

Technical Data

Nominal Voltage:	U_n / U_0 30/18kV ($U_m = 36$ kV)
<i>A voltage (U_m) of 20% more than the normal voltage is admissible at continuous operation</i>	
Test voltage:	4 x U_0 , 50Hz (20 min.)
Temperature range:	Continuous operation: 90°C
	Emergency operation: 130°C (< 8 h/d; 100h/a)
	Short-circuit: 250°C (max. 5s)
Minimum Bending Radius, Pulling:	15 x cable diameter
Minimum Bending Radius, Installation:	11 x cable diameter

Standards

Design:	CENELEC HD 620 S1
Absence of halogens:	IEC 60754-1, EN 50267-2-1
No corrosive gases:	IEC 60754-2, EN 50267-2-2
No toxic gases:	NES 02-713, NFC 20-454
Low smoke emission:	IEC 61034, EN 50268-2

Particularity

Single core Medium Voltage cable in Switzerland are qualified with “SEV+” type approval with aluminium tube screen accord. SEV Association for Electrical Engineering, Power and Information Technologies. [electrosuisse](http://electrosuisse.ch) >>

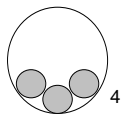
Advantages

- Longitudinal and transversal water tightness
- Long lifetime
- Halogen free
- Robust, abrasion resistant tough protection jacket, requiring low pulling force in installation
- Water barrier and rodent protection, which maintains high electrical resistance of the outer sheath between aluminium screen and soil, especially in wet duct systems
- Low electrical losses, also for both sided earth connection of the screen, thanks to the longitudinally applied tubular aluminium screen

Dimensions and weights

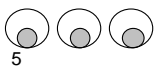
Art.-Nr.	Cross-section [mm ²]	External-Ø [mm]	Weight [kg / km]	Pulling force [max. kN]	Fire load [kWh / m]
305519	1 x 95 Al/39 Al	35.9	1159	2.85	9.8
305521	1 x 150 Al/41 Al	38.6	1392	4.50	10.9
305522	1 x 185 Al/45 Al	40.4	1558	5.55	11.6
305523	1 x 240 Al/47 Al	43.7	1865	7.20	13.4
305524	1 x 300 Al/48 Al	46.0	2114	9.00	14.6
305525	1 x 400 Al/53 Al	49.0	2474	12.00	15.7
305526	1 x 500 Al/50 Al	52.1	2891	15.00	17.4
305527	1 x 630 Al/60 Al	56.2	3403	18.90	19.1

Current rating in a tube in earth




Art.-Nr.	Cross-section [mm ²]	60 °C Duration ¹	60 °C Industry ²	90 °C Duration ¹	90 °C Industry ²	Emergency operation ³
305519	1 x 95 Al/39 Al	A	A	A	A	A
305521	1 x 150 Al/41 Al	173	204	218	256	257
305522	1 x 185 Al/45 Al	220	259	277	326	327
305523	1 x 240 Al/47 Al	254	299	320	376	378
305524	1 x 300 Al/48 Al	295	347	372	437	439
305525	1 x 400 Al/53 Al	333	392	420	494	497
305526	1 x 500 Al/50 Al	382	450	482	567	570
305527	1 x 630 Al/60 Al	449	529	567	667	672
		514	604	649	764	771

Current rating in a tube in earth




Art.-Nr.	Cross-section [mm ²]	60 °C Duration ¹	60 °C Industry ²	90 °C Duration ¹	90 °C Industry ²	Emergency operation ³
305519	1 x 95 Al/39 Al	A	A	A	A	A
305521	1 x 150 Al/41 Al	204	240	256	302	303
305522	1 x 185 Al/45 Al	259	305	326	384	386
305523	1 x 240 Al/47 Al	294	346	370	436	437
305524	1 x 300 Al/48 Al	341	402	430	506	508
305525	1 x 400 Al/53 Al	386	455	487	573	575
305526	1 x 500 Al/50 Al	444	522	559	658	661
305527	1 x 630 Al/60 Al	509	589	641	755	759
		584	687	737	867	873

Current rating in air



Art.-Nr.	Cross-section [mm ²]	60 °C Duration ¹ A	90 °C Duration ¹ A	Emergency operation ³ A
305519	1 x 95 Al/39 Al	212	302	383
305521	1 x 150 Al/41 Al	275	392	498
305522	1 x 185 Al/45 Al	316	451	572
305523	1 x 240 Al/47 Al	373	533	676
305524	1 x 300 Al/48 Al	427	611	777
305525	1 x 400 Al/53 Al	499	714	909
305526	1 x 500 Al/50 Al	579	831	1059
305527	1 x 630 Al/60 Al	675	971	1241

Current rating in air



Art.-Nr.	Cross-section [mm ²]	60 °C Duration ¹ A	90 °C Duration ¹ A	Emergency operation ³ A
305519	1 x 95 Al/39 Al	239	339	427
305521	1 x 150 Al/41 Al	311	441	557
305522	1 x 185 Al/45 Al	358	508	641
305523	1 x 240 Al/47 Al	423	600	758
305524	1 x 300 Al/48 Al	486	691	872
305525	1 x 400 Al/53 Al	570	810	1024
305526	1 x 500 Al/50 Al	665	947	1198
305527	1 x 630 Al/60 Al	782	1114	1412

¹ Load condition 24h, 100% of nominal current.

² Load condition 10h, 100% and 14h, 60% of nominal current.

³ Maximum for 8h per day and maximum 100h per year.

⁴ Tube diameter minimum 3 x diameter of single conductors

⁵ Tube diameter minimum 1,5 x cable diameter

Calculation basis:

Depth of laying 1m, ground temperature 20°C, air temperature 30°C, screen earthed on both sides, specific thermal soil resistance 1K m/W, protected against direct sunlight, cables installed without grouping.