

NEC Code for Commercial Buildings

Quick-reference cheat sheet | NFPA 70 | Prepared by Abdul Wassay, Electrical Engineer | azadtechhub.com

1. Which edition applies?

The NEC is adopted by states and cities, often with amendments. Editions follow a three-year cycle: 2017, 2020, 2023, 2026. There is no 2021 NEC. Ask your authority having jurisdiction (AHJ) which edition is enforced before you design or bid. NFPA offers free read-only online access to NFPA 70 with a free account.

2. Commercial service and distribution

Topic	Section	What it covers
Services	Article 230	Service conductors, disconnects, equipment
Max service disconnects	230.71	Up to six switches or breakers grouped per service
Ground-fault protection	230.95	Solidly grounded wye over 150 V to ground, up to 1000 V phase to phase, rated 1000 A or more
Feeders	Article 215	Feeder conductors and protection
Panelboards	Article 408	Switchboards, switchgear and panelboards
Working space	110.26	3 ft, 3.5 ft or 4 ft depth by condition; 30 in. minimum width
Arc flash labels	110.16	Required on service and feeder equipment in other than dwelling units
Emergency / standby	700 / 701	Emergency and legally required standby systems

3. GFCI protection in non-dwelling buildings: 210.8(B)

Applies to 125 to 250 V receptacles on single-phase circuits of 50 A or less and three-phase circuits of 100 A or less (150 V to ground or less). Locations include bathrooms, kitchens, rooftops, outdoors, within 6 ft of a sink, indoor damp and wet locations, locker rooms with showers, and garages or service bays. The 2023 edition expanded non-dwelling kitchen coverage and added buffet serving areas. Confirm the full list in your edition.

4. Receptacles: how many do you need?

The NEC sets no general outlet count for commercial spaces. The dwelling spacing rules in 210.52 do not apply. Use these rules instead:

Rule	Requirement
210.62 Show windows	At least one receptacle per 12 linear ft of show window
210.63 HVAC equipment	Service receptacle within 25 ft on rooftops, attics and crawl spaces
Receptacle load (2020, 2023)	180 VA per yoke (220.14(I)); offices and banks use the larger of that or 1 VA per sq ft
2026 edition	Load calculation rules were reorganized; check article numbers

5. Romex (Type NM) in commercial buildings: 334.10

Question	Answer
Permitted?	Only in structures allowed to be Type III, IV or V construction (334.10(3))
How installed?	Concealed behind a thermal barrier with at least a 15-minute finish rating; not exposed
Above drop ceilings?	Generally rejected by inspectors; ceiling tiles are not a 15-minute barrier
Type I and II buildings?	Generally no, unless the building could legally be Type III, IV or V, or the cable is in a raceway where 334.10(5) permits it
Common alternative	MC cable or EMT with THHN conductors

6. Related guides on azadtechhub.com

NEC Article 210.8 A (GFCI) | NEC Article 110.26 A (working space) | NEC article for branch circuits | NEC article for overcurrent protection (Article 240) | NEC article for grounding and bonding (Article 250) | Conduit fill calculator | Cable tray fill calculator

This summary is for education and does not replace the NEC or your AHJ. Always verify against the adopted edition.