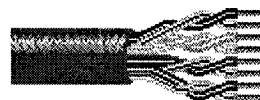


APPLICATION

General according to ISO/IEC 11801 and EN50173.

Horizontal and building backbone cable.



CONSTRUCTION

Category 5E UTP cable with ISO/IEC quality (characterised up to 100 MHz. With 4 twisted pairs with 24 AWG bare copper conductors and PE insulation. Jacket of flame retardant PVC material.

REQUIREMENTS AND TEST METHODS

(All measurements and measurement methods according to IEC 1156-2, prEN50288-3-1 and TIA/EIA-568, category 5E)

Cable construction and dimensions

- Conductor
 - Material bare copper ETP
 - Dimension conductor 0.51 mm
 - Conductor insulation material polyethylene
 - Diameter over insulated conductor 0.90 ± 0.05 mm
- Colour code
 - Pair 1 White-Blue/Blue
 - Pair 2 White-Orange/Orange
 - Pair 3 White-Green/Green
 - Pair 4 White-Brown/Brown
- Sheath
 - Material PVC
 - Diameter over sheath 4.70 ± 0.30 mm

Electrical characteristics

Conductor loop resistance	typical 17.6 Ohm/100m
Conductor resistance unbalance	$\leq 3 \%$
Dielectric strength	
conductor-conductor (1 min)	1 kV d.c.
conductor-screen (2 sec)	2.5 kV d.c.
Insulation resistance	≥ 500 MOhm.km
Capacitance unbalance to earth	typical ≤ 500 pF/km
Nominal velocity of propagation (NVP)	0.68 c
Propagation delay difference (skew) (100 MHz)	typical ≤ 10 ns/100m

Longitudinal attenuation

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Maximum	2.1	4.3	6.6	8.2	9.2	11.8	17.1	22.0	dB/100m
Typical	2.0	4.0	6.3	8.0	9.0	11.3	16.2	20.7	dB/100m

Near-end crosstalk (NEXT)

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum	62	53	47	44	42	40	35	32	dB
Typical	71	62	56	53	52	49	45	42	dB

**TECHNICAL DATA SHEET****DRAFT****1583E CAT 5E UTP PVC**code **46077**vers **V1**date **1999-07-21**page **2/2****Power sum ACR *)**

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum	60	49	41	36	34	28	19	11	dB/100m
Typical	69	59	50	46	43	38	29	22	dB/100m

Power sum ELFEXT *)

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum	60.8	48.7	40.8	36.7	34.7	30.9	24.8	20.8	dB/100m
Typical	71	59	51	46	43	39	33	28	dB/100m

Power sum NEXT *)

Frequency	1	4	10	16	20	31.25	62.5	100	MHz
Minimum	62.3	53.3	47.3	44.3	42.8	39.9	35.4	32.3	dB/100m
Typical	71	62	56	53	52	49	45	42	dB/100m

*) Minimum values according to ANSI/TIA/EIA-568-A-5 proposal SP-4195-B, draft 11 category 5 enhanced.

Input impedance 1-100 MHz

100 ± 15 Ohm

Environmental and overall characteristics

Temperature range

-20°C - +60°C

Total weight (typical)

28 kg/km

Maximum operating voltage

48 V rms

Maximum cont. current per conductor (25°C)

1.4 A

Flame propagation

IEC 332-1

Burning load

410 kJ/m

MARKING

Text on cable:

BELDEN 1583E UTP CAT5E 4PR AWG24 ISO/IEC 11801 EN50173 EC VERIFIED 100 OHM (date)

Metermarking: Yes

Colour sheath:

Colour RAL number Colour code

Grey RAL 7032 2830

Blue RAL 5015 2873

PACKAGING

Boxes or non returnable neutral reels with 1 length on each reel.

Belden code

Delivery length

Remark

46077 XXXX 172

100 m

Carton box

46077 XXXX 178

305 m

Unreel box

46077 XXXX 011

500 m

Reel

XXXX = colour code