

WIRE & CABLE GUIDE

RATINGS CHART

Wire Type	Stock No.	Agency Rating	Insulation	Gauge Range	Max Voltage Rating	Page
Automotive Cross-Link Wire	WX	SAE J1128-SXL	XLPE	18-8	60	10
Automotive Cross-Link Wire	WL	SAE J1128-GXL	XLPE	20-8	60	10
Automotive Cross-Link Wire	WM	SAE J1128-TXL	XLPE	22-8	60	10
Automotive Primary	WG	SAE J1128-GPT	PVC	20-8	60	11
SGR Battery Cable	SGR	SAE J1128-SGR	EPDM	6-4/0	60	12
SGT Battery Cable	WB	SAE J1127-SGT	PVC	6-4/0	60	12
SGX Battery Cable	WZ	SAE J1127-SGX	XLPE	6-2/0	60	12
Parallel Battery Cable	WF	SAE J1127	PVC OR TPE	8-2	60	13
Welding Cable	WC	Class K	TPE/Neoprene	6-4/0	600	13
EPDM Welding Cable	WCE	SAE J1127	EPDM	6-4/0	600	13
Brake Cable	WD	SAE J1128-GPT	PVC	18-8	60	14
CAN Bus Cable	CB	SAE J1939	Exrad 125	20-18	60	14
Multi-Conductor Shielded Cable	ST	UL Type CM/NEC Article 800	XLPE	22-18	300	15
Multi-Conductor Marine Cable	MC	UL 1426	PVC	16-10	600	15
Speaker Cable	SC	*	PVC	22-14	90	15
Service Cord	SJ	SJ00W	CPE/EP	18-12	300	16
Service Cord	SO	SO0W	CPE/EPDM	18-10	600	16
Hook Up Wire - UL Type	WR	UL 1015 / UL 1230 / UL 1032	PVC	22-10	600	17
Hook Up Wire - UL Type	WN	TFFN / THHN / THWN / UL 1408 / UL 1316 / UL 1452	PVC	18-10	1000	17
Trailer Cable	WT	SAE J1128	PVC	18-12	60	18
Parallel Bonded Cable	WP	SAE-GPT	PVC	18-14	60	18

* Not rated

WIRE SIZING CHART

Total Approx. Circuit Amperes	Wire Gauge (For Length In Feet)												
	3	5	7	10	15	20	25	30	40	50	75	100	
12VDC	3	5	7	10	15	20	25	30	40	50	75	100	
1	18	18	18	18	18	18	18	18	18	18	18	18	
1.5	18	18	18	18	18	18	18	18	18	18	18	18	
2	18	18	18	18	18	18	18	18	18	18	16	16	
3	18	18	18	18	18	18	18	18	18	18	14	14	
4	18	18	18	18	18	18	18	18	16	16	12	12	
5	18	18	18	18	18	18	18	18	16	14	12	12	
6	18	18	18	18	18	18	16	16	16	14	12	10	
7	18	18	18	18	18	18	16	16	14	14	10	10	
8	18	18	18	18	18	16	16	16	14	12	10	10	
10	18	18	18	18	16	16	16	14	12	12	10	10	
11	18	18	18	18	16	16	14	14	12	12	10	8	
12	18	18	18	18	16	16	14	14	12	12	10	8	
15	18	18	18	18	14	14	12	12	12	10	8	8	
18	16	16	16	16	14	14	12	12	10	10	8	8	
20	16	16	16	16	14	12	10	10	10	10	8	6	
22	14	16	14	14	12	12	10	10	10	8	6	6	
24	14	14	14	14	12	12	10	10	10	8	6	6	
30	12	12	12	12	10	10	10	10	10	6	4	4	
40	10	8	8	8	8	8	8	8	6	6	4	2	
50	8	8	8	8	8	8	8	8	6	6	2	2	
100	4	4	4	4	4	4	4	4	4	2	1	1/0	
150	2	2	2	2	2	2	2	2	2	1	2/0	2/0	
200	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0	4/0	4/0	

Source: East Penn Wire Guide Chart

USING THE CHART

1. Measure the length of wire in the circuit including the ground return. A two-wire circuit will be the total lengths of both the wires. Account for both vehicles on auto and trailer applications.
2. Determine the total current draw of the circuit and round up to determine the amp rating. Then chose the wire size that corresponds to the length and current rating for the circuit.
3. Look across for proper footage to find nearest wire gauge.

Note:

18-gauge applications inside of the shaded area could be 20-gauge for electrical purposes. However, it is recommended to use 18-gauge for the tensile strength of the wire. Chart is based on maximum 10% voltage drop @ 100° F (in free air).