

# Cable Type Guide

## NEC Compliance

The communication/control circuits of the Tigo Energy Maximizer System are Class 3 Power Limited Control Circuits and fall under the following NEC Articles.

- NEC Article 800, Communication Systems
- Article 725, Class 1, 2 and 3 Circuits
- Article 727, Type ITC Cable

## Recommended Cables

Any sunlight resistant cable, Type PLTC/ITC, 300V, with a nominal outside diameter of .31 inches or less may be used.

Manufacturer	Type	AWG	P/N	OD Inch	OD Millimeter
Omni Cable	PLTC	18/2PR	L11802	0.294	7.3
Omni Cable	PLTC	20/2PR	L12002	0.225	5.5
Primus Cable	CM/CL3	20/2PR	WB-12021SDWB	0.26	6.6
Teldor	U/FTP	18/1PR 22/1PR	9846229101	0.31	8
Multi-Cable	PLTC	20/2PR	PLTC2PSN20	0.25	6.4
AWC	ITC	20/2PR	162960-18	0.25	6.4
Nexans	PLTC	18/2PR	669739	0.3	7.67
FS Cables	PLTC	18/2PR	1803COFY	0.25	6.3

## RS485 Wiring Guidelines

The table below calculates the maximum wire run in feet for the gauge of wire and the how many Gateways are connected to the Management Unit. Metric units are in parentheses.

AWG (mm <sup>2</sup> )	1 Gateway	2 Gateways	3 Gateways	4 Gateways	5 Gateways	6 Gateways	7 Gateways
<b>18 (0.82)</b>	2,604 (793)	2,604 (793)	1,817 (553)	1,363 (415)	1,090 (332)	908 (276)	716 (218)
<b>20 (0.52)</b>	2,604 (793)	1,714 (522)	1,143 (348)	857 (261)	686 (209)	571 (174)	456 (138)
<b>22 (0.33)</b>	2,156 (657)	1,078 (328)	719 (219)	539 (164)	431 (131)	359 (109)	287 (87)
<b>CAT 5/6</b>	4,067 (1,239)	2,034 (619)	1,356 (413)	1,017 (309)	813 (247)	678 (206)	543 (165)