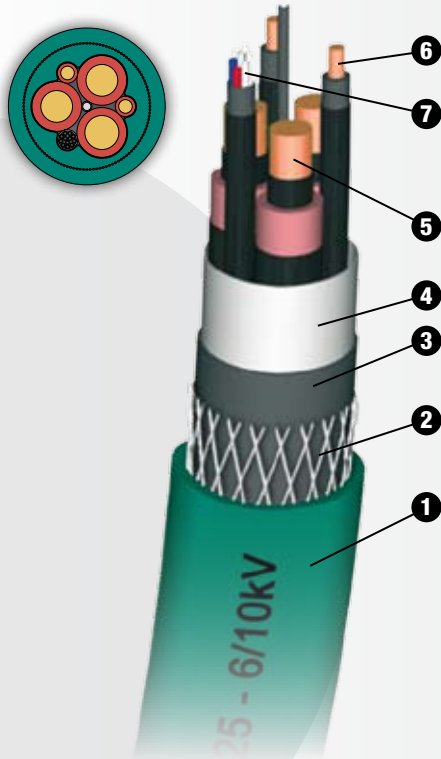


HTP-F0

FLEXIBLE CABLES FOR REELING APPLICATIONS WITH OPTICAL FIBRE ELEMENTS - H.V.



All the very stringent characteristics of the insulating cover and the sheath make the cable suitable for use with reeling systems such as power supply of moving machines. In addition to its excellent mechanical characteristics, the **polyurethane** sheath has a good resistance to wear combined with a high flexibility over a large range of temperatures.

Design

- ❶ Green polyurethane outer sheath RAL 6032
- ❷ Textile anti twist braid
- ❸ Polyurethane inner sheath
- ❹ Semi conductive strip
- ❺ Phase: annealed tinned copper cores wrapped in a semi conductive layer and covered with an elastomer insulation
- ❻ Earth: annealed tinned copper cores wrapped in a semi conductive layer
- ❼ Optical cable: 12 multimode fibres 62.5/125 µm laid in a tube

Short lay-length assembled conductors wrapped in a semi conductive strip.

Marking

« **CONDUCTIXWAMPFLER / HTP-F0 3×__+2×__+12FO 62.5/125 - __/ __ kV** »

Standards

- CEI 60228 for the copper conductors
- NF 32013
- VDE 0295
- Flame resistance: class C3 (not tested)
- Halogen free

Conditions of use

- Suitable for all spool types in adequacy with the minimum bending radius.
- **Not suitable for level wind application.**

Linear reeling speed

- 60 m/min max.

Voltage

- 3.6/6 (7.2) kV up to 12/20 (24) kV - High Voltage

Ambient temperature

- From -25 up to +60°C (see table of de-rating factors on next page).



Cables HTP-FO Technical Data

Number of Cores and Nominal C.S.A. (mm ²)	3×25 + 2×10 + 12 FO	3×35 + 2×10 + 12 FO	3×50 + 2×16 + 12 FO	3×70 + 2×25 + 12 FO	3×95 + 2×25 + 12 FO	3×120 + 2×35 + 12 FO
Type - Rated Voltage	HTP-FO 3.6 / 6 (7.2) kV					
Min. outer diameter (mm)	36.0	39.0	42.0	46.0	50.5	55.0
Max. outer diameter (mm)	39.0	42.0	45.0	49.0	54.0	58.0
Unsheathed cable diameter (mm)	34.0	37.0	40.0	44.0	48.5	53.0
Linear weight (kg/m)	1.90	2.30	2.86	3.80	4.70	5.90
Type - Rated Voltage	HTP-FO 6 / 10 (12) kV					
Min. outer diameter (mm)	36.0	39.0	42.0	46.0	50.5	55.0
Max. outer diameter (mm)	39.0	42.0	45.0	49.0	54.0	58.0
Unsheathed cable diameter (mm)	34.0	37.0	40.0	44.0	48.5	53.0
Linear weight (kg/m)	1.90	2.30	2.86	3.80	4.70	5.90
Type - Rated Voltage	HTP-FO 8.7 / 15 (18) kV					
Min. outer diameter (mm)	36.0	39.0	42.0	46.0	50.5	55.0
Max. outer diameter (mm)	39.0	42.0	45.0	49.0	54.0	58.0
Unsheathed cable diameter (mm)	34.0	37.0	40.0	44.0	48.5	53.0
Linear weight (kg/m)	1.90	2.30	2.86	3.80	4.70	5.90
Type - Rated Voltage	HTP-FO 12 / 20 (24) kV					
Min. outer diameter (mm)	44.5	44.5	46.5	50.5	53.0	N/A
Max. outer diameter (mm)	47.5	47.5	50.0	54.0	56.5	
Unsheathed cable diameter (mm)	42.5	42.5	44.5	48.5	51.0	
Linear weight (kg/m)	2.65	2.90	3.30	4.30	5.10	
Mechanical & Electrical Data						
Max. tensile load (daN)	112	157	225	315	427	540
Current carrying capacity (A) ^(a)	127	158	192	246	298	346
Voltage drop (V/A.km) ^(b)	1.50	1.10	0.77	0.57	0.46	0.38
Thermal short circuit current (kA/sec)						
Min. bending radius (mm)	Static : 6 × cable max. outer diameter / Dynamic : 12 × cable max. outer diameter					
Optical Fibre Data						
Number and properties	12 fibres 62.5/125 µm (50/125 µm on request)					
Attenuation (dB/km)	≤ 5 @ 850 nm					
Numerical aperture (O.N.)	0.275 ± 0.015					

Oblique grey tint: cable not referenced, contact us.

(a): Cable laid on the ground @+30°C

(b): $\cos \phi = 0.8$ / temperature of cores = +90°C

Recommendations

- Amperage de-rating factor for reeling applications : 0.85
- De-rating factors in relation to the ambient temperature above 30°C:

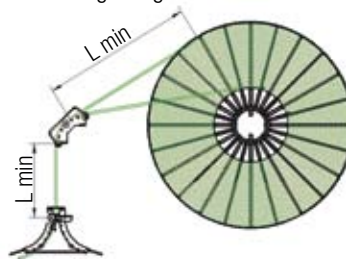
30°C up to 40°C	0.90
40°C up to 50°C	0.80
50°C up to 55°C	0.74
55°C up to 60°C	0.65

- Recommended voltage drop limits:

Usual	5%
Lighting	3%
Frequency inverter	2.5%

Installation

- Minimum distance between two guiding devices: $L_{min} = 20 \times \text{cable O.D.}$



- Deflection angle (if $\varnothing r < \text{bending radius}$) = 15° max for laying on rollers

