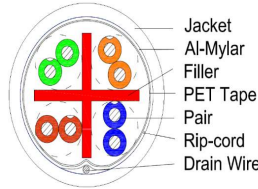


TECHNICAL DATA SHEET

Cable Diagram



Description	
Cable Part Code*	50106AFE
Cable Type	CAT6A 4P23AWG solid BC/HDPE/OS/PE
Reference Standards	ISO/IEC 11801, IEC 61156-5 & TIA 568.2-D, EN50173-1

Conductor	
Conductor Material	Solid bare copper
Conductor Size(AWG)	23

Insulation	
No. of Pairs	4
Insulation Material	PE
Nom. Insulation Diameter (mm)	1.18
Insulation Color Code	1.Blue&Blue/White 2.Orange&Orange/White 3.Green&Green/white 4.Brown&Brown/White

Outer Shield Material	
Overall Shield Type	1st: Al-mylar
Overall Shield Material	AL/PET Tape
Overall Shield Coverage	100%
Drain Wire	26AWG Tinned Copper

Outer Jacket/Sheath Material	
Outer Jacket Material	PE (Black)
Nom. Overall Diameter (mm)	7.6

Physical/Mechanical Properties	
Temperature Range	-30°C To +60°C
Smoke Density as per IEC 61034-2	≥ 60% Light Transmittance
PH Content as per IEC 60754-2	> 4.3
Conductivity as per IEC 60754-2	< 10 μs/mm
UV resistant	Yes
Max. recommended pulling tension	80N
Bending Radius	8*D
Nom. Cable Weight (kg/km)	50

Electrical Properties	
Voltage Rating (V)	72V DC
Max. Conductor Resistance @20°C(Ω/km)	95
Maximum DCR Unbalance within a pair/between pairs	2%/4% (@ 20 °C)
Max.Mutual capacitance(nF/km)	≤56
Pair to ground capacitance unbalance (pF/km)	≅ 1600
SKEW(ns/100m)	≤45
Nominal Characteristic Impedance	100 Ω
Transfer impedance according IEC61156-5	Grade 2
Coupling Attenuation according IEC61156-5	Type II
Nom Velocity of Propagation	0.67

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. PSANEXT [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]	Max. Propagation delay [ns/100m]
1*	2.1	75.3	72.3	73.2	70.2	68	65	20	67	67	40	35	570
4	3.8	66.3	63.3	62.5	59.5	56	53	23	67	66.2	34	23	552
10	5.9	60.3	57.3	54.4	51.4	48	45	25	67	58.2	30	15	545
16	7.5	57.2	54.2	49.8	46.8	43.9	40.9	25	67	54.1	28	10.9	543
31.2	10.5	52.9	49.9	42.4	39.4	38.1	35.1	23.6	67	48.3	25.1	5.1	540
62.5	15.0	48.4	45.4	33.4	30.4	32.1	29.1	21.5	65.6	42.3	22		539
100	19.1	45.3	42.3	26.2	23.2	28	25	20.1	62.5	38.2	20		538
125	21.5	43.8	40.8	22.3	19.3	26.1	23.1	19.4	61	36.3	19		537
200	27.6	40.8	37.8	13.2	10.2	22	19	18	58	32.2	17		536
250	31.1	39.3	36.3	8.3	5.3	20	17	17.3	56.5	30.2	16		536
300	34.3	38.1	35.1	3.9	0.9	18.5	15.5	17.3	55.3	28.7			536
500	45.3	34.8	31.8	-10.4	-13.4	14	11	17.3	52	24.2			536

High Freq Table Note: Limits below 4MHz are for information only. Reference standard is IEC61156-5.

*Ordering stock code will be created at the time of placing the order and the stock code will include cable part code, outer jacket color & putup length.

Belden Internal Reference Number

SZ-6AFUTP-011

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