

HVD CCA

Halogen free building wire Cca



## GENERAL INFO

### Product description

HVD Cca is a **halogen-free installation wire with a high level of fire safety**. The wire is used in installation tubes and for the wiring of switch cabinets and distribution boxes, devices, etc.

HVD Cca is suitable for buildings with a very high risk of fire, specifically building installations, residential construction, OEM, and data centres.

This wire is not only **fire-retardant** thanks to the halogen-free insulation, but also **easy to strip**, which makes it **easy to use**. The cable coding is easy to read thanks to ink wheel printing and enables **easy identification** of the installation wire during and even after the installation.

HVD installation wire with a nominal conductor diameter of 1.5 mm<sup>2</sup> or 2.5 mm<sup>2</sup> is available in the special , robust Octabox packaging.

This halogen-free installation wire meets fire grade **Cca-s1,d1,a1** according to NEN-EN 50575 for use in buildings with a high fire risk according to NEN 8012.

### Generic name(s)

H07Z1-R, H07Z1-U

## CERTIFICATIONS AND DESIGN STANDARDS

### Certifications and approvals



### Standards

EN 50525-3-31

## PRODUCT DESIGN

Conductor material

Copper

Conductor surface

Bare

Core insulation material

Halogenfree polymer

## APPLICATION PROPERTIES

Nominal voltage U <sub>0</sub> [V]	450
Nominal voltage U [V]	750
Test voltage [kV]	2.5
Max. conductor temperature [°C]	70
Min. outer temperature, fixed installation [°C]	-40
Max. outer temperature, fixed installation [°C]	50
Low temperature resistant (acc. EN 60811-504+505+506)	Yes
UV resistant	Yes
Outdoor installation	Yes
Min. outer temperature during installation [°C]	-20
Max. outer temperature during installation [°C]	50

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## FIRE PROPERTIES

Flame retardant	In accordance with EN 13501-6
Halogen free	acc. IEC/EN 60754-1/2
Low smoke	Yes
CPR Euroclass reaction to fire	Cca
CPR Euroclass smoke development	s1
CPR Euroclass flaming particles	d1
CPR Euroclass acidity	a1

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## PRODUCT RANGE

Product code	Basic construction	Conductor category	Core colour	Nominal outer diameter [mm]	Cable weight [kg/km]	Min. bending radius, fixed [mm]	DOP number
823017	1,5 mm <sup>2</sup>	Class 1 = solid	Black	2.8	19	15	1017127
834313	1,5 mm <sup>2</sup>	Class 1 = solid	Grey	2.9	19	15	1017290
834435	1,5 mm <sup>2</sup>	Class 1 = solid	Orange	2.9	19	15	1017311
823018	2,5 mm <sup>2</sup>	Class 1 = solid	Blue	3.3	30	15	1017128
823019	2,5 mm <sup>2</sup>	Class 1 = solid	Brown	3.3	30	15	1017129
831976	2,5 mm <sup>2</sup>	Class 1 = solid	Grey	3.3	30	15	1016953
823020	2,5 mm <sup>2</sup>	Class 1 = solid	Green/yellow	3.3	30	15	1016849
823164	2,5 mm <sup>2</sup>	Class 1 = solid	Black	3.3	30	15	1016861
823786	4 mm <sup>2</sup>	Class 1 = solid	Blue	3.8	44	20	1016864
823787	4 mm <sup>2</sup>	Class 1 = solid	Brown	3.8	44	20	1016865
834433	4 mm <sup>2</sup>	Class 1 = solid	Grey	3.8	44	20	1017299
823033	4 mm <sup>2</sup>	Class 1 = solid	Green/yellow	3.8	44	20	1016860
821606	4 mm <sup>2</sup>	Class 1 = solid	Black	3.8	44	20	1016844
821608	6 mm <sup>2</sup>	Class 2 = stranded	Black	4.8	51	20	1004473
823788	6 mm <sup>2</sup>	Class 1 = solid	Blue	4.3	63	20	1016866
823790	6 mm <sup>2</sup>	Class 1 = solid	Brown	4.3	63	20	1016867
834434	6 mm <sup>2</sup>	Class 1 = solid	Grey	4.3	63	20	1017310
823793	6 mm <sup>2</sup>	Class 1 = solid	Green/yellow	4.3	63	20	1016868

## PRODUCT RANGE

Product code	Basic construction	Conductor category	Core colour	Nominal outer diameter [mm]	Cable weight [kg/km]	Min. bending radius, fixed [mm]	DOP number
821607	6 mm <sup>2</sup>	Class 1 = solid	Black	4.3	63	20	1016845
823587	6 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	4.7	66	20	1016862
821609	10 mm <sup>2</sup>	Class 1 = solid	Black	5.6	110	25	1004474
823588	10 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	6	109	25	1016863
821610	10 mm <sup>2</sup>	Class 2 = stranded	Black	6	109	25	1016846
821611	16 mm <sup>2</sup>	Class 2 = stranded	Black	7.1	170	30	1004475
823589	16 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	7	165	30	1017136
824249	25 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	8.7	260	45	1017152
821612	25 mm <sup>2</sup>	Class 2 = stranded	Black	8.7	260	45	1016986
821613	35 mm <sup>2</sup>	Class 2 = stranded	Black	10	355	50	1004476
823151	35 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	10	350	50	1017131
831274	50 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	11.6	472	60	1017247
821614	50 mm <sup>2</sup>	Class 2 = stranded	Black	11.6	472	60	1016987
821615	70 mm <sup>2</sup>	Class 2 = stranded	Black	13.5	680	85	1016988
823590	70 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	13.4	662	85	1017137
821616	95 mm <sup>2</sup>	Class 2 = stranded	Black	15.7	919	95	1016989
825999	95 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	15.7	920	95	1017187
821617	120 mm <sup>2</sup>	Class 2 = stranded	Black	17.3	1,175	105	1004478

## PRODUCT RANGE

Product code	Basic construction	Conductor category	Core colour	Nominal outer diameter [mm]	Cable weight [kg/km]	Min. bending radius, fixed [mm]	DOP number
823777	120 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	17.2	1,155	105	1017150
821618	150 mm <sup>2</sup>	Class 2 = stranded	Black	19.3	1,450	120	1004479
826000	150 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	19.2	1,436	120	1017188
821619	185 mm <sup>2</sup>	Class 2 = stranded	Black	21.5	1,815	155	1004480
826114	185 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	21.5	1,797	155	1017189
821620	240 mm <sup>2</sup>	Class 2 = stranded	Black	24.6	2,370	175	
831275	240 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	24.4	2,346	175	1017248
821621	300 mm <sup>2</sup>	Class 2 = stranded	Black	27.3	2,960	195	
831276	300 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	27.2	2,924	195	1017249
832707	400 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	30.5	3,740	225	1017373
821622	400 mm <sup>2</sup>	Class 2 = stranded	Black	32	3,375	225	
834092	500 mm <sup>2</sup>	Class 2 = stranded	Green/yellow	34.3	4,756	245	1017575

## ELECTRICAL PROPERTIES

Product code	Basic construction	Current carrying capacity [A]	Conductor resistance at 20° C [Ohm/km]	Conductor resistance at operation temperature [Ohm/km]
823017	1,5 mm <sup>2</sup>	15.5	12.1	14.5
834313	1,5 mm <sup>2</sup>	15.5	12.1	14.5
834435	1,5 mm <sup>2</sup>	15.5	12.1	14.5
823018	2,5 mm <sup>2</sup>	21	7.41	8.87
823019	2,5 mm <sup>2</sup>	21	7.41	8.87
831976	2,5 mm <sup>2</sup>	21	7.41	8.87
823020	2,5 mm <sup>2</sup>	21	7.41	8.87
823164	2,5 mm <sup>2</sup>	21	7.41	8.87
823786	4 mm <sup>2</sup>	28	4.61	5.52
823787	4 mm <sup>2</sup>	28	4.61	5.52
834433	4 mm <sup>2</sup>	28	4.61	5.52
823033	4 mm <sup>2</sup>	28	4.61	5.52
821606	4 mm <sup>2</sup>	28	4.61	5.52
821608	6 mm <sup>2</sup>	36	3.08	3.69
823788	6 mm <sup>2</sup>	36	3.08	3.69
823790	6 mm <sup>2</sup>	36	3.08	3.69
834434	6 mm <sup>2</sup>	36	3.08	3.69
823793	6 mm <sup>2</sup>	36	3.08	3.69
821607	6 mm <sup>2</sup>	36	3.08	3.69
823587	6 mm <sup>2</sup>	36	3.08	3.69

## ELECTRICAL PROPERTIES

Product code	Basic construction	Current carrying capacity [A]	Conductor resistance at 20° C [Ohm/km]	Conductor resistance at operation temperature [Ohm/km]
821609	10 mm <sup>2</sup>	50	1.83	2.19
823588	10 mm <sup>2</sup>	50	1.83	2.19
821610	10 mm <sup>2</sup>	50	1.83	2.19
821611	16 mm <sup>2</sup>	68	1.15	1.38
823589	16 mm <sup>2</sup>	68	1.15	1.38
824249	25 mm <sup>2</sup>	89	0.727	0.87
821612	25 mm <sup>2</sup>	89	0.727	0.87
821613	35 mm <sup>2</sup>	110	0.524	0.628
823151	35 mm <sup>2</sup>	110	0.524	0.628
831274	50 mm <sup>2</sup>	134	0.387	0.464
821614	50 mm <sup>2</sup>	134	0.387	0.464
821615	70 mm <sup>2</sup>	171	0.268	0.322
823590	70 mm <sup>2</sup>	171	0.268	0.322
821616	95 mm <sup>2</sup>	207	0.193	0.233
825999	95 mm <sup>2</sup>	207	0.193	0.233
821617	120 mm <sup>2</sup>	239	0.153	0.186
823777	120 mm <sup>2</sup>	239	0.153	0.186
821618	150 mm <sup>2</sup>	275	0.124	0.152
826000	150 mm <sup>2</sup>	275	0.124	0.152
821619	185 mm <sup>2</sup>	314	0.0991	0.123

## ELECTRICAL PROPERTIES

Product code	Basic construction	Current carrying capacity [A]	Conductor resistance at 20° C [Ohm/km]	Conductor resistance at operation temperature [Ohm/km]
826114	185 mm <sup>2</sup>	314	0.0991	0.123
821620	240 mm <sup>2</sup>	370	0.0754	0.0955
831275	240 mm <sup>2</sup>	370	0.0754	0.0955
821621	300 mm <sup>2</sup>	426	0.0601	0.078
831276	300 mm <sup>2</sup>	426	0.0601	0.078
832707	400 mm <sup>2</sup>	510	0.047	0.0643
821622	400 mm <sup>2</sup>	510	0.047	0.0643
834092	500 mm <sup>2</sup>	510	0.0366	0.0501

Current load according to NEN1010:2015, Table 52.B