



**PRODUCT DESCRIPTION:**

Brand-Rex VOICE cables consist of 0.51mm Polyolefin insulated conductors formed into one or more units of twisted pairs. The units are identified with coloured binders and are assembled to form the cable core. The core may be protected with one or more layers of dielectric material and is covered by a protective LSHF sheath.

**PRODUCT CHARACTERISTICS:**

**Core:**

Conductor: Annealed copper,  
0.51mm Diameter

Insulation: Polyolefin

Cabling Element: Twisted Pair

Colour Code: See Table 1 opposite

**Final Assembly:**

Core Stranding: 25 pair units  
Unit Binders (see Table 2)

Binder: Wrapped with polyester tape, 100% coverage

Sheath: LSHF compound

**ELECTRICAL CHARACTERISTICS (@ 20°C):**

Conductor Resistance: Max 9.38 Ωs / 100m

Max. Attenuation: 1 MHz 2.6 dB / 100m

4 MHz 5.6 dB / 100m

8 MHz 8.5 dB / 100m

10 MHz 9.7 dB / 100m

16 MHz 13.1 dB / 100m

Mutual Capacitance: 6.6 nF / 100m 1KHz

Capacitance Unbalance: 330 pF / 100m KHz

Characteristic Impedance: 100+/- 15 Ω

NEXT (Max dB Power Sum in 25 pair units):

1 MHz 41 dB

4 MHz 32 dB

8 MHz 27 dB

10 MHz 26 dB

16 MHz 23 dB

Conformance: Category 3  
ANSI/EIA/TIA 568C

**Brand-Rex Copper Cables - VOICE**  
24 AWG U/UTP MultiPair Sheathed Cable

**Table 1: Pair Colour Code**

Pair Number	Colour - Conductor 1	Colour - Conductor 2
1	White	Blue
2	White	Orange
3	White	Green
4	White	Brown
5	White	Grey
6	Red	Blue
7	Red	Orange
8	Red	Green
9	Red	Brown
10	Red	Grey
11	Black	Blue
12	Black	Orange
13	Black	Green
14	Black	Brown
15	Black	Grey
16	Yellow	Blue
17	Yellow	Orange
18	Yellow	Green
19	Yellow	Brown
20	Yellow	Grey
21	Violet	Blue
22	Violet	Orange
23	Violet	Green
24	Violet	Brown
25	Violet	Grey

**Table 2: Unit Binder Colour Code**

Unit Number	Binding Colour	Pair Number (25 pair units)
1	Blue-White	1-25
2	Orange-White	26-50
3	Green-White	51-75
4	Brown-White	76-100
5	Grey-White	101-125
6	Blue-Red	126-150
7	Orange-Red	151-175
8	Green-Red	176-200

**Product Part Numbering**

Part Number	25 Pair	50 Pair	100 Pair
Part Number	C3U25PRHF1	C3U50PRHF1	C3U100PRHF1
Outer Sheath	LSHF	LSHF	LSHF
Cable Weight	155 kg/km	290 kg/km	550 kg/km
Outer Diameter (nom)	9.50mm	13.0mm	18.0mm
Sheath Colour	Grey RAL 7035	Grey RAL 7035	Grey RAL 7035
Fire Safety Rating	IEC 60332-1	IEC 60332-1	IEC 60332-1