

## Description

Distribution and trunk coaxial cable for burial installation - 75 Ohm  
Underground installation cable (Screening Class A+)

Coaxial Cables

**CAVEL®**

since 1968

## Data Sheet

**27/115FC**

|   |      |       |          |       |          |       |
|---|------|-------|----------|-------|----------|-------|
| Ø | 2,70 | 11,50 | 11,60    | 12,20 |          | 15,00 |
|   | (Cu) | (PEG) | (Cu/Pet) | (Cu)  | (Jelly2) | (PE)  |

**Construction data**

|                                                         |             |                 |
|---------------------------------------------------------|-------------|-----------------|
| Inner conductor of plain copper                         | (Cu)        | 2,70 ± 0,10 mm  |
| Dielectric of physical foam polyethylene                | (PEG)       | 11,50 ± 0,15 mm |
| Water repellent sealing (dielectric)                    | (Jelly1)    |                 |
| Copper/Polyester tape longitudinally overlapped         | (Cu/Pet)    |                 |
| Braid of annealed copper wires                          | (Cu)        |                 |
| Braid optical coverage (IEC 96-1)                       |             | 52 %            |
| Tracer Identifier                                       | Year + Flag |                 |
| Water repellent sealing (sheath)                        | (Jelly2)    |                 |
| Diameter under Sheath                                   |             | 12,20 mm        |
| Outer sheath of Polyethylene - black - with carbonblack | (PE)        | 15,00 ± 0,20 mm |

Printed each meter by yellow ink-jet :

**CAVEL 2.7/11.5 FC MADE IN ITALY 75 Ohm EN50117-2-3 CEI-UNEL 36762 C-4 (U0 =400V) ss/aa m**

(ss=week, aa=year) (m=meter marking)

**Electrical data**

|                                               |         |        |        |
|-----------------------------------------------|---------|--------|--------|
| Characteristic impedance                      | 200 MHz | 75 ± 2 | Ohm    |
| Capacitance (@1kHz)                           |         | 52 ± 2 | pF/m   |
| Velocity Factor                               |         | 85 %   |        |
| Inner conductor resistance                    |         | 3,40   | Ohm/km |
| Outer conductor resistance                    |         | 5,80   | Ohm/km |
| Loop resistance                               |         | 9,20   | Ohm/km |
| Insulation voltage of the sheath (spark test) |         | 8      | kV     |
| Maximum current (I <sub>eff</sub> )           |         | 25     | A      |

## Structural return loss (SRL)

|                 |        |
|-----------------|--------|
| 5 - 470 MHz     | >25 dB |
| 470 - 1000 MHz  | >24 dB |
| 1000 - 2000 MHz | >23 dB |
| 2000 - 3000 MHz | >22 dB |

## Screening Attenuation (SA)

|                 |        |
|-----------------|--------|
| 30 - 1000 MHz   | >95 dB |
| 1000 - 2000 MHz | >95 dB |
| 2000 - 3000 MHz | >85 dB |

## Transfer impedance

5 - 30 MHz 0,2 mOhm/m

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## Date

18/04/2013

## Responsible

PierPaolo Piccinini

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Data Sheet

27/115FC

Attenuation (at 20°C )

| Frequency [MHz] | Attenuation [dB/100m] | Frequency [MHz] | Attenuation [dB/100m] |
|-----------------|-----------------------|-----------------|-----------------------|
| 5               | 0,80                  | 862             | 7,70                  |
| 10              | 1,10                  | 1000            | 8,40                  |
| 30              | 1,30                  | 1750            | 11,40                 |
| 50              | 1,70                  | 2150            | 12,80                 |
| 200             | 3,40                  | 2400            | 13,60                 |
| 300             | 4,20                  | 3000            | 15,40                 |
| 470             | 5,50                  |                 |                       |

Mechanical data

|                                                  |        |       |              |
|--------------------------------------------------|--------|-------|--------------|
| Weight of copper conductors                      | 83,87  | kg/km |              |
| Total weight of cable                            | 179,90 | kg/km |              |
| Minimum bending radius (single/repetead bending) | 200    | mm    |              |
| Maximum cable pulling strength                   | 800    | N     |              |
| Fire Load                                        | 4.291  | MJ/km | 1.192 kWh/km |

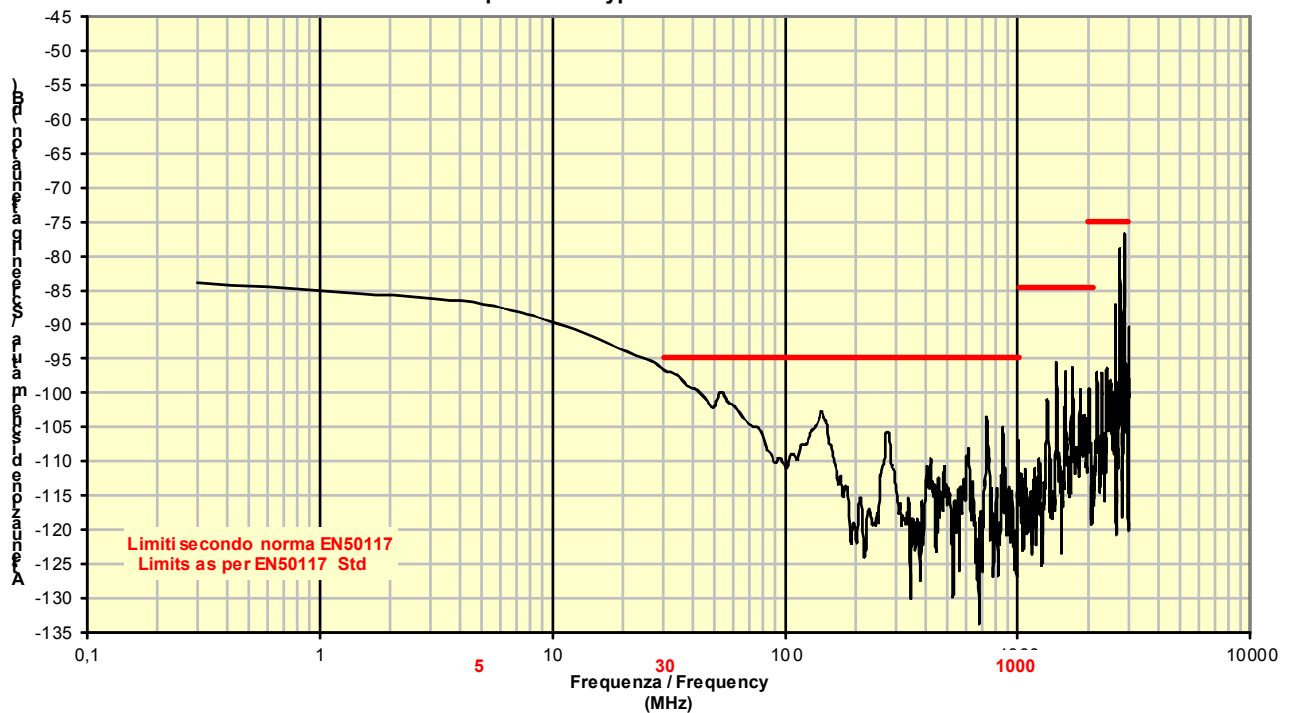
Standards

EN 50117-2-3

Attenuazione di schermatura / Screening Attenuation

Cavo classe A+ / A+ Class Cable

Cavo tipo / Cable type : 27/115 FC



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**Data Sheet****27/115FC****Connector**

|                   |                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------|
| <b>FM-44</b>      | Series F, male, for outdoor and underground installation, nitin-plated brass - 76,0 mm x 31,0 mm             |
| <b>IEC14M-44</b>  | Series IEC (no tool), male, for outdoor and underground installation, nitin-plated brass - 75,0 mm x 25,0 mm |
| <b>5/8MU-44</b>   | Serie 5/8", male, for outdoor and underground installation, nitin-plated brass - 75,0 mm x 25,0 mm           |
| <b>3,5/12M-44</b> | Serie 3,5/12", male, for outdoor and underground installation, nitin-plated brass - 75,0 mm x 25,0 mm        |

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