



Voltage Loss Calculator for 24 Volt DC Products

When calculating acceptable gauges of wire at specific lengths, you will want to use the table below. To be safe, round up on the Wattage, and round up on the distance from power supply to the fixture.

Example: Our blue LED Neon product is 4 Watts per foot (from the cutsheet), so a 10' run would use 40 total Watts. If the distance from the power supply to this 10' run has to be 70' we consult the table below and find: 40W, 70' = 20awg wire needed.

24 Volt DC or AC Table (3% loss max)

POWER WIRE GAUGE

W (VA) /Amps	8awg	10awg	12awg	14awg	16awg	18awg	20awg	22awg	24awg	26awg
3W/.13A	14,417	9,253	5,823	3,656	2,299	1,451	905	565	358	226
4W/.17A	11,025	7,076	4,453	2,796	1,758	1,110	692	432	274	173
5W/.21A	8,925	5,728	3,605	2,263	1,423	898	560	350	222	140
10W/.42A	4,463	2,864	1,803	1,132	712	449	280	175	111	70
20W/.83A	2,258	1,449	912	573	360	227	142	89	56	35
30W/1.25A	1,499	962	606	380	239	151	94	59	37	24
40W/1.67A	1,122	720	453	285	179	113	70	44	28	18
50W/2.08A	901	578	364	229	144	91	57	35	22	14
60W/2.50A	750	481	303	190	120	75	47	29	19	12
70W/2.92A	642	412	259	163	102	65	40	25	16	10
80W/3.33A	563	361	227	143	90	57	35	22	14	9
90W/3.75A	500	321	202	127	80	50	31	20	12	8
100W/4.17A	449	288	182	114	72	45	28	18	11	7
110W/4.58A	409	263	165	104	65	41	26	16	10	6
120W/5.00A	375	241	151	95	60	38	24	15	9	6
130W/5.42A	346	222	140	88	55	35	22	14	9	5
140W/5.83A	321	206	130	82	51	32	20	13	8	5
150W/6.25A	300	192	121	76	48	30	19	12	7	5
160W/6.67A	281	180	114	71	45	28	18	11	7	4
170W/7.08A	265	170	107	67	42	27	17	10	7	4
180W/7.50A	250	160	101	63	40	25	16	10	6	4
190W/7.92A	237	152	96	60	38	24	15	9	6	4
200W/8.33A	225	144	91	57	36	23	14	9	6	4

*Numbers in Red are in Feet.