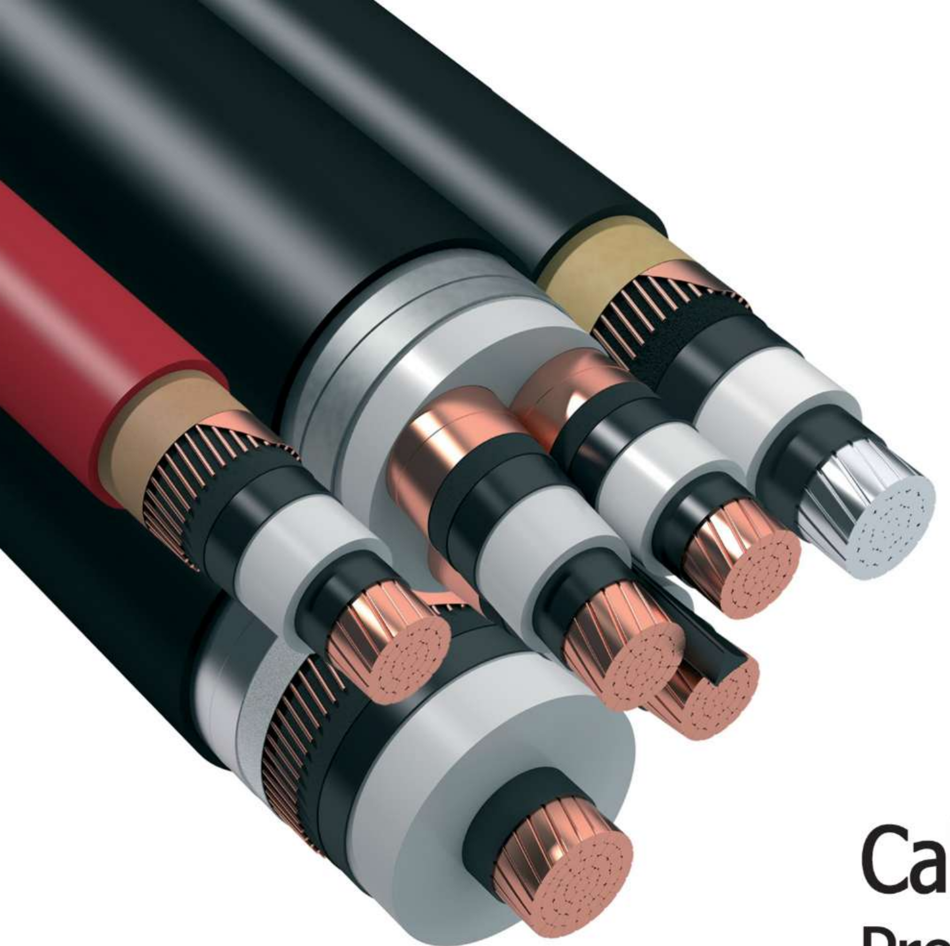
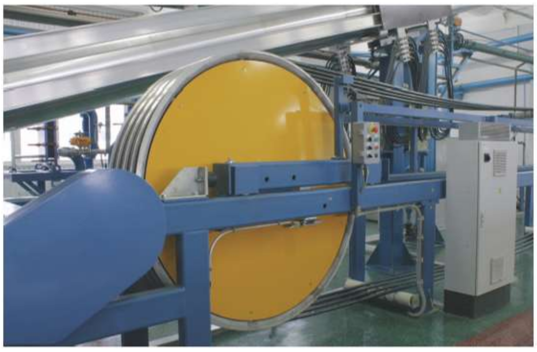


Cables & Wires
Product catalogue
2011



Production Association "Energocomplekt" is the largest and fast-growing cable and wire manufacture in the Republic of Belarus. Starting with wires and cords production in 1992 today "Energocomplekt" is 1,000-employee enterprise having 110 kV cable as the part of production assortment.

Our company operate in markets with low, medium and high voltage cables, overhead lines, XLPE-, PVC- and halogen-free cables, flexible cords. Head office and main production department located in Vitebsk (Belarus), complementary production division is situated in Safonvo (Russia). Total production capacity of both manufactures exceed 50,000 MT of cable materials annual.

The modern manufacturing facilities, tried and strictly tested according to international standards raw materials, permanent optimization of all processes and personnel developing – all these permit to realize flexible and cost efficient production process.

ISO 9001 Certification allow to control and manage all activities inside the company structure, predict and avoid any quality deviations or incompatibility.

Having dealers, representatives and partners in Russia, Ukraine, Kazakhstan, Georgia, Turkmenistan, Armenia, Poland, Lithuania, Czech Republic, UAE, etc. "Energocomplekt" is export-orientated and customer focusing cable enterprise.

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Contents:

ENERGO COMPLEKT

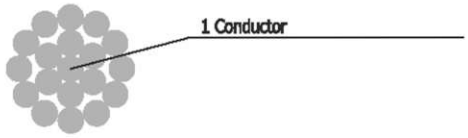
Contents:

Bare wires

Cables are normally supplied in lengths of 300 metres, 500 metres and 1000 metres depending on conductor size. Other lengths can be supplied if required. Note: Special constructions other than stated above may be provided on request.

All aluminium conductors (AAC, AL)

DIN 48201-5, IEC 61089, GOST 839-80



Application

Used for power transmission in overhead lines.

Construction

Conductor: Aluminum wires, right-hand stranded. Each upper layer is stranded in the opposite direction in relation to the underlying one. The direction of stranding of the uppermost layer is right-hand.

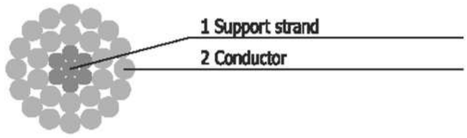
Parameters

Temperature range:	
laying temperature:	min - 40°C
operating temperature:	- 60°C to +50°C
conductor temperature:	max +90°C
Bending radius (min):	10 x Ø of conductor

Conductor Size mm²	No. of cords per core	D of cords mm	Rated outter diameter mm	Cable sterngth N	Max. resistance of core at 20°C Ω/km	Cable mass per 1 km kg
16	7	1,71	5,13	272	1,822	44,3
25	7	2,13	6,39	4060	1,174	68,7
35	7	2,52	7,56	5430	0,8385	96,1
50	7	3,01	9,00	7370	0,5917	136
70	19	2,17	10,85	11450	0,4166	194
95	19	2,52	12,60	14740	0,3090	261
120	19	2,80	14,00	17770	0,2502	322
150	37	2,26	15,82	23640	0,1973	409
185	37	2,52	17,64	28700	0,1586	508
240	37	2,88	20,16	36360	0,1215	664
300	61	2,50	22,50	45190	0,0977	825

Aluminium conductors steel-reinforced (ACSR, AlFe, AFL)

DIN 48201-5, IEC 61089, GOST 839-80



Application

Used for power transmission in overhead lines.

Construction

1 Reinforcing element: galvanized steel single wire or multi-wire messenger.
2 Conductor: Aluminum wires, right-hand stranded. Each upper layer is stranded in the opposite direction in relation to the underlying one. The direction of stranding of the uppermost layer is right-hand.

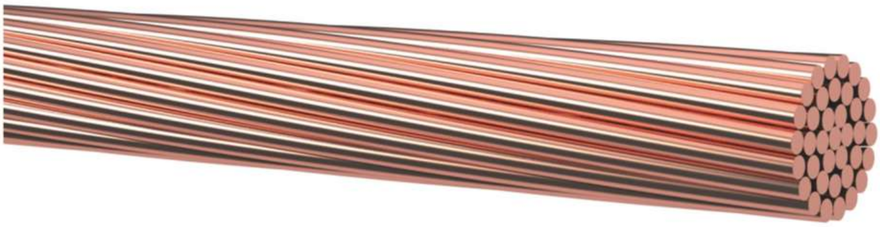
Parameters

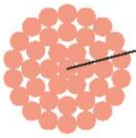
Temperature range:	
laying temperature:	min - 40°C
operating temperature:	- 60°C to +50°C
conductor temperature:	max +90°C
Bending radius (min):	10 x Ø of conductor

Aluminium Conductor Size mm²	No. of cords per core		Rated outter diameter mm		Cable sterngth N	Max. resistance of core at 20°C Ω/km	Cable mass per 1 km kg
	AL	steel	Steel rope	Cable			
16	6	1	1,8	5,4	5678	1,917	62
25	6	1	2,25	6,75	8669	1,227	97
35	6	1	2,7	8,1	12199	0,8522	140
50	6	1	3,2	9,6	16799	0,6063	196
70	6	1	3,75	11,26	22750	0,4414	272
95	6	1	4,50	13,5	33369	0,3251	385
120	26	7	5,85	15,65	44542	0,2388	505
150	26	7	6,45	17,25	53544	0,1966	614
185	26	7	7,20	19,20	65714	0,1593	759
240	26	7	8,10	21,70	82798	0,1240	971
300	26	7	9,00	24,20	102175	0,0993	1208

Hadr-drawn copper conductors

DIN 48201-1, ASTM B-1





Application

Used for power transmission in overhead lines.

Construction

Conductor: Copper wires, right-hand stranded. Each upper layer is stranded in the opposite direction in relation to the underlying one. The direction of stranding of the uppermost layer is right-hand.

Parameters

Temperature range:		
laying temperature:		min - 40°C
operating temperature:		- 60°C to +50°C
conductor temperature:		max +90°C
Bending radius (min):		10 x Ø of conductor

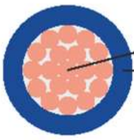
Conductor Size mm^2	No. of cords per core	D of cords mm	Rated outter diameter mm	Cable sterngth N	Max. resistance of core at 20°C Ω/km	Cable mass per 1 km kg
16	7	1,71	5,13	5540	1,142	146
25	7	2,13	6,39	8600	0,7361	226
35	7	2,52	7,56	12030	0,5259	316
50	7	3,00	9,00	17050	0,3712	449
70	19	2,17	10,85	24220	0,2613	637
95	19	2,52	12,60	32670	0,1938	859
120	19	2,80	14,00	40320	0,1570	1060
150	37	2,26	15,82	51150	0,1237	1345
185	37	2,52	17,64	6360	0,0995	1673
240	37	2,88	20,16	83070	0,0762	2185
300	61	2,50	22,50	97770	0,0613	2715

PVC building wires

Cables are normally supplied in lengths of 300 metres, 500 metres and 1000 metres depending on conductor size. Other lengths can be supplied if required. Note: Special constructions other than stated above may be provided on request.

H05V-U, H05V-R, H05V-K, H07V-U, H07V-R, H07V-K

HD 21.3, DIN VDE 0281



Application

Suitable for fixed, protected installation in equipment, as well as in and on lights. Can be used for fixed installation in conduit on and under plaster but only for signalling installations.

Construction

1 Copper conductor, solid wire (-U) resp. fine wire (-K)
2 Core insulation (PVC)

Parameters

Rated voltage:	300/500 V
Test voltage:	2(2,5) kV
Temperature range:	
laying temperature:	min +5°C
operating temperature:	-5°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s
Bending radius (min):	5 x Ø of conductor

No. and rated cross-section of cores	No. of cords per core	Insulation thickness mm	Max. outer diameter of the cord, mm	Max. resistance of core at 20°C	Copper content, kg/km
H05V-U 300/500V					
0,5	1	0,6	2,3	36,0	4,45
0,75	1	0,6	2,5	24,5	6,67
1,0	1	0,6	2,7	18,1	8,89
1,5	1	0,6	2,9	12,1	13,34
2,5	1	0,6	3,3	7,41	22,23
4	1	0,7	4,0	4,61	35,56
H05V-R 300/500V					
0,5	7	0,6	2,5	36,0	4,45
0,75	7	0,6	2,7	24,5	6,67
1	7	0,6	2,9	18,1	8,89
1,5	7	0,6	3,2	12,1	13,34
2,5	7	0,6	3,7	7,41	22,23
4	7	0,7	4,1	4,61	35,56
6	7	0,7	4,7	3,08	53,34

H05V-U, H05V-R, H05V-K, H07V-U, H07V-R, H07V-K
HD 21.3, DIN VDE 0281

No. and rated cross-section of cores	Max. D of single wire in conductor, mm	Insulation thickness mm	Max. outer diameter of the cord, mm	Max. resistance of core at 20°C	Copper content, kg/km
H05V-K 300/500V					
0,5	0,21	0,6	2,5	39,0	4,45
0,75	0,21	0,6	2,7	26,0	6,67
1,0	0,21	0,6	2,9	19,5	8,89
1,5	0,26	0,6	3,2	13,3	13,34
2,5	0,26	0,6	3,7	7,98	22,23

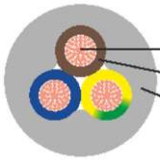
No. and rated cross-section of cores	No. of cords per core	Insulation thickness mm	Max. outer diameter of the cord, mm	Max. resistance of core at 20°C	Copper content, kg/km
H07V-U 450/750V					
0,5	1	0,6	2,3	36,0	4,45
0,75	1	0,6	2,5	24,5	6,67
1,0	1	0,6	2,7	18,1	8,89
1,5	1	0,6	2,9	12,1	13,34
2,5	1	0,6	3,3	7,41	22,23
4	1	0,7	4,0	4,61	35,56
H07V-R 450/750V					
1,5	7	0,7	3,3	12,1	13,34
2,5	7	0,8	4,0	7,41	22,23
4	7	0,8	4,6	4,61	35,56
6	7	0,8	5,2	3,08	53,34
10	7	1,0	6,7	1,83	88,9
16	7	1,0	7,8	1,15	142,24
25	7	1,2	9,7	0,727	222,25
35	7	1,2	10,9	0,524	311,15
50	19	1,4	12,8	0,387	444,5
70	19	1,4	14,6	0,268	622,3
95	19	1,6	17,1	0,193	844,55
120	37	1,6	18,8	0,153	1066,8
150	37	1,8	20,9	0,124	1333,5
185	37	2,0	23,3	0,0991	1644,65
240	61	2,2	26,6	0,0754	2133,6
300	61	2,0	29,6	0,0601	2667
400	61	2,2	33,2	0,0470	3556

H05V-U, H05V-R, H05V-K, H07V-U, H07V-R, H07V-K

HD 21.3, DIN VDE 0281

No. and rated cross-section of cores	Max. D of single wire in conductor, mm	Insulation thickness mm	Max. outer diameter of the cord, mm	Max. resistance of core at 20°C	Copper content, kg/km
H07V-K 450/750V					
1,5	0,26	0,7	3,4	13,3	13,34
2,5	0,26	0,8	4,1	7,98	22,23
4	0,31	0,8	4,8	4,95	35,56
6	0,31	0,8	5,3	3,3	53,34
10	0,41	1,0	6,8	1,91	88,9
16	0,41	1,0	8,1	1,21	142,24
25	0,41	1,2	10,2	0,78	222,25
35	0,41	1,2	11,7	0,554	311,15
50	0,41	1,4	13,9	0,386	444,5
70	0,51	1,4	16,0	0,272	622,3
95	0,51	1,6	18,2	0,206	844,55
120	0,51	1,6	20,2	0,161	1066,8
150	0,51	1,8	22,5	0,129	1333,5
185	0,51	2,0	24,9	0,106	1644,65
240	0,51	2,2	28,4	0,0801	2133,6

H03VV-F, H05VV-F
HD 21.5, DIN VDE 0281



Application

Can be used in areas subject to low mechanical stressing in households and office premises for light hand-held appliances except for cooking and heating appliances. Not suitable for installation in the open air, in industrial premises or for connection of industrial power tools.

Construction

1 Copper conductor, fine wire
2 Core insulation (PVC)
3 Sheath (PVC grey RAL 7035 resp. special colours)

Parameters

Rated voltage:	300/500 V
Test voltage:	2 kV
Temperature range:	
laying temperature:	min +5°C
operating temperature:	+5°C to +50°C
conductor temperature:	max +60°C
short-circuit temperature:	max +150°C/5 s
Bending radius (min):	3 x Ø of conductor

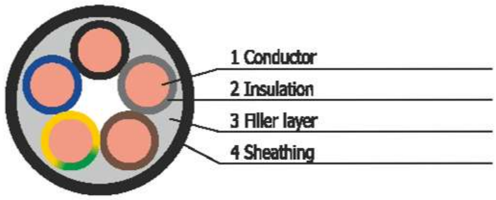
No. and rated cross-section of cores	Max. D of single wire in conductor, mm	Insulation thickness mm	Max. outer diameter of the cord, mm	Max. resistance of core at 20°C	Copper content, kg/km
H03VV-F 300/300V					
2x0,5	0,21	0,5	6,0	39,0	8,89
2x0,75	0,21	0,5	6,4	26,0	13,34
3x0,5	0,21	0,5	6,2	39,0	13,34
3x0,75	0,21	0,5	6,8	26,0	20
4x0,5	0,21	0,5	7,0	39,0	17,78
4x0,75	0,21	0,5	7,5	26,0	26,67
2x1	0,21	0,5	6,8	19,5	17,78
2x1,5	0,26	0,6	8,3	13,3	26,67
3x1	0,21	0,5	7,2	19,5	26,67
3x1,5	0,26	0,6	8,7	13,3	40,01
5x0,5	0,21	0,5	7,5	39,0	22,23
5x0,75	0,21	0,5	8,5	26,0	33,34

H03VV-F, H05VV-F

HD 21.5, DIN VDE 0281

No. and rated cross-section of cores	Max. D of single wire in conductor, mm	Insulation thickness mm	Max. outer diameter of the cord, mm	Max. resistance of core at 20°C	Copper content, kg/km
H05VV-F 300/500V					
2x0,75	0,21	0,6	7,2	26,0	13,34
2x1,0	0,21	0,6	7,5	19,5	17,78
2x1,5	0,26	0,7	8,6	13,3	26,67
2x2,5	0,26	0,8	10,6	7,98	44,45
2x4,0	0,31	0,8	12,1	4,98	71,12
3x0,75	0,21	0,6	7,6	26,0	20
3x1,0	0,21	0,6	8,0	19,5	26,67
3x1,5	0,26	0,7	9,4	13,3	40,01
3x2,5	0,26	0,8	11,4	7,98	66,68
3x4,0	0,31	0,8	13,1	4,98	106,68
4x0,75	0,21	0,6	8,3	26,,0	26,67
4x1,0	0,21	0,6	9,0	19,5	35,56
4x1,5	0,26	0,7	11,5	13,3	53,34
4x2,5	0,26	0,8	12,5	7,98	88,9
4x4,0	0,31	0,8	14,0	4,98	142,24
5x0,75	0,21	0,6	9,6	26,0	33,34
5x1,0	0,21	0,6	9,8	19,5	44,45
5x1,5	0,26	0,7	11,6	13,3	66,68
5x2,5	0,26	0,8	13,9	7,98	111,13
5x4,0	0,31	0,8	16,1	4,98	177,8
2x0,5	0,21	0,6	7,1	39,0	8,89
2x6	0,31	0,8	12,8	3,30	106,68
3x0,5	0,21	0,6	7,5	39,0	13,34
3x6	0,31	0,8	13,6	3,30	160,02
4x0,5	0,21	0,6	8,2	39,0	17,78
4x6	0,31	0,8	15,2	3,30	213,36
5x0,5	0,21	0,6	9,4	39,0	22,23
5x6	0,31	0,8	17,1	3,30	266,7
7x1	0,21	0,6	12,0	19,5	62,23
7x1,5	0,26	0,7	14,0	13,3	93,35
7x2,5	0,26	0,8	17,0	7,98	155,58

NYM
VDE 0250



Application

For fixed installation in dry, damp or wet premises.

Construction

1 Copper conductor, round solid (RE) resp. round stranded (RM)
2 Core insulation (PVC). Conductors stranded to the cable core.
3 Inner covering (EPDM)
4 Sheath (PVC grey RAL 7035)

Parameters

Rated voltage:	300/500 V
Test voltage:	2 kV
Temperature range:	
laying temperature:	min +5°C
operating temperature:	-40°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s
Bending radius (min):	4 x Ø of conductor

No. of cores mm^2	Outter diameter	Insulation thickness mm	Cable mass appr. kg/km	Effect. resist. of conductors Ω/km	Content Cu kg/km
2x1,5	8	0.7	107	12,100	29
2x2,5	9	0.8	149	7,410	49
2x4	14	0.8	180	4,610	78
2x6	15	0.8	240	3,080	118
2x10	17	1.0	400	1,830	196
2x16	19	1.0	600	1,150	314
2x25	23	1.2	800	0,720	490
2x35	26	1.2	1 200	0,524	686
3x1,5	9	0.7	125	12,100	44
3x2,5	10	0.8	177	7,410	74
3x4	11	0.8	248	4,610	118
3x6	13	0.8	337	3,080	176
3x10	16	1.0	529	1,830	294

NYM
VDE 0250

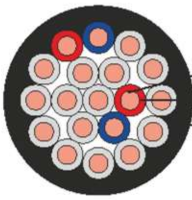
No. of cores mm^2	Outter diameter	Insulation thickness mm	Cable mass appr. kg/km	Effect. resist. of conductors Ω/km	Content Cu kg/km
3x16	20	1.0	750	1,150	470
3x25	24	1.2	1 020	0,720	735
3x35	27	1.2	1 400	0,524	1 029
4x1,5	9	0.7	150	12,100	59
4x2,5	11	0.8	215	7,410	98
4x4	13	0.8	317	4,610	157
4x6	14	0.8	425	3,080	235
4x10	17	1.0	659	1,830	392
4x16	24	1.0	1 093	1,150	627
4x25	25	1.2	1 525	0,720	980
4x35	28	1.2	2 005	0,524	1 372
5x1,5	10	0.7	184	12,100	74
5x2,5	12	0.8	267	7,410	123
5x4	14	0.8	404	4,610	196
5x6	15	0.8	531	3,080	294
5x10	19	1.0	830	1,830	490
5x16	23	1.0	1 399	1,150	784
5x25	27	1.2	1 890	0,720	1 225
5x35	30	1.2	2 700	0,524	1 715
7x1,5	11	0.7	210	12,100	103
7x2,5	13	0.8	331	7,410	172

Contents:

Power cables 0,6/1 kV

Cables are normally supplied in lengths of 300 metres, 500 metres and 1000 metres depending on conductor size. Other lengths can be supplied if required. Note: Special constructions other than stated above may be provided on request.

NYY
VDE 0276-627, HD 627:S1



Application

Power distribution cables in power stations, industrial installations and switchgear, as well as in local mains. For fixed installation in interior premises, cable ducts, in the open air, in water - as permitted by the local building regulations - if no risk of any mechanical damage is to be expected.

Construction

1 Copper conductor, round solid (RE), round stranded (RM) resp. sector-shaped stranded (SM)
2 Core insulation (PVC)
3 Inner covering (EPDM)
4 Sheath (PVC black, UV-resistant)

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	4 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 30°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s
Bending radius (min):	12 x Ø of cable

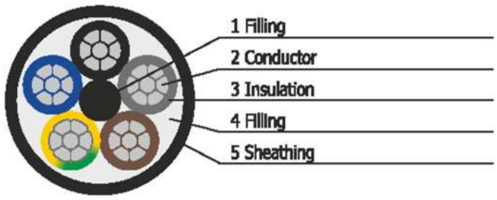
Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
2 x 1.5	RE	12,1	29	0,8	11,5	160
3 x 1.5	RE	12,1	44	0,8	12	204
4 x 1.5	RE	12,1	59	0,8	12,8	237
5 x 1.5	RE	12,1	74	0,8	14,7	277
2 x 2.5	RE	7,41	49	0,8	12,3	234
3 x 2.5	RE	7,41	74	0,8	12,5	260
4 x 2.5	RE	7,41	98	0,8	13,8	307
5 x 2.5	RE	7,41	123	0,8	14,8	343
2 x 4	RE	4,61	78	1	14,1	312
3 x 4	RE	4,61	118	1	14,5	351
4 x 4	RE	4,61	157	1	15,8	425
5 x 4	RE	4,61	196	1	16,2	493

NYY
VDE 0276-627, HD 627:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
2 x 6	RE	3,08	118	1	15,1	389
3 x 6	RE	3,08	176	1	15,5	429
4 x 6	RE	3,08	235	1	17,1	523
5 x 6	RE	3,08	294	1	18,5	613
2 x 10	RE	1,83	196	1	17	546
3 x 10	RE	1,83	294	1	17,5	600
4 x 10	RE	1,83	392	1	19	740

NAYY, 1-AYKY, YAKY

VDE 0276-603, IEC 60502-1, HD 603:S1



Application

Power distribution cables in power stations, industrial installations and switchgear, as well as in local mains. For fixed installation in interior premises, cable ducts, in the open air, in water - as permitted by the local building regulations - if no risk of any mechanical damage is to be expected.

Construction

1 Aluminium conductor, round solid (RE), sector-shaped solid (SE), round stranded (RM) resp. sector-shaped stranded (SM)
2 Core insulation (PVC)
3 Inner covering (EPDM)
4 Sheath (PVC black, UV-resistant)

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	3,5 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 30°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s
Bending radius (min):	12 x Ø of cable

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x16	RE	1,91	144	1	17	400
3x25	RE	1,2	225	1,2	23	690
3x35	RE	0,868	315	1,2	25	872
3x50	RE	0,641	450	1,4	29	1 160
3x70	RE	0,443	630	1,4	32	1 466
3x95	SM	0,32	855	1,6	33	1 358
3x95+70	SM+RE	0,32	1 065	1,6	36	1 829
3x95+70	SM+SM	0,32	1 065	1,6	36	1 829
3x120	SM	0,253	1 080	1,6	36	1 618
3x120+70	SM+RE	0,253	1 290	1,6	38	2 098
3x120+70	SM+SM	0,253	1 290	1,6	38	2 098

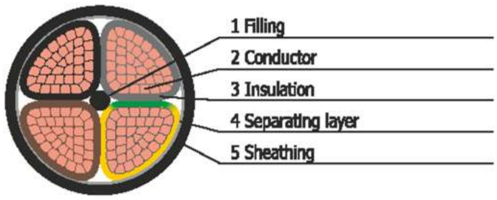
NAYY, 1-AYKY, YAKY

VDE 0276-603, IEC 60502-1, HD 603:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x150	SM	0,206	1 350	1,8	40	2 004
3x150+70	SM+RE	0,206	1 560	1,8	42	2 290
3x150+70	SM+SM	0,206	1 560	1,8	42	2 290
3x185	SM	0,164	1 665	2	45	2 450
3x185+95	SM+SM	0,164	1 950	2	47	2 944
3x240	SM	0,125	2 160	2	50	3 196
3x240+120	SM+SM	0,125	2 520	2,2	53	3 700
4x16	RE	1,91	192	1	20	565
4x25	RE	1,2	300	1,2	24	820
4x35	RE	0,868	420	1,2	27	1 036
4x50	RE	0,641	600	1,4	31	1 381
4x70	RE	0,443	840	1,4	35	1 752
4x95	SM	0,32	1 140	1,6	37	1 788
4x120	SM	0,253	1 440	1,6	39	2 350
4x150	SM	0,206	1 800	1,8	44	2 596
4x185	SM	0,164	2 220	2	50	3 277
4x240	SM	0,125	2 880	2,2	54	4 152
5x16	RE	1,91	240	1	23	689
5x25	RE	1,2	375	1,2	27	990
5x35	RE	0,868	525	1,2	30	1 270
5x50	SM	0,641	750	1,4	33	1 571
5x70	SM	0,443	1 050	1,4	38	2 047
5x95	SM	0,32	1 425	1,6	41	2 598
5x120	SM	0,253	1 800	1,6	47	3 204

NYY, 1-CYKY, YKY

VDE 0276-603, IEC 60502-1, HD 603:S1



Application

Power distribution cables in power stations, industrial installations and switchgear, as well as in local mains. For fixed installation in interior premises, cable ducts, in the open air, in water - as permitted by the local building regulations - if no risk of any mechanical damage is to be expected.

Construction

1 Copper conductor, round solid (RE), round stranded (RM) resp. sector-shaped stranded (SM)
2 Core insulation (PVC)
3 Inner covering (EPDM)
4 Sheath (PVC black, UV-resistant)

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	3,5 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 50°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s
Bending radius (min):	15 x Ø of cable

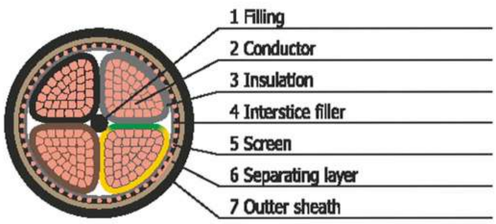
Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x25	RM	0,727	735	1,2	24	1 236
3x25+16	RM+RE	0,727	892	1,2	27	1 520
3x35	RMV	0,524	1 029	1,2	27	1 580
3x35+16	RMV+RE	0,524	1 186	1,2	27	1 776
3x50	SM	0,387	1 470	1,4	28	1 830
3x50+25	SM+RM	0,387	1 715	1,4	29	2 113
3x70	SM	0,268	2 058	1,4	30	2 436
3x70+35	SM+RM	0,268	2 401	1,4	32	2 850
3x95	SM	0,193	2 793	1,6	33	3 233
3x95+50	SM+SM	0,193	3 283	1,6	36	3 883
3x120	SM	0,153	3 528	1,6	36	3 970

NYY, 1-CYKY, YKY
VDE 0276-603, IEC 60502-1, HD 603:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x120+70	SM+SM	0,153	4 214	1,6	38	4 543
3x150	SM	0,125	4 410	1,8	40	4 901
3x150+70	SM+SM	0,125	5 096	1,8	42	5 426
3x185	SM	0,099	5 439	2	45	6 055
3x185+95	SM+SM	0,099	6 370	2	49	7 254
3x240	SM	0,075	7 056	2,2	50	7 670
3x240+120	SM+SM	0,075	8 232	2,2	53	8 800
4x25	RM	0,727	980	1,2	26	1 566
4x35	RMV	0,524	1 372	1,2	28	1 945
4x50	SM	0,387	1 960	1,4	28	2 168
4x70	SM	0,268	2 744	1,4	32	3 204
4x95	SM	0,193	3 724	1,6	36	4 094
4x120	SM	0,153	4 704	1,6	38	5 025
4x150	SM	0,125	5 080	1,8	44	6 280
4x185	SM	0,099	7 252	2	48	7 775
4x240	SM	0,075	9 408	2,2	55	10 127
5x25	RM	0,727	1 225	1,2	29	1 965
5x35	RMV	0,524	1 715	1,2	31	2 399
5x50	SM	0,387	2 450	1,4	33	3 002
5x70	SM	0,268	3 430	1,4	38	4 105
5x95	SM	0,193	4 655	1,6	42	5 495
5x120	SM	0,153	5 880	1,6	47	6 870

NYCY, NYCWY, YKYektmy, YKYeky

VDE 0276-603, IEC 60502-1, HD 603:S1



Application

Power distribution cables in power stations, industrial installations and switchgear, as well as in local mains. For fixed installation in interior premises, cable ducts, in the open air, in water - as permitted by the local building regulations - if no risk of any mechanical damage is to be expected.

Construction

1 Bare annealed copper conductors (tin-plated on request) meeting requirements of PN-EN 60228 and PN-HD 383 S2 standards:
RE - class 1 circular single-wire,
RM - class 2 circular multi-wire,
SM - class 2 sector shaped multi-wire,
2 PVC insulation
3 Insulated conductors laid-up in a cable core; green-yellow protective conductor possible.
4 Cable core wrapped in a polyester tape,
5 PVC cable sheath,
6 Copper tape shield,
7 Black PVC cable covering.

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	3,5 kV
Temperature range:	
laying temperature:	min -15°C
operating temperature:	- 30°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s
Bending radius (min):	15 x Ø of cable

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
2x10/10	RE	1,83	294	1	19	660
2x16/16	RE	1,15	470	1	21	880
3x10/10	RE	1,83	392	1	20	760
3x16/16	RE	1,15	627	1	22	1 040
3x25/16	RM	0,72	892	1,2	26	1 490
3x25/25	RM	0,72	980	1,2	26	1 580

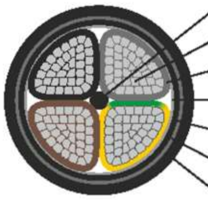
NYCY, NYCWY, YKYektmy, YKYeky

VDE 0276-603, IEC 60502-1, HD 603:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x35/16	SM	0,524	1 186	1,2	27	1 800
3x35/35	SM	0,524	1 372	1,2	29	1 880
3x50/25	SM	0,387	1 715	1,4	30	2 260
3x50/50	SM	0,387	1 960	1,4	31	2 460
3x70/35	SM	0,268	2 401	1,4	33	3 060
3x70/70	SM	0,268	2 744	1,4	34	3 310
3x95/50	SM	0,193	3 283	1,6	38	4 080
3x95/95	SM	0,193	3 724	1,6	40	4 510
3x120/120	SM	0,153	4 704	1,6	43	5 490
3x120/70	SM	0,153	4 214	1,6	42	5 040
3x150/150	SM	0,125	5 880	1,8	47	6 750
3x150/70	SM	0,125	5 096	1,8	46	6 040
3x185/185	SM	0,099	7 252	2	54	8 410
3x185/95	SM	0,099	6 370	2	51	7 510
3x240/120	SM	0,075	8 232	2,2	57	9 640
3x240/240	SM	0,075	9 408	2,2	63	11
4x10/10	RE	1,83	490	1	21	890
4x16/16	RE	1,15	784	1	23	1 240
4x25/16	RM	0,72	1 137	1,2	28	1 800
4x35/16	SM	0,524	1 529	1,2	29	2 130
4x50/25	SM	0,387	2 205	1,4	33	2 870
4x70/35	SM	0,268	3 087	1,4	36	3 870
4x95/50	SM	0,193	4 214	1,6	43	5 303
4x120/70	SM	0,153	5 390	1,6	46	6 380
4x150/70	SM	0,125	6 566	1,8	51	7 730
4x185/95	SM	0,099	8 183	2	57	9 770
4x240/120	SM	0,075	10 584	2,2	64	12 540

NAYBY, YAKYFtly

VDE 0276-603, IEC 60502-1, HD 603:S1



Application

Armoured power cables designed for electric power transmission. They are also applied in control, protection and monitoring systems in power engineering. Varnished steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties. The cables are suitable for industrial applications, such as production lines or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Construction

1 Bare aluminum conductors meeting requirements of EN 60228 and HD 383 S2 standards:
RE - class 1 circular single-wire,
RM - class 2 circular multi-wire,
SM - class 2 sector shaped multi-wire,
2 PVC insulation
3 Insulated conductors laid-up in a cable core; green-yellow protective conductor possible
4 Cable core wrapped in a polyester tape
5 PVC cable sheath
6 Varnished steel tape armour
7 Black PVC cable covering

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	3,5 kV
Temperature range:	
laying temperature:	min -15°C
operating temperature:	- 30°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s
Bending radius (min):	15 x Ø of cable

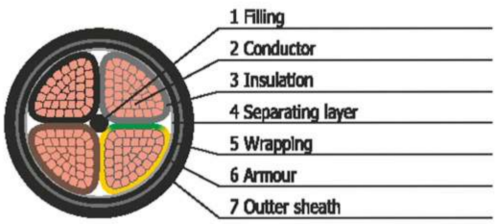
Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3 x 10	RE	3,08	89	1	19,3	579
3 x 16	RE	1,91	142	1	21,3	709
3 x 25	RM	1,2	222	1,2	26,1	1 029
3 x 35	RM	0,868	311	1,2	28,6	1 236
3 x 50	SE	0,641	445	1,4	28,5	1 216

NAYBY, YAKYFtly

VDE 0276-603, IEC 60502-1, HD 603:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3 x 70	SE	0,443	622	1,4	32,4	1 536
3 x 95	SE	0,32	845	1,6	36,3	1 942
3 x 120	SE	0,253	1 067	1,6	39	2 297
3x150	SE	0,206	1 334	1,8	42,3	2 971
3 x 185	SE	0,164	1 645	2	47,4	3 601
3x240	SM	0,125	2 134	2,2	55,5	4 709
3x300	SM	0,1	2 667	2,4	60,8	5 611
4 x 10	RE	3,08	89	1	20,7	659
4 x 16	RE	1,91	142	1	23,2	826
4 x 25	SE	1,2	222	1,2	25,3	975
4 x 35	SE	0,868	311	1,2	28,7	1 228
4 x 50	SE	0,641	445	1,4	32	1 523
4 x 70	SE	0,443	622	1,4	36,2	1 922
4 x 95	SE	0,32	845	1,6	40,7	2 471
4 x 120	SE	0,253	1 067	1,6	44,1	3 175
4x150	SE	0,206	1 334	1,8	48,9	3 792
4x185	SE	0,164	1 645	2	53,6	4 551
4x240	SM	0,125	2 134	2,2	62,8	6 000
4x300	SM	0,1	2 667	2,4	69,8	7 829
3 x 25 +16	RE	1,20+1,91	364	1,2	25,3	940
3 x 35 +16	RE	0,868+1,91	453	1,2	28,5	1 141
3 x 50 +25	SM+RM	0,641+1,20	667	1,4	33,2	1 512
3 x 70 +35	SM+SM	0,443+0,868	933	1,4	35,8	1 854
3 x 95 +50	SM+SM	0,320+0,641	1 289	1,6	40,8	2 395
3 x 120 +70	SM+SM	0,253+0,0443	1 689	1,6	43,7	3 072
3 x 150 +70	SM+SM	0,206+0,443	1 956	1,8	49,3	3 737
3 x 185 +95	SM+SM	0,164+0,320	2 489	2	53,5	4 344
3 x 240 +120	SM+SM	0,125+0,253	3 200	2,2	60	5 374
3 x 300 +150	SM+SM	0,100+0,206	4 001	2,4	66,2	7 063

NYBY, YKYFtly
VDE 0276-603, IEC 60502-1, HD 603:S1



Application

Armoured power cables designed for electric power transmission. They are also applied in control, protection and monitoring systems in power engineering. Varnished steel tape armour offers enhanced protection against mechanical damages and rodent attack, it has also shielding properties. The cables are suitable for industrial applications, such as production lines or air-conditioning systems operating in dry and wet locations, also for outdoor installations, in cable ducts or for direct earth burial.

Construction

1 Bare annealed copper conductors (tin-plated on request) meeting requirements of EN 60228 and HD 383 S2 standards:
RE - class 1 circular single-wire,
RM - class 2 circular multi-wire,
SM - class 2 sector shaped multi-wire
2 PVC insulation
3 Insulated conductors laid-up in a cable core; green-yellow protective conductor possible
4 Cable core wrapped in a polyester tape
5 PVC cable sheath
6 Varnished steel tape armour
7 Black PVC cable covering

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	3,5 kV
Temperature range:	
laying temperature:	min -15°C
operating temperature:	- 30°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s
Bending radius (min):	15 x Ø of cable

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3 x 6	RE	3,08	53	1	17,5	583
3 x 10	RE	1,83	89	1	19,4	763
3 x 16	RE	1,15	142	1	21,3	992
3 x 25	SM	0,727	222	1,2	24,2	1 329

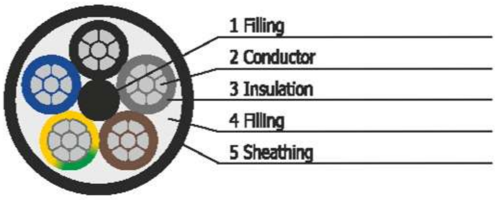
NYBY, YKYFtly

VDE 0276-603, IEC 60502-1, HD 603:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3 x 35	SM	0,524	310	1,2	26,7	1 675
3x50	SM	0,387	443	1,4	29,7	2 147
3x70	SM	0,268	620	1,4	33,2	2 857
3 x 95	SM	0,193	842	1,6	37,6	3 801
3x120	SM	0,153	1 063	1,6	40,4	4 602
3x150	SM	0,124	1 329	1,8	44,6	5 868
3x185	SM	0,0991	1 639	2	49,9	7 196
3x240	SM	0,0754	2 126	2,2	55,5	9 154
4 x 6	RE	3,08	53	1	18,9	688
4 x 10	RE	1,83	89	1	20,8	903
4 x 16	RE	1,15	142	1	23,2	1 203
4 x 25	SM	0,727	222	1,2	27	1 684
4 x 35	SM	0,524	310	1,2	29,7	2 126
4x50	SM	0,387	443	1,4	33,4	2 764
4x70	SM	0,268	620	1,4	37,2	3 681
4 x 95	SM	0,193	842	1,6	42,3	4 925
4x120	SM	0,153	1 063	1,6	45,9	6 260
4x150	SM	0,124	1 329	1,8	51,3	7 628
4x185	SM	0,0991	1 639	2	56	9 295
4x240	SM	0,0754	2 126	2,2	62,8	11 928
4x300	SM	0,0601	2 658	2,4	69,8	15 093
5 x 6	RE	3,08	53	1	20,2	803
5 x 10	RE	1,83	89	1	22,5	1 076
5 x 16	RE	1,15	142	1	25	1 436
5 x 25	RMC	0,727	222	1,2	31,4	2 213
5 x 35	RMC	0,524	310	1,2	34,6	2 823

NA2XY, 1-AXKY, YAKXS

VDE 0276-603, IEC 60502-1, HD 603:S1



Application

Power distribution cables in power stations, industrial installations and switchgear, as well as in local mains. For fixed installation in interior premises, cable ducts, in the open air, in water - as permitted by the local building regulations - if no risk of any mechanical damage is to be expected

Construction

1 Aluminium conductor, round solid (RE), sector-shaped solid (SE), round stranded (RM) resp. sector-shaped stranded (SM)
2 Core insulation (XLPE)
3 Inner covering (EPDM)
4 Sheath (PVC black, UV-resistant)

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	3,5 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 30°C to +90°C
conductor temperature:	max +70°C
short-circuit temperature:	max +250°C/5 s
Bending radius (min):	12 x Ø of cable

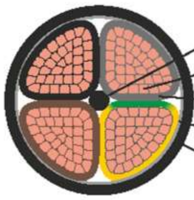
Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
1 x50	RMC	0,641	443	1	13,1	228
1 x 70	RMC	0,443	620	1,1	14,7	302
1 x 95	RMC	0,32	842	1,1	16,7	396
1 x 120	RMC	0,253	1 063	1,2	18,1	479
1x150	RMC	0,206	1 329	1,4	20,4	591
1 x 185	RMC	0,164	1 639	1,6	22,4	722
1 x 240	RMC	0,125	2 126	1,7	24,8	914
1 x 300	RMC	0,1	2 658	1,8	27,5	1 122
1 x 400	RMC	0,0778	3 544	2	30,7	1 416
1x500	RMC	0,0605	4 430	2,2	34,1	1 783
4 x 25	SE	1,2	222	0,9	19	477

NA2XY, 1-AXKY, YAKXS

VDE 0276-603, IEC 60502-1, HD 603:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
4 x 35	SE	0,868	310	0,9	22,3	630
4 x 50	SE	0,641	443	1	24,9	810
4 x 70	SE	0,443	620	1,1	29,4	1 113
4 x 95	SM	0,32	842	1,1	34	1 530
4x120	SM	0,253	1 063	1,2	38,1	1 906
4x150	SM	0,206	1 329	1,4	42,2	2 329
4x185	SM	0,164	1 639	1,6	46,8	2 895
4x240	SM	0,125	2 126	1,7	52,5	3 693
5 x 10	RE	3,08	89	1	18	432
5 x 16	RE	1,91	142	1	21,6	666
5 x 25	RMC	1,2	222	1,2	27,6	1 085
5 x 35	RMC	0,868	310	1,2	30,8	1 362
5x50	RMC	0,641	443	1,4	35,8	1 830
5 x 70	RMC	0,443	620	1,4	40,2	2 366
5 x 95	SM	0,32	842	1,6	40	2 248
5x120	SM	0,253	1 063	1,6	43,6	2 762
5x150	SM	0,206	1 329	1,8	48,6	3 383
5x185	SM	0,164	1 639	2	53,5	4 164

N2XY, 1-CXKY, YKXS
VDE 0276-603, IEC 60502-1, HD 603:S1



Application

Power distribution cables in power stations, industrial installations and switchgear, as well as in local mains. For fixed installation in interior premises, cable ducts, in the open air, in water - as permitted by the local building regulations - if no risk of any mechanical damage is to be expected

Construction

1 Copper conductor, round stranded (RM) resp. sector-shaped stranded (SM)
2 Core insulation (XLPE)
3 Inner covering (EPDM)
4 Sheath (PVC black, UV-resistant)

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	3,5 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 30°C to +90°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s
Bending radius (min):	12 x Ø of cable

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
1 x 6	RE	3,08	53	0,7	6,9	93
1 x 10	RE	1,83	89	0,7	7,7	134
1 x 16	RE	1,15	142	0,7	8,6	192
1 x 25	RMC	0,727	222	0,9	10,7	297
1 x 35	RMC	0,524	310	0,9	11,8	392
1 x 50	RMC	0,387	443	1	13,3	517
1 x 70	RMC	0,268	620	1,1	14,8	718
1 x 95	RMC	0,193	842	1,1	17	976
1 x 120	RMC	0,153	1 063	1,2	18,6	1 212
1 x 150	RMC	0,124	1 329	1,4	20,8	1 496
1 x 185	RMC	0,0991	1 639	1,6	22,7	1 850
1 x 240	RMC	0,0754	2 126	1,7	25,6	2 391

N2XY, 1-CXKY, YKXS
VDE 0276-603, IEC 60502-1, HD 603:S1

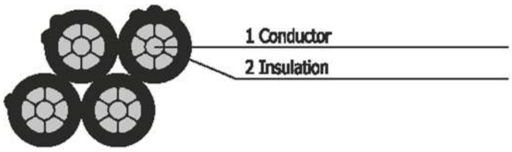
Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
1 x 300	RMC	0,0601	2 658	1,8	27,8	2 974
1 x 400	RMC	0,047	3 544	2	32	3 848
1 x 500	RMC	0,0366	4 430	2,2	34,9	4 892
3 x 6	RE	3,08	53	0,7	12,4	293
3 x 10	RE	1,83	89	0,7	14,1	429
3 x 16	RE	1,15	142	0,7	17,1	671
3 x 25	SM	0,727	222	0,9	18,3	867
3 x 35	SM	0,524	310	0,9	20,6	1 148
3x50	SM	0,387	443	1	22,9	1 515
3x70	SM	0,268	620	1,1	26,7	2 141
3 x 95	SM	0,193	842	1,1	29,8	2 897
3x120	SM	0,153	1 063	1,2	32,9	3 622
3x150	SM	0,124	1 329	1,4	37	4 486
3x185	SM	0,0991	1 639	1,6	41	5 576
3x240	SM	0,0754	2 126	1,7	45,9	7 253
4 x 6	RE	3,08	53	0,7	13,5	359
4 x 10	RE	1,83	89	0,7	15,4	533
4 x 16	RE	1,15	142	0,7	18,6	832
4 x 25	SM	0,727	222	0,9	20,7	1 132
4 x 35	SM	0,524	310	0,9	23,2	1 500
4x50	SM	0,387	443	1	26,2	2 002
4x70	SM	0,268	620	1,1	30,4	2 826
4 x 95	SM	0,193	842	1,1	34	3 832
4x120	SM	0,153	1 063	1,2	38,1	4 813
4x150	SM	0,124	1 329	1,4	42,2	5 929
4x185	SM	0,0991	1 639	1,6	46,8	7 392
4x240	SM	0,0754	2 126	1,7	52,5	9 621
5 x 6	RE	3,08	53	0,7	14,6	434
5 x 10	RE	1,83	89	0,7	16,8	648
5 x 16	RE	1,15	142	0,7	20,2	1 009
5 x 25	RMC	0,727	222	0,9	26,5	1 645
5 x 35	RMC	0,524	310	0,9	29,4	2 165
5x50	SM	0,387	443	1	28,1	2 469
5x70	SM	0,268	620	1,1	32,7	3 506
5 x 95	SM	0,193	842	1,1	37,4	4 786
5x120	SM	0,153	1 063	1,2	41,4	5 985
5x150	SM	0,124	1 329	1,4	46,5	7 404
5x185	SM	0,0991	1 639	1	51,4	9 221

Insulated overhead lines

Cables are normally supplied in lengths of 300 metres, 500 metres and 1000 metres depending on conductor size. Other lengths can be supplied if required. Note: Special constructions other than stated above may be provided on request.

NFA2X, AsXS, AsXSn, AAXS, AAXSn

VDE 276-626, HD 626:S1



Application

Can be used for fixed installation as overhead power lines up to 1000 V inclusive. Not suitable for direct burial.

Construction

1 Aluminium conductor with increased breaking load, round stranded compacted (RM)
2 Core insulation (PE black, UV-resistant); 2 or 4 cores of equal cross section are stranded together in left-hand lay, additionaly 1 or 2 cores of reduced cross section can be co-stranded

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	4 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 30°C to +80°C
conductor temperature:	max +80°C
short-circuit temperature:	max +130°C/5 s
Bending radius (min):	18 x core-Ø

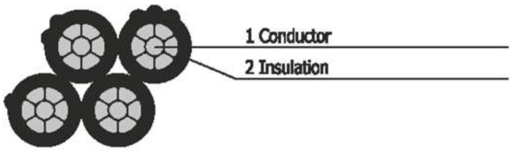
Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
2x16	RM	1,91	96	1,1	17	140
2x25	RMV	1,2	150	1,3	20	200
2x35	RMV	0,868	210	1,3	23	275
3x16	RM	1,91	144	1,1	17	210
3x25	RMV	1,2	225	1,3	21	300
4x16	RM	1,91	192	1,1	19	280
4x25	RMV	1,2	300	1,3	22	410
4x35	RMV	0,868	420	1,3	25	550
4x50	RMV	0,641	600	1,5	28	750
4x70	RMV	0,443	840	1,5	32	1 000
4x95	RMV	0,32	1 140	1,7	38	1 350
4x120	RMV	0,253	1 440	1,7	41	1 680
4x35+1x25	RMV+RMV	0,866+1,200	495	1,3	28	623
4x50+1x25	RMV+RMV	0,641 1,200	675	1,5	30	805
4x70+1x25	RMV+RMV	0,443+1,200	915	1,5	33	1 062
4x70+1x35	RMV+RMV	0,443+0,868	945	1,5	34	1 093

NFA2X, AsXS, AsXSn, AAXS, AAXSn

VDE 276-626, HD 626:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
4x95+1x25	RMV+RMV	0,32+1,200	1 215	1,7	38	1 434
4x120+1x25	RMV+RMV	0,253+1,200	1 515	1,7	42	1 723
4x50+2x16	RMV+RM	0,641+1,910	696	1,5	32	859
4x70+2x16	RMV+RM	0,443+1,910	936	1,5	36	1 116
4x70+2x25	RMV+RMV	0,443+1,200	990	1,5	37	1 154
4x95+2x16	RMV+RM	0,320+1,910	1 236	1,7	40	1 489
4x120+2x16	RMV+RM	0,253+1,910	1 536	1,7	45	1 787

1-AES
HD 626:S1



Application

Can be used for fixed installation as overhead power lines up to 1000 V inclusive. Not suitable for direct burial.

Construction

1 Aluminium conductor with increased breaking load, round stranded compacted (RM)
2 Core insulation (PE black, UV-resistant); 2 or 4 cores of equal cross section are stranded together in right-hand lay, additionaly 1 or 2 cores of reduced cross section can be co-stranded

Parameters

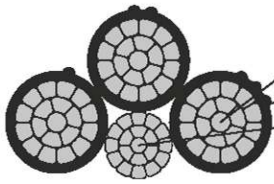
Rated voltage:	0.6/1 kV
Test voltage:	4 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 50°C to +90°C
conductor temperature:	max +90°C
short-circuit temperature:	max +200°C/5 s
Bending radius (min):	18 x core-Ø

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
2x16 RM	RM	1,91	96	1,1	15,5	145
4x16 RM	RM	1,91	192	1,1	9,1	290
1 x 25 RM	RM	1,2	75	1,3	17,6	105
2 x 25 RM	RM	1,2	150	1,3	17,9	210
4 x 25 RM	RM	1,2	300	1,3	21,2	435
4 x 25 + 25 RM/RM	RMV+RMV	1.200+1.200	375	1,3	24,6	315
4 x 35 RM	RM	0,868	420	1,3	24,1	525
4 x 35 + 25 RM/RM	RMV+RMV	0.868+1.200	495	1,3	27,6	630
4x50RM	RM	0,641	600	1,4	27,8	740
4 x 50 + 25 RM/RM	RMV+RMV	0.641+1.200	675	1,4	29,6	845
4 x 50 + 2 x 16 RM/RM	RMV+RMV	0.641+1.910	696	1,4	32,2	880
4 x 70 RM	RM	0,443	840	1,5	31,8	1 030
4 x 70 + 25 RM/RM	RMV+RMV	0.443+1.200	915	1,5	33,3	1 150
4 x 70 + 2 x 16 RM/RM	RMV+RMV	0.443+1.910	936	1,5	35,6	1 180
4 x 95 RM	RM	0,32	1 140	1,6	37,2	1 345
4 x 95 + 25 RM/RM	RMV+RMV	0.320+1.200	1 215	1,6	38,1	1 450

1-AES
HD 626:S1

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
4 x 95 + 2 x 16 RM/RM	RMV+RMV	0.320+1.910	1 236	1,6	40,6	1 505
4 x 120 RM	RM	0,253	1 440	1,7	40,6	1 680
4 x 120 + 25 RM/RM	RMV+RMV	0.253+1.200	1 515	1,7	41,6	1 765
4 x 120 + 2 x 16 RM/RM	RMV+RMV	0.253+1.910	1 536	1,7	45,5	1 810

AMKA, AXKA
HD 626:S1



Application

Can be used for fixed installation as overhead power lines up to 1000 V inclusive. Not suitable for direct burial.

Construction

1 Aluminium conductor (phase conductor), round stranded compacted (RM)
2 Bare alloy aluminium conductor (neutral conductor, AlMgSi), round stranded compacted (RM)
3 Core insulation (weather-resistant PE), 3 cores of equal cross section and the neutral conductor stranded together in right-hand lay, additionally 1 core of reduced cross section can be co-stranded

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	4 kV
Temperature range:	
laying temperature:	min -20°C
operating temperature:	- 40°C to +90°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s
Bending radius (min):	20 x core-Ø

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
1 x 16 + 25	RM + RM	1,91+1,38	111	1,4	11	135
3 x 16 + 25	RM + RM	1,91+1,38	197	1,4	20	270
4 x 16 + 25	RM + RM	1,91+1,38	240	1,4	22	330
3 x 25 + 35	RM + RM	1,2+0,986	297	1,4	23	390
3 x 35 + 50	RM + RM	0,868+0,720	419	1,6	27	530
3 x 50 + 70	RM + RM	0,641+0,493	594	1,6	31	700
3 x 70 + 95	RM + RM	0,443+0,363	824	1,8	36	1 000
3 x 120 + 95	RM + RM	0,253+0,363	1 229	2	42	1 500

PAS
SFS 5191

Application

Can be used for fixed installation as overhead power lines for 10 – 35 kV in industrial areas and sea or salt lakes shores.

Construction

1 Conductor: aluminum alloy wires, stranded, compacted, round. Can contain steel reinforced aluminum messenger used as a neutral conductor.
2 Insulation: light stabilized black XLPE. Nominal thickness of insulation for protected conductors for 10 – 20 kV is 2.3 mm, for 32 kV – 3.5 mm.

Parameters

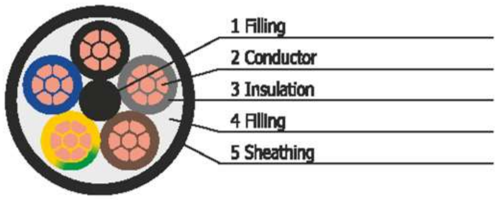
Rated voltage:	10/35 kV
Test voltage:	4 kV
Temperature range:	
laying temperature:	min -20°C
operating temperature:	- 60°C to +50°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s
Bending radius (min):	10 x core-Ø

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
35	RMV	0,986	95	2,3	11,5	160
50	RMV	0,72	135	2,3	12,7	200
70	RMV	0,493	189	2,3	14,3	270
95	RMV	0,363	257	2,4	16,1	350
120	RMV	0,288	324	2,4	17,6	425
150	RMV	0,236	405	2,4	18,9	510

Halogen-free power cables 0,6/1 kV

Cables are normally supplied in lengths of 300 metres, 500 metres and 1000 metres depending on conductor size. Other lengths can be supplied if required. Note: Special constructions other than stated above may be provided on request.

N2XH
VDE 0276-604



Application

The cables are specified for stationary distribution of electrical energy in dry and damp premises. Suitable for hotels, hospitals, underground railways, airports etc. to protect people and technical building equipment in the event of fire where there is no requirement for maintaining the function of the cable in the event of fire.

Construction

1 Copper conductor, round solid (RE), round stranded (RM) resp. sector-shaped stranded (SM)
2 Core insulation (XLPE)
3 Inner covering (halogen-free tape and halogen-free polymer compound)
4 Sheath (halogen-free polymere compound, black)

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	4 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 30°C to +90°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s
Bending radius (min):	12 x Ø of cable

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x1,5	RE	12,1	44	0,7	10	134
4x1,5	RE	12,1	59	0,7	11	162
5x1,5	RE	12,1	74	0,7	11	190
7x1,5	RE	12,1	103	0,7	12	233
12x1,5	RE	12,1	176	0,7	16	370
19x1,5	RE	12,1	279	0,7	18	488
3x2,5	RE	7,41	74	0,7	11	174
4x2,5	RE	7,41	98	0,7	11	208
5x2,5	RE	7,41	123	0,7	12	245
7x2,5	RE	7,41	172	0,7	13	307
12x2,5	RE	7,41	294	0,7	18	502
19x2,5	RE	7,41	466	0,7	20	672

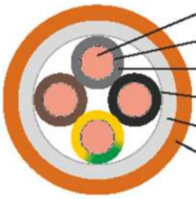
N2XH
VDE 0276-604

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x4	RE	4,61	118	0,7	12	233
4x4	RE	4,61	157	0,7	13	281
5x4	RE	4,61	196	0,7	14	344
7x4	RE	4,61	274	0,7	15	433
3x6	RE	3,08	176	0,7	13	317
4x6	RE	3,08	235	0,7	14	385
5x6	RE	3,08	294	0,7	15	462
1x10	RE	1,83	98	0,7	8	141
3x10	RE	1,83	294	0,7	15	456
4x10	RE	1,83	392	0,7	16	571
5x10	RE	1,83	490	0,7	18	697
1x16	RE	1,15	157	0,7	9	201
3x16	RE	1,15	470	0,7	17	668
4x16	RE	1,15	627	0,7	19	831
5x16	RE	1,15	784	0,7	21	1 043
1x25	RM	0,727	245	0,9	11	322
3x25	RM	0,727	735	0,9	23	1 126
4x25	RM	0,727	980	0,9	25	1 427
5x25	RM	0,727	1 225	0,9	28	1 733
1x35	RMV	0,524	343	0,9	12	404
3x35	RMV	0,524	1 029	0,9	25	1 410
4x35	SM	0,524	1 372	0,9	24	1 657
5x35	RMV	0,524	1 715	0,9	30	2 190
1x50	RMV	0,387	490	1	13	528
3x50	SM	0,387	1 470	1	25	1 682
4x50	SM	0,387	1 960	1	28	2 199
5x50	SM	0,387	2 450	1	32	2 781
1x70	RMV	0,268	686	1,1	15	734
3x70	SM	0,268	2 058	1,1	29	2 325
4x70	SM	0,268	2 744	1,1	32	3 045
5x70	SM	0,268	3 430	1,1	37	3 850
1x95	RMV	0,193	931	1,1	17	991
3x95	SM	0,193	2 793	1,1	32	3 104
4x95	SM	0,193	3 724	1,1	36	4 086
5x95	SM	0,193	4 655	1,1	40	5 116
1x120	RMV	0,153	1 176	1,2	19	1 228
3x120	SM	0,153	3 528	1,2	36	3 893
4x120	SM	0,153	4 704	1,2	40	5 089
5x120	SM	0,153	5 880	1,2	45	6 415
1x150	RMV	0,124	1 470	1,4	21	1 505
3x150	SM	0,124	4 410	1,4	40	4 750
4x150	SM	0,124	5 880	1,4	44	6 252

N2XH
VDE 0276-604

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
1x185	RMV	0,099	1 813	1,6	23	1 876
3x185	SM	0,099	5 439	1,6	44	5 933
4x185	SM	0,099	7 252	1,6	50	7 805
1x240	RMV	0,075	2 352	1,7	26	2 427
3x240	SM	0,075	7 056	1,7	49	7 639
4x240	SM	0,075	9 408	1,7	55	10 070
1x300	RMV	0,061	2 940	1,8	29	3 020
3x35+16	SM/RE	0,524	1 186	0,9	24	1 485
3x50+25	SM/RM	0,387	1 715	1	28	2 028
3x70+35	SM	0,268	2 401	1,1	31	2 715
3x95+50	SM	0,193	3 283	1,1	35	3 629
3x120+70	SM	0,153	4 214	1,2	39	4 608
3x150+70	SM	0,124	5 096	1,4	44	5 506
3x185+95	SM	0,099	6 370	1,6	48	6 942
3x240+120	SM	0,075	8 232	1,7	54	8 907

NHXH FE 180/E30
VDE 0266



Application

For fixed installation in interior premises and in the open air and for direct burial in cable ducts and conduit. Since they are free from halogens and exhibit enhanced fire performance, these cables are used in those applications where in the event of fire, the negative effects on concentrations of people and valuable material goods must be minimised.

Construction

1 Copper conductor, round solid (RE), round stranded (RM) resp. sector-shaped stranded (SM)
2 Flame protection by conductor taping (mica tape, only for NHXH) or by a ceramising halogen-free polymer compound
3 Core insulation (halogen-free polymer compound, cross linked)
4 Taping (halogen-free glass fabric tape)
5 Inner covering (halogen-free polymer compound) in case of multicore constructions
6 Sheath (halogen-free polyolefin compound, orange)

Parameters

Rated voltage:	0.6/1 kV
Test voltage:	4 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 40°C to +80°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s
Bending radius (min):	15 x Ø of cable (single core) 12 x Ø of cable (multicore)

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x1,5	RE	12,1	44	0,9	13	228
4x1,5	RE	12,1	59	0,9	14	273
5x1,5	RE	12,1	74	0,9	15	319
7x1,5	RE	12,1	103	0,9	16	385
12x1,5	RE	12,1	176	0,9	21	604
19x1,5	RE	12,1	279	0,9	24	764
3x2,5	RE	7,41	74	0,9	14	287
4x2,5	RE	7,41	98	0,9	15	337
5x2,5	RE	7,41	123	0,9	16	396

NHXH FE 180/E30
VDE 0266

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x1,5	RE	12,1	44	0,9	13	228
4x1,5	RE	12,1	59	0,9	14	273
5x1,5	RE	12,1	74	0,9	15	319
7x1,5	RE	12,1	103	0,9	16	385
12x1,5	RE	12,1	176	0,9	21	604
19x1,5	RE	12,1	279	0,9	24	764
3x2,5	RE	7,41	74	0,9	14	287
4x2,5	RE	7,41	98	0,9	15	337
5x2,5	RE	7,41	123	0,9	16	396
7x2,5	RE	7,41	172	0,9	17	488
12x2,5	RE	7,41	294	0,9	23	775
19x2,5	RE	7,41	466	0,9	26	990
3x4	RE	4,61	118	0,9	15	358
4x4	RE	4,61	157	0,9	16	425
5x4	RE	4,61	196	0,9	18	514
3x6	RE	3,08	176	0,9	16	458
4x6	RE	3,08	235	0,9	18	549
5x6	RE	3,08	294	0,9	19	653
3x10	RE	1,83	294	0,9	18	613
4x10	RE	1,83	392	0,9	19	745
5x10	RE	1,83	490	0,9	21	908
1x16	RE	1,15	157	0,9	11	254
3x16	RE	1,15	470	0,9	20	845
4x16	RE	1,15	627	0,9	22	1 037
5x16	RE	1,15	784	0,9	24	1 288
1x25	RM	0,727	245	0,9	13	391
3x25	RM	0,727	735	0,9	26	1 379
4x25	RM	0,727	980	0,9	28	1 708
5x25	RM	0,727	1 225	0,9	31	2 070
1x35	RMV	0,524	343	0,9	14	481
3x35	RMV	0,524	1 029	0,9	27	1 683
4x35	RMV	0,524	1 372	0,9	30	2 107
5x35	RMV	0,524	1 715	0,9	33	2 564
1x50	RMV	0,387	490	1	16	623
3x50	RMV	0,387	1 470	1	31	2 222
4x50	RMV	0,387	1 960	1	34	2 799
5x50	RMV	0,387	2 450	1	38	3 449
1x70	RMV	0,268	686	1,1	17	838
3x70	RMV	0,268	2 058	1,1	35	3 026
4x70	RMV	0,268	2 744	1,1	39	3 816
5x70	RMV	0,268	3 430	1,1	43	4 671
1x95	RMV	0,193	931	1,1	19	1 117

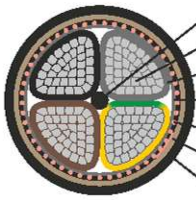
NHXH FE 180/E30
VDE 0266

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x95	RMV	0,193	2 793	1,1	40	4 034
4x95	RMV	0,193	3 724	1,1	44	5 108
5x95	RMV	0,193	4 655	1,1	49	6 287
1x120	RMV	0,153	1 176	1,2	21	1 358
3x120	RMV	0,153	3 528	1,2	43	4 936
4x120	RMV	0,153	4 704	1,2	48	6 284
1x150	RMV	0,124	1 470	1,4	23	1 654
3x150	RMV	0,124	4 410	1,4	48	6 055
4x150	RMV	0,124	5 880	1,4	53	7 700
1x185	RMV	0,099	1 813	1,6	25	2 040
3x185	RMV	0,099	5 439	1,6	54	7 603
4x185	RMV	0,099	7 252	1,6	59	9 654
1x240	RMV	0,075	2 352	1,7	28	2 621
3x240	RMV	0,075	7 056	1,7	60	9 731
4x240	RMV	0,075	9 408	1,7	66	12 379
3x35+16	RMV	0,524	1 186	0,9	30	1 976
3x50+25	RMV	0,387	1 715	1	34	2 646
3x70+35	RMV	0,268	2 401	1,1	39	3 566
3x95+50	RMV	0,193	3 283	1,1	44	4 775
3x120+70	RMV	0,153	4 214	1,2	48	5 894
3x150+70	RMV	0,124	5 096	1,4	53	7 117
3x185+95	RMV	0,099	6 370	1,6	59	9 006
3x240+120	RMV	0,075	8 232	1,7	66	11 491

Power cables 6-30 kV

Cables are normally supplied in lengths of 300 metres, 500 metres and 1000 metres depending on conductor size. Other lengths can be supplied if required. Note: Special constructions other than stated above may be provided on request.

6-AYKCY, YAKY
IEC 60502-2



Application

For fixed installation indoors and outdoors, in the ground and in concrete. The cables are resistant to UV radiation and to flame propagation according to EN 50265-2-1.

Construction

1 Aluminum conductor
2 PVC insulation
3 Semiconducting tape
4 Concentric copper conductor
5 Tape
6 PVC sheath

Parameters

Rated voltage:	3.6/6 kV
Test voltage:	12.5 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 35°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s

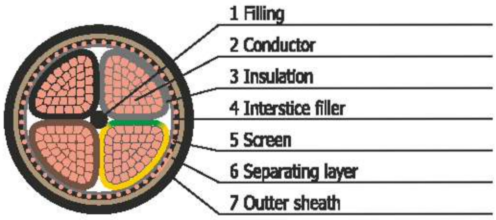
Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km		Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
			Cu	Al			
1x35/16	RMV	0,868	157	105	3,4	21	569
1x50/16	RMV	0,641	157	150	3,4	22	660
1x70/16	RMV	0,443	157	210	3,4	24	747
1x95/16	RMV	0,32	157	285	3,4	26	856
1x120/16	RMV	0,253	157	360	3,4	27	955
1x150/25	RMV	0,206	245	450	3,4	29	1 149
1x185/25	RMV	0,164	245	555	3,4	31	1 296
1x240/25	RMV	0,125	245	720	3,4	35	1 930
1x300/25	RMV	0,1	245	900	3,4	36	1 754
1x400/35	RMV	0,078	343	1 200	3,4	39	2 171
1x500/35	RMV	0,06	343	1 500	3,4	43	2 565
3x35/16	RE	0,868	157	315	3,4	42	2 255
3x50/16	RE	0,641	157	450	3,4	45	2 583

6-AYKCY, YAKY

IEC 60502-2

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km		Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
			Cu	Al			
3x70/16	SE	0,443	157	630	3,4	46	2 500
3x95/16	SM	0,32	157	855	3,4	50	3 014
3x120/16	SM	0,253	157	1 080	3,4	54	3 489
3x150/25	SM	0,206	245	1 350	3,4	57	3 986
3x185/25	SM	0,164	245	1 665	3,4	61	4 590
3x240/25	SM	0,125	245	2 160	3,4	66	5 373
3x95/50	SM	0,32	490	855	3,4	51	3 295
3x120/50	SM	0,253	490	1 080	3,4	55	3 770
3x150/50	SM	0,206	490	1 350	3,4	58	4 192
3x185/50	SM	0,164	490	1 665	3,4	62	4 787
3x240/50	SM	0,125	490	2 160	3,4	67	5 584

6-CYKCY, YKY
IEC 60502-2



Application

For fixed installation indoors and outdoors, in the ground and in concrete. The cables are resistant to UV radiation and to flame propagation according to EN 50265-2-1.

Construction

1 Aluminum conductor
2 PVC insulation
3 Semiconducting tape
4 Concentric copper conductor
5 Tape
6 PVC sheath

Parameters

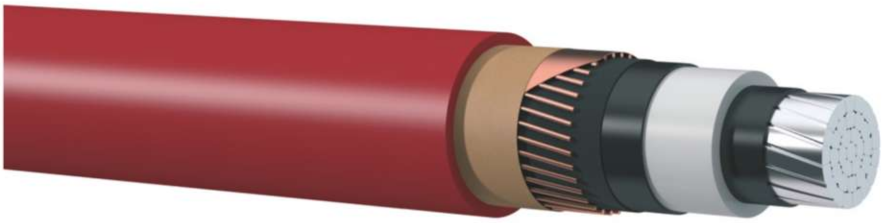
Rated voltage:	3.6/6 kV
Test voltage:	12.5 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 35°C to +70°C
conductor temperature:	max +70°C
short-circuit temperature:	max +160°C/5 s

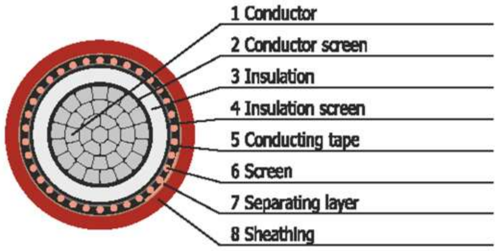
Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
1x35/16	RMV	0,524	500	3,4	21	840
1x50/16	RMV	0,387	647	3,4	22	980
1x70/16	RMV	0,268	843	3,4	25	1 230
1x95/16	RMV	0,193	1 088	3,4	26	1 540
1x120/16	RMV	0,153	1 233	3,4	27	1 681
1x150/25	RMV	0,125	1 715	3,4	30	2 150
1x185/25	RMV	0,099	2 058	3,4	31	2 550
1x240/25	RMV	0,075	2 597	3,4	33	2 991
1x300/25	RMV	0,06	3 185	3,4	36	3 808
1x400/35	RMV	0,047	4 263	3,4	39	4 537
1x500/35	RMV	0,037	5 243	3,4	42	5 596
3x35/16	RMV	0,524	1 186	3,4	41	2 962
3x50/16	SM	0,387	1 627	3,4	43	3 116

6-CYKCY, YKY
IEC 60502-2

Nominal cross-section	Shape of conductor	Max. resistance of core at 20°C Ω/km	Metal content, kg/km	Insulation thickness mm	Outter diameter mm	Cable mass per 1 km (kg)
3x70/16	SM	0,268	2 215	3,4	47	3 848
3x95/16	SM	0,193	2 950	3,4	50	4 753
3x120/16	SM	0,153	3 685	3,4	54	5 680
3x150/25	SM	0,124	4 655	3,4	57	6 703
3x185/25	SM	0,099	5 684	3,4	61	7 973
3x240/25	SM	0,075	7 301	3,4	66	8 920
3x70/50	SM	0,268	2 548	3,4	48	4 152
3x95/50	SM	0,193	3 283	3,4	51	5 034
3x120/50	SM	0,153	4 018	3,4	55	5 961
3x150/50	SM	0,124	4 900	3,4	58	6 902
3x185/50	SM	0,099	5 929	3,4	62	8 170
3x240/50	SM	0,075	7 546	3,4	67	10 031

6/10 (NA2XSY, AXEKCY, YHAKXS)
VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625





Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PVC sheath

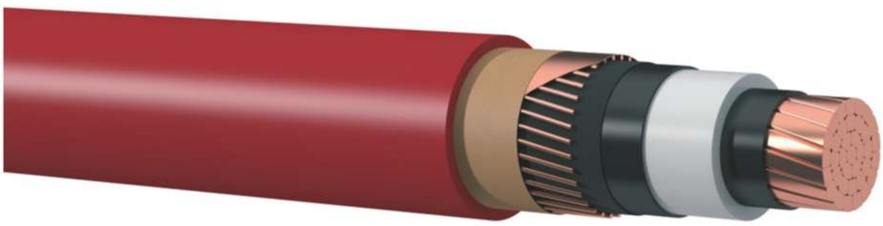
Parameters

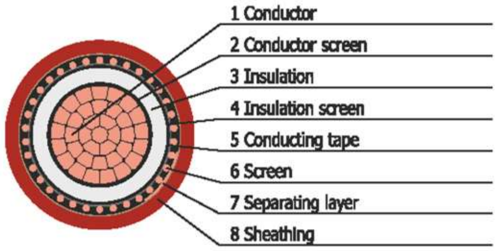
Rated voltage:	6/10 kV
Test voltage:	21 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 50°C to +50°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	3,4	24,13	690
50(16)	7×3,24	0,641	162	132	3,4	25,43	765
70(16)	18×2,39	0,443	162	185	3,4	27,13	865
95(25)	18×2,78	0,32	244	251	3,4	28,63	1054
120(25)	18×3,12	0,253	244	318	3,4	29,93	1155
150(25)	36×2,41	0,206	244	397	3,4	31,63	1281
185(50)	36×2,68	0,164	468	490	3,4	33,73	1647
240(50)	36×3,05	0,125	468	635	3,4	36,13	1858
300(50)	36×3,41	0,1	468	794	3,4	38,13	2072
400(50)	57×3,15	0,0778	468	1058	3,4	41,03	2416
500(50)	57×3,50	0,0605	468	1323	3,4	43,73	2754

6/10 (N2XSY, CXEKCY, YHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625





Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PVC sheath

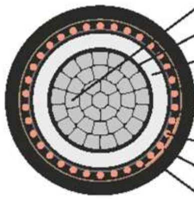
Parameters

Rated voltage:	6/10 kV
Test voltage:	21 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 50°C to +50°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	3,4	24,13	902
50(16)	7×3,24	0,387	598	-	3,4	25,43	1068
70(16)	18×2,39	0,268	772	-	3,4	27,13	1289
95(25)	18×2,78	0,193	1072	-	3,4	28,63	1630
120(25)	18×3,12	0,153	1289	-	3,4	29,93	1883
150(25)	36×2,41	0,124	1551	-	3,4	31,63	2191
185(50)	36×2,68	0,0991	2080	-	3,4	33,73	2769
240(50)	36×3,05	0,0754	2559	-	3,4	36,13	3314
300(50)	36×3,41	0,0601	3082	-	3,4	38,13	3892
400(50)	57×3,15	0,047	3953	-	3,4	41,03	4842
500(50)	57×3,50	0,0366	4824	-	3,4	43,73	5787

6/10 (NA2XS2Y, AXEKCE, XHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

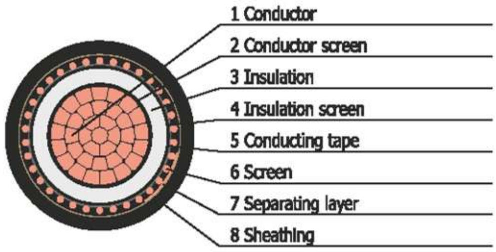
Parameters

Rated voltage:	6/10 kV
Test voltage:	21 kV
Temperature range:	
laying temperature:	min -20°C
operating temperature:	- 50°C to +50°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	3,4	23,91	606
50(16)	7×3,24	0,641	162	132	3,4	25,21	676
70(16)	18×2,39	0,443	162	185	3,4	26,91	769
95(25)	18×2,78	0,32	244	251	3,4	28,41	953
120(25)	18×3,12	0,253	244	318	3,4	29,71	1050
150(25)	36×2,41	0,206	244	397	3,4	31,41	1169
185(50)	36×2,68	0,164	468	490	3,4	33,51	1527
240(50)	36×3,05	0,125	468	635	3,4	35,91	1729
300(50)	36×3,41	0,1	468	794	3,4	37,91	1935
400(50)	57×3,15	0,0778	468	1058	3,4	40,81	2268
500(50)	57×3,50	0,0605	468	1323	3,4	43,51	2596

6/10 (N2XS2Y, CXEKCE, XHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

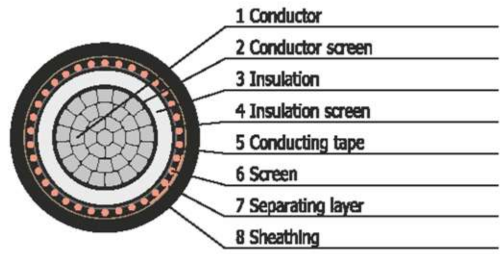
Parameters

Rated voltage:	6/10 kV
Test voltage:	21 kV
Temperature range:	
laying temperature:	min -20°C
operating temperature:	- 50°C to +50°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	3,4	23,91	818
50(16)	7×3,24	0,387	598	-	3,4	25,21	980
70(16)	18×2,39	0,268	772	-	3,4	26,91	1194
95(25)	18×2,78	0,193	1072	-	3,4	28,41	1529
120(25)	18×3,12	0,153	1289	-	3,4	29,71	1778
150(25)	36×2,41	0,124	1551	-	3,4	31,41	2079
185(50)	36×2,68	0,0991	2080	-	3,4	33,51	2649
240(50)	36×3,05	0,0754	2559	-	3,4	35,91	3185
300(50)	36×3,41	0,0601	3082	-	3,4	37,91	3755
400(50)	57×3,15	0,047	3953	-	3,4	40,81	4694
500(50)	57×3,50	0,0366	4824	-	3,4	43,51	5629

6/10 (NA2XS(F)2Y, AXEKVCE, XUHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

For fixed installation for high requirements in interior premises, in the ground subject to external effects of moisture, in the open air and in cable ducts for industrial and distribution mains - as permitted by the local building regulations - under severe mechanical stressing during installation and operation.

Construction

1 Aluminium conductor; round stranded compacted (RMV)
2 Inner semi-conductive layer (conductive XLPE)
3 Core insulation (XLPE)
4 Outer semi-conductive layer (conductive XLPE), taped with a conductive tape
5 Screen (bare copper wires) and counter helix (copper tape)
6 Swelling tape under and over screen
7 Sheath (HDPE black, UV-resistant)

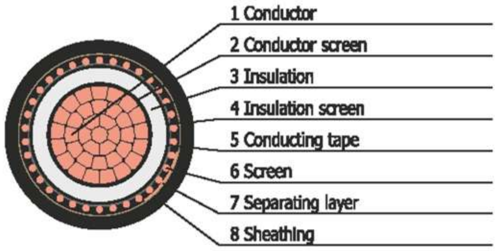
Parameters

Rated voltage:	6/10 kV
Test voltage:	21 kV
Temperature range: laying temperature: min -20°C operating temperature: - 60°C to +50°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	3,4	24,08	605
50(16)	7×3,24	0,641	162	132	3,4	25,38	675
70(16)	18×2,39	0,443	162	185	3,4	27,08	768
95(25)	18×2,78	0,32	244	251	3,4	28,58	951
120(25)	18×3,12	0,253	244	318	3,4	29,88	1047
150(25)	36×2,41	0,206	244	397	3,4	31,58	1166
185(50)	36×2,68	0,164	468	490	3,4	33,68	1524
240(50)	36×3,05	0,125	468	635	3,4	36,08	1726
300(50)	36×3,41	0,1	468	794	3,4	38,08	1931
400(50)	57×3,15	0,0778	468	1058	3,4	40,98	2264
500(50)	57×3,50	0,0605	468	1323	3,4	43,68	2592

6/10 (N2XS(F)2Y, CXEKVCE, XUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

For fixed installation for high requirements in interior premises, in the ground subject to external effects of moisture, in the open air and in cable ducts for industrial and distribution mains - as permitted by the local building regulations - under severe mechanical stressing during installation and operation.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Inner semi-conductive layer (conductive XLPE)
3 Core insulation (XLPE)
4 Outer semi-conductive layer (conductive XLPE), taped with a conductive tape
5 Screen (bare copper wires) and counter helix (copper tape)
6 Swelling tape under and over screen
7 Sheath (HDPE black, UV-resistant)

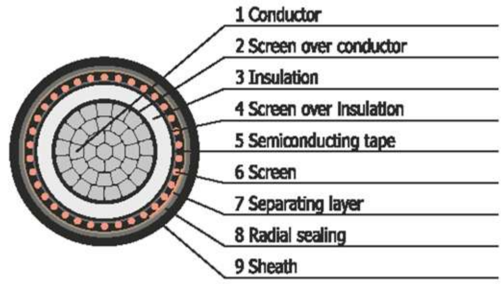
Parameters

Rated voltage:	6/10 kV
Test voltage:	21 kV
Temperature range: laying temperature: min -20°C operating temperature: - 60°C to +50°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	3,4	24,08	817
50(16)	7×3,24	0,387	598	-	3,4	25,38	978
70(16)	18×2,39	0,268	772	-	3,4	27,08	1192
95(25)	18×2,78	0,193	1072	-	3,4	28,58	1527
120(25)	18×3,12	0,153	1289	-	3,4	29,88	1775
150(25)	36×2,41	0,124	1551	-	3,4	31,58	2076
185(50)	36×2,68	0,0991	2080	-	3,4	33,68	2646
240(50)	36×3,05	0,0754	2559	-	3,4	36,08	3181
300(50)	36×3,41	0,0601	3082	-	3,4	38,08	3751
400(50)	57×3,15	0,047	3953	-	3,4	40,98	4690
500(50)	57×3,50	0,0366	4824	-	3,4	43,68	5625

6/10 (NA2XS(FL)2Y, AXEKVCVE, XRUHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Aluminium conductor; round stranded compacted (RMV) with water-blocking system
2 Inner semi-conductive layer
3 Core insulation (XLPE)
4 Outer semi-conductive layer
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Water-blocking tape
8 Welded aluminum foil
9 PE sheath

Parameters

Rated voltage: 6/10 kV

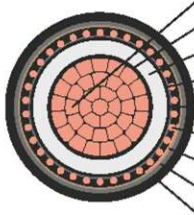
Test voltage: 21 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 60°C to +50°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	3,4	24,4	630
50(16)	7×3,24	0,641	162	132	3,4	25,7	702
70(16)	18×2,39	0,443	162	185	3,4	27,4	797
95(25)	18×2,78	0,32	244	251	3,4	28,9	982
120(25)	18×3,12	0,253	244	318	3,4	30,2	1080
150(25)	36×2,41	0,206	244	397	3,4	31,9	1201
185(50)	36×2,68	0,164	468	490	3,4	34	1561
240(50)	36×3,05	0,125	468	635	3,4	36,4	1763
300(50)	36×3,41	0,1	468	794	3,4	38,4	1971
400(50)	57×3,15	0,0778	468	1058	3,4	41,3	2307
500(50)	57×3,50	0,0605	468	1323	3,4	44	2639

6/10 (N2XS(FL)2Y, CXEKVCVE, XRUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Copper conductor; round stranded compacted (RMV) with water-blocking system
2 Inner semi-conductive layer
3 Core insulation (XLPE)
4 Outer semi-conductive layer
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Water-blocking tape
8 Welded aluminum foil
9 PE sheath

Parameters

Rated voltage: 6/10 kV

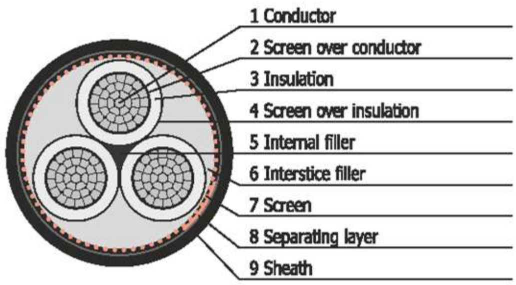
Test voltage: 21 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 60°C to +50°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	3,4	24,4	843
50(16)	7×3,24	0,387	598	-	3,4	25,7	1005
70(16)	18×2,39	0,268	772	-	3,4	27,4	1222
95(25)	18×2,78	0,193	1072	-	3,4	28,9	1558
120(25)	18×3,12	0,153	1289	-	3,4	30,2	1808
150(25)	36×2,41	0,124	1551	-	3,4	31,9	2111
185(50)	36×2,68	0,0991	2080	-	3,4	34	2683
240(50)	36×3,05	0,0754	2559	-	3,4	36,4	3219
300(50)	36×3,41	0,0601	3082	-	3,4	38,4	3791
400(50)	57×3,15	0,047	3953	-	3,4	41,3	4734
500(50)	57×3,50	0,0366	4824	-	3,4	44	5672

6/10 (NA2XS2Y, AXEKCE, XHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

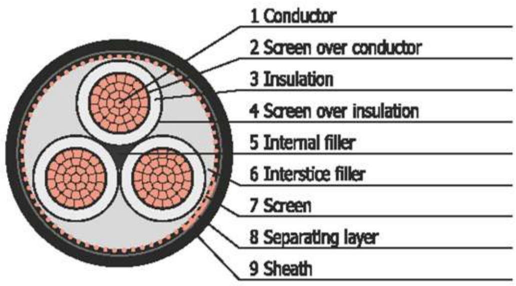
Parameters

Rated voltage:	6/10 kV
Test voltage:	21 kV
Temperature range:	
laying temperature:	min -20°C
operating temperature:	- 60°C to +50°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	195	280	3,4	46,8	2476
50(16)	7×3,26	0,641	195	400	3,4	49,6	2803
70(16)	18×2,40	0,443	195	560	3,4	53,3	3243
95(16)	18×2,78	0,32	195	759	3,4	57,3	3817
120(16)	18×3,13	0,253	195	959	3,4	59,9	4207
150(25)	36×2,40	0,206	278	1199	3,4	64	4900
185(25)	36×2,68	0,164	278	1479	3,4	67,5	5497
240(25)	36×3,05	0,125	278	1918	3,4	73	6483
300(25)	36×3,41	0,1	278	2447	3,4	77,7	7502

6/10 (N2XS2Y, CXEKCE, XHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

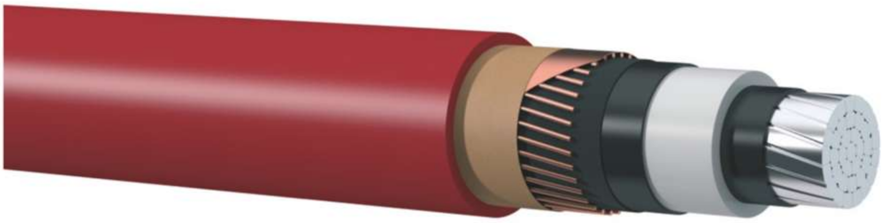
Parameters

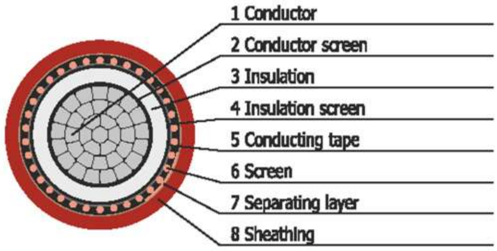
Rated voltage:	6/10 kV
Test voltage:	21 kV
Temperature range:	
laying temperature:	min -20°C
operating temperature:	- 60°C to +50°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	1116	-	3,4	46,8	3117
50(16)	7×3,26	0,387	1511	-	3,4	49,6	3719
70(16)	18×2,40	0,268	2037	-	3,4	53,3	4526
95(16)	18×2,78	0,193	2642	-	3,4	57,3	5505
120(16)	18×3,13	0,153	3353	-	3,4	59,9	6406
150(25)	36×2,40	0,124	4226	-	3,4	64	7649
185(25)	36×2,68	0,0991	5147	-	3,4	67,5	8887
240(25)	36×3,05	0,0754	6595	-	3,4	73	10882
300(25)	36×3,41	0,0601	8335	-	3,4	77,7	13112

8,7/15 (YHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625





Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV), class 2
2 Conductor screen: semi-conducting PE
3 XLPE insulation
4 Insulation screen: semi-conducting PE
5 Semiconducting non-metallic tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting polyester tape
8 PVC sheath

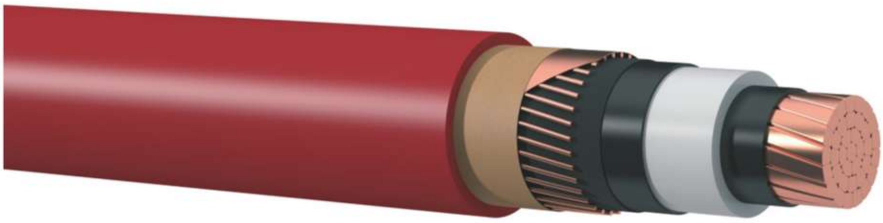
Parameters

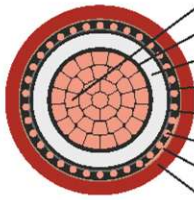
Rated voltage:	8.7/15 kV
Test voltage:	30,5 kV
Temperature range: laying temperature: min -5°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x outer cable diameter

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	4,5	26,3	751
50(16)	7×3,24	0,641	162	132	4,5	27,6	834
70(16)	18×2,39	0,443	162	185	4,5	29,3	942
95(25)	18×2,78	0,32	244	251	4,5	30,8	1148
120(25)	18×3,12	0,253	244	318	4,5	32,1	1261
150(25)	36×2,41	0,206	244	397	4,5	33,8	1398
185(50)	36×2,68	0,164	468	490	4,5	35,9	1796
240(50)	36×3,05	0,125	468	635	4,5	38,4	2027
300(50)	36×3,41	0,1	468	794	4,5	40,4	2262
400(50)	57×3,15	0,0778	468	1058	4,5	43,3	2638
500(50)	57×3,50	0,0605	468	1323	4,5	46,4	3040

8,7/15 (YHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625





Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV), class 2
2 Conductor screen: semi-conducting PE
3 XLPE insulation
4 Insulation screen: semi-conducting PE
5 Semiconducting non-metallic tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting polyester tape
8 PVC sheath

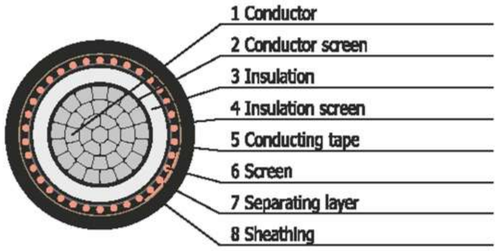
Parameters

Rated voltage:	8.7/15 kV
Test voltage:	30,5 kV
Temperature range: laying temperature: min -5°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x outer cable diameter

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	4,5	26,3	940
50(16)	7×3,24	0,387	598	-	4,5	27,6	1114
70(16)	18×2,39	0,268	772	-	4,5	29,3	1345
95(25)	18×2,78	0,193	1072	-	4,5	30,8	1702
120(25)	18×3,12	0,153	1289	-	4,5	32,1	1968
150(25)	36×2,41	0,124	1551	-	4,5	33,8	2290
185(50)	36×2,68	0,0991	2080	-	4,5	35,9	2894
240(50)	36×3,05	0,0754	2559	-	4,5	38,4	3464
300(50)	36×3,41	0,0601	3082	-	4,5	40,4	4070
400(50)	57×3,15	0,047	3953	-	4,5	43,3	5066
500(50)	57×3,50	0,0366	4824	-	4,5	46,4	6088

8,7/15 (XHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

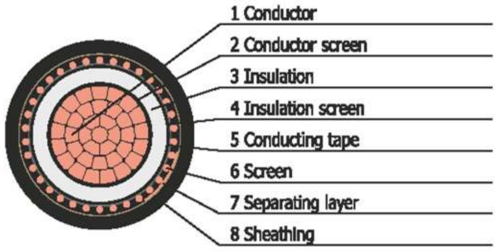
Parameters

Rated voltage:	8.7/15 kV
Test voltage:	30,5 kV
Temperature range:	
laying temperature:	min -20°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	4,5	26,1	683
50(16)	7×3,24	0,641	162	132	4,5	27,4	758
70(16)	18×2,39	0,443	162	185	4,5	29,1	856
95(25)	18×2,78	0,32	244	251	4,5	30,6	1044
120(25)	18×3,12	0,253	244	318	4,5	31,9	1146
150(25)	36×2,41	0,206	244	397	4,5	33,6	1271
185(50)	36×2,68	0,164	468	490	4,5	35,7	1633
240(50)	36×3,05	0,125	468	635	4,5	38,1	1843
300(50)	36×3,41	0,1	468	794	4,5	40,1	2056
400(50)	57×3,15	0,0778	468	1058	4,5	43	2398
500(50)	57×3,50	0,0605	468	1323	4,5	46,1	2764

8,7/15 (XHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

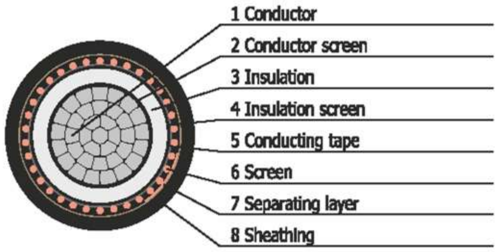
Parameters

Rated voltage:	8.7/15 kV
Test voltage:	30,5 kV
Temperature range:	
laying temperature:	min -20°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	4,5	26,1	895
50(16)	7×3,24	0,387	598	-	4,5	27,4	1061
70(16)	18×2,39	0,268	772	-	4,5	29,1	1281
95(25)	18×2,78	0,193	1072	-	4,5	30,6	1621
120(25)	18×3,12	0,153	1289	-	4,5	31,9	1874
150(25)	36×2,41	0,124	1551	-	4,5	33,6	2181
185(50)	36×2,68	0,0991	2080	-	4,5	35,7	2756
240(50)	36×3,05	0,0754	2559	-	4,5	38,1	3299
300(50)	36×3,41	0,0601	3082	-	4,5	40,1	3876
400(50)	57×3,15	0,047	3953	-	4,5	43	4825
500(50)	57×3,50	0,0366	4824	-	4,5	46,1	5798

8,7/15 (XUHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

For fixed installation for high requirements in interior premises, in the ground subject to external effects of moisture, in the open air and in cable ducts for industrial and distribution mains - as permitted by the local building regulations - under severe mechanical stressing during installation and operation.

Construction

1 Aluminium conductor; round stranded compacted (RMV), class 2
2 Inner semi-conductive layer (conductive XLPE)
3 Core insulation (XLPE)
4 Outer semi-conductive layer (semi-conductive XLPE), taped with a water-blocking tape
5 Screen (bare copper wires) and counter helix (copper tape)
6 Semi-conducting water-blocking tape
7 Sheath: thermoplastic PE

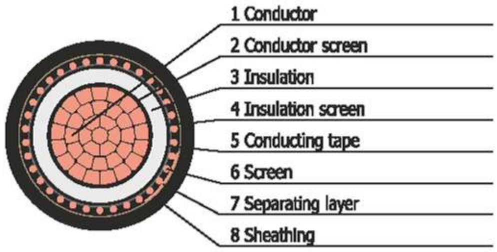
Parameters

Rated voltage:	8.7/15 kV
Test voltage:	30,5 kV
Temperature range: laying temperature: min -20°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	4,5	26,3	681
50(16)	7×3,24	0,641	162	132	4,5	27,6	756
70(16)	18×2,39	0,443	162	185	4,5	29,3	854
95(25)	18×2,78	0,32	244	251	4,5	30,8	1042
120(25)	18×3,12	0,253	244	318	4,5	32,1	1143
150(25)	36×2,41	0,206	244	397	4,5	33,8	1268
185(50)	36×2,68	0,164	468	490	4,5	35,9	1630
240(50)	36×3,05	0,125	468	635	4,5	38,3	1840
300(50)	36×3,41	0,1	468	794	4,5	40,3	2052
400(50)	57×3,15	0,0778	468	1058	4,5	43,2	2394
500(50)	57×3,50	0,0605	468	1323	4,5	46,3	2760

8,7/15 (XUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

For fixed installation for high requirements in interior premises, in the ground subject to external effects of moisture, in the open air and in cable ducts for industrial and distribution mains - as permitted by the local building regulations - under severe mechanical stressing during installation and operation.

Construction

1 Copper conductor; round stranded compacted (RMV), class 2
2 Inner semi-conductive layer (conductive XLPE)
3 Core insulation (XLPE)
4 Outer semi-conductive layer (semi-conductive XLPE), taped with a water-blocking e tape
5 Screen (bare copper wires) and counter helix (copper tape)
6 Semi-conducting water-blocking tape
7 Sheath: thermoplastic PE

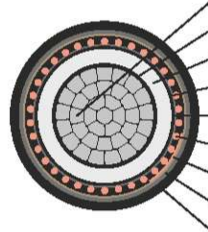
Parameters

Rated voltage:	8.7/15 kV
Test voltage:	30,5 kV
Temperature range: laying temperature: min -20°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	4,5	26,3	893
50(16)	7×3,24	0,387	598	-	4,5	27,6	1059
70(16)	18×2,39	0,268	772	-	4,5	29,3	1279
95(25)	18×2,78	0,193	1072	-	4,5	30,8	1618
120(25)	18×3,12	0,153	1289	-	4,5	32,1	1871
150(25)	36×2,41	0,124	1551	-	4,5	33,8	2178
185(50)	36×2,68	0,0991	2080	-	4,5	35,9	2752
240(50)	36×3,05	0,0754	2559	-	4,5	38,3	3296
300(50)	36×3,41	0,0601	3082	-	4,5	40,3	3872
400(50)	57×3,15	0,047	3953	-	4,5	43,2	4821
500(50)	57×3,50	0,0366	4824	-	4,5	46,3	5793

8,7/15 (XRUHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Aluminium conductor; round stranded compacted (RMV), class 2
2 Inner semi-conductive layer: semi-conductive PE
3 Core insulation (XLPE)
4 Outer semi-conductive layer: semi-conductive PE
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Semi-conducting water-blocking tape
8 Longitudinal welded aluminum foil with PE copolymer
9 Thermoplastic PE sheath

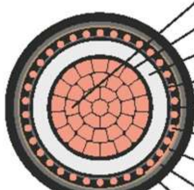
Parameters

Rated voltage:	8.7/15 kV
Test voltage:	30,5 kV
Temperature range: laying temperature: min -20°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	4,5	26,6	709
50(16)	7×3,24	0,641	162	132	4,5	27,9	785
70(16)	18×2,39	0,443	162	185	4,5	29,6	886
95(25)	18×2,78	0,32	244	251	4,5	31,1	1076
120(25)	18×3,12	0,253	244	318	4,5	32,4	1178
150(25)	36×2,41	0,206	244	397	4,5	34,1	1305
185(50)	36×2,68	0,164	468	490	4,5	36,2	1670
240(50)	36×3,05	0,125	468	635	4,5	38,6	1880
300(50)	36×3,41	0,1	468	794	4,5	40,6	2095
400(50)	57×3,15	0,0778	468	1058	4,5	43,5	2441
500(50)	57×3,50	0,0605	468	1323	4,5	46,6	2810

8,7/15 (XRUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Copper conductor; round stranded compacted (RMV), class 2
2 Inner semi-conductive layer: semi-conductive PE
3 Core insulation (XLPE)
4 Outer semi-conductive layer: semi-conductive PE
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Semi-conducting water-blocking tape
8 Longitudinal welded aluminum foil with PE copolymer
9 Thermoplastic PE sheath

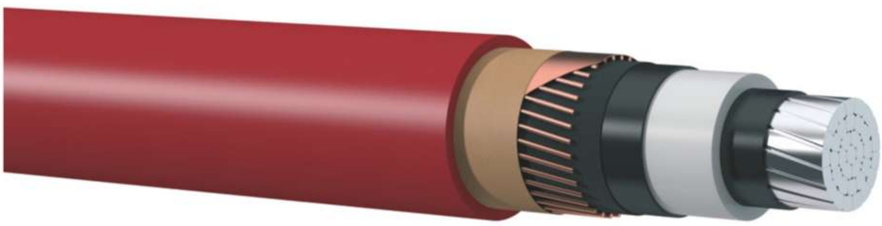
Parameters

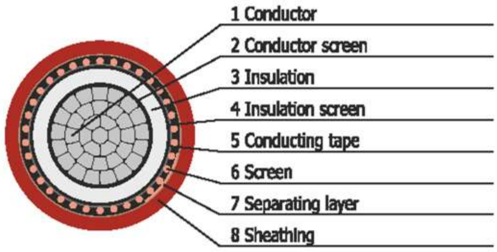
Rated voltage:	8.7/15 kV
Test voltage:	30,5 kV
Temperature range: laying temperature: min -20°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	4,5	26,6	922
50(16)	7×3,24	0,387	598	-	4,5	27,9	1089
70(16)	18×2,39	0,268	772	-	4,5	29,6	1311
95(25)	18×2,78	0,193	1072	-	4,5	31,1	1652
120(25)	18×3,12	0,153	1289	-	4,5	32,4	1906
150(25)	36×2,41	0,124	1551	-	4,5	34,1	2215
185(50)	36×2,68	0,0991	2080	-	4,5	36,2	2792
240(50)	36×3,05	0,0754	2559	-	4,5	38,6	3336
300(50)	36×3,41	0,0601	3082	-	4,5	40,6	3915
400(50)	57×3,15	0,047	3953	-	4,5	43,5	4867
500(50)	57×3,50	0,0366	4824	-	4,5	46,6	5843

12/20 (NA2XSY, AXEKCY, YHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625





Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PVC sheath

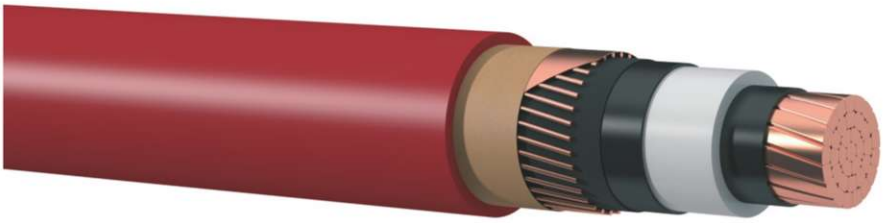
Parameters

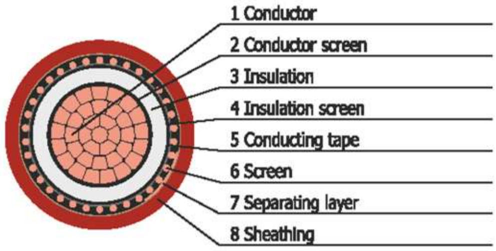
Rated voltage:	12/20 kV
Test voltage:	42 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 15°C to +80°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	5,5	28,33	859
50(16)	7×3,24	0,641	162	132	5,5	29,63	942
70(16)	18×2,39	0,443	162	185	5,5	31,33	1052
95(25)	18×2,78	0,32	244	251	5,5	32,83	1251
120(25)	18×3,12	0,253	244	318	5,5	34,13	1361
150(25)	36×2,41	0,206	244	397	5,5	35,83	1498
185(50)	36×2,68	0,164	468	490	5,5	37,93	1873
240(50)	36×3,05	0,125	468	635	5,5	40,33	2099
300(50)	36×3,41	0,1	468	794	5,5	42,33	2325
400(50)	57×3,15	0,0778	468	1058	5,5	45,63	2729
500(50)	57×3,50	0,0605	468	1323	5,5	48,33	3088

12/20 (N2XSY, CXEKCY, YHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625





Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PVC sheath

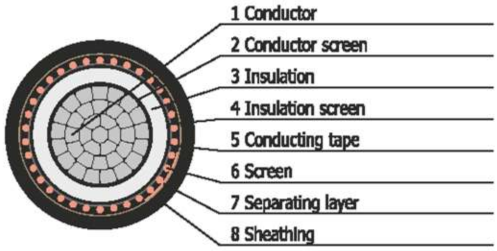
Parameters

Rated voltage:	12/20 kV
Test voltage:	42 kV
Temperature range:	
laying temperature:	min -5°C
operating temperature:	- 15°C to +80°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	5,5	28,33	1071
50(16)	7×3,24	0,387	598	-	5,5	29,63	1245
70(16)	18×2,39	0,268	772	-	5,5	31,33	1477
95(25)	18×2,78	0,193	1072	-	5,5	32,83	1827
120(25)	18×3,12	0,153	1289	-	5,5	34,13	2089
150(25)	36×2,41	0,124	1551	-	5,5	35,83	2408
185(50)	36×2,68	0,0991	2080	-	5,5	37,93	2995
240(50)	36×3,05	0,0754	2559	-	5,5	40,33	3555
300(50)	36×3,41	0,0601	3082	-	5,5	42,33	4145
400(50)	57×3,15	0,047	3953	-	5,5	45,63	5156
500(50)	57×3,50	0,0366	4824	-	5,5	48,33	6121

12/20 (NA2XS2Y, AXEKCE, XHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

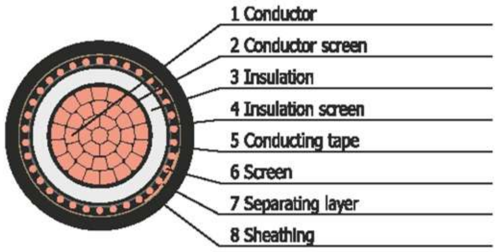
Parameters

Rated voltage:	12/20 kV
Test voltage:	42 kV
Temperature range:	
laying temperature:	min -20°C
operating temperature:	- 25°C to +80°C
conductor temperature:	max +90°C
short-circuit temperature:	max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	5,5	28,11	759
50(16)	7×3,24	0,641	162	132	5,5	29,41	838
70(16)	18×2,39	0,443	162	185	5,5	31,11	941
95(25)	18×2,78	0,32	244	251	5,5	32,61	1134
120(25)	18×3,12	0,253	244	318	5,5	33,91	1239
150(25)	36×2,41	0,206	244	397	5,5	35,61	1369
185(50)	36×2,68	0,164	468	490	5,5	37,71	1737
240(50)	36×3,05	0,125	468	635	5,5	40,11	1954
300(50)	36×3,41	0,1	468	794	5,5	42,11	2172
400(50)	57×3,15	0,0778	468	1058	5,5	45,41	2552
500(50)	57×3,50	0,0605	468	1323	5,5	48,11	2899

12/20 (N2XS2Y, CXEKCE, XHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

Parameters

Rated voltage: 12/20 kV

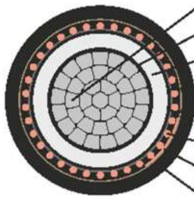
Test voltage: 42 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 25°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	5,5	28,11	971
50(16)	7×3,24	0,387	598	-	5,5	29,41	1141
70(16)	18×2,39	0,268	772	-	5,5	31,11	1366
95(25)	18×2,78	0,193	1072	-	5,5	32,61	1710
120(25)	18×3,12	0,153	1289	-	5,5	33,91	1967
150(25)	36×2,41	0,124	1551	-	5,5	35,61	2279
185(50)	36×2,68	0,0991	2080	-	5,5	37,71	2859
240(50)	36×3,05	0,0754	2559	-	5,5	40,11	3410
300(50)	36×3,41	0,0601	3082	-	5,5	42,11	3992
400(50)	57×3,15	0,047	3953	-	5,5	45,41	4979
500(50)	57×3,50	0,0366	4824	-	5,5	48,11	5932

12/20 (NA2XS(F)2Y, AXEKVCE, XUHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

For fixed installation for high requirements in interior premises, in the ground subject to external effects of moisture, in the open air and in cable ducts for industrial and distribution mains - as permitted by the local building regulations - under severe mechanical stressing during installation and operation.

Construction

1 Aluminium conductor; round stranded compacted (RMV)
2 Inner semi-conductive layer (conductive XLPE)
3 Core insulation (XLPE)
4 Outer semi-conductive layer (conductive XLPE), taped with a conductive tape
5 Screen (bare copper wires) and counter helix (copper tape)
6 Swelling tape under and over screen
7 Sheath (HDPE black, UV-resistant)

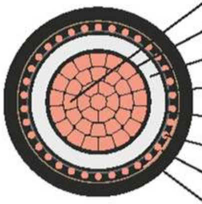
Parameters

Rated voltage:	12/20 kV
Test voltage:	42 kV
Temperature range: laying temperature: min -20°C operating temperature: - 20°C to +80°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	5,5	28,28	757
50(16)	7×3,24	0,641	162	132	5,5	29,58	835
70(16)	18×2,39	0,443	162	185	5,5	31,28	939
95(25)	18×2,78	0,32	244	251	5,5	32,78	1131
120(25)	18×3,12	0,253	244	318	5,5	34,08	1236
150(25)	36×2,41	0,206	244	397	5,5	35,78	1366
185(50)	36×2,68	0,164	468	490	5,5	37,88	1733
240(50)	36×3,05	0,125	468	635	5,5	40,28	1950
300(50)	36×3,41	0,1	468	794	5,5	42,28	2168
400(50)	57×3,15	0,0778	468	1058	5,5	45,58	2548
500(50)	57×3,50	0,0605	468	1323	5,5	48,28	2894

12/20 (N2XS(F)2Y, CXEKVCE, XUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

For fixed installation for high requirements in interior premises, in the ground subject to external effects of moisture, in the open air and in cable ducts for industrial and distribution mains - as permitted by the local building regulations - under severe mechanical stressing during installation and operation.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Inner semi-conductive layer (conductive XLPE)
3 Core insulation (XLPE)
4 Outer semi-conductive layer (conductive XLPE), taped with a conductive tape
5 Screen (bare copper wires) and counter helix (copper tape)
6 Swelling tape under and over screen
7 Sheath (HDPE black, UV-resistant)

Parameters

Rated voltage: 12/20 kV

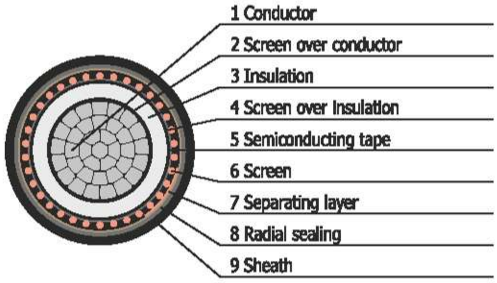
Test voltage: 42 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 20°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Bending radius (min): 15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	5,5	28,28	969
50(16)	7×3,24	0,387	598	-	5,5	29,58	1139
70(16)	18×2,39	0,268	772	-	5,5	31,28	1363
95(25)	18×2,78	0,193	1072	-	5,5	32,78	1708
120(25)	18×3,12	0,153	1289	-	5,5	34,08	1964
150(25)	36×2,41	0,124	1551	-	5,5	35,78	2276
185(50)	36×2,68	0,0991	2080	-	5,5	37,88	2855
240(50)	36×3,05	0,0754	2559	-	5,5	40,28	3406
300(50)	36×3,41	0,0601	3082	-	5,5	42,28	3988
400(50)	57×3,15	0,047	3953	-	5,5	45,58	4974
500(50)	57×3,50	0,0366	4824	-	5,5	48,28	5927

12/20 (NA2XS(FL)2Y, AXEKVCVE, XRUHAKXS)
VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Aluminium conductor; round stranded compacted (RMV) with water-blocking system
2 Inner semi-conductive layer
3 Core insulation (XLPE)
4 Outer semi-conductive layer
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Water-blocking tape
8 Welded aluminum foil
9 PE sheath

Parameters

Rated voltage: 12/20 kV

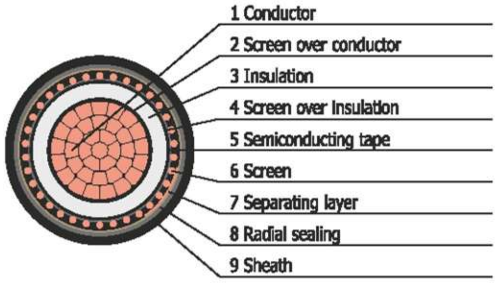
Test voltage: 42 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 25°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	5,5	28,6	788
50(16)	7×3,24	0,641	162	132	5,5	29,9	868
70(16)	18×2,39	0,443	162	185	5,5	31,6	973
95(25)	18×2,78	0,32	244	251	5,5	33,1	1168
120(25)	18×3,12	0,253	244	318	5,5	34,4	1274
150(25)	36×2,41	0,206	244	397	5,5	36,1	1406
185(50)	36×2,68	0,164	468	490	5,5	38,2	1775
240(50)	36×3,05	0,125	468	635	5,5	40,6	1993
300(50)	36×3,41	0,1	468	794	5,5	42,6	2214
400(50)	57×3,15	0,0778	468	1058	5,5	45,9	2597
500(50)	57×3,50	0,0605	468	1323	5,5	48,6	2946

12/20 (N2XS(FL)2Y, CXEKVCVE, XRUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Copper conductor; round stranded compacted (RMV) with water-blocking system
2 Inner semi-conductive layer
3 Core insulation (XLPE)
4 Outer semi-conductive layer
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Water-blocking tape
8 Welded aluminum foil
9 PE sheath

Parameters

Rated voltage: 12/20 kV

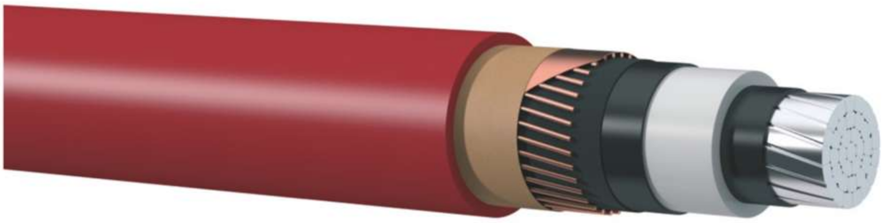
Test voltage: 42 kV

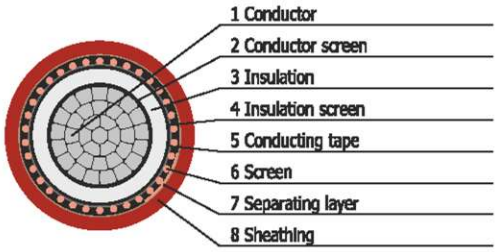
Temperature range:
laying temperature: min -20°C
operating temperature: - 25°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	5,5	28,6	1000
50(16)	7×3,24	0,387	598	-	5,5	29,9	1171
70(16)	18×2,39	0,268	772	-	5,5	31,6	1398
95(25)	18×2,78	0,193	1072	-	5,5	33,1	1744
120(25)	18×3,12	0,153	1289	-	5,5	34,4	2002
150(25)	36×2,41	0,124	1551	-	5,5	36,1	2316
185(50)	36×2,68	0,0991	2080	-	5,5	38,2	2898
240(50)	36×3,05	0,0754	2559	-	5,5	40,6	3449
300(50)	36×3,41	0,0601	3082	-	5,5	42,6	4033
400(50)	57×3,15	0,047	3953	-	5,5	45,9	5023
500(50)	57×3,50	0,0366	4824	-	5,5	48,6	5980

18/30 (NA2XSY, AXEKCY, YHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625





Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PVC sheath

Parameters

Rated voltage: 18/30 kV

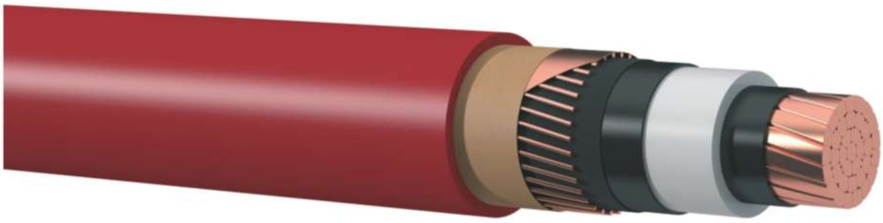
Test voltage: 63 kV

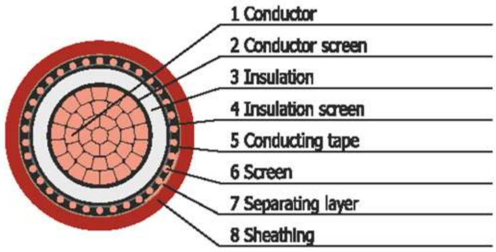
Temperature range:
laying temperature: min -5°C
operating temperature: - 15°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	8,5	34,33	1146
50(16)	7×3,24	0,641	162	132	8,5	35,63	1241
70(16)	18×2,39	0,443	162	185	8,5	37,33	1367
95(25)	18×2,78	0,32	244	251	8,5	38,83	1579
120(25)	18×3,12	0,253	244	318	8,5	40,13	1701
150(25)	36×2,41	0,206	244	397	8,5	41,83	1853
185(50)	36×2,68	0,164	468	490	8,5	43,93	2242
240(50)	36×3,05	0,125	468	635	8,5	46,73	2532
300(50)	36×3,41	0,1	468	794	8,5	48,73	2779
400(50)	57×3,15	0,0778	468	1058	8,5	51,63	3170
500(50)	57×3,50	0,0605	468	1323	8,5	54,33	3552

18/30 (N2XSY, CXEKCY, YHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625





Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PVC sheath

Parameters

Rated voltage: 18/30 kV

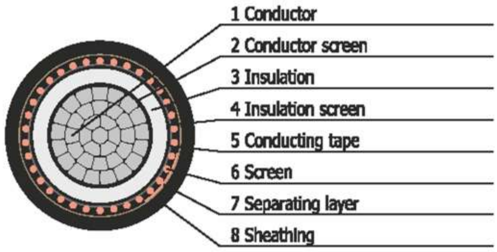
Test voltage: 63 kV

Temperature range:
laying temperature: min -5°C
operating temperature: - 15°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	8,5	34,33	1358
50(16)	7×3,24	0,387	598	-	8,5	35,63	1545
70(16)	18×2,39	0,268	772	-	8,5	37,33	1792
95(25)	18×2,78	0,193	1072	-	8,5	38,83	2155
120(25)	18×3,12	0,153	1289	-	8,5	40,13	2429
150(25)	36×2,41	0,124	1551	-	8,5	41,83	2763
185(50)	36×2,68	0,0991	2080	-	8,5	43,93	3364
240(50)	36×3,05	0,0754	2559	-	8,5	46,73	3988
300(50)	36×3,41	0,0601	3082	-	8,5	48,73	4598
400(50)	57×3,15	0,047	3953	-	8,5	51,63	5596
500(50)	57×3,50	0,0366	4824	-	8,5	54,33	6585

18/30 (NA2XS2Y, AXEKCE, XHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Aluminum conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

Parameters

Rated voltage: 18/30 kV

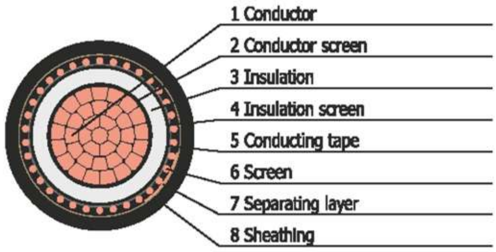
Test voltage: 63 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 25°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	8,5	34,11	1024
50(16)	7×3,24	0,641	162	132	8,5	35,41	1114
70(16)	18×2,39	0,443	162	185	8,5	37,11	1233
95(25)	18×2,78	0,32	244	251	8,5	38,61	1439
120(25)	18×3,12	0,253	244	318	8,5	39,91	1556
150(25)	36×2,41	0,206	244	397	8,5	41,61	1702
185(50)	36×2,68	0,164	468	490	8,5	43,71	2083
240(50)	36×3,05	0,125	468	635	8,5	46,51	2351
300(50)	36×3,41	0,1	468	794	8,5	48,51	2589
400(50)	57×3,15	0,0778	468	1058	8,5	51,41	2968
500(50)	57×3,50	0,0605	468	1323	8,5	54,11	3339

18/30 (N2XS2Y, CXEKCE, XHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables in this standard workmanship are designed for fixed installations in the air, into building blocks and into pipes made of non-magnetic material.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Extruded inner semi-conductive layer
3 XLPE insulation
4 Extruded outer semi-conductive layer
5 Semiconducting tape
6 Copper wire screen and copper tape counterhelix
7 Non-conducting tape
8 PE sheath

Parameters

Rated voltage: 18/30 kV

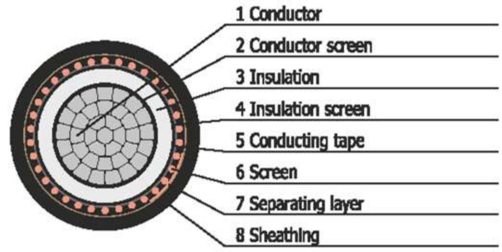
Test voltage: 63 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 25°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	8,5	34,11	1236
50(16)	7×3,24	0,387	598	-	8,5	35,41	1417
70(16)	18×2,39	0,268	772	-	8,5	37,11	1658
95(25)	18×2,78	0,193	1072	-	8,5	38,61	2016
120(25)	18×3,12	0,153	1289	-	8,5	39,91	2284
150(25)	36×2,41	0,124	1551	-	8,5	41,61	2612
185(50)	36×2,68	0,0991	2080	-	8,5	43,71	3205
240(50)	36×3,05	0,0754	2559	-	8,5	46,51	3806
300(50)	36×3,41	0,0601	3082	-	8,5	48,51	4408
400(50)	57×3,15	0,047	3953	-	8,5	51,41	5394
500(50)	57×3,50	0,0366	4824	-	8,5	54,11	6373

18/30 (NA2XS(F)2Y, AXEKVCE, XUHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

For fixed installation for high requirements in interior premises, in the ground subject to external effects of moisture, in the open air and in cable ducts for industrial and distribution mains - as permitted by the local building regulations - under severe mechanical stressing during installation and operation.

Construction

1 Aluminium conductor; round stranded compacted (RMV)
2 Inner semi-conductive layer (conductive XLPE)
3 Core insulation (XLPE)
4 Outer semi-conductive layer (conductive XLPE), taped with a conductive tape
5 Screen (bare copper wires) and counter helix (copper tape)
6 Swelling tape under and over screen
7 Sheath (HDPE black, UV-resistant)

Parameters

Rated voltage: 18/30 kV

Test voltage: 63 kV

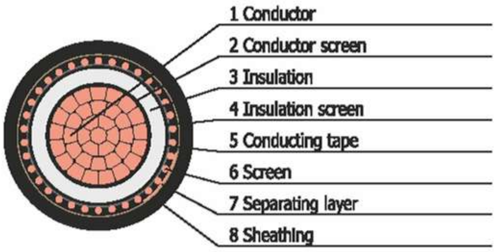
Temperature range:
laying temperature: min -20°C | conductor temperature: max +90°C
operating temperature: - 20°C to +80°C | short-circuit temperature: max +250°C/5 s

Bending radius (min): 15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	8,5	34,28	1021
50(16)	7×3,24	0,641	162	132	8,5	35,58	1111
70(16)	18×2,39	0,443	162	185	8,5	37,28	1230
95(25)	18×2,78	0,32	244	251	8,5	38,78	1436
120(25)	18×3,12	0,253	244	318	8,5	40,08	1552
150(25)	36×2,41	0,206	244	397	8,5	41,78	1698
185(50)	36×2,68	0,164	468	490	8,5	43,88	2078
240(50)	36×3,05	0,125	468	635	8,5	46,68	2346
300(50)	36×3,41	0,1	468	794	8,5	48,68	2584
400(50)	57×3,15	0,0778	468	1058	8,5	51,58	2963
500(50)	57×3,50	0,0605	468	1323	8,5	54,28	3334

18/30 (N2XS(F)2Y, CXEKVCE, XUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

For fixed installation for high requirements in interior premises, in the ground subject to external effects of moisture, in the open air and in cable ducts for industrial and distribution mains - as permitted by the local building regulations - under severe mechanical stressing during installation and operation.

Construction

1 Copper conductor; round stranded compacted (RMV)
2 Inner semi-conductive layer (conductive XLPE)
3 Core insulation (XLPE)
4 Outer semi-conductive layer (conductive XLPE), taped with a conductive tape
5 Screen (bare copper wires) and counter helix (copper tape)
6 Swelling tape under and over screen
7 Sheath (HDPE black, UV-resistant)

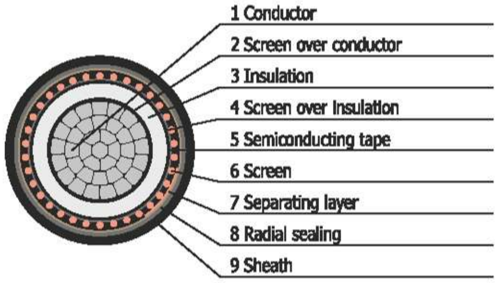
Parameters

Rated voltage:	18/30 kV
Test voltage:	63 kV
Temperature range: laying temperature: min -20°C operating temperature: - 20°C to +80°C	conductor temperature: max +90°C short-circuit temperature: max +250°C/5 s
Bending radius (min):	15 x Ø of cable

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	8,5	34,28	1233
50(16)	7×3,24	0,387	598	-	8,5	35,58	1414
70(16)	18×2,39	0,268	772	-	8,5	37,28	1654
95(25)	18×2,78	0,193	1072	-	8,5	38,78	2012
120(25)	18×3,12	0,153	1289	-	8,5	40,08	2280
150(25)	36×2,41	0,124	1551	-	8,5	41,78	2608
185(50)	36×2,68	0,0991	2080	-	8,5	43,88	3200
240(50)	36×3,05	0,0754	2559	-	8,5	46,68	3802
300(50)	36×3,41	0,0601	3082	-	8,5	48,68	4404
400(50)	57×3,15	0,047	3953	-	8,5	51,58	5389
500(50)	57×3,50	0,0366	4824	-	8,5	54,28	6367

18/30 (NA2XS(FL)2Y, AXEKVCVE, XRUHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Aluminium conductor; round stranded compacted (RMV) with water-blocking system
2 Inner semi-conductive layer
3 Core insulation (XLPE)
4 Outer semi-conductive layer
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Water-blocking tape
8 Welded aluminum foil
9 PE sheath

Parameters

Rated voltage: 18/30 kV

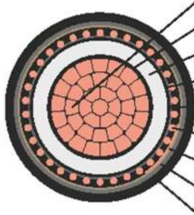
Test voltage: 63 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 25°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,868	162	93	8,5	34,6	1059
50(16)	7×3,24	0,641	162	132	8,5	35,9	1150
70(16)	18×2,39	0,443	162	185	8,5	37,6	1271
95(25)	18×2,78	0,32	244	251	8,5	39,1	1479
120(25)	18×3,12	0,253	244	318	8,5	40,4	1597
150(25)	36×2,41	0,206	244	397	8,5	42,1	1745
185(50)	36×2,68	0,164	468	490	8,5	44,2	2128
240(50)	36×3,05	0,125	468	635	8,5	47	2396
300(50)	36×3,41	0,1	468	794	8,5	49	2636
400(50)	57×3,15	0,0778	468	1058	8,5	51,9	3019
500(50)	57×3,50	0,0605	468	1323	8,5	54,6	3393

18/30 (N2XS(FL)2Y, CXEKVCVE, XRUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Copper conductor; round stranded compacted (RMV) with water-blocking system
2 Inner semi-conductive layer
3 Core insulation (XLPE)
4 Outer semi-conductive layer
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Water-blocking tape
8 Welded aluminum foil
9 PE sheath

Parameters

Rated voltage: 18/30 kV

Test voltage: 63 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 25°C to +80°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

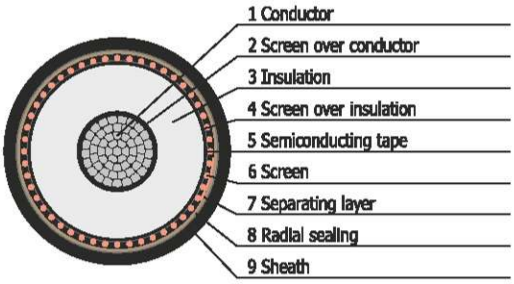
Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
35(16)	7×2,72	0,524	467	-	8,5	34,6	1271
50(16)	7×3,24	0,387	598	-	8,5	35,9	1454
70(16)	18×2,39	0,268	772	-	8,5	37,6	1696
95(25)	18×2,78	0,193	1072	-	8,5	39,1	2056
120(25)	18×3,12	0,153	1289	-	8,5	40,4	2325
150(25)	36×2,41	0,124	1551	-	8,5	42,1	2655
185(50)	36×2,68	0,0991	2080	-	8,5	44,2	3250
240(50)	36×3,05	0,0754	2559	-	8,5	47	3852
300(50)	36×3,41	0,0601	3082	-	8,5	49	4456
400(50)	57×3,15	0,047	3953	-	8,5	51,9	5445
500(50)	57×3,50	0,0366	4824	-	8,5	54,6	6426

Power cables 110 kV

Cables are normally supplied in lengths of 300 metres, 500 metres and 1000 metres depending on conductor size. Other lengths can be supplied if required. Note: Special constructions other than stated above may be provided on request.

64/110 (NA2XS(FL)2Y, AXEKVCVE, XRUHAKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Aluminium conductor; round stranded compacted (RMV) with water-blocking system
2 Inner semi-conductive layer
3 Core insulation (XLPE)
4 Outer semi-conductive layer
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Water-blocking tape
8 Welded aluminum foil
9 PE sheath

Parameters

Rated voltage: 64/110 kV

Test voltage: 160 kV

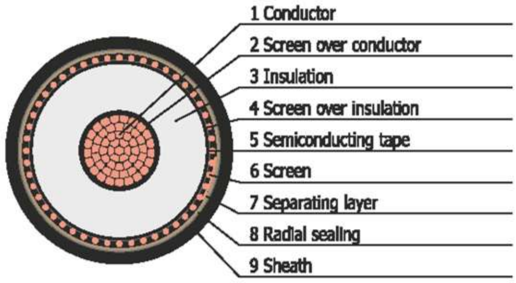
Temperature range:
laying temperature: min -20°C
operating temperature: - 60°C to +50°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Bending radius (min): 20 x outer diameter

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
150(95)	36x2,40	0,206	879	397	15	66,14	4132
185(95)	36x2,68	0,164	879	490	15	68,04	4377
240(120)	36x3,05	0,125	1083	635	15	71,2	4955
300(120)	36x3,41	0,1	1083	810	15	73,2	5281
400(150)	57x3,15	0,0778	1361	1080	15	74,54	5840
500(150)	57x3,50	0,0605	1361	1350	15	77,9	6368
630(185)	58x3,94	0,0462	1668	1701	15	81,52	7331
800(185)	84x3,66	0,0367	1668	2160	15	85,92	8137

64/110 (N2XS(FL)2Y, CXEKVCVE, XRUHKXS)

VDE 0276, IEC 60502-2, HD 620:S2, PNE 347625



Application

Cables are designed for loose installation in the air on the supporting structures, in ground, into building blocks and into pipes made of non-magnetic material. Installation can be done in ordinary and damp environments – dripping water, water showered on crossways, water spouling in all directions, temporary flooding.

Construction

1 Copper conductor; round stranded compacted (RMV) with water-blocking system
2 Inner semi-conductive layer
3 Core insulation (XLPE)
4 Outer semi-conductive layer
5 Semi-conducting water-blocking tape
6 Screen (bare copper wires) and counter helix (copper tape)
7 Water-blocking tape
8 Welded aluminum foil
9 PE sheath

Parameters

Rated voltage: 64/110 kV

Test voltage: 160 kV

Temperature range:
laying temperature: min -20°C
operating temperature: - 60°C to +50°C
conductor temperature: max +90°C
short-circuit temperature: max +250°C/5 s

Bending radius (min): 20 x outer diameter

Dimension of core (screen), (sq.mm.)	Conductor construction	Max. resistance of core at 20°C (Ω/km)	Metal content, kg/km		Insulation thickness (mm)	Outter diameter (mm)	Cable mass per 1 km (kg)
			Cu	Al			
150(95)	36x2,40	0,124	2186	-	15	66,14	5042
185(95)	36x2,68	0,0991	2491	-	15	68,04	5500
240(120)	36x3,05	0,0754	3174	-	15	71,2	6411
300(120)	36x3,41	0,0601	3750	-	15	73,2	7138
400(150)	57x3,15	0,047	4917	-	15	74,54	8316
500(150)	57x3,50	0,0366	5806	-	15	77,9	9463
630(185)	58x3,94	0,028	7268	-	15	81,52	11231
800(185)	84x3,66	0,0221	8780	-	15	85,92	13089

Color core identification

(acc. HD 308 S2)

Flexible cables			Fixed cables		
	with yellow-green conductor	without yellow-green conductor		with yellow-green conductor	without yellow-green conductor
2 cores	—		2 cores	—	
3 cores			3 cores		
4 cores			4 cores		
5 cores			5 cores		
			multiple cores	 direction  counting	 counting

Cable length winding on wooden drums, m

Outter cable diameter, mm	Drum diameter										
	8	8a	8б	10	12	12a	14	16a	17	18	20	22
7	900	1550	1950	3650	6100	8700	11950					
8	650	1200	1500	2800	4650	6650	9150					
9	500	950	1150	2200	3700	5250	7200					
10	400	750	950	1800	3000	4250	5850					
11	350	600	750	1450	2450	3500	4800					
12	300	500	650	1250	2050	2950	4050					
13	250	450	550	1050	1750	2500	3450					
14	200	350	450	900	1500	2150	2950					
15	150	300	400	800	1300	1850	2600	4200	4300			
16	150	300	350	700	1150	1650	2250	3700	3800			
17	150	250	300	600	1000	1450	2000	3300	3350			
18	100	200	250	550	900	1300	1800	2900	3000			
19	100	200	250	500	800	1150	1600	2600	2700			
20	100	150	200	450	750	1050	1450	2350	2400	2700	4400	
21	100	150	200	400	650	950	1300	2150	2200	2450	3950	
22	50	150	150	350	600	850	1200	1950	2000	2200	3600	
23	50	100	150	300	550	800	1100	1800	1800	2050	3300	
24	50	100	150	300	500	700	1000	1650	1650	1850	3050	
25	50	100	150	250	450	650	900	1500	1550	1700	2800	
26				250	400	600	850	1400	1400	1600	2600	2950
27				200	400	550	800	1300	1300	1450	2400	2700
28				200	350	500	700	1200	1200	1350	2200	2500
29				200	350	500	650	1100	1150	1250	2050	2350
30				200	300	450	650	1050	1050	1200	1950	2200
31				150	300	400	600	950	1000	1100	1800	2050
32				150	250	400	550	900	950	1050	1700	1950
33				150	250	350	500	850	850	950	1600	1800
34				150	250	350	500	800	800	900	1500	1700
35				100	200	300	450	750	750	850	1400	1600
36				100	200	300	450	700	750	800	1350	1500
37				100	200	300	400	650	700	750	1250	1450
38				100	200	250	400	650	650	750	1200	1350
39				100	150	250	350	600	600	700	1150	1300
40							350	550	600	650	1100	1200
41							300	550	550	600	1000	1150
42							300	500	550	600	950	1100
43							300	500	500	550	950	1050
44							300	450	500	550	900	1000
45							250	450	450	500	850	950
46							250	450	450	500	800	900
47							250	400	400	450	750	900

Cable length winding on wooden drums, m

Outter cable diameter, mm	Drum diameter											
	8	8a	86	10	12	12a	14	16a	17	18	20	22
48							250	400	400	450	750	850
49							250	350	400	450	700	800
50							200	350	350	400	700	750
51							200	350	350	400	650	750
52							200	350	350	400	650	700
53							200	300	300	350	600	700
54							200	300	300	350	600	650
55							200	300	300	350	550	650
56							150	300	300	300	550	600
57							150	250	300	300	500	600
58							150	250	250	300	500	550
59							150	250	250	300	500	550
60							150	250	250	300	450	550
61							150	250	250	300	450	550
62							150	250	250	250	450	500
63							100	200	200	250	450	500
64							100	200	200	250	400	450
65							100	200	200	250	400	450

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