

WIRE CHARTS

HOW MUCH AMPERAGE CAN A WIRE SAFELY CONDUCT?

The National Electrical Code publishes the following table showing how much amperage each size cable can carry:

AWG WIRE SIZE	AWG CM AREA	OHMS /1000 FT.	2 CURRENT CARRYING CONDUCTORS	3 CURRENT CARRYING CONDUCTORS
18	1,600	6.385	7	10
16	2,600	4.016	10	13
14	4,100	2.525	15	18
12	6,500	1.588	20	25
10	10,500	.9989	25	30
8	16,800	.6282	35	40
6	26,600	.3951	45	55
4	42,000	.2485	60	70
2	66,500	.1563	80	95

Ohms/1000 ft. can be used to calculate any voltage drop. The formula is:

Voltage (drop in volts) =
 [1 (amperage) x circuit length in feet/1000 x Ohms/1000 ft.]

WIRE SPECIFICATIONS

Diameter Ranges of Jacketed Cord in Accordance with Standard "UL 62"

TYPE*	AWG SIZE	2 COND.	3 COND.
SV,SVO,SVT,SVTO	18	.220-.255"	.230-265"

TYPE*	AWG SIZE	2 COND.	3 COND.	4 COND.
SJ,SJO,SJT,SJTO	18	.280-315"	.300-.335"	.325-.365"
	16	.305-.340"	.325-.360"	.350-.395"
	14	.335-.375"	.360-.395"	.390-.435"
	12	.405-.455"	.425-.475"	.465-.520"
	10	.540-.605"	.565-.635"	.625-.700"

TYPE*	AWG SIZE	2 COND.	3 COND.	4 COND.	5 COND.
S,SO,ST,STO	18	.340-.385"	.360-.400"	.385-.430"	.460-.510"
	16	.365-.410"	.385-.430"	.410-460"	.490-.550"
	14	.495-.550"	.520-.575"	.560-.620"	.630-.705"
	12	.565-.625"	.590-.655"	.640-.710"	.700-.770"
	10	.615-.685"	.650-.720"	.700-.775"	.760-.840"
	8	.780-.880"	.830-.930"	.925-1.050"	1.000-1.150"
	6	.920-1.050"	.970-1.100"	1.050-1.200"	1.180-1.330"
	4	1.060-1.210"	1.130-1.280"	1.250-1.450"	
2	1.210-1.400"	1.300-1.500"	1.450-1.650"		

*Actual sizes will vary by cord manufacturers.