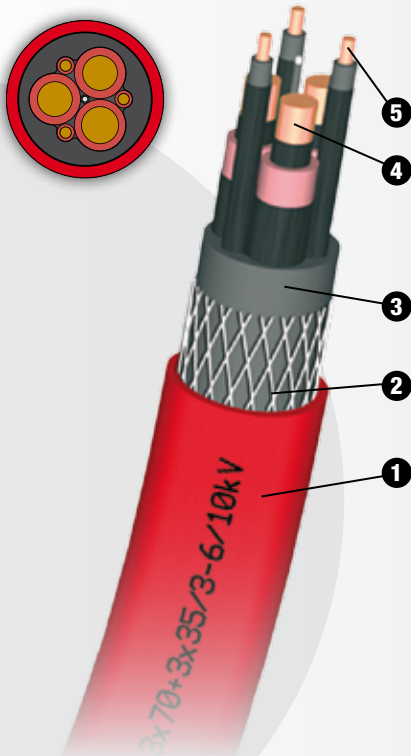


HVR

FLEXIBLE CABLES FOR REELING APPLICATIONS - ALL OPERATIONS - HIGH VOLTAGE



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 **polychloroprene** sheath has a good resistance to wear combined with a high flexibility over a large range of temperatures.

Design

- ❶ Red polychloroprene outer sheath
- ❷ Textile anti twist braid
- ❸ Polychloroprene inner sheath
- ❹ Phase conductors: annealed tinned copper cores, elastomere EPR insulation between 2 semi conductive layers
- ❺ Earth conductors: annealed tinned copper cores, elastomere EPR insulation wrapped in a semi conductive layer

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

Marking

« **CONDUCTIX WAMPFLER / HVR 3x__+3x__/3 - __/ __ kV** »

Standards

- VDE 0250 Part 813
- VDE 0298 Part 4 (temperature of cores in service)
- Flame resistance: class C3 (not tested)

Conditions of use

- Suitable for all spool types in adequacy with the minimum bending radius.

Voltage

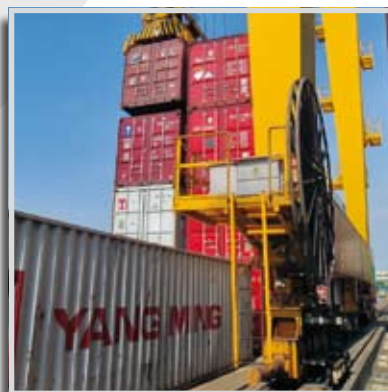
- 3.6/6 (7.2) kV up to 12/20 (24) kV - High Voltage

Linear reeling speed

- 180 m/min max

Ambient temperature

- From -30 up to +90°C (see table of de-rating factors on next page)



Cables HVR Technical Data									
Number of cores and nominal C.S.A. (mm ²)	3×25 + 3×25/3	3×35 + 3×25/3	3×50 + 3×25/3	3×70 + 3×35/3	3×95 + 3×50/3	3×120+ 3×70/3	3×150+ 3×70/3	3×185+ 3×95/3	3×240+ 3×120/3
Type - Rated Voltage	HVR 3.6/6 (7.2) kV								
Min. outer diameter (mm)	38.5	41.2	44.0	48.1	52.7	57.0	62.7	66.8	73.9
Max. outer diameter (mm)	41.5	44.2	47.0	51.1	56.7	61.0	66.7	70.8	77.9
Linear weight (kg/m)	2.46	2.97	3.50	4.46	4.56	6.93	8.19	9.75	12.46
Type - Rated Voltage	HVR 6/10 (12) kV								
Min. outer diameter (mm)	39.4	42.0	44.8	48.4	53.5	57.8	63.5	67.4	74.8
Max. outer diameter (mm)	42.4	45.0	47.8	52.4	57.5	61.8	67.5	71.4	78.8
Linear weight (kg/m)	2.53	3.05	3.59	4.55	5.67	7.04	8.31	9.82	12.60
Type - Rated Voltage	HVR 8.7/15 (18) kV								
Min. outer diameter (mm)	42.8	45.5	48.3	53.1	57.0	62.9	67.0	70.0	77.4
Max. outer diameter (mm)	45.8	48.5	51.3	57.1	61.0	66.9	71.0	74.0	81.4
Linear weight (kg/m)	2.84	3.38	3.94	5.08	6.10	7.73	8.80	10.23	13.02
Type - Rated Voltage	HVR 12/20 (24) kV								
Min. outer diameter (mm)	48.0	51.4	54.2	58.3	63.7	68.0	73.9	77.0	82.6
Max. outer diameter (mm)	51.0	55.4	58.2	62.3	67.7	72.0	77.9	81.0	86.6
Linear weight (kg/m)	3.36	4.07	4.66	5.73	7.02	8.47	9.89	11.37	13.89
Mechanical & Electrical Data									
Max. tensile load (daN)	150	210	300	420	570	720	900	1 110	1 440
Current carrying capacity (A) $V \leq 10$ kV ^(a)	131	162	202	250	301	352	404	461	540
Current carrying capacity (A) $V > 10$ kV ^(a)	139	172	215	265	319	371	428	488	574
Voltage drop (V/A.km) ^(b)	1.50	1.09	0.79	0.58	0.46	0.38	0.32	0.28	0.23
Thermal short circuit current (kA/sec)	3.6	5.0	7.2	10.0	13.6	17.2	21.5	26.5	34.3
Min. bending radius (mm)	Static : 6 × max. cable O.D. / Dynamic : 12 × max. cable O.D.								

(a): Cable laid on the ground @ +30°C

(b): $\cos \varphi = 0.8$ / temperature of the 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:

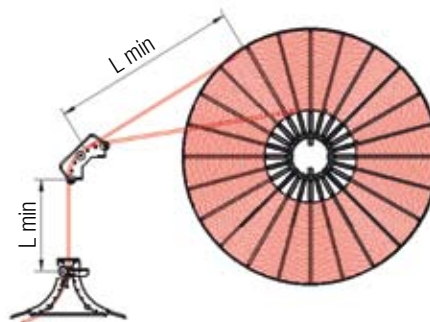
30°C up to 40°C	0.90
40°C up to 50°C	0.80
50°C up to 55°C	0.74
55°C up to 60°C	0.65

- Recommended voltage drop limits:

Usual	5%
Lighting	3%
Frequency inverter	2.5%

Installation

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



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

