

APPLICATIONS

Performance exceeding Category 6A. Specifications of 500MHz Performance compliance to ISO/IEC11801 and ANSI/TIA-568.2. DAWG23, Solid Bare Copper Outer Sheath PE.

DESIGN

Cable Performance

ISO/IEC11801-1:2017

ANSI/TIA-568.2-D:2018

IEC61156-5:2009+AMD1:2012CSV

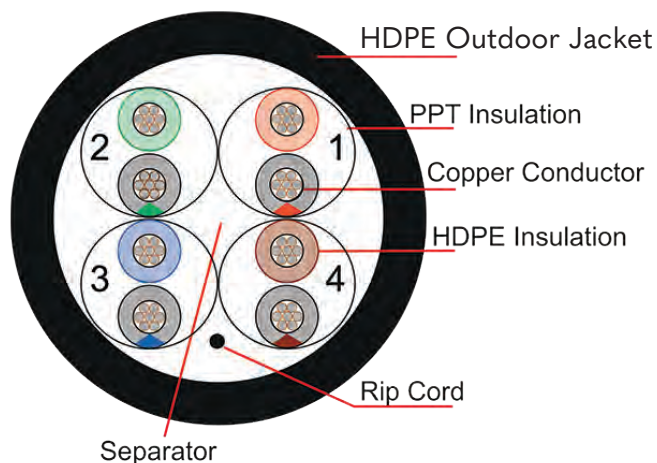
Consolidated version

BSEN50173-1:2018

EN50288-6-1:2013

Color Code

Pair	Color	Pair	Color
1	White / Blue + Blue	3	White / Green + Green
2	White / Orange + Orange	4	White / Brown + Brown



SUPPORTING APPLICATIONS

- 10G BASE-T •1000 BASE-T (Gigabit Ethernet) •100 BASE-T(IEEE802.3)•100 BASE-VG-Any LAN
- 100 Mbps TP- PMD(ANSIX3T9.5) •10 BASE-T (IEEE802.3) •1.2 Gbps ATM •55/155 Mbps ATM •4/16 Mbps TOKEN RING (IEEE802.5)

ELECTRICAL CHARACTERISTICS

No. of Cores x 23 AWG		
Conductor resistance 7100m @ 20 J	Max..	4
DC resistance unbalance (%)	Max.	1600
Pair-to-ground capacitance unbalance (pF/km)	Max.	45, $4 \leq f \leq 250\text{MHz}$
Delay skew (ns/100m)	Max.	$82 * f + 0.0169 * f^{0.25} + /f, 1 \leq f \leq 250\text{MHz}$
Insertion Loss (dB/100m)	Max.	$75.3 - 15 * \log(f), 1 \leq f \leq 250\text{MHz}$
Pair to Pair NEXT (dB/100m)	Min.	$72.3 - 15 * \log(f), 1 \leq f \leq 250\text{MHz}$
Power Sum pr-pr NEXT (dB/100m)	Min.	$68 - 20 * \log(f), 1 \leq f \leq 250\text{MHz}$
ELFEXT (dB/100m)	Min.	$65 - 20 * \log(f), 1 \leq f \leq 250\text{MHz}$
Power Sum ELFEXT (dB/100m)	Min.	$20 + 5 * \log(f), 1 \leq f \leq 250\text{MHz}$
Return Loss (dB)	Min.	25, $10 \leq f \leq 20\text{MHz}$
Propagation Delay (ns/100m)	Max.	$25 - 7 * \log(f / 20), 20 \leq f \leq 250\text{MHz}$

REFERENCE STANDARDS

Flammability: Comply to IEC 60332-1, VW-1 / IEC 60228

Comply to RoHS

SPECIFICATIONS

Overall Diameter (mm)	7.0±0.2
Outer Sheath Type / Color	PE / Black
Insulation Material	High Density Polyethylene
Conductor Diameter / Material	23 AWG / Solid Bare Copper
Impedance (Ω) @ 1-500MHz	100±15Ω
Delay Skew (ns/100m) @ 1-500MHz	≤ 45
Max. DC Resistance(Ω/100m)	9.38
Max. DC Conductor Resistance Unbalance (%)	5.0
Nominal Velocity of Propagation (NVP)	69%
Rip cord	Yes
Max. Pulling Force (N)	115
Min. Bend Radius	< 8 x D (Overall diameter)
Operating Temperature Range	-20°C to +70°C
Packing Length (Meters)	305±

TECHNICAL PERFORMANCE

Freq.(MHz)	RL (Min.dB)	ATTN (Max. dB/100m)	NEXT Min. dB	PSNEXT (Min. dB)	ELFEXT (ACR-F) (Min. dB/100m)	PSELFEXT (PSACR-F) (Min. dB/100m)	Phase Delay ≤ns
1	19.1	1.9	65.0	62.0	67.8	64.8	570.0
4.0	21.0	3.5	64.1	61.8	55.8	52.8	552.0
10.0	21.0	5.5	57.8	55.5	47.8	44.8	545.4
16.0	20.0	7.0	54.6	52.2	43.7	40.7	543.0
20.0	19.5	7.8	53.1	50.7	41.8	38.8	542.1
31.25	18.5	9.8	50.0	47.5	37.9	34.9	540.4
62.5	16.0	14.0	45.1	42.7	31.9	28.9	538.6
100	14.0	18.0	41.8	39.3	27.8	24.8	537.6
200	11.0	26.1	36.9	34.3	21.8	18.8	536.5
250	10.0	29.5	35.3	32.7	19.8	16.8	536.3
300	9.2	32.7	34.0	31.4	18.3	15.3	536.1
500	8.0	43.8	26.7	23.8	13.8	10.8	535.6

ORDERING INFORMATION

Part No.	Description
NTVC6AU23PE	Voltan, Category 6A, U/UTP Outdoor Installation Cable, Solid Copper, 23 AWG, 305 Meter Box, PE jacket, Black.

Note: NTV- Series, C6A- Category 6A, U - UTP, 23- 23 Awg , PE- Polyethylene UV resistance outer Jacket.