Belden 1633E

Cat 5 enhanced FTP PVC

Application

- Horizontal and building backbone cable.
- Support current and future **Category 5 enhanced** applications, such as:
  100 Base TX, 100 Base VG AnyLan, 155 ATM and 1000 Base-T (***Gibabit Ethernet***), FDDI.

Key features and Standards

- General standards: **ISO/IEC 11801 2nd edition (2002), EN 50173 2nd edition (2001), ANSI/TIA/EIA 568-b.2 (2002)**

Construction & Dimensions

Construction:	4 shielded twisted pairs
Conductor:	Solid bare copper
Conductor diameter:	AWG 24 (0,52 mm)
Conductor insulation material:	Polyolefine
Diameter over insulation:	1.10 mm
Drainwire:	AWG 26 tinned copper
Shield:	Aluminum/polyester foil
Jacket material:	Flame retardant PVC
Outer diameter:	6.0 mm ± 0.3 mm

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

Colour identification according to IEC 60304

Electrical characteristics (at 20 ºC)

Nominal mutual capacitance at 1 kHz	50 nF/km
Maximum conductor DCR	93.5 Ohm/km
NVP - Nominal Velocity of Propagation	0.70 c
SKEW – Propagation delay difference (100 MHz)	typical ≤ 15 ns/100m
Mean Characteristic Impedance 4-100 MHz[1)]	100 ± 5 Ohm

[1)]: According to cable requirements of ISO/IEC 11801 category 5E, Sept. 2002.

General and environmental characteristics

Temperature range - operation/storage	-20°C - +60°C
Temperature range – installation	+0°C - +50°C
Minimum bending radius – operation	24 mm
Minimum bending radius – installation	48 mm
Maximum pulling tension	80 N
Flame retardancy	IEC 332-1
Caloric value	515 kJ/m
Weight (approx.)	43 kg/km
Maximum operating voltage	48 V rms
Maximum continuous current per conductor (25°C)	1.4 A

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Electrical characteristics (at 20 ºC)

Attenuation

Frequency	1	4	10	16	20	31.2	62.5	100	MHz
Spec. (Max.)[1)]	-	4.1	6.5	8.3	9.3	11.7	17.0	22.0	dB/100m
Typical	[2.0]	3.8	6.0	7.6	8.5	10.8	15.0	19.3	dB/100m

NEXT (Near end crosstalk)

Frequency	1	4	10	16	20	31.2	62.5	100	MHz
Spec. (Min.)[1)]	-	56.3	50.3	47.3	45.8	42.9	41.4	35.3	dB/100m
Typical	[70]	62	57	54	52	49	45	43	dB/100m

Power sum NEXT

Frequency	1	4	10	16	20	31.2	62.5	100	MHz
Spec. (Min.)[1)]	-	53.3	47.3	44.3	42.5	39.9	38.4	32.3	dB/100m
Typical	[68]	60	55	52	50	47	43	41	dB/100m

Power sum ELFEXT

Frequency	1	4	10	16	20	31.2	62.5	100	MHz
Spec. (Min.)[1)]	-	49.0	21.0	36.9	35.0	31.1	25.1	21.0	dB/100m
Typical	[73]	61	53	47	45	41	37	33	dB/100m

Power sum ACR

Frequency	1	4	10	16	20	31.2	62.5	100	MHz
Spec. (Min.)	-	49	41	36	33	28	21	10	dB/100m
Typical	[66]	56	49	44	42	36	28	22	dB/100m

Return Loss

Frequency	1	4	10	16	20	31.2	62.5	100	MHz
Spec. (Min.)[1)]	-	23	25	25	25	23.6	21.5	20.1	dB/100m
Typical	[33]	34	42	42	41	35	32	29	dB/100m

[1)]: Specification values according to cable requirements of ISO/IEC 11801 category 5 enhanced, Sept. 2002.

Note: Values between brackets are for information only

Ordering information

MARKING

Text on the cable jacket Inkjet printing

BELDEN 1633E FTP CAT5E 4PR AWG24 ISO/IEC 11801 EN50173 EC VERIFIED 100 OHM

Meter marking: Yes

JACKET COLOUR

Colour	RAL code
Grey	RAL 7032
Blue	RAL 5015

PACKAGING (PUT UP)

305m, 500m and 1000m Crate Reels