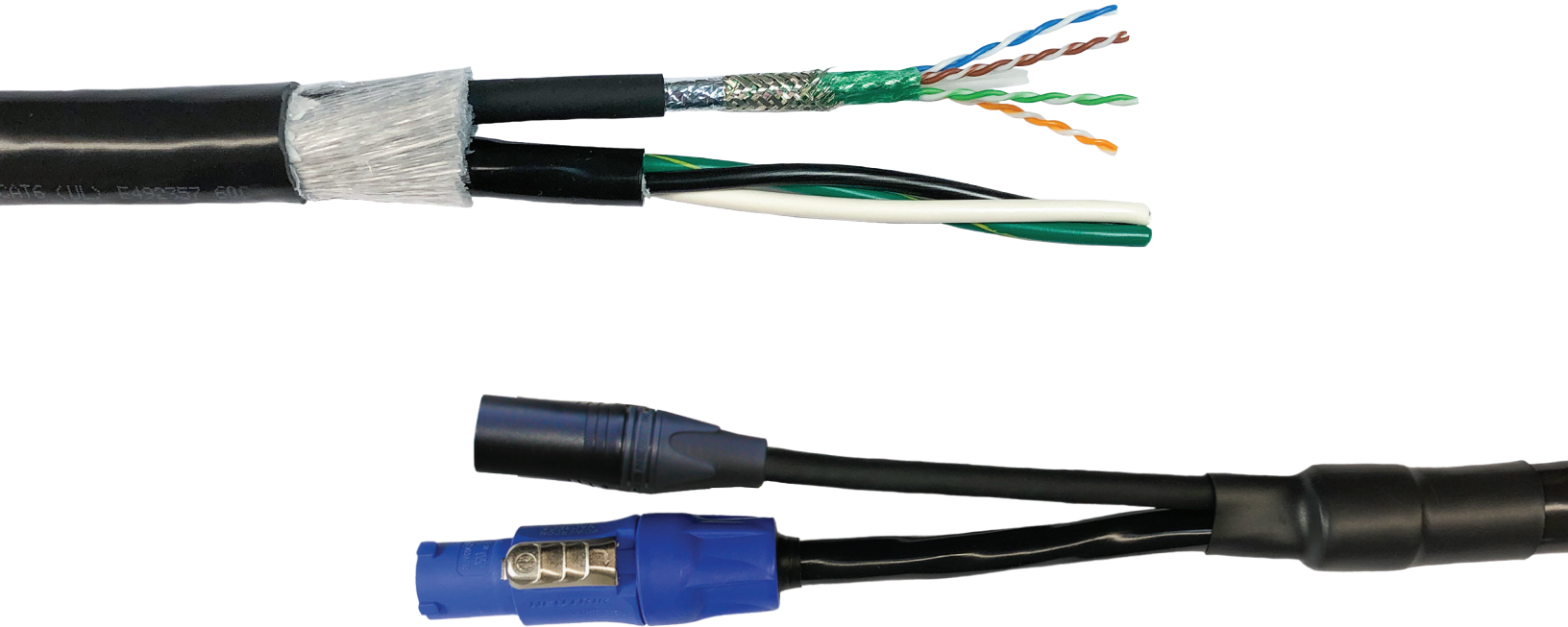


Road-worthy CAT6a with 12 AWG power for touring applications and more.
10-Gigabit networking for the road!



Reduce the chaos and enjoy fewer tangles! This single jacket cable is the next evolution in power/data connections that eliminates the need for painstaking banding that separates over time.

- 10-Gigabit networking and power in one jacket
- Custom cable built to the highest standards
- Suitable for long-term portable use
- Famous ProPlex handling, reliability, data integrity!



RoHS
Compliant

Los Angeles
+1 818.899.8818

London
+44 (0)20.8574.9700

New York
+1 201.896.8600

tmb
www.tmb.com

Toronto
+1 519.538.0888

Beijing
+86 10.8492.1587

Riga
+371 6389 8886

General Specifications

Data Assembly	Conductors	Material	Tinned annealed copper
		Size and Stranding	24 AWG [0.25 mm ²] 7x32 stranded
	Insulation	Material	HDPE, 0.011 in [0.28 mm] wall thickness
		Diameter	0.046 in [1.2 mm] nom.
	Assembly	Color Code	Color Coded singles twisted into pairs Color Code: White X Blue; White X Orange; White X Green; White X Brown
		Structure	4 twisted pairs twisted together with a central spline and wrapped with a foam polypropylene tape to form a cable core.
	Shields	Braided	Tinned 38 AWG copper braid, 75% MIn. coverage
		Foil	Aluminized polyester foil, foil in, 100% coverage, applied over braid
	Jacket	Material	TPE, Black, UV and oil resistant, 0.039 in [1mm] nom. wall thickness
		Diameter	0.325 in +/- 0.01 in [8.26 mm +/- 0.25 mm]
Marking		ProPlex PowerData Cat6a Component Cable, 4 PR 24AWG 500MHZ DATA CABLE CAT6/CAT6A SF/UTP E194712 C(UL)US CMX OUTDOOR - CM 75C SUN RES	
Power Assembly	Conductors	Material	Bare annealed copper
		Size and Stranding	12 AWG 65 strands 30 AWG
	Insulation	Material	Polyvinyl chloride
		Wall Thickness	0.031 in. nom.
		Diameter	0.157 in. nom.
	Assembly	Color Code	Black, white, green
		Lay Length	3 in. nom.
		Fillers	Fibrillated poly as required
		Separator	Tissue paper
	Jacket	Material	Polyvinyl chloride
Wall Thickness		0.045 in. nom.	
Diameter		0.435 in. nom	
Color		Black	
Overall Assembly	Assembly	Marking	POWER UNIT 3/C 14 300 VOLTS, printed in white ink
		Lay Length	11 in. nom. left hand
		Fillers	Fibrilated polyethylene as required
	Jacket	Separator	0.001 in. clear polyester tape applied helically with 20% overlap
		Material	Polyvinyl chloride
		Wall Thickness	0.080 in. nom.
		Diameter	0.93 +/- 0.015 in
	Markings	Color	Black
		Type	Surface printing in white ink
	Weight	Legend	PROPLEX POWERDATA PCCAT6AT123 UHPS/C 12/3 + 1 CAT6A (UL) E492357 60C
		300 lb/mt [446.3 kg/km]	

CAT6a Electrical Specifications

Dielectric Strength	1500 VRMS/min.		
Pair Mutual Capacitance	13.5 pF/ft 1 MHz		
DC resistance	14 Ohm		
Pair characteristic impedance	100 +/- 15 Ohm 1-100 MHz		
	100 +/- 20 Ohm 100-500 MHz		
Velocity of Propagation	68 % nom.		
PS ANEXT Loss (6 Around 1)	1 ≤ f ≤ 500 MHz	62.5 - 15 LOG (F/100) dB MIN	50 - 500 MHz
		67 dB MIN	1 - 50 MHz
PSAACRF	1 ≤ f ≤ 500 MHz	38.2 - 20 LOG(F/100) dB MIN	
Coupling Attenuation	30 ≤ f ≤ 250 MHz	100 - 20 LOG(F) (MAX 60 dB) E3*	
Note: Testing for the following is conducted off the reel (for 100m of cable).			
Impedance, nom.	100 +/- 15 Ω 1-100 MHz		
	100 +/-20 Ω 100 TO 500 MHz		
Return Loss	1 - 10 MHz	20 + 6 LOG (F) dB MIN*	
	10 - 20 MHz	26 dB MIN*	
	20 - 100 MHz	26 - 5 LOG(F/20) dB MIN*	
	100 ≤ f ≤ 500 MHz	25 - 8.6 LOG(F/20) dB MIN	
PS NEXT	1 ≤ f ≤ 500 MHz	42.3 - 15 LOG (F/100) dB MIN	
NEXT	1 ≤ f ≤ 500 MHz	44.3 - 15 LOG (F/100) dB MIN	
PSACRF	1 ≤ f ≤ 500 MHz	24.8 - 20 LOG(F/100) dB MIN	
ACRF	1 ≤ f ≤ 500 MHz	27.8 - 20 LOG(F/100) dB MIN	
Insertion Loss	1 ≤ f ≤ 500 MHz	1.2 [1.82 SQRT(F) + 0.0091(F) + 0.25/SQRT(F)] dB MAX	
Delay	1 ≤ f ≤ 500 MHz	534 + 36/SQRT(F) dB MAX	
Delay Skew	1 ≤ f ≤ 500 MHz	<45 ns	

*Per ODVA Volume 2 Ethernet/IP

ProPlex PCCAT6AT123 meets attenuation specs up to 85m (275 ft).