

NEC Article for Branch Circuits: Article 210 Cheat Sheet

Quick reference by Abdul Wassay, Electrical Engineer | azadtechhub.com | Verify against your adopted NEC edition

1. Definition

A branch circuit is the set of conductors between the final overcurrent protective device and the outlets it serves (Article 100). Upstream of that device you have a feeder (Article 215) or service (Article 230).

2. Standard ratings and minimum copper conductors (210.3, 210.24)

Breaker	Copper conductor	Typical use
15 A	14 AWG	Lighting, bedroom receptacles
20 A	12 AWG	Kitchen, laundry, bathroom
30 A	10 AWG	Dryers, water heaters
40 A	8 AWG	Smaller ranges
50 A	6 AWG	Ranges, EV chargers

Continuous loads (3 hours or more): size conductor and breaker at 125% of the continuous load plus 100% of noncontinuous load (210.19, 210.20). Check 240.4(D) small conductor limits.

3. Number of branch circuits (210.11)

Provide enough circuits for the calculated load (Article 220 in the 2023 NEC; Article 120 in the 2026 NEC) and keep the load evenly proportioned (210.11(B)). Dwelling units need at least:

- Two or more 20 A small-appliance circuits
- One 20 A laundry circuit
- One 20 A bathroom circuit
- One 20 A garage circuit

A 20 A, 120 V circuit carries 2,400 VA, or 1,920 VA continuous.

4. Dwelling receptacles (210.52)

- (A) No point along a wall line more than 6 ft from a receptacle (12 ft maximum spacing); wall spaces 2 ft or wider need one.
- (B) Kitchen receptacles go on the small-appliance circuits.
- (C) Countertops: no point along the wall line more than 24 in from a receptacle.
- (D) Bathroom: one receptacle within 36 in of each basin.
- (E) Outdoors: front and back, no higher than 6.5 ft above grade.

5. Related articles

Article	Covers	Key point
215	Feeders	Same 125% continuous load rule (215.2); overcurrent protection in 215.3
310	Conductors for general wiring	Table 310.16 ampacities at 30°C, up to three current-carrying conductors
376	Metal wireways	20% fill limit; derate above 30 current-carrying conductors
725	Class 1, 2, 3 circuits	Remote-control, signaling, power-limited (thermostat, doorbell)
240	Overcurrent protection	240.4(D) caps 14, 12, 10 AWG copper at 15, 20, 30 A

6. 2026 NEC notes

Load calculations moved to Article 120. Garage GFCI now has its own item (210.8(A)(2)). Outlet branch-circuit AFCI may be installed at the first outlet or switch when extending an existing circuit (210.12(E)). 210.52 was revised and 210.52(C)(4) added. Adoption varies by state, so confirm with your inspector.

Full guide: azadtechhub.com/nec-article-for-branch-circuits/ | This summary paraphrases the NEC for quick reference and is not a substitute for the code or a licensed professional. NEC is a registered trademark of NFPA.