Conductor Applications Chart

Conductor Size	Overcurrent Protection	Typical Applications
No. 18 AWG	7 amperes. Class 2 circuit transformers provide overcurrent protection.	Low-voltage wiring for thermostats, chimes, security, remote control, home automation systems, etc. For these types of installations, No. 18 or 20 AWG can be used depending on the connected load and length of circuit.
No. 16 AWG	10 amperes. Class 2 circuit transformers provide overcurrent protection.	Same applications as above. Good for long runs to minimize drop.
No. 14 AWG	15 amperes	Typical lighting branch-circuits.
No. 12 AWG	20 amperes	Small appliance branch-circuits for the receptacles in kitchens and dining rooms. Also laundry receptacles and workshop receptacles. Often used as the “home run” for lighting branch-circuits. Some water heaters.
No. 10 AWG	30 amperes	Most clothes dryers, built-in ovens, cooktops, central air conditioners, some water heaters, heat pumps.
No. 8 AWG	40 amperes	Ranges, ovens, heat pumps, some large clothes dryers, large central air conditioners, heat pumps.
No. 6 AWG	50 amperes	Electric furnaces, heat pumps.
No. 4 AWG	70 amperes	Electric furnaces, feeders to sub-panels.
No 3 AWG	100 amperes	Main service entrance conductors, feeders to sub-panels, electric furnaces.