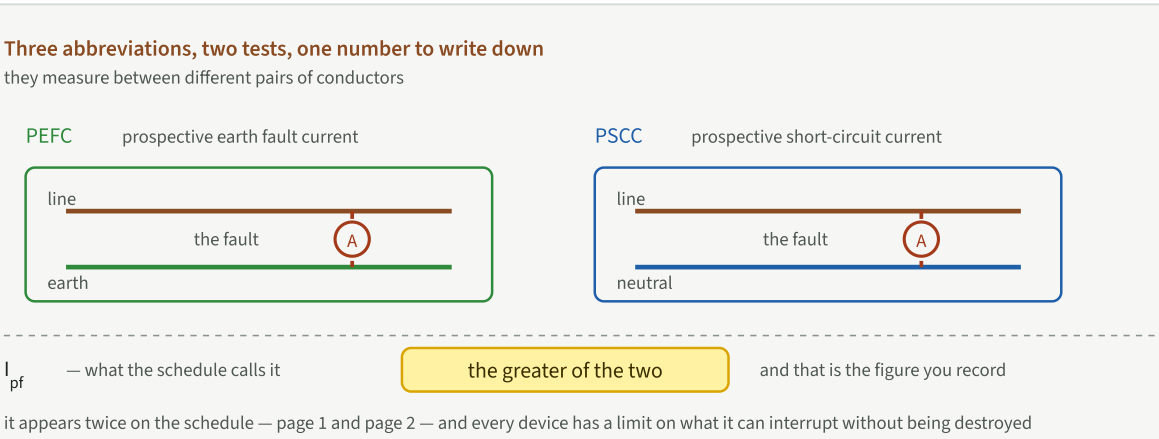
PROSPECTIVE FAULT CURRENT, AND BREAKING CAPACITY

PSCC OR PEFC. WHICH DO YOU RECORD?

PROSPECTIVE FAULT CURRENT: THE THREE ABBREVIATIONS

Prospective fault current is the current that would flow in the event of a fault — and it matters because every protective device has a limit on what it can interrupt without being destroyed.

ABBREVIATION	WHAT IT IS	FAULT BETWEEN
PEFC	Prospective earth fault current	Line and earth
PSCC	Prospective short-circuit current	**Line and neutral**
I_{pf}	What the schedule calls it	The **greater** of the two



Two measurements between two different pairs of conductors, and one figure that goes on the paperwork. **PEFC** is line to earth, **PSCC** is line to neutral, and **I_{pf}** is simply whichever came out higher. You record the greater because the device has to be able to interrupt the worst case, not the average one.

On the schedule it appears twice.

I_{pf} is on page 1 and again on page 2, just above Z_e. Fill in both.

✋ **The sheet wants kA. Your meter reads amps.** A measurement of 223.3 A goes on the sheet as **0.223 kA**. Some instruments toggle; the basic ones do not.

BREAKING CAPACITY: ICN AND ICS

Guidance Note 3 · 2.6.16 has a table of short-circuit capacities, and the same table appears in the On-Site Guide. This is the one everybody asks about and nobody reads the facing column of.

MARKING	WHAT IT MEANS
I_{cn}	The maximum fault current the device can interrupt **safely** — but it may be destroyed doing it
I_{cs}	What it can interrupt **and still be usable** afterwards, without replacement

HOW THEY RELATE

A device marked I_{cn} = 10 kA

I_{cs} might be stated as **7.5 kA**, or as a percentage — some devices state I_{cs} at **50%** of I_{cn}.

So it will interrupt 10 kA once. Below I_{cs} it survives to work again.

Typical capacities, from the table:

DEVICE	BREAKING CAPACITY
Rewirable fuse	Up to **4 kA**, depending on designation (an S1A only 1 kA)
BS 1361 Type 2 — the main cutout fuse	**33 kA**
Circuit breakers and RCBOs	**6 kA**, **10 kA**, up to **25 kA**

USING IT: A WORKED JUDGEMENT

I_{pf} at that point = about **7.3 kA** (the measured maximum)
Device on the board = Type B 32 A RCBO, **6 kA**

6 kA < 7.3 kA → **not suitable** on its own. You need the next rating up, 10 kA, unless a device on the supply side gives back-up protection (Reg 434.5.1) — domestic consumer units carry a conditional rating with the cut-out fuse.

✋ **This is not about tripping faster.** The device's breaking capacity must be at least the prospective fault current where it is installed. If it isn't, the device is not suitable: choose one with a higher rating.

Go by the device, not the book.
The table is guidance; the figure stamped on the device by the manufacturer is what governs. Read the marking: type letter, current rating, I_{cn}, and I_{cs} where it is given.

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