

# LF1A1

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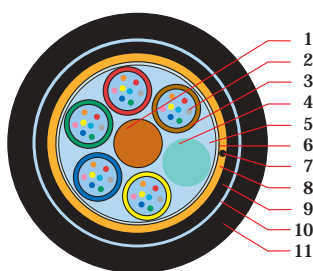
VDE Code: A-DF2Y(ZN)2Y



## Non-metallic aerial/underground cable

### Applications and features

- Outdoor, non-metallic structure
  - Suitable for use in underground ducts and for aerial suspension
  - Suitable for span lengths up to 70 m<sup>(\*)</sup>
  - Longitudinally water blocked with gel
  - Loose tube, fully filled with thixotropic water-blocking gel
  - Up to 144 fibres
- <sup>(\*)</sup> under NESM medium conditions and with a cable sag of 1 m.



### Design

1. FRP central strength element
2. Optical fibres
3. Gel-filled tube
4. Filler
5. Interstices filled with gel
6. Wrapping tape
7. Rip cord
8. PE inner sheath
9. Aramid tensile elements
10. Black PE outer sheath  
(option: red outer sheath)

### Product description

This heavy duty outdoor cable contains from 6 to 12 loose tubes, stranded around a fibre-reinforced plastic (FRP) strength element. If the fibres occupy fewer than 6 tubes the remaining tube positions are taken by fillers. Each tube contains up to 12 fibres in a thixotropic water-blocking gel.

Tubes and fibres are identified by a colour code.

A wrapping tape around the tubes separates the interstitial gel from the polyethylene inner sheath and helps to maintain the circular form of the cable. A layer of aramid yarns between the inner and the outer sheath increases tensile strength.



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## Mechanical Specifications

<b>LF1A1</b>						
Number of fibres (*)	up to 36	up to 72	84	96	120	144
Number of tubes	6	6	7	8	10	12
Fibre per tube (max.)	6	12	12	12	12	12
Cable diameter, approx. (mm)	12.5	15	16	16.5	18.5	20.5
Inner sheath thickness (mm)	1.0					
Outer sheath thickness (mm)	1.5					
Weight, approx. (kg per km)	130	175	185	220	270	320
Max. pulling force during						
- installation (N)	5.000	6.000	6.000	6.500	7.000	7.000
- operation (N)	3.000	4.000	4.000	4.000	4.500	4.500
Crush resistance (N/10cm)	4.000					
Min. bending radius						
- with tensile load	20 x cable diameter					
- without tensile load	15 x cable diameter					
Temperature range						
- operation	- 30°C to + 60°C					
- storage	- 40°C to + 70°C					
Tested according to	IEC 60794-1					

(\*) other fibre numbers by request

### Marking

"EUPEN + Product code + Fibre number/type + metric marking"

### Lengths

**Standard lengths:** 2.000 m or 4.000 m, +/- 2%  
**Engineered lengths:** by request

