

SELF-SUPPORTING TWISTED PAIR CABLES WITH MOISTURE BARRIER SHEATH AND SHOTGUN PROTECTION - TELEFONICA STANDARD



Telecommunications cable



UV resistant



Shotgun resistant



Overhead line cable



ROHS compliant

STANDARDS

Telefónica GT.ER.f5.001

Telefónica GT.ER.I1.009

DESCRIPTION AND APPLICATION

Telephone Cables from 11 to 101 pairs, copper conductors from 0.405 to 0.91 mm diameter, solid PE insulation. The pairs are twisted into units of 25 pairs and these are stranded to form the core that is protected with a self supporting and shotgun resistant sheath. Used as a distribution cables. For self-supporting aerial installations.

CONSTRUCTION

- **Conductors:** Annealed copper, diameters of 0.40, 0.51, 0.64 and 0.91 mm.
- **Insulation:** Solid HDPE.
- **Cabling elements:** Pairs.
- **Lay-up.** Up to 25 pairs in layers. Cables over 26 pairs in units of 25 pairs.
- **Core wrapping.** Longitudinal dielectric tape applied with overlap.
- **Screen:** Copolymer coated aluminium tape longitudinally applied with overlap and bonded to the outer sheath.
- **Inner sheath:** Polyethylene.
- **Armour:** Corrugated copolymer coated steel tape longitudinally applied with overlap.
- **Outer sheath:** UV resistant black polyethylene with an integral supporting galvanized steel cord in "figure 8".
- **Sheath marking:** The outer sheath shall be marked at regular intervals with the following information:
 - *Name of Manufacturer / year / Length markings*
 - *Other type of markings is also possible according to the customer.*



All drawings, designs, specifications and particulars of weights, dimensions, etc. in this documentation are only indicative and must not be considered contractual.

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ELECTRICAL CHARACTERISTICS (20°C)	0,40	0,51	0,64	0,91
Maximum conductor resistance (Ω/km)	144,2	89,5	56,6	28,5
Resistance unbalance (%) $100 \times (R_{\text{max}} - R_{\text{min}}) / (R_{\text{min}} + R_{\text{max}})$	Average: 1,5 % / Maximum 5,0 %			
Minimum insulation resistance ($M\Omega \times \text{km}$, 15°C, 500 V)	20000			
Mutual capacitance (nF/km , 800 Hz)	Average: 52±3 / Maximum 58			
Capacitance unbalance (pF/km , 800 Hz)				
Pair-pair	< 45rms (<12 pairs) / < 145 (>12 pairs)			
Pair-earth	Average < 574 (>12 pairs) / maximum < 2625			
Dielectric strength (Vcc, 3 s)				
conductor – conductor	2500	3000	3600	4500
conductor - screen	5000	5000	10000	10000

TRANSMISSION CHARACTERISTICS (20°C)	0,40	0,51	0,64	0,91
Nominal attenuation (dB/km)				
0,8 KHz	1.64	1.30	1.04	0.74
3 KHz	3.18	2.52	2.01	1.42
150 KHz	11.4	8.30	6.20	4.40
1000 KHz	27.1	21.4	17.5	12.8
ELFEXT ratio PS (PSELFEXT, $\text{dB}/305 \text{ m}$, 1000 KHz, 50 pairs)				
Minimum average	44.5	46.2	46.5	48.2
Minimum value	40.4	40.4	40.4	42.4
NEXT ratio PS (PSNEXT, $\text{dB}/305 \text{ m}$, 1000 KHz, 50 pairs)				
Minimum average				45.2
Minimum value				40.1

STRENGTH MEMBER CHARACTERISTICS

	Up to 20 mm diameter	More than de 20 mm diameter
Composition	7x1,6	7x2,1
Strength member diameter (mm)	4,8	6,3
Weight(kg/km)	112	193
Breaking load (Kp)	1570	2600

MECHANICAL CHARACTERISTICS

Temperature range: from -25° C to +75° C

Minimum bending radius: 15 x R_{cable}

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DIMENSIONS AND WEIGHTS

Diameter: 0.40 mm					
Code	# Paires	cable (mm)	Weight approx. (kg/km)	Length (m)	Drum
EA240CA41001102N	11	15.5	400	1500	D
EA240CA41001602N	16	15.5	410	1500	D
EA240CA41002602N	26	15.5	425	1500	D
EA240CA41005102N	51	18.0	530	1500	E
EA240CA41007602N	76	21.0	770	1500	G
EA240CA41010102N	101	23.0	870	1500	G

Diameter : 0.64 mm					
Code	# Paires	cable (mm)	Weight approx. (kg/km)	Length (m)	Drum
EA240CA64001102N	11	16.0	440	1500	D
EA240CA64001602N	16	17.5	500	1500	E
EA240CA64002602N	26	20.5	720	1500	G
EA240CA64005102N	51	24.5	970	1000	F
EA240CA64007602N	76	28.5	1250	800	F
EA240CA64010102N	101	32.5	1525	650	G

Diameter : 0.51 mm					
Code	# Paires	cable (mm)	Weight approx. (kg/km)	Length (m)	Drum
EA240CA51001102N	11	16.5	420	1500	D
EA240CA51001602N	16	16.5	460	1500	D
EA240CA51002602N	26	17.5	500	1500	E
EA240CA51005102N	51	21.0	780	1500	G
EA240CA51007602N	76	25.0	960	1500	H
EA240CA51010102N	101	27.0	1125	1500	J

Diameter : 0.91 mm					
Code	# Paires	cable (mm)	Weight approx. (kg/km)	Length (m)	Drum
EA240CA91001102N	11	19.5	680	1500	F
EA240CA91001602N	16	21.5	780	1500	G
EA240CA91002602N	26	24.5	970	800	E
EA240CA91005102N	51	31.0	1450	650	F
EA240CA91007602N	76	36.5	1925	500	F
EA240CA91010102N	101	41.0	2375	500	G

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