

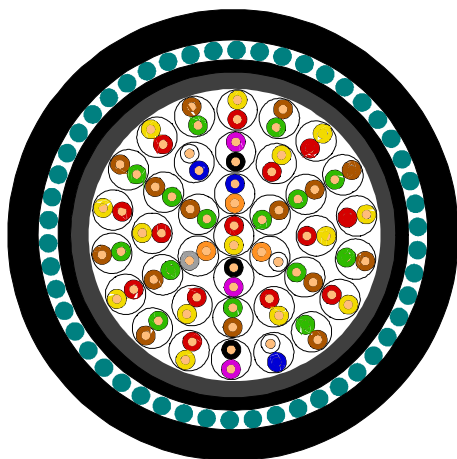


## LT-EFEWYV

Induced voltage max. 15 kV

### Cable Design

Copper Concentric Cable – Jelly Filled – Inner PE sheath – Steel wire armour with compound – PVC outer sheath



- example -  
- not to scale -

### Application

Polyethylene insulated multipair cable construction (induced voltage does not exceed 15 kV). Jelly filled cable core. The steel wire armour and polyvinylchloride outer sheath make the cable suitable for installation under and above ground.

### Construction

Conductor	:	Each conductor consists of a solid wire of commercially pure annealed copper Nominal conductor diameter 0.8 mm
Insulation	:	Each conductor is uniformly insulated with solid high density polyethylene compound
Pairs	:	Two insulated conductors are twisted together to form a pair
Cable core	:	The required number of pairs are stranded into concentric layers to form a compact cable core
Waterblocking	:	The cable core is completely filled with a suitable petroleum jelly
Core covering	:	The core consists of at least one layer of swellable tape
Inner sheath	:	The first inner sheath (bedding) consists of polyethylene compound (Black)
Armour	:	The armour consists of one layer of galvanized round steelwires with a counter spiral binder Over the armour bitumen compound will be applied
Outer sheath	:	The outer sheath consists of polyvinylchloride compound PVC (Black)

### Cable lay-up

Number of pairs	Centre	Layer 1	Layer 2	Layer 3	Layer 4
7	1	6	-	-	
19	1	6	12	-	
37	1	6	12	18	
61	1	6	12	18	24

## Colour of insulation

Colouring	The pairs are identified as follows and according ESI standard 09-6	
Core	Centre pair	Red / Yellow
1 <sup>st</sup> layer	First pair Second pair Third pair Fourth pair Fifth pair Sixth pair	Black / Violet Orange / Grey Green / Brown Orange / Blue Green / Brown Orange / White
2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> layer	First pair Odd pairs Even pairs Last pair	Black / Violet Red / Yellow Green / Brown Blue / White

## Dimensions

	Nominal thickness (mm)			
Number of pairs	7	19	37	61
Inner sheath	1.8	1.8	1.8	1.8
Armour	1.25	1.6	2.0	2.4
Outer sheath	1.6	1.9	2.1	2.4

	Nominal diameter over (mm)			
Number of pairs	7	19	37	37
Cable core	12.7	20.8	29.0	35.3
Inner sheath	17.3	25.4	33.6	39.9
Armour	20.2	29.0	38.0	45.1
Outer sheath	23.4	32.8	42.2	49.9

## Sheath marking

The outer sheath is printed with	ELECTRIC CABLE TELE F BS 7870-8.2 DRAKA [year] [length marking]
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## Electrical characteristics

Conductor resistance	Max. loop	73.6	ohms/km
Insulation resistance :	Nom.	5000	Mohm.km
Mutual capacitance :	Max.	50	nF/km

### Attenuation, crosstalk and impedance

0.8 mm conductors at 20 °C								
Impedance	Impedance measurements shall be made and recorded on all pairs at 1 kHz							
Crosstalk, measured at 0.8-1.3 MHz	≥ 74							dB
Crosstalk, measured at 108 kHz, 3 pairs	≥ 70							dB
Frequency, filled cable design	0.3	1	2	3	4	60	108	kHz
Max. attenuation for 1 km at 10 °C	0.54	0.95	1.31	1.56	1.76	3.9	4.4	dB



## Mechanical characteristics

Cable type	7x2x0,8	19x2x0,8	37x2x0,8	61x2x0,8
Cable weight (kg/km)	885	1720	2860	4165
Temperature range	Transport, storage, operation		- 30 to + 70	°C
	Installation		- 5 to + 50	°C
Bending radius	Repeated bending		Min. 15 x D	
	Cable bend		Min. 10 x D	

D = outer cable diameter

## Metal weights

	Nominal weight / km			
Cable type	7x2x0,8	19x2x0,8	37x2x0,8	61x2x0,8
Copper weight	68	184	358	590
Steel weight	461	859	1423	2049

## Testing and inspection

Electrical characteristics	Conductor resistance Insulation resistance Capacitance Crosstalk Impedance Attenuation
Mechanical characteristics	Thickness of sheaths Diameter of cable
Visual inspection of cable	Colouring of conductors Colour of sheaths Identification
Test frequency	The mechanical characteristics and visual inspection shall be carried out with a frequency of 1 out of 10 drums, starting with the first drum. The first drum shall always be checked when the quantity is less than 10 drums. Certified test results are provided upon request. If testing and inspection is required to be carried out by third parties, such parties will be nominated and paid by the Purchaser.
Remarks	The cable should be drummed in such way that the colours of the insulated conductors can be seen at the running end of the cable in clockwise direction. The outer end shall be marked " red " The inner end shall be marked " green "

## Packing

Standard lengths	1000	m
Length tolerance	± 20	m
To prevent ingress of moisture the cable ends are sealed with shrinkable end caps		