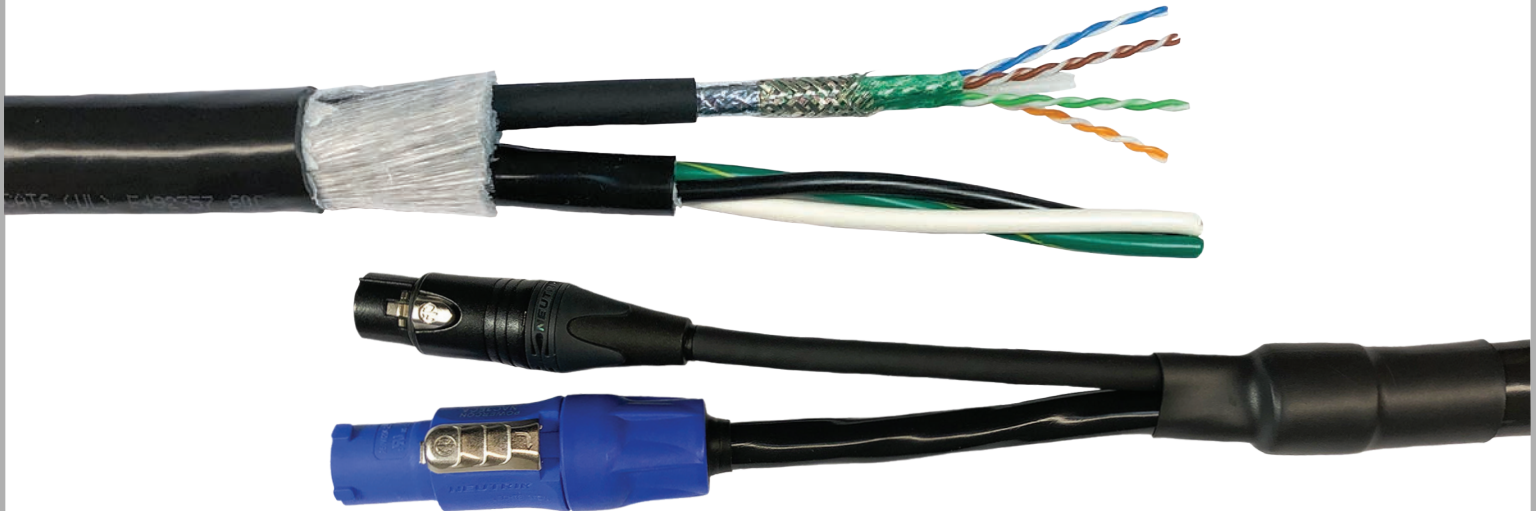


# ProPlex<sup>®</sup>

## CAT6a PowerData™ Cable Part # PCCAT6AT123

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



### General Specifications

Data Assembly	Conductors	Material	Tinned annealed copper
		Size and Stranding	24 AWG [0.25 mm <sup>2</sup> ] 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% Mln. 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



**RoHS**  
Compliant

- Cable is RoHS compliant
- TMB UK and Canada cable assemblies RoHS compliant
- TMB US cable assemblies RoHS compliant by request

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tmb.com

Los Angeles

+1 818-899-8818

London

+44 (0)20-8574-9700

New York

+1 201-896-8600

Beijing

+86 10-8492-1587

Toronto

+1 519-538-0888



## General Specifications

<b>Power Assembly</b>	<b>Conductors</b>	Material	Bare annealed copper	
		Size and Stranding	12 AWG 65 strands 30 AWG	
	<b>Insulation</b>	Material	Polyvinyl chloride	
		Wall Thickness	0.031 in. nom.	
		Diameter	0.157 in. nom.	
	<b>Assembly</b>	Color Code	Black, white, green	
		Lay Length	3 in. nom.	
		Fillers	Fibrillated poly as required	
		Separator	Tissue paper	
	<b>Jacket</b>	Material	Polyvinyl chloride	
		Wall Thickness	0.045 in. nom.	
		Diameter	0.435 in. nom.	
		Color	Black	
		Marking	POWER UNIT 3/C 14 300 VOLTS, printed in white ink	
	<b>Overall Assembly</b>	<b>Assembly</b>	Lay Length	11 in. nom. left hand
			Fillers	Fibrillated polyethylene as required
Separator			0.001 in. clear polyester tape applied helically with 20% overlap	
<b>Jacket</b>		Material	Polyvinyl chloride	
		Wall Thickness	0.080 in. nom.	
		Diameter	0.93 +/- 0.015 in	
		Color	Black	
<b>Markings</b>		Type	Surface printing in white ink	
		Legend	PROPLEX POWERDATA PCCAT6AT123 UHPS/C 12/3 + 1 CAT6A (UL) E492357 60C	
<b>Weight</b>			300 lb/mft [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)	$1 \leq f \leq 500$ MHz	62.5 - 15 LOG (F/100) dB MIN	50 - 500 MHz
		67 dB MIN	1 - 50 MHz
PSAACRF	$1 \leq f \leq 500$ MHz	38.2 - 20 LOG(F/100) dB MIN	
Coupling Attenuation	$30 \leq f \leq 250$ 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 $\Omega$ 1-100 MHz		
	100 +/-20 $\Omega$ 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*	
	$100 \leq f \leq 500$ MHz	25 - 8.6 LOG(F/20) dB MIN	
PS NEXT	$1 \leq f \leq 500$ MHz	42.3 - 15 LOG (F/100) dB MIN	
NEXT	$1 \leq f \leq 500$ MHz	44.3 - 15 LOG (F/100) dB MIN	
PSACRF	$1 \leq f \leq 500$ MHz	24.8 - 20 LOG(F/100) dB MIN	
ACRF	$1 \leq f \leq 500$ MHz	27.8 - 20 LOG(F/100) dB MIN	
Insertion Loss	$1 \leq f \leq 500$ MHz	1.2 [1.82 SQRT(F) + 0.0091(F) + 0.25/SQRT(F)] dB MAX	
Delay	$1 \leq f \leq 500$ MHz	534 + 36/SQRT(F) dB MAX	
Delay Skew	$1 \leq f \leq 500$ MHz	<45 ns	

\*Per ODVA Volume 2 Ethernet/IP

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