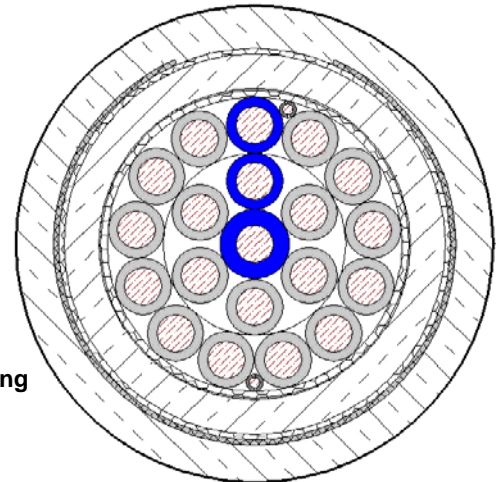




## A-2Y2YV or A-2Y2YB2Y n x 1 x 0.9 or 1.4 or 1.8 mm S

**PE-insulated, halogen free SIGDRAK<sup>®</sup>-signalling cable,  
cores in concentric layers, alternatively with armouring**  
Specification Deutsche Bahn AG 416.0113  
(formerly Dlk 1.013.107y)

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Changes reserved according  
to technical progress



**Principle drawing**  
A-2Y2YB2Y  
20x1x1.4 S LG

### Application

Cables are used as railway cables for laying directly into the ground or in ducts.

### Colour Coding, Marking

Cores: naturally coloured with blue marking/tracer core in each layer

### Construction

<b>A-2Y2YV</b>	
Conductor	copper, solid, 0.9, 1.4 or 1.8 mm, soft annealed
Insulation	PE (2Y)
Twisting	cores twisted in concentric layers, two perforated pilot cores 0.5 mm if $\geq 14$ cores
Cable core wrapping	with non-hygroscopic foil
Sheath	PE (2Y), black
<b>A-2Y2YB2Y</b>	construction as A-2Y2YV, but additionally:
Armouring	1 layer galvanized steel tape 0.2-0.3 mm or 2 layers galvanized steel tape 0.1 mm
Outer sheath	PE (2Y), black



## A-2Y2YV or A-2Y2YB2Y n x 1 x 0.9 or 1.4 or 1.8 mm S

### Mechanical and Thermal Properties

Admissible bending radius	un-armoured	≥ 7,5 x outer cable diameter
	armoured	≥ 10 x outer cable diameter
Temperature range	during operation	- 40°C to + 60°C
	during installation	- 10°C to + 60°C

### Electrical Properties

at 20°C ± 5°C

Conductor diameter	mm	0.9	1.4	1.8
Conductor resistance	Ω/km	≤ 28.9	≤ 11.9	≤ 7.2
Insulation resistance	GΩxkm	≥ 10		
Mutual capacitance at 800 Hz	nF/km	≤ 115 <sup>1)</sup>	≤ 145 <sup>2)</sup>	≤ 145 <sup>2)</sup>
Operating voltage DC/AC	V	≤ 600 / ≤ 420		
Test voltage at 50 Hz – 1 min				
core/core	V <sub>eff</sub>	2500		
core/screen	V <sub>eff</sub>	2500		

<sup>1)</sup> ≤ 120 nF/km for single core in cable core

<sup>2)</sup> ≤ 155 nF/km for single core in cable core



## A-2Y2YV or A-2Y2YB2Y n x 1 x 0.9 or 1.4 or 1.8 mm S

### Additional Properties

Dimension	Outer diameter	Cable weight net	Standard supply length	Drum size flange-Ø	Transport weight gross	Copper content	Tensile strength max.	Fire load	SAP material number
	mm	kg/km	m	mm	kg/drum	kg/km	N	MJ/m	
<b>A-2Y2YV n x 1 x 0.9 S (H115)</b>									
2 x	9.0	60	1000	900	110	13	60	3	1006813
4 x	9.0	75	1000	900	130	26	120	3	1006814
7 x	11.0	100	1000	900	170	45	220	3	1006815
10 x	12.0	130	1000	900	200	64	310	4	1006816
14 x	13.0	170	1000	900	230	93	440	4	1006817
20 x	14.0	220	1000	900	290	132	630	6	1006819
24 x	15.0	260	1000	1000	360	157	760	7	1006820
30 x	16.0	310	1000	1200	490	195	950	7	1006821
40 x	17.0	380	1000	1200	580	259	1270	8	1006822
50 x	19.0	460	1000	1200	670	323	1590	9	1006823
60 x	20.	540	1000	1200	750	386	1900	10	1006824
80 x	22.0	690	1000	1400	950	513	2540	12	1006825
100 x	25.0	850	1000	1400	1140	641	3180	13	1006826
120 x	26.0	990	1000	1600	1390	768	3810	15	1006827
140 x	28.0	1150	1000	1600	1570	895	4450	18	1006828
160 x	29.0	1260	1000	1600	1740	1022	5080	19	1006829
180 x	32.0	1460	1000	1600	1920	1150	5720	21	1006830
200 x	32.0	1600	1000	1600	2080	1277	6360	23	1006831
<b>A-2Y2YB2Y n x 1 x 0.9 S (H115)</b>									
2 x	12.0	120	1000	900	180	13	60	5	1006889
4 x	13.0	140	1000	900	200	26	120	5	1006890
7 x	14.0	170	1000	900	220	45	220	6	1006891
10 x	15.5	220	1000	900	270	64	310	7	1006892
14 x	16.0	260	1000	1000	360	93	440	7	1006893
20 x	17.0	320	1000	1200	490	132	630	8	1006894
24 x	19.0	370	1000	1200	550	157	760	9	1006895
30 x	19.0	410	1000	1200	610	195	950	10	1006896
40 x	20.0	500	1000	1200	700	259	1270	11	1006897
50 x	22.0	590	1000	1200	830	323	1590	12	1006898
60 x	23.0	680	1000	1400	950	386	1900	13	1006899
80 x	25.0	840	1000	1400	1150	513	2540	16	1006900
100 x	28.0	1020	1000	1600	1450	641	3180	18	1006901
120 x	29.0	1180	1000	1600	1630	768	3810	20	1006902
140 x	31.0	1360	1000	1600	1820	895	4450	23	1006903



## A-2Y2YV or A-2Y2YB2Y n x 1 x 0.9 or 1.4 or 1.8 mm S

### Weitere Eigenschaften

Dimension	Outer diameter	Cable weight net	Standard supply length	Drum size flange-Ø	Transport weight gross	Copper content	Tensile strength max.	Fire load	SAP material number
	mm	kg/km	m	mm	kg/drum	kg/km	N	MJ/m	
<b>A-2Y2YV n x 1 x 1.4 S (H145)</b>									
4 x	11.0	120	1000	900	190	62	300	3	1006832
7 x	12.0	180	1000	900	250	108	530	4	1006833
10 x	15.0	240	1000	1000	360	154	760	6	1006835
14 x	16.0	320	1000	1200	520	220	1070	7	1006837
20 x	17.0	430	1000	1200	640	312	1530	8	1006841
24 x	19.0	500	1000	1200	720	374	1840	9	1006842
30 x	20.0	600	1000	1200	840	466	2300	10	1006843
40 x	22.0	770	1000	1400	1080	620	3070	11	1006845
50 x	24.0	950	1000	1600	1380	774	3840	13	1006846
60 x	26.0	1120	1000	1600	1580	928	4610	15	1006848
80 x	29.0	1450	1000	1600	1970	1236	6150	18	1006849
100 x	33.0	1810	1000	1800	2500	1544	7690	22	1006850
120 x	35.0	2140	1000	1800	2890	1852	9230	25	1006851
140 x	37.0	2470	1000	2000	3450	2160	10770	28	1006852
160 x	39.0	2800	1000	2000	3840	2467	12310	31	1006853
180 x	42.0	3140	1000	2200	4400	2775	13850	34	1006854
200 x	43.0	3460	500	1600	2550	3083	15390	36	1006855
<b>A-2Y2YB2Y n x 1 x 1.4 S (H145)</b>									
4 x	14.0	190	1000	900	260	62	300	6	1006905
7 x	15.5	260	1000	1000	370	108	530	7	1006906
10 x	18.0	340	1000	1200	530	154	760	9	1006908
14 x	19.0	420	1000	1200	620	220	1070	10	1006910
20 x	21.0	550	1000	1200	740	312	1530	11	1006914
24 x	22.0	630	1000	1400	920	374	1840	12	1006916
30 x	23.0	750	1000	1400	1040	466	2300	14	1006918
40 x	25.0	940	1000	1600	1360	620	3070	15	1006919
50 x	28.0	1140	1000	1600	1600	774	3840	18	1006920
60 x	30.0	1320	1000	1600	1800	928	4610	20	1006921



## A-2Y2YV or A-2Y2YB2Y n x 1 x 0.9 or 1.4 or 1.8 mm S

### Weitere Eigenschaften

Dimension	Outer diameter	Cable weight net	Standard supply length	Drum size flange-Ø	Transport weight gross	Copper content	Tensile strength max.	Fire load	SAP material number
	mm	kg/km	m	mm	kg/drum	kg/km	N	MJ/m	
<b>A-2Y2YV n x 1 x 1.8 S (H145)</b>									
4 x	12.0	170	1000	900	250	102	500	4	1006859
7 x	14.0	260	1000	1000	380	179	890	6	1006860
10 x	17.0	355	1000	1200	570	255	1270	7	1006861
14 x	18.0	475	1000	1200	710	361	1780	8	1006864
20 x	21.0	655	1000	1400	940	513	2540	10	1006865
24 x	22.0	760	1000	1400	1080	615	3050	11	1006867
30 x	24.0	930	1000	1600	1370	768	3810	12	1006868
40 x	27.0	1210	1000	1600	1710	1022	5080	15	1006870
50 x	29.0	1480	1000	1600	2030	1277	6360	18	1006871
60 x	31.0	1760	1000	1600	2350	1531	7630	20	1006874
80 x	35.0	2310	1000	2000	3290	2040	10170	25	1006876
100 x	40.0	2860	1000	2200	4100	2549	12820	30	1006877
120 x	42.0	3390	500	1600	2535	3058	15260	34	1006878
140 x	46.0	3930	500	1800	2990	3567	17810	37	1006879
160 x	49.0	4500	500	2000	3540	4076	20350	43	1006880
180 x	52.0	5100	500	2000	3910	4585	22900	47	1006881
200 x	53.0	5600	500	2000	4260	5094	25440	51	1006882
<b>A-2Y2YB2Y n x 1 x 1.8 S (H145)</b>									
4 x	15.5	250	1000	1000	370	102	500	7	1006928
7 x	17.0	350	1000	1200	560	179	890	9	1006930
10 x	20.0	470	1000	1200	690	255	1270	10	1006931
14 x	21.0	600	1000	1200	870	361	1780	12	1006933
20 x	24.0	800	1000	1400	1130	513	2540	14	1006936
24 x	26.0	910	1000	1600	1370	615	3050	15	1006937
30 x	27.0	1100	1000	1600	1580	768	3810	17	1006939
40 x	30.0	1400	1000	1600	1950	1022	5080	21	1006941