

Application

- Horizontal and building backbone cable.
- Support current and future **Category 7** applications, such as:
100 Base TX, 100 Base VG AnyLan, 155 ATM and 1000 Base-T (**Gigabit Ethernet**), FDDI.

Key features and Standards

- General standards: **FCD ISO/IEC 11801 (October 2001), prEN 50288-4-1**
- Future standards like: **ISO/IEC 11801 2nd edition, EN 50173 2nd edition**
- Provides extended performance far in excess of industry standards
- Superior NEXT performance

Construction & Dimensions



- Construction: 4 individually shielded twisted pairs
- Conductor: solid bare copper
- Conductor diameter: AWG 23 (0,57 mm)
- Conductor insulation material: Foam skin Polyolefine
- Diameter over insulation: 1.45 mm \pm 0.05 mm
- Shield: Tinned copper braid
Coverage > 40%
- Ripcord: Polyester
- Jacket material: FRNC
- Outer diameter: 8,0 mm \pm 0.30 mm

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

Electrical characteristics (at 20 °C)

Nominal mutual capacitance at 1 kHz	48 nF/km
Maximum conductor DCR	75 Ohm/km
NVP - Nominal Velocity of Propagation	0.75 c
SKEW – Propagation delay difference (100 MHz)	typical \leq 15 ns/100m
Impedance 1-100 MHz	100 \pm 15 Ohm
Impedance 100-250 MHz	100 \pm 18 Ohm
Impedance 250-600 MHz	100 \pm 25 Ohm

General and environmental characteristics

Temperature range - operation	-20°C - +60°C
Temperature range - installation	+0°C - +50°C
Minimum bending radius - operation	30 mm
Minimum bending radius - installation	60 mm
Maximum pulling tension	90 N
Flame retardancy	IEC 332-1
Caloric value	500 kJ/m
Weight (approx.)	60 kg/km
Maximum operating voltage	48 V rms
Maximum continuous current per conductor (25°C)	1.4 A

Electrical characteristics (at 20 °C)

Attenuation

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	300	600	MHz
Spec. (Max.) ¹⁾	2.0	3.7	5.9	7.4	8.5	10.4	14.9	19.0	24.0	27.5	34.2	50.1	dB/100m
Typical	1.9	3.5	5.4	6.9	7.6	9.6	13.6	17.4	21.7	24.7	30.5	44.6	dB/100m

NEXT (Near end crosstalk)

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	300	600	MHz
Spec. (Min.) ¹⁾	80	80	80	80	80	80	75	72	70	68	65	61	dB/100m
Typical	100	100	100	100	100	100	100	95	95	95	90	90	dB/100m

Power sum NEXT

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	300	600	MHz
Spec. (Min.) ¹⁾	77	77	77	77	77	77	72	69	67	65	62	58	dB/100m
Typical	98	98	98	98	98	98	98	93	93	93	88	88	dB/100m

Power sum ELFEXT

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	300	600	MHz
Spec. (Min.) ¹⁾	75	75	71	67	65	61	55	51	47	45	41	35	dB/100m
Typical	95	95	95	90	87	84	80	76	72	70	65	50	dB/100m

Power sum ACR

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	300	600	MHz
Spec. (Min.) ¹⁾	73	73	71.1	69.6	68.5	66.6	57.1	50	43	37.5	27.8	7.9	dB/100m
Typical	96	94	92	91	90	88	84	75	71	68	57	43	dB/100m

Return Loss

Frequency	1	4	10	16	20	31.2	62.5	100	155	200	300	600	MHz
Spec. (Min.) ¹⁾	20	23	25	25	25	23.7	21.5	20.1	18.8	17.3	17.3	17.3	dB/100m
Typical	26	30	35	35	35	34	32	31	29	29	28	28	dB/100m

¹⁾: Specification values according to cable requirements of FCD ISO/IEC 11801 category 7, Oct. 2001.

Ordering information

MARKING

Text on the cable jacket Inkjet printing

**BELDEN 1885ENH ISTEP “CAT7” 4PR AWG23 LSNH ISO/IEC 11801 EN50173
(DIN 44312-5) VERIFIED 100 OHM**

Meter marking: Yes

JACKET COLOUR

Colour	RAL code	Belden colour code
Grey	RAL 7032	G900

PACKAGING (PUT UP)

500m and 1000m Crate Reels