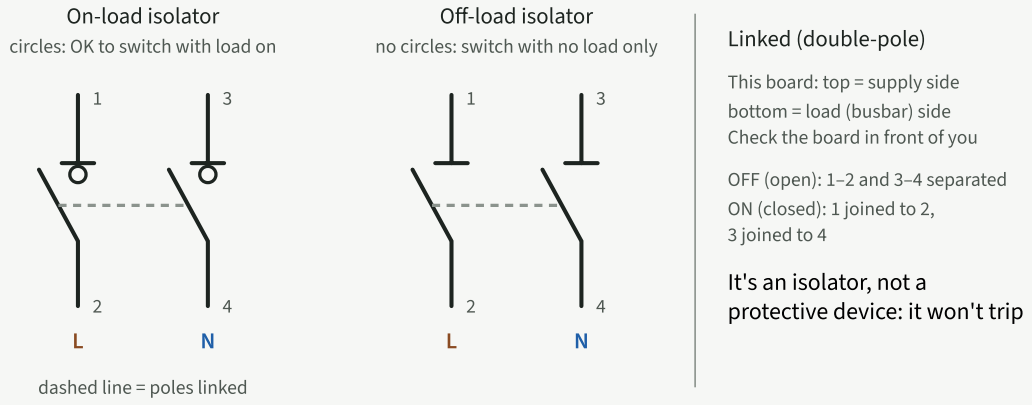
THE CONSUMER UNIT MAIN SWITCH

WILL A MAIN SWITCH EVER TRIP?

Our simplest board is just an enclosure with a **main switch**. The switch is marked **BS EN 60947-3**, the common standard for an **isolator** (switch-disconnector). This one is rated **100 A**.



The isolator symbol printed on the switch has terminals marked 1, 2, 3 and 4. The small circles at the contacts are what tell you it's an **on-load** isolator.

- **On-load isolator:** the symbol has **little circles** at the contacts, so it can be switched on and off **with load connected**. An **off-load** isolator has the same symbol **without** the circles and should only be operated with **no load**.
- **Not a circuit breaker.** It's rated to **carry** 100 A. Push more through it and the contacts will overheat and maybe melt, but it **won't trip**.
- "My main switch tripped!" In that case it was a different device: a **BS EN 60947-2** switch has a **protective device built in** and can trip under fault. A 60947-3 won't.
- It's a **double-pole**, or **linked**, main switch: line and neutral are switched **together**. This is needed so the whole installation can be **isolated**.
- On this board, **supply side** (top): the meter tails, line and neutral. **Load (busbar) side** (bottom): a solid **copper busbar** screwed into the line, and a thick neutral cable up to the **neutral bar**.
- That's how it comes **out of the box**. You can take it apart, but Sparky's tip is **leave it alone**. Some people cut the busbar shorter. On this board the bar is also held by a plastic grip, so cutting it would stop that working, go against the **manufacturer's instructions**, and could **void the warranty**.

BS EN 60947-3 · isolator / switch-disconnector (no trip)

BS EN 60947-2 · circuit-breaker type (can trip)

BS 7671 · requirement for a **linked main switch**

Reg 462.1.201 (Chapter 46, isolation and switching) · check your copy

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