Minimum Copper Conductor Size for Common Branch Circuits

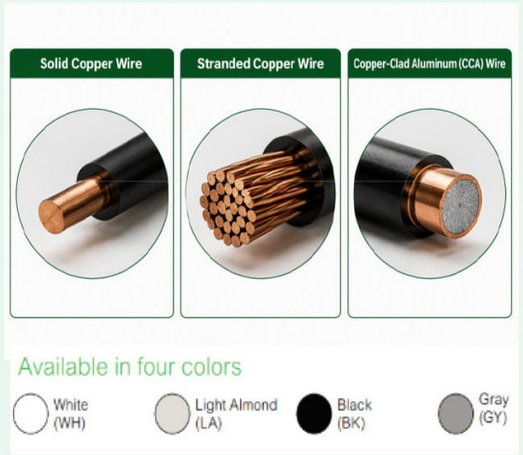
Circuit Rating	Minimum Copper AWG	Solid Copper Allowed	Stranded Copper Allowed	Typical Applications
15 A	14 AWG Cu	Yes	Yes	General lighting, receptacles
20 A	12 AWG Cu	Yes	Yes	Kitchen, bathroom, laundry receptacles, dedicated circuits
30 A	10 AWG Cu	Yes	Yes	Dryers, water heaters
40 A	8 AWG Cu	Yes	Yes	Ranges, EV equipment
50 A	6 AWG Cu	Yes	Yes	Ranges, EV chargers, welders

For Wiring Devices

The distinction between solid and stranded conductors becomes important because of the **termination method**

Device Termination Type	Solid Wire	Stranded Wire
Push-in (back stab)	14 AWG solid only	Not permitted
Side wire screw terminal	Allowed	Allowed
Clamp/back-wire terminal or Pressure plate terminal	Allowed	Allowed







				Push In		Side Wire		Back Wire Pressure Plates	
Catalog #	Amps	Type		Copper	CCA	Copper	CCA	Copper	CCA
SQR51101**	15	GFCI / TR, Decorator	Duplex	X	X	12-14AWG	12AWG	10-14AWG	10-12AWG
SQR51103**	15	GFCI / WR/TR, Decorator	Duplex	X	X	12-14AWG	12AWG	10-14AWG	10-12AWG

				Push In		Side Wire		Back Wire Pressure Plates	
Catalog #	Amps	Type		Copper	CCA	Copper	CCA	Copper	CCA
SQR51201**	20	GFCI / TR, Decorator, COMM	Duplex	X	X	12AWG	X	10-12AWG	10AWG
SQR51203**	20	GFCI / WR/TR, Decorator, COMM	Duplex	X	X	12AWG	X	10-12AWG	10AWG

				Push In		Side Wire		Back Wire Pressure Plates	
Catalog #	Amps	Type		Copper	CCA	Copper	CCA	Copper	CCA
SQR57101**	15	Lighted, TR, Decorator	Duplex	X	X	12-14AWG	12AWG	10-14AWG	10-12AWG

				Push In		Side Wire		Back Wire Pressure Plates	
Catalog #	Amps	Type		Copper	CCA	Copper	CCA	Copper	CCA
SQR55141**	15	USB A/A, TR, Decorator	Duplex	X	X	X	X	10-14AWG	10-12AWG
SQR55241**	20	USB A/A, TR, Decorator		X	X	X	X	10-12AWG	10AWG

				Push In		Side Wire		Back Wire Pressure Plates	
Catalog #	Amps	Type		Copper	CCA	Copper	CCA	Copper	CCA
SQR55153**	15	USB A/C, TR, Decorator	Duplex	X	X	X	X	10-14AWG	10-12AWG