



Touching surface

**3% Max Voltage Drop and Max Cable Load Chart Based on AS/NZ3008****XLPE -X110 High Temp Cable, touching the surface and close to other cables at 40c Amb****Minimum fuse size (LittleFuse) at 40c**

Load	<1.0m	1.5m	2.0m	3.0m	4.0m	5.0m	6.0m	10.0m	Mini Fuse	Maxi Fuse	Midi Fuse	Mega Fuse	
5 Amps	Cable Size	1mm2	1.5mm2	1.5mm2	2.5mm2	4mm2	4mm2	6mm2	10mm2	7.5 Amp	-	-	-
	Voltage Drop	2.0%	2.0%	2.7%	2.5%	2.0%	2.6%	2.0%	2.0%				
	Cables Rated Current	22 Amps	28 Amps	28 Amps	36 Amps	48 Amps	48 Amps	61 Amps	86 Amps				
10 Amps	Cable Size	1.5mm2	2.5mm2	4mm2	4mm2	6mm2	10mm2	10mm2	16mm2	15 Amp	20 Amp	23 Amp	-
	Voltage Drop	2.7%	2.5%	2.0%	3.1%	2.7%	2.0%	2.5%	2.6%				
	Cables Rated Current	28 Amps	36 Amps	48 Amps	48 Amps	61 Amps	86 Amps	86 Amps	112 Amps				
15 Amps	Cable Size	2.5mm2	4mm2	6mm2	6mm2	10mm2	10mm2	16mm2	25mm2	20 Amp	20 Amp	23 Amp	
	Voltage Drop	2.5%	2.3%	2.0%	3.1%	2.5%	3.1%	2.3%	2.5%				
	Cables Rated Current	36 Amps	48 Amps	61 Amps	61 Amps	86 Amps	86 Amps	112 Amps	149 Amps				
20 Amps	Cable Size	4mm2	6mm2	6mm2	10mm2	16mm2	16mm2	25mm2	35mm2	25 Amp	20 Amp	23 Amp	40 Amp
	Voltage Drop	2.0%	2.0%	2.7%	2.5%	2.0%	2.6%	2.0%	2.3%				
	Cables Rated Current	48 Amps	61 Amps	61 Amps	86 Amps	112 Amps	112 Amps	149 Amps	184 Amps				
25 Amps	Cable Size	4mm2	6mm2	10mm2	16mm2	16mm2	25mm2	25mm2	35mm2	-	30 Amp	30 Amp	40 Amp
	Voltage Drop	2.6%	2.6%	2.0%	1.9%	2.6%	2.0%	2.5%	2.9%				
	Cables Rated Current	48 Amps	61 Amps	86 Amps	112 Amps	112 Amps	149 Amps	149 Amps	184 Amps				
30 Amps	Cable Size	6mm2	10mm2	10mm2	16mm2	25mm2	25mm2	25mm2	50mm2	-	35 Amp	40 Amp	60 Amp
	Voltage Drop	2.0%	1.8%	2.5%	2.3%	2.0%	2.5%	3.0%	2.5%				
	Cables Rated Current	61 Amps	86 Amps	86 Amps	112 Amps	149 Amps	149 Amps	149 Amps	233 Amps				
40 Amps	Cable Size	6mm2	10mm2	16mm2	25mm2	25mm2	35mm2	35mm2	70mm2	-	50 Amp	50 Amp	60 Amp
	Voltage Drop	2.7%	2.5%	2.0%	2.0%	2.6%	2.3%	2.8%	2.3%				
	Cables Rated Current	61 Amps	86 Amps	112 Amps	149 Amps	149 Amps	184 Amps	184 Amps	292 Amps				
50 Amps	Cable Size	10mm2	16mm2	16mm2	25mm2	35mm2	35mm2	50mm2	70mm2	-	60 Amp	60 Amp	80 Amp
	Voltage Drop	2.0%	1.9%	2.6%	2.5%	2.3%	2.9%	2.5%	2.9%				
	Cables Rated Current	86 Amps	112 Amps	112 Amps	149 Amps	184 Amps	184 Amps	233 Amps	292 Amps				
60 Amps	Cable Size	10mm2	16mm2	25mm2	25mm2	35mm2	50mm2	50mm2	95mm2	-	70 Amp	70 Amp	80 Amp
	Voltage Drop	2.5%	2.3%	2.0%	3.0%	2.8%	2.5%	3.0%	2.6%				
	Cables Rated Current	86 Amps	112 Amps	149 Amps	149 Amps	184 Amps	233 Amps	233 Amps	352 Amps				
80 Amps	Cable Size	16mm2	25mm2	25mm2	35mm2	50mm2	70mm2	70mm2	120mm2	-	-	100 Amp	100 Amp
	Voltage Drop	2.0%	2.0%	2.6%	2.8%	2.6%	2.3%	2.8%	2.7%				
	Cables Rated Current	112 Amps	149 Amps	149 Amps	184 Amps	233 Amps	292 Amps	292 Amps	417 Amps				
100 Amps	Cable Size	16mm2	25mm2	35mm2	50mm2	70mm2	70mm2	95mm2	150mm2	-	-	125 Amp	125 Amp
	Voltage Drop	2.6%	2.5%	2.3%	2.5%	2.3%	2.9%	2.6%	2.7%				
	Cables Rated Current	112 Amps	149 Amps	184 Amps	233 Amps	292 Amps	292 Amps	352 Amps	482 Amps				
125 Amps	Cable Size	25mm2	35mm2	35mm2	70mm2	70mm2	95mm2	120mm2	185mm2	-	-	175 Amp	175 Amp
	Voltage Drop	2.0%	2.2%	2.9%	2.2%	2.9%	2.7%	2.6%	2.8%				
	Cables Rated Current	149 Amps	184 Amps	184 Amps	292 Amps	292 Amps	352 Amps	417 Amps	552 Amps				
150 Amps	Cable Size	35mm2	35mm2	50mm2	70mm2	95mm2	120mm2	150mm2	240mm2	-	-	-	200 Amp
	Voltage Drop	1.8%	2.6%	2.5%	2.6%	2.6%	2.6%	2.5%	2.6%				
	Cables Rated Current	184 Amps	184 Amps	233 Amps	292 Amps	352 Amps	417 Amps	482 Amps	664 Amps				
200 Amps	Cable Size	50mm2	50mm2	70mm2	95mm2	120mm2	150mm2	185mm2		-	-	-	300 Amp
	Voltage Drop	1.6%	2.5%	2.3%	2.6%	2.7%	2.7%	2.7%					
	Cables Rated Current	233 Amps	233 Amps	292 Amps	352 Amps	417 Amps	482 Amps	552 Amps					
250 Amps	Cable Size	70mm2	70mm2	70mm2	120mm2	150mm2	185mm2	240mm2		-	-	-	350 Amp
	Voltage Drop	1.5%	2.2%	2.9%	2.6%	2.7%	2.8%	2.6%					
	Cables Rated Current	292 Amps	292 Amps	292 Amps	417 Amps	482 Amps	552 Amps	664 Amps					
275 Amps	Cable Size	70mm2	70mm2	95mm2	120mm2	185mm2	240mm2	240mm2		-	-	-	450 Amp
	Voltage Drop	1.6%	2.4%	2.4%	2.8%	2.4%	2.3%	2.8%					
	Cables Rated Current	292 Amps	292 Amps	352 Amps	417 Amps	552 Amps	664 Amps	664 Amps					
300 Amps	Cable Size	95mm2	95mm2	95mm2	150mm2	185mm2	240mm2	240mm2		-	-	-	500 Amp
	Voltage Drop	1.3%	1.9%	2.6%	2.5%	2.7%	2.6%	3.1%					
	Cables Rated Current	352 Amps	352 Amps	352 Amps	482 Amps	552 Amps	664 Amps	664 Amps					
350 Amps	Cable Size	95mm2	95mm2	95mm2	150mm2	240mm2	240mm2			-	-	-	-
	Voltage Drop	1.5%	2.3%	3.0%	2.9%	2.4%	3.0%						
	Cables Rated Current	352 Amps	352 Amps	352 Amps	482 Amps	664 Amps	664 Amps						

Things to remember

1. Fuses must run at or below their continuous current rating provided in their data sheet. This is usually lower than the number printed on the fuse.
2. Your cables max current can not exceed your fuse rating.
3. Cable ratings have presumed one or more cables in close proximity and resting on a surface. If in an enclosed space the cable will need to be further derated

How to select a cable

1. Decide the cables max current on the left hand side.
2. Look at what fuse is needed for that current on the right hand side.
3. Select a cable that has a max continuous current greater than or equal to the fuse required, it also has to have a voltage drop lower than 3% for critical loads.

How to use calculator