TABLE A1, AND THE COOKER WORKED THROUGH

WHY ADD FIVE AMPS FOR A COOKER SOCKET?

TABLE A1 — ASSUMED DEMAND

Everything starts with the design current, from the power triangle:

$$I_b = P \div V$$

Same formula you already know as I = P/V. In a design it is called **I_b**, the design current.

Table A1 then tells you what to assume for each kind of point. For a household cooker the sum is the one **On-Site Guide** · Table A2 · p.151 prints: **10 A, plus 30% of the full load in excess of 10 A**, plus 5 A if a socket-outlet is built into the control unit. Table A1 gives the same result.

✋ **"Take the first 10 A" does not mean throw them away.** You set them aside to work out the 30%, then **add them back**. They are an allowance, not a deduction.

THE COOKER, WORKED THROUGH

A **5.5 kW** cooker on a 230 V supply, with a socket outlet in the control unit.

STEP	WORKING	RESULT
Design current	5500 ÷ 230	**23.91 A**
Take the first 10 A	23.91 − 10	13.91 A
30% of the load **in excess of 10 A**	13.91 × 0.3	4.17 A
Add the 10 A back	10 + 4.17	14.17 A
Socket in the control unit	+ 5	**19.17 A**

No socket in the control unit?

Then no 5 A, and the figure is **14.17 A** — which would sit happily on a 16 A breaker. Most domestic cooker switches do not have a socket; check before adding it.

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