



## Product # V-1231

# Cat 6 In-Wall

Category 6 unshielded, featuring solid bare copper conductors w/ spline. Supports 5 Gbit/s up to 328ft & 10 Gbit/s up to 180ft, tested to 600MHz. ETL Verified performance. Supports PoE+. General Purpose (CM) fire safety rating for installation in walls and risers (between floors) in residential buildings and in walls in commercial buildings. UL Certified.

<https://www.voltive.com/products/V-1231>

## Standards & Ratings

Ethernet Standard	ANSI/TIA-568.2-D
Supported Speeds	1000BASE-T, 2.5GBASE-T, and 5GBASE-T up to 328 feet, 10GBASE-T up to 180 feet
Performance Testing	ETL Verified
Power Over Ethernet (PoE)	IEEE 802.3af/at/bt (PoE, PoE+, & 4PPoE/PoE++)
Materials & Construction	UL 444
Fire Rating	General Purpose (CM)
Flame Test	UL 1685
Flame Testing	UL Certified
Direct Burial?	No
Sunlight Resistant?	No
Voltage Rating	300V
Temperature Rating	75°C
RoHS?	Yes

## Conductors

Material	Oxygen Free Copper
Gauge	23AWG
Stranding	Solid
Count	4 twisted pairs (8 total)
DC Resistance	≤ 8.00 ohms/100m

## Part Numbers

Part #	Old Part #	Color	Length	Packaging	UPC	Weight	L x W x H (in)	Link
V-1231-3	V-1127	Black	1000ft	Box	810095240393	29.0 lbs	16.5 x 10.2 x 15.9	<a href="#">View</a>
V-1231-1	V-1125	Blue	1000ft	Box	810095240379	29.0 lbs	16.5 x 10.2 x 15.9	<a href="#">View</a>
V-1231-2	V-1126	White	1000ft	Box	810095240386	29.0 lbs	16.5 x 10.2 x 15.9	<a href="#">View</a>

## Insulation

Colors	Blue + White/Blue, Orange + White/Orange, Green + White/Green, Brown + White/Brown	
Material	Polyethylene (PE)	
Outer Diameter	Blue Pair	1.03mm ± 0.03mm
	Orange Pair	1.00mm ± 0.03mm
	Green Pair	1.01mm ± 0.03mm
	Brown Pair	1.01mm ± 0.03mm
Minimum Resistance	5000 megaohms/km	
Dielectric Strength	1.5KV AC for 2 seconds	

## Spline

Material	Polyethylene (PE)
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## Jacket

Available Colors	Black, Blue, White
Material	Polyvinyl Chloride (PVC)
Outer Diameter	6.20mm ± 0.30mm
Thickness	0.60mm ± 0.10mm
Ripcord	Cotton
Minimum Bend Radius	4 × diameter (24.8mm)
Maximum Pulling Tension	140 N
Printing	VOLTIVE CAT 6 UTP - V-1231 - 23AWG 4PR - (UL) CM E520875-XX 75C - ETL VERIFIED TO TIA-568.2-D - MM/YY - XXX-XXX - VOLTIVE.COM - XXX FT USED / XXX FT REMAINING

# Specifications & Technical Data



Revision: 2.6, Date: 2023-02-10

## Transmission Performance

Delay Skew	Resistance Unbalance	Mutual Capacitance	Capacitance Unbalance Pair-to-Ground
45.00 ns/100m	≤ 4%	≤ 5.6 nF/100m	≤ 160 pF/100m

Frequency	IL	NEXT	PSNEXT	ACRN	PSACRN	ACRF	PSACRF	RL	Propagation Delay
MHz	dB/100m	dB/100m	dB/100m	dB/100m	dB/100m	dB/100m	dB/100m	dB/100m	ns/100m
1.00	2.04	74.29	72.29	72.25	70.25	67.79	64.79	20.00	570.00
4.00	3.78	65.26	63.26	61.48	59.48	55.75	52.75	23.01	552.00
8.00	5.32	60.75	58.75	55.43	53.43	49.73	46.73	24.51	546.72
10.00	5.95	59.29	57.29	53.34	51.34	47.79	44.79	25.00	545.38
16.00	7.55	56.23	54.23	48.68	46.68	43.71	40.71	25.00	543.00
20.00	8.47	54.78	52.78	46.31	44.31	41.77	38.77	25.00	542.04
25.00	9.51	53.33	51.33	43.82	41.82	39.84	36.84	24.32	541.20
31.25	10.67	51.87	49.87	41.20	39.20	37.90	34.90	23.64	540.43
50.00	13.66	48.81	46.81	35.15	33.15	33.82	30.82	22.21	539.09
62.50	15.38	47.36	45.36	31.98	29.98	31.88	28.88	21.53	538.55
100.00	19.80	44.30	42.29	24.50	22.49	27.79	24.79	20.10	537.60
125.00	22.35	42.84	40.84	20.49	18.49	25.86	22.86	19.42	537.21
200.00	28.98	39.78	37.78	10.80	8.80	21.77	18.77	18.00	536.54
250.00	32.85	38.33	36.33	5.48	3.48	19.84	16.84	17.32	536.27
450.00	46.00	34.50	32.50	-	-	14.70	11.70	15.50	535.70
550.00	51.80	33.20	31.20	-	-	13.00	10.00	14.90	535.50

**IL:** Insertion Loss; **NEXT:** Near End Cross Talk; **PSNEXT:** Power Sum NEXT; **ACRN:** Attenuation to Crosstalk Ratio, Near End; **PSACRN:** Power Sum ACRN; **ACRF:** Attenuation to Crosstalk Ratio, Far End; **PSACRF:** Power Sum ACRF; **RL:** Return Loss. All values at 20°C.