GUIDES & CHARTS

Multicore / Flexible Cable Selection Guide

Choosing the right multicore flexible cable for appliances, pumps and machines.

Multicore flexible cables bundle several insulated cores inside one sheath, so a single cable carries phase, neutral and earth (or multiple phases) to an appliance or machine. Picking the right one comes down to four choices.

1. Conductor: copper or aluminium

Choose **copper** for flexibility, higher current capacity and appliances that move or vibrate. **Aluminium** is lighter and more economical for larger, fixed runs with suitable sizing.

2. Form: round or flat

Round multicore suits general appliance and panel wiring. **Flat** multicore is designed for **submersible pumps** and tight vertical runs in a bore.

3. Number of cores

Match the cores to the load: 2-core (phase + neutral) for simple single-phase loads, 3-core (adds earth) for most appliances, and 3½/4-core for three-phase motors and machinery.

4. Size

Size by the current the appliance draws and the run length, then apply derating for heat and grouping. When in doubt, step up one size for long runs to keep voltage drop within limits.

Indicative guidance for typical Indian domestic installations. Always confirm final cable sizes against the applicable IS standards, your local wiring rules and a licensed electrician for your specific installation.