



H05V-K

European <HAR> cable type certification



Info
• <HAR>

Technical data

- Classification**
ETIM 5.0 Class-ID: EC000993
ETIM 5.0 Class-Description: Single core cable
- Conductor stranding**
Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Minimum bending radius**
At a cable temperature of 20°C ± 10°C, according to HD 516
4 x outer diameter (OD) for normal use;
2 x OD for cautions bending
- Nominal voltage**
U₀/U: 300/500 V
- Test voltage**
2000 V
- Current rating**
VDE 0298 Part 4
HD 516/VDE 0298-300
- Temperature range**
Fixed installation:
-30°C to +80°C
Moved: +5°C to +70°C

Benefits

- Cables' <HAR> marking also stands for the international endorsement of national certification institutes' testing marks and certificates, e. g. <VDE><HAR>. The <HAR> marking is of special importance in case of goods traffic between European countries.

Application range

- Internal wiring of devices
- Protected installation in and on lighting equipments
- Signal systems in and on plaster in tubes

Product features

- Flame-retardant according IEC 60332-1-2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Norm references / Approvals

- <HAR> cable type certification acc. EN 50525-2-31

Product make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Conductor cross-section (mm ²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow
0.5	2.5	100		4.8	9	4510031	4510011	4510061	4510021	4510001
0.75	2.7	100		7.2	12	4510032	4510012	4510062	4510022	4510002
1	2.8	100		9.6	15	4510033	4510013	4510063	4510023	4510003
0.5	2.5		250	4.8	9	4510031S	4510011S	4510061S	4510021S	4510001S
0.75	2.7		250	7.2	12	4510032S	4510012S	4510062S	4510022S	4510002S
1	2.8		250	9.6	15	4510033S	4510013S	4510063S	4510023S	4510003S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	orange	Dark blue	white	green	yellow
0.5	2.5	100		4.8	9	4510091	4510141	4510051	4510121	4510111
0.75	2.7	100		7.2	12	4510092	4510142	4510052	4510122	4510112
1	2.8	100		9.6	15	4510093	4510143	4510053	4510123	4510113
0.5	2.5		250	4.8	9	4510091S	4510141S	4510051S	4510121S	4510111S
0.75	2.7		250	7.2	12	4510092S	4510142S	4510052S	4510122S	4510112S
1	2.8		250	9.6	15		4510143S	4510053S		

Conductor cross-section (mm ²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	violet	red	ultra-marine blue	Dark blue/white	transparent
0.5	2.5	100		4.8	9	4510071	4510041	4510161	4510921	
0.75	2.7	100		7.2	12	4510072	4510042		4510922	
1	2.8	100		9.6	15	4510073	4510043	4510163	4510923	
0.5	2.5		250	4.8	9	4510071S	4510041S			
0.75	2.7		250	7.2	12	4510072S	4510042S	4510162S		4510102S
1	2.8		250	9.6	15	4510073S	4510043S	4510163S		4510103S

Conductor cross-section (mm ²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	pink
0.5	2.5	100		4.8	9	4510081
0.75	2.7	100		7.2	12	4510082
1	2.8	100		9.6	15	4510083
0.75	2.7		250	7.2	12	4510082S

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Copper price basis: EUR 150/100kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products. The outer diameters stated in the part number table are maximum values.

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Technical data

Classification
ETIM 5.0 Class-ID: EC000993
ETIM 5.0 Class-Description: Single core cable

Conductor stranding
Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228

Minimum bending radius
At a cable temperature of 20°C ±10°C, according to HD 516
OD ≤ 8 mm: 4 x OD*/2 x OD** ; 8 < OD ≤ 12 mm: 5 x OD*/3 x OD** ; OD > 12 mm: 6 x OD*/4 x OD**

Nominal voltage
U₀/U: 450/750 V

Test voltage
2500 V

Current rating
VDE 0298 Part 4
HD 516/VDE 0298-300

Temperature range
Fixed installation:
-30°C to +80°C
Moved: +5°C to +70°C

Benefits

- Cables' <HAR>marking also stands for the international endorsement of national certification institutes' testing marks and certificates, e. g. <VDE><HAR>. The <HAR>marking is of special importance in case of goods traffic between European countries.

Application range

- Laying in tubes, exposed or buried in plaster, and in closed installation ducts
- For direct laying on racks, troughs and tubes only as potential equalisation conductor

Product features

- Flame-retardant according IEC 60332-1-2
- Spool: d1 = 18 mm; d2 = 200 mm; b = 85 mm

Norm references / Approvals

- <HAR> cable type certification acc. EN 50525-2-31

Product make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	brown	black	grey	blue	green/yellow
1.5	3.4		150	14.4	22	4520031S	4520011S	4520061S	4520021S	4520001S
2.5	4.1		100	24.0	37	4520032S	4520012S	4520062S	4520022S	4520002S
1.5	3.4	100		14.4	22	4520031	4520011	4520061	4520021	4520001
2.5	4.1	100		24.0	37	4520032	4520012	4520062	4520022	4520002
4	4.8	100		38.4	45	4520033	4520013	4520063	4520023	4520003
6	5.3	100		57.6	71	4520034	4520014	4520064	4520024	4520004
10	6.8	100		96.0	120	4520035	4520015	4520065	4520025	4520005
16	8.1			153.6	187	4520036	4520016	4520066	4520026	4520006
25	10.2			240.0	290	4521031	4521011		4521021	4521001
35	11.7			336.0	399	4521032	4521012	4521062	4521022	4521002
50	13.9			480.0	559		4521013		4521023	4521003
70	16.0			672.0	776		4521014		4521024	4521004
95	18.2			912.0	1031		4521015		4521025	4521005
120	20.2			1,152.0	1285		4521016			4521006
150	22.5			1,440.0	1563		4521017			4521007
185	24.9			1,776.0	1915		4521018			4521008
240	28.4			2,304.0	2550		4521019			4521009

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	orange	Dark blue	white	green	yellow
1.5	3.4		150	14.4	22		4520141S	4520051S		
2.5	4.1		100	24.0	37		4520142S			
1.5	3.4	100		14.4	22	4520091	4520141	4520051	4520121	4520111
2.5	4.1	100		24.0	37	4520092	4520142	4520052	4520122	4520112
4	4.8	100		38.4	45	4520093	4520143	4520053	4520123	4520113
6	5.3	100		57.6	71	4520094	4520144	4520054	4520124	4520114
10	6.8	100		96.0	120	4520095	4520145	4520055		
16	8.1			153.6	187	4520096	4520146	4520056	4520126	
25	10.2			240.0	290	4521091				
35	11.7			336.0	399	4521092				

Conductor cross-section (mm²)	Outer diameter (mm)	m/ring	m/spool	Copper index (kg/km)	Weight (kg/km)	violet	red	ultra-marine blue
1.5	3.4		150	14.4	22		4520041S	
2.5	4.1		100	24.0	37		4520042S	
1.5	3.4	100		14.4	22	4520071	4520041	4520161
2.5	4.1	100		24.0	37	4520072	4520042	4520162
4	4.8	100		38.4	45		4520043	4520163
6	5.3	100		57.6	71		4520044	4520164
10	6.8	100		96.0	120		4520045	
16	8.1			153.6	187		4520046	
25	10.2			240.0	290		4521041	
35	11.7			336.0	399		4521042	
50	13.9			480.0	559		4521043	
70	16.0			672.0	776		4521044	

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Packaging size: Coil ≤ 30 kg, otherwise drum
Photographs are not to scale and do not represent detailed images of the respective products.
*for conventional use, **for careful bending; "OD" = outer diameter
The outer diameters stated in the part number table are maximum values.