

APPENDIX 2

CURRENT RATINGS FOR WELDING CABLES

Current ratings for PEROPOWER and FLEX-O-POWER welding cables are for welding purposes only with a maximum conductor temperature of 70°C.

Ratings generally assigned to different types of welding machines

Automatic	Up to 100%
Semi Automatic	30 to 85%
Manual Welding	30 to 60%
Intermittent or occasional	Up to 30%

Size mm ²	100% (5 min)	85% (4.25 min)	75% (3.75 min)	60% (3 min)	30% (1.5 min)	20% (1 min)
16	120	130	140	155	220	270
25	160	175	185	205	295	360
35	200	220	230	260	365	450
50	255	280	295	330	465	570
70	315	340	365	410	575	705
95	380	415	440	480	695	850
120	440	480	510	570	805	985
150	510	555	590	660	930	1140
185	580	630	670	750	1060	1300

A duty cycle is the percentage welding time of any 5 minutes.

Technical Data

Note: If surrounding temperature is higher than 25°C multiply the above ratings by the following factors:

30°C	35°C	40°C	45°C
0.96	0.91	0.87	0.82

Calculation to find current rating for a duty cycle not in the table:

$$\text{Current rating of duty cycle required} = \text{Current rating for 100\% duty cycle} \times \sqrt{\frac{100}{\% \text{ duty cycle required}}}$$

Example: 50mm² cable has a rating of 255 amps for 100% duty cycle
What is the current rating if only operated on a 40% duty cycle?

$$255 \times \sqrt{\frac{100}{40}} = 403.19 \text{ amps}$$