

Essential Electric Supply Releases Guide to the 12 Types of Electrical Panels and How to Choose the Right One

GOLDEN, CO, UNITED STATES, July 16, 2026 /EINPresswire.com/ -- Essential Electric Supply, a leading power distribution supplier in the United States, has published a new guide breaking down the 12 types of electrical panels available for residential, commercial, and industrial use, along with the key factors property owners and contractors should weigh before choosing one.

Electrical panels serve as the central distribution point for a property's power supply, receiving electricity from the utility grid and routing it to individual circuits while housing the circuit breakers or fuses that protect against overloads. With numerous panel types available — each suited to different settings, capacities, and applications — selecting the right one can be difficult without a clear framework for comparison.

12 Types of Electrical Panels

The guide organizes panel types into two primary categories: by use and by amperage.

Panels classified by use include:

1. Main breaker panels: The primary control point for a property's electrical system, housing a master breaker that controls all circuits.
2. Subpanels: Branch panels that extend power to garages or additional structures while remaining under the main panel's control.
3. Main lug panels: Distribution panels without a master breaker, drawing power directly from the main breaker panel.
4. Transfer switch panels: Designed to shift power from the utility grid to a backup generator during outages, common in hospitals and other critical facilities.
5. Load centers/fuse boxes: Light commercial and residential panels more common in older buildings, using fuses rather than circuit breakers.
6. Three-phase panels: Built to handle three-phase power in industrial and commercial settings

requiring high capacity.

7. Power control center (PCC) panels: Centralized industrial panels that monitor and control power distribution using breakers, relays, and meters.

8. Motor control center (MCC) panels: Industrial assemblies that control electric motors using starters, relays, and variable frequency drives.

9. Automatic power factor control (APFC) panels: Panels that improve energy efficiency by automatically managing reactive power through capacitor banks.

Panels classified by amperage include:

10. Residential panels: Ranging from 100-amp panels suited to older homes up to 400-amp setups for large homes running multiple HVAC systems, EV chargers, or pools.

11. Commercial and industrial panels: Typically rated between 200 and 4,000 amps, depending on power demands.

12. Specialized panel sizes: Custom-rated panels for unique applications such as outdoor installations, patios, pools, or data centers.

Key Factors When Choosing a Panel

Beyond panel type, the guide outlines several factors that influence selection, including compliance with NEMA ratings, National Electrical Code standards, and local building codes; current and future power demands; available circuit capacity; amperage rating; and the location where the panel will be installed, since outdoor panels require weatherproofing and corrosion resistance that indoor panels do not.

The guide also addresses breaker type, noting that areas prone to moisture typically require Ground Fault Circuit Interrupters, while living spaces benefit from Arc Fault Circuit Interrupters to reduce fire risk from arc faults.

For a full breakdown of panel types and selection criteria, read the complete guide, "[12 Different Types Of Electrical Panels Explained](#)," on the Essential Electric Supply website.

About Essential Electric Supply

Essential Electric Supply is one of the top power distribution suppliers in the United States, stocking more than 70,000 new and recertified items, including circuit breakers, motor controls, fusible switches, bus plugs, transformers, and fuses. The company serves contractors and facilities teams that need difficult-to-source electrical components quickly, with multiple ship

points across North America, after-hours emergency services, and expedited air delivery available when timing is critical. Essential Electric Supply backs every product with a two-year warranty and a 30-day return policy. The company is headquartered in Golden, Colorado. Learn more at essentialparts.com.

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