

## Voltage Drop

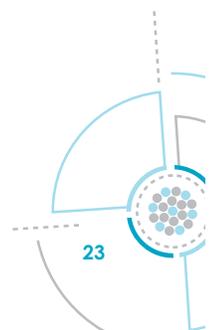
### Voltage drop for single core L.V. cables

Table 18

CSA mm <sup>2</sup>	Copper Conductor Voltage Drop (mv / AMP / Meter )			
	PVC Insulation & PVC Sheathed		XLPE Insulation & PVC Sheathed	
	Flat 	Trefoil 	Flat 	Trefoil 
4	7.830	7.770	8.337	8.277
6	5.287	5.226	5.628	5.568
10	3.184	3.124	3.401	3.341
16	2.068	2.008	2.203	2.142
25	1.357	1.297	1.440	1.380
35	1.034	0.971	1.085	1.024
50	0.793	0.732	0.836	0.776
70	0.595	0.534	0.624	0.564
95	0.469	0.408	0.490	0.430
120	0.410	0.349	0.417	0.357
150	0.354	0.294	0.366	0.305
185	0.312	0.252	0.322	0.262
240	0.272	0.211	0.278	0.218
300	0.247	0.187	0.253	0.192
400	0.224	0.164	0.220	0.159
500	0.208	0.148	0.211	0.150
630	0.194	0.134	0.191	0.131

CSA mm <sup>2</sup>	Aluminium Conductor Voltage Drop (mv / AMP / Meter )			
	PVC Insulation & PVC Sheathed		XLPE Insulation & PVC Sheathed	
	Flat 	Trefoil 	Flat 	Trefoil 
16	3.343	3.283	3.561	3.500
25	2.161	2.100	2.296	2.235
35	1.602	1.542	1.700	1.640
50	1.222	1.162	1.291	1.230
70	0.890	0.830	0.937	0.877
95	0.686	0.623	0.719	0.655
120	0.569	0.509	0.594	0.534
150	0.490	0.430	0.511	0.451
185	0.420	0.360	0.437	0.377
240	0.353	0.293	0.367	0.307
300	0.312	0.252	0.322	0.262
400	0.274	0.214	0.278	0.218
500	0.245	0.185	0.260	0.199
630	0.222	0.162	0.223	0.163

The above data are based on:  
 - Max. operating temp: 90 °C for XLPE & 70 °C for PVC  
 - Power factor: 0.8 Rated frequency: 50 HZ  
 - Cables are touched in flat formation



## Voltage Drop

### Voltage Drop for Multi core L.V Cables

Table 19

CSA mm <sup>2</sup>	Copper Conductor Voltage Drop (mv / AMP / Meter )	
	PVC Insulation & PVC Sheathed	XLPE Insulation & PVC Sheathed
1.5	20.345	20.341
2.5	12.397	13.197
4	7.741	7.731
6	5.199	5.191
10	3.101	3.094
16	1.275	1.282
25	0.957	1.009
35	0.726	0.764
50	0.526	0.552
70	0.402	0.418
95	0.334	0.347
120	0.287	0.297
150	0.246	0.254
185	0.207	0.212
240	0.182	0.185
300	0.160	0.163
400	0.144	0.145

CSA mm <sup>2</sup>	Aluminium Conductor Voltage Drop (mv / AMP / Meter )	
	PVC Insulation & PVC Sheathed	XLPE Insulation & PVC Sheathed
16	3.263	3.479
25	2.084	2.218
35	1.527	1.624
50	1.150	1.217
70	0.819	0.865
95	0.613	0.645
120	0.500	0.524
150	0.421	0.442
185	0.352	0.369
240	0.286	0.299
300	0.245	0.255
400	0.208	0.211

The above data are based on:  
 Max. operating temp: 90 °C for XLPE & 70 °C for PVC  
 Power factor : 0.8 Rated frequency: 50 HZ  
 Cables are touched in flat formation

