

FLAMEBLOCKER IFSI-EMC

0,6/1 kV

based on IEC 60502-1; HD 604-5D

**Halogen free power and control cables
with copper conductors.**



CONSTRUCTION

Conductors:	plain annealed copper circular solid class 1(RE), circular or circular compacted stranded conductor class 2 (RM) or stranded sector – shaped conductor class 2 (SM) acc. to EN 60228
Insulation:	XLPE compound
Inner covering:	halogen free tape
Concentric conductor:	Copper foil tape and copper wires with copper tape helically wounded
Sheath:	Halogen free compound
Colour of sheath:	black
Core identification:	
2-core:	black, blue or HD 308 S2: blue, brown
3-core:	black, brown, white or HD 308 S2: brown, black, grey
4-core:	black, blue, brown, white or HD 308S2: blue, brown, black grey
5-core:	blue, brown, black, grey, black

CHARACTERISTIC

Maximum conductor operating temperature:	+90°C
Lowest ambient temperature for fixed installation:	-40°C
Lowest installation temperature:	-20°C
Cold impact test HD 604-5D:	-25±2°C
Maximum short-circuit conductor temperature:	+250°C
Test voltage of complete cable:	3,5 kV AC 50Hz , 5 min.
Minimum bending radius:	12D - for multicore cable (D - overall cable diameter)
Maximum permissible tensile stress with cable grip for Cu:	50 N/mm ²

FIRE PERFORMANCE

Flame propagation:	IEC 60332-1-2, IEC 60332-3 Category C
Smoke density:	IEC 61034-2
Gases evolved during combustion:	IEC 60754-2: pH ≥ 4,3; conductivity ≤ 10 μSmm ⁻¹ IEC 60754-1, HCL ≤ 0,5%
CPR – class reaction to fire (acc EN 50575):	Dca-s1,d0,a1 for cables 2-5core, RE &RM conductor Dca-s1,d2,a1 for cables with SM conductor

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APPLICATIONS

Halogen free power cables for fixed installation, indoors and outdoors. Specially for installations to secure areas from heavy smoke and corrosive gases in case of fire. The copper screen have 100% covering and complies with the EMC directive with right practicable installation. Cables may be layed directly in ground if installed properly and carefully acc. to REN leaf 9000 guide.

Standard length cable packing	500 or 1000m on drums. Other forms of packing and delivery are available on request
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Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	CPR – class reaction to fire
n x mm ²	mm	kg/km	Ω/km	
2x1,5RE/1,5	11,3	154	12,1 / 12,1	Dca-s1,d0,a1
2x2,5RE/2,5	12,1	189	7,41 / 7,41	Dca-s1,d0,a1
2x2,5RM/2,5	12,6	198	7,41 / 7,41	Dca-s1,d0,a1
2x4RE/4	13,4	249	4,61 / 4,61	Dca-s1,d0,a1
2x6RE/6	14,7	316	3,08 / 3,08	Dca-s1,d0,a1
2x10RE/10	16,4	446	1,83 / 1,83	Dca-s1,d0,a1
2x16RE/16	18,2	629	1,15 / 1,15	Dca-s1,d0,a1
2x25RM/16	22,8	898	0,727 / 1,15	Dca-s1,d0,a1
2x35RM/16	24,9	1109	0,524 / 1,15	Dca-s1,d0,a1
3x1,5RE/1,5	11,7	175	12,1 / 12,1	Dca-s1,d0,a1
3x2,5RE/2,5	12,6	219	7,41 / 7,41	Dca-s1,d0,a1
3x4RE/4	14	293	4,61 / 4,61	Dca-s1,d0,a1
3x4RM/4	14,6	307	4,61 / 4,61	Dca-s1,d0,a1
3x6RE/6	15,3	378	3,08 / 3,08	Dca-s1,d0,a1
3x6RM/6	15,7	387	3,08 / 3,08	Dca-s1,d0,a1
3x10RE/10	17,1	544	1,83 / 1,83	Dca-s1,d0,a1
3x10RM/10	17,8	561	1,83 / 1,83	Dca-s1,d0,a1
3x16RE/16	19,1	780	1,15 / 1,15	Dca-s1,d0,a1
3x16RM/16	20	806	1,15 / 1,15	Dca-s1,d0,a1
3x25RM/16	24	1141	0,727 / 1,15	Dca-s1,d0,a1
3x35RM/16	26,3	1441	0,524 / 1,15	Dca-s1,d0,a1
3x50SM/25	26,3	1837	0,387 / 0,727	Dca-s1,d2,a1
3x70SM/35	30,2	2578	0,268 / 0,524	Dca-s1,d2,a1
3x95SM/50	33,3	3478	0,193 / 0,387	Dca-s1,d2,a1
3x120SM/70	37,1	4417	0,153 / 0,268	Dca-s1,d2,a1
3x150SM/70	41,2	5296	0,124 / 0,268	Dca-s1,d2,a1
3x185SM/95	45,2	6620	0,0991 / 0,193	Dca-s1,d2,a1
3x240SM/120	51,1	8601	0,0754 / 0,153	Dca-s1,d2,a1
3x300SM/150	55,7	10660	0,0601 / 0,124	Dca-s1,d2,a1
4x1,5RE/1,5	12,5	197	12,1 / 12,1	Dca-s1,d0,a1

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Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	CPR – class reaction to fire
n x mm ²	mm	kg/km	Ω/km	
4x2,5RE/2,5	13,4	249	7,41 / 7,41	Dca-s1,d0,a1
4x2,5RM/2,5	14	261	7,41 / 7,41	Dca-s1,d0,a1
4x4RE/4	14,9	337	4,61 / 4,61	Dca-s1,d0,a1
4x6RE/6	16,4	439	3,08 / 3,08	Dca-s1,d0,a1
4x6RM/6	16,8	449	3,08 / 3,08	Dca-s1,d0,a1
4x10RE/10	18,4	640	1,83 / 1,83	Dca-s1,d0,a1
4x10RM/10	19,1	657	1,83 / 1,83	Dca-s1,d0,a1
4x16RE/16	20,6	925	1,15 / 1,15	Dca-s1,d0,a1
4x16RM/16	21,6	953	1,15 / 1,15	Dca-s1,d0,a1
4x25RM/16	26,1	1371	0,727 / 1,15	Dca-s1,d0,a1
4x35RM/16	28,6	1761	0,524 / 1,15	Dca-s1,d0,a1
4x35SM/16	26,1	1734	0,524 / 1,15	Dca-s1,d2,a1
4x50SM/25	29,6	2339	0,387 / 0,727	Dca-s1,d2,a1
4x70SM/35	33,9	3284	0,268 / 0,524	Dca-s1,d2,a1
4x95SM/50	37,5	4434	0,193 / 0,387	Dca-s1,d2,a1
4x120SM/70	42,3	5640	0,153 / 0,268	Dca-s1,d2,a1
4x150SM/70	46,4	6769	0,124 / 0,268	Dca-s1,d2,a1
4x185SM/95	51	8472	0,0991 / 0,193	Dca-s1,d2,a1
4x240SM/120	57,7	11010	0,0754 / 0,153	Dca-s1,d2,a1
4x300SM/150	62,7	13649	0,0601 / 0,124	Dca-s1,d2,a1
5x1,5RE/1,5	13,3	232	12,1 / 12,1	Dca-s1,d0,a1
5x2,5RE/2,5	14,3	289	7,41 / 7,41	Dca-s1,d0,a1
5x4RE/4	15,9	392	4,61 / 4,61	Dca-s1,d0,a1
5x6RE/6	17,5	515	3,08 / 3,08	Dca-s1,d0,a1
5x10RE/10	19,8	758	1,83 / 1,83	Dca-s1,d0,a1
5x16RE/16	22,2	1099	1,15 / 1,15	Dca-s1,d0,a1

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Current ratings*

Operating temperature at conductor 90°C; ambient air temperature 30°C

Installation			
Number of loaded cores	3		3
	laying in air		
Cross-section, mm ²	Current ratings in Ampere (A)		
1,5	25		27
2,5	33		36
4	43		47
6	54		59
10	75		81
16	100		109
25	136		146
35	165		179

The values are referred to the following basic conditions:

Laying in air	
Ambient temperature:	30°C
Load factor:	1,0
Arrangement: free in air, protection against direct solar radiation, no external heat sources, unrestricted dissipation of heat.	

Correction factors for various ambient air temperatures

Ambient temperature, °C	10	15	20	25	30	35	40	45	50
Rating factor	1,15	1,12	1,08	1,04	1,00	0,96	0,91	0,87	0,82

* As defined in DIN VDE 0276-604, HD 604 S1.

Conversion factors for deviating ambient temperature defined in DIN VDE 0298 part 4.

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