

# FLAMEBLOCKER

## N2XH-J,O 0,6/1kV

### (N)2XH-J,O 0,6/1kV\*

National: VDE 0276-604; VDE 0276-627

\* based on norm

#### Halogen- free low smoke power cables



CONSTRUCTION		
<b>Conductors:</b>	annealed copper 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	
<b>Insulation:</b>	special XLPE compound type 2XI1 acc. to DIN VDE 0276-604	
<b>Inner covering:</b>	filling compound	
<b>Sheath:</b>	thermoplastic halogen- free compound type HM4 according to DIN VDE 0276-604	
<b>Colour of sheath:</b>	black ( other colours, included in standard RAL pallet available at customer request as (N)2XH )	
<b>Core identification:</b>	HD 308 S2 (other colours available at customer request)	
	<b>N2XH-J with protective conductor</b>	<b>N2XH-O without protective conductor</b>
1-core:	green-yellow	black
2-core:	-	blue, brown
3-core:	green-yellow, blue, brown	brown, black, grey
3-core:*		blue, brown, black
4-core:	green-yellow, brown, black, grey	blue, brown, black, grey
4-core:*	green-yellow, blue, brown, black	
5-core:	green-yellow, blue, brown, black, grey	blue, brown, black, grey, black
6-core and more:	green-yellow, other cores black with numbering	black with white numbering
	* For certain applications only.	

CHARACTERISTIC	
<b>Maximum conductor operating temperature:</b>	+90°C
<b>Lowest ambient temperature for fixed installation:</b>	-40°C
<b>Lowest installation temperature:</b>	-5°C
<b>Maximum short-circuit conductor temperature:</b>	+250°C
<b>Minimum bending radius:</b>	15 x D single core cables, 12 x D multicore cables, D – overall diameter
<b>Max. permissible tensile stress with cable grip for Cu-conductor:</b>	50 N/mm <sup>2</sup>
<b>Oil resistant:</b>	IRM 902 oil, 4h at 70°C according to IEC 60811-2-1

N2XH 0,6/1kV MK-04-06-2019  
Replace N2XH 0,6/1kV MK-24-05-2019

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FIRE PERFORMANCE	
Flame retardant:	IEC 60332-1-2, IEC 60332-3-24
Smoke density:	IEC 61034-2: light transmittance values > 60%
Gases evolved during combustion:	IEC 60754-1, IEC 60754-2, DIN EN 50267-2-2: pH ≥ 4,3; conductivity ≤ 10 μS/cm
CPR – class reaction to fire (acc EN 50575):	B2ca-s1a,d0,a1 B2ca-s1b,d0,a1 B2ca-s1,d0,a1 Dca-s1,d0,a1

APPLICATIONS	
XLPE insulated and halogen-free thermoplastic compound sheathed power and auxiliary control cables for the supply of electrical energy. Special for installations where fire and emissions of smoke and toxic fumes create a potential threat. Special outdoor installation in the open air, in underground, suitable for installation directly in the ground, indoors, in cable ducts.	
Standard length cable packing	1000m on drums. Other forms of packing and delivery are available on request

APPROVALS	
VDE, GOST,	

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Caloric load	CPR class reaction to fire
<i>n x mm<sup>2</sup></i>	<i>mm</i>	<i>kg/km</i>	<i>Ω/km</i>	<i>kWh/m</i>	
1x1,5RM	5,4	42	12,1	0,2	-
1x1,5RE	5,2	40	12,1	0,18	-
1x2,5RE	5,5	51	7,41	0,2	-
1x2,5RM	5,8	54	7,41	0,22	-
1x4RM	6,3	71	4,61	0,26	-
1x4RE	6	68	4,61	0,23	-
1x6RM	6,7	91	3,08	0,27	-
1x6RE	6,5	88	3,08	0,26	-
1x10RM	7,6	133	1,83	0,33	B2ca-s1,d0,a1
1x10RE	7,3	129	1,83	0,3	B2ca-s1,d0,a1
1x16RM	8,6	192	1,15	0,39	B2ca-s1,d0,a1
1x16RE	8,2	185	1,15	0,36	B2ca-s1,d0,a1
1x25RM	10,5	294	0,727	0,58	B2ca-s1,d0,a1
1x35RM	11,6	389	0,524	0,66	B2ca-s1,d0,a1
1x50RM	13,1	514	0,387	0,78	B2ca-s1,d0,a1
1x70RM	14,6	714	0,268	0,94	B2ca-s1,d0,a1
1x95RM	16,8	972	0,193	1,15	B2ca-s1,d0,a1

N2XH 0,6/1kV MK-04-06-2019  
Replace N2XH 0,6/1kV MK-24-05-2019

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### (N)2XH-J,O 0,6/1kV\*

National: VDE 0276-604; VDE 0276-627

\* based on norm

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Caloric load	CPR class reaction to fire
$n \times mm^2$	mm	kg/km	$\Omega/km$	kWh/m	
1x120RM	18,4	1209	0,153	1,34	B2ca-s1,d0,a1
1x150RM	20,2	1480	0,124	1,6	B2ca-s1,d0,a1
1x185RM	22,5	1845	0,0991	1,96	B2ca-s1,d0,a1
1x240RM	25,2	2373	0,0754	2,29	B2ca-s1,d0,a1
1x300RM	27,4	2957	0,0601	2,68	B2ca-s1,d0,a1
1x400RM	30,5	3799	0,047	3,17	B2ca-s1,d0,a1
1x500RM	34,3	4853	0,0366	3,88	B2ca-s1,d0,a1
1x630RM*	38,7	6161	0,0283	4,73	-
1x800RM*	43,4	7767	0,0221	5,62	-
1x1000RM*	47,5	9655	0,0176	6,58	-
2x1,5RM	9,1	124	12,1	0,48	B2ca-s1b,d0,a1
2x1,5RE	8,7	116	12,1	0,44	B2ca-s1b,d0,a1
2x2,5RE	9,5	148	7,41	0,5	B2ca-s1b,d0,a1
2x2,5RM	10	159	7,41	0,56	B2ca-s1b,d0,a1
2x4RM	11	208	4,61	0,66	B2ca-s1b,d0,a1
2x4RE	10,4	192	4,61	0,58	B2ca-s1b,d0,a1
2x6RM	11,7	257	3,08	0,72	B2ca-s1b,d0,a1
2x6RE	11,4	247	3,08	0,67	B2ca-s1b,d0,a1
2x10RE	13	354	1,83	0,83	B2ca-s1b,d0,a1
2x10RM	13,6	374	1,83	0,91	B2ca-s1b,d0,a1
2x16RM	15,8	541	1,15	1,17	B2ca-s1b,d0,a1
2x16RE	15	509	1,15	1,05	B2ca-s1b,d0,a1
2x25RM	20,4	861	0,727	1,82	B2ca-s1b,d0,a1
2x35RM	22,7	1122	0,524	2,19	B2ca-s1b,d0,a1
2x50RM	25,7	1473	0,387	2,68	B2ca-s1b,d0,a1
2x70RM*	29	2006	0,268	3,36	-
2x95RM*	33,3	2713	0,193	4,19	-
2x120RM*	36,7	3364	0,153	5,05	-
2x150RM*	40,6	4129	0,124	6,19	-
2x240RM*	50,8	6591	0,0754	9,28	-
3x1,5RM	9,6	141	12,1	0,55	B2ca-s1b,d0,a1
3x1,5RE	9,1	132	12,1	0,49	B2ca-s1b,d0,a1
3x2,5RM	10,5	184	7,41	0,64	B2ca-s1b,d0,a1
3x2,5RE	10	172	7,41	0,57	B2ca-s1b,d0,a1
3x4RM	11,6	245	4,61	0,75	B2ca-s1b,d0,a1
3x4RE	11	229	4,61	0,66	B2ca-s1b,d0,a1

N2XH 0,6/1kV MK-04-06-2019  
 Replace N2XH 0,6/1kV MK-24-05-2019

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### (N)2XH-J,O 0,6/1kV\*

National: VDE 0276-604; VDE 0276-627

\* based on norm

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Caloric load	CPR class reaction to fire
$n \times mm^2$	mm	kg/km	$\Omega/km$	kWh/m	
3x6RM	12,4	310	3,08	0,81	B2ca-s1b,d0,a1
3x6RE	12	299	3,08	0,76	B2ca-s1b,d0,a1
3x10RE	13,7	439	1,83	0,93	B2ca-s1b,d0,a1
3x10RM	14,4	460	1,83	1,02	B2ca-s1b,d0,a1
3x16RM	16,8	675	1,15	1,31	B2ca-s1b,d0,a1
3x16RE	15,9	642	1,15	1,17	B2ca-s1b,d0,a1
3x25RM	21,6	1076	0,727	2,05	B2ca-s1b,d0,a1
3x35SM	21,3	1236	0,524	1,97	B2ca-s1a,d0,a1
3x35RM	24,1	1418	0,524	2,46	B2ca-s1b,d0,a1
3x50SM	23,8	1632	0,387	2,42	B2ca-s1a,d0,a1
3x70SM	27,7	2301	0,268	3,11	B2ca-s1a,d0,a1
3x70RM	31,2	2614	0,268	3,85	B2ca-s1b,d0,a1
3x95SM	30,8	3089	0,193	3,67	B2ca-s1a,d0,a1
3x95RM	35,6	3519	0,193	4,74	B2ca-s1b,d0,a1
3x120SM	33,9	3849	0,153	4,4	B2ca-s1a,d0,a1
3x120RM	39,3	4377	0,153	5,71	B2ca-s1b,d0,a1
3x150SM	37,8	4742	0,124	5,47	B2ca-s1a,d0,a1
3x150RM	43,5	5379	0,124	6,96	B2ca-s1b,d0,a1
3x185SM	41,8	5883	0,0991	6,66	B2ca-s1a,d0,a1
3x185RM	48,2	6668	0,0991	8,44	B2ca-s1b,d0,a1
3x240RM	54,6	8636	0,0754	10,42	-
3x240SM	46,9	7657	0,0754	8,15	-
3x300RM	59,1	10623	0,0601	12,1	-
3x300SM	51,3	9462	0,0601	9,4	-
3x4RE+2,5RE	11,6	259	4,61 / 7,41	0,75	-
3x6RE+4RE	12,8	345	3,08 / 4,61	0,86	-
3x10RE+6RE	14,5	502	1,83 / 3,08	1,04	-
3x16RE+10RE	16,8	741	1,15 / 1,83	1,31	-
3x25RM+16RE	22,6	1238	0,727 / 1,15	2,27	B2ca-s1b,d0,a1
3x25RM+16RM	22,8	1245	0,727 / 1,15	2,31	B2ca-s1b,d0,a1
3x35SM+16RE	23,9	1419	0,524 / 1,15	2,3	B2ca-s1a,d0,a1
3x35SM+16RM	23,9	1424	0,524 / 1,15	2,32	B2ca-s1a,d0,a1
3x35RM+16RE	24,5	1573	0,524 / 1,15	2,71	B2ca-s1b,d0,a1
3x35RM+16RM	24,7	1580	0,524 / 1,15	2,75	B2ca-s1b,d0,a1
3x35RM+25RM	25,8	1681	0,524 / 0,727	2,9	B2ca-s1b,d0,a1
3x50RM+25RM	28,7	2143	0,387 / 0,727	3,53	-

N2XH 0,6/1kV MK-04-06-2019  
 Replace N2XH 0,6/1kV MK-24-05-2019

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## N2XH-J,O 0,6/1kV

### (N)2XH-J,O 0,6/1kV\*

National: VDE 0276-604; VDE 0276-627

\* based on norm

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Caloric load	CPR class reaction to fire
$n \times mm^2$	mm	kg/km	$\Omega/km$	kWh/m	
3x50SM+25RM	26,9	1918	0,387 / 0,727	2,94	B2ca-s1a,d0,a1
3x70SM+35RM	31,2	2683	0,268 / 0,524	3,71	-
3x70SM+35SM	30	2664	0,268 / 0,524	3,6	B2ca-s1a,d0,a1
3x95RM+50RM	37,2	3994	0,193 / 0,387	5,44	-
3x95SM+50SM	33,6	3583	0,193 / 0,387	4,35	B2ca-s1a,d0,a1
3x95SM+50RM	34,8	3600	0,193 / 0,387	4,43	B2ca-s1a,d0,a1
3x120RM+70RM	41,2	5051	0,153 / 0,268	6,6	-
3x120SM+70SM	36,8	4537	0,153 / 0,268	5,21	B2ca-s1a,d0,a1
3x150RM+70RM	44,9	6068	0,124 / 0,268	7,99	-
3x150SM+70SM	41,4	5460	0,124 / 0,268	6,44	B2ca-s1a,d0,a1
3x185RM+95RM	50,1	7612	0,0991 / 0,193	9,72	-
3x185SM+95SM	45,4	6842	0,0991 / 0,193	7,74	B2ca-s1a,d0,a1
3x240SM+120SM	51,2	8869	0,0754 / 0,153	9,49	B2ca-s1a,d0,a1
3x300SM+150SM	56,6	10982	0,0601 / 0,124	11,26	B2ca-s1a,d0,a1
3x300SM+70SM	56,4	10226	0,0601 / 0,268	10,63	B2ca-s1a,d0,a1
4x1,5RE	9,9	155	12,1	0,58	B2ca-s1b,d0,a1
4x1,5RM	10,3	164	12,1	0,64	B2ca-s1b,d0,a1
4x2,5RE	10,8	204	7,41	0,66	B2ca-s1b,d0,a1
4x2,5RM	11,4	218	7,41	0,75	B2ca-s1b,d0,a1
4x4RE	11,9	275	4,61	0,77	B2ca-s1b,d0,a1
4x4RM	12,6	294	4,61	0,88	B2ca-s1b,d0,a1
4x6RE	13,1	365	3,08	0,89	B2ca-s1b,d0,a1
4x6RM	13,5	378	3,08	0,95	B2ca-s1b,d0,a1
4x10RE	15,2	550	1,83	1,12	B2ca-s1b,d0,a1
4x10RM	15,9	573	1,83	1,23	B2ca-s1b,d0,a1
4x16RE	17,4	798	1,15	1,36	B2ca-s1b,d0,a1
4x16RM	18,4	837	1,15	1,53	B2ca-s1b,d0,a1
4x25RM	23,9	1346	0,727	2,46	B2ca-s1b,d0,a1
4x35SM	23,9	1601	0,524	2,48	B2ca-s1a,d0,a1
4x35RM	26,4	1776	0,524	2,98	B2ca-s1b,d0,a1
4x50SM	26,9	2124	0,387	3,09	B2ca-s1a,d0,a1
4x50RM	30,2	2366	0,387	3,73	B2ca-s1b,d0,a1
4x70RM	34,6	3314	0,268	4,77	-
4x70SM	31,4	3009	0,268	4,01	B2ca-s1a,d0,a1
4x95RM	39,5	4472	0,193	5,87	-
4x95SM	35	4051	0,193	4,77	B2ca-s1a,d0,a1

N2XH 0,6/1kV MK-04-06-2019  
 Replace N2XH 0,6/1kV MK-24-05-2019

# FLAMEBLOCKER

## N2XH-J,O 0,6/1kV

### (N)2XH-J,O 0,6/1kV\*

National: VDE 0276-604; VDE 0276-627

\* based on norm

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Caloric load	CPR class reaction to fire
$n \times mm^2$	mm	kg/km	$\Omega/km$	kWh/m	
4x120SM	38,9	5060	0,153	5,69	B2ca-s1a,d0,a1
4x150SM	43	6215	0,124	7,05	B2ca-s1a,d0,a1
4x150RM	48,2	6845	0,124	8,63	B2ca-s1b,d0,a1
4x185RM	53,5	8494	0,0991	10,5	-
4x185SM	47,4	7710	0,0991	8,54	B2ca-s1a,d0,a1
4x240RM	60,6	11002	0,0754	12,94	-
4x240SM	53,3	10045	0,0754	10,47	B2ca-s1a,d0,a1
4x300RM	65,6	13565	0,0601	15,03	-
4x300SM	58,1	12428	0,0601	12,12	B2ca-s1a,d0,a1
4x25RM+16RE	25	1533	0,727 / 1,15	2,93	B2ca-s1b,d0,a1
4x25RM+16RM	25,2	1540	0,727 / 1,15	2,97	B2ca-s1b,d0,a1
4x35RM+16RE	27,3	1959	0,524 / 1,15	3,41	B2ca-s1b,d0,a1
4x35RM+16RM	27,5	1966	0,524 / 1,15	3,44	B2ca-s1b,d0,a1
4x50RM+25RM	32,2	2694	0,387 / 0,727	4,5	B2ca-s1b,d0,a1
4x70RM+35RM	36,4	3712	0,268 / 0,524	5,63	B2ca-s1b,d0,a1
4x95RM+50RM	41,6	5007	0,193 / 0,387	6,98	B2ca-s1b,d0,a1
4x120RM+70RM	46,3	6345	0,153 / 0,268	8,53	-
4x150RM+95RM	51,5	7888	0,124 / 0,193	10,49	-
5x1,5RE	10,7	182	12,1	0,69	B2ca-s1b,d0,a1
5x1,5RM	11,2	194	12,1	0,77	B2ca-s1b,d0,a1
5x2,5RE	11,7	242	7,41	0,8	B2ca-s1b,d0,a1
5x2,5RM	12,4	259	7,41	0,91	B2ca-s1b,d0,a1
5x4RE	12,9	329	4,61	0,94	B2ca-s1b,d0,a1
5x4RM	13,8	352	4,61	1,09	B2ca-s1b,d0,a1
5x6RE	14,2	440	3,08	1,09	B2ca-s1b,d0,a1
5x6RM	14,7	455	3,08	1,18	B2ca-s1b,d0,a1
5x10RE	16,6	666	1,83	1,39	B2ca-s1b,d0,a1
5x10RM	17,4	694	1,83	1,54	B2ca-s1b,d0,a1
5x16RE	19	973	1,15	1,7	B2ca-s1b,d0,a1
5x16RM	20,1	1019	1,15	1,93	B2ca-s1b,d0,a1
5x25RM	26,1	1638	0,727	3,11	B2ca-s1b,d0,a1
5x35RM	29,2	2174	0,524	3,74	B2ca-s1b,d0,a1
5x50RM	33,8	2934	0,387	4,78	B2ca-s1b,d0,a1
5x70RM	38	4042	0,268	5,9	B2ca-s1b,d0,a1
5x95RM	43,7	5490	0,193	7,36	B2ca-s1b,d0,a1
5x120RM	48,2	6841	0,153	8,88	B2ca-s1b,d0,a1

N2XH 0,6/1kV MK-04-06-2019  
 Replace N2XH 0,6/1kV MK-24-05-2019

# FLAMEBLOCKER

## N2XH-J,O 0,6/1kV

### (N)2XH-J,O 0,6/1kV\*

National: VDE 0276-604; VDE 0276-627

\* based on norm

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Caloric load	CPR class reaction to fire
$n \times mm^2$	mm	kg/km	$\Omega/km$	kWh/m	
5x150RM	53,4	8406	0,124	10,96	-
5x185RM	59,7	10504	0,0991	13,53	-
5x240RM	67,3	13548	0,0754	16,63	-
6x2,5RE*	12,6	281	7,41	0,93	-
7x1,5RE	11,5	222	12,1	0,8	Dca-s1,d0,a1
7x1,5RM	12,1	235	12,1	0,89	Dca-s1,d0,a1
7x2,5RE	12,6	300	7,41	0,92	Dca-s1,d0,a1
7x2,5RM	13,4	320	7,41	1,05	Dca-s1,d0,a1
7x4RM	14,9	442	4,61	1,25	-
7x4RE	14	416	4,61	1,08	Dca-s1,d0,a1
8x1,5RE*	12,1	249	12,1	0,93	Dca-s1,d0,a1
8x2,5RE*	13,3	339	7,41	1,08	Dca-s1,d0,a1
8x6RM*	17,2	667	3,08	1,65	-
9x1,5RE*	13	291	12,1	1,09	Dca-s1,d0,a1
10x1,5RE	14,2	311	12,1	1,09	Dca-s1,d0,a1
10x1,5RM	15	330	12,1	1,23	Dca-s1,d0,a1
10x2,5RM	17	460	7,41	1,51	Dca-s1,d0,a1

\*based on norm (N)2XH

# FLAMEBLOCKER

## N2XH-J,O 0,6/1kV





### (N)2XH-J,O 0,6/1kV\*

National: VDE 0276-604; VDE 0276-627

\* based on norm

#### Current ratings\*

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

Installation	 <sup>1)</sup>	 	
Number of loaded cores	1	3	3
	laying in air		
Cross-section, mm <sup>2</sup>	Current ratings in Ampere (A)		
1,5	33	24	26
2,5	43	32	34
4	57	42	44
6	72	53	56
10	99	74	77
16	131	98	102
25	177	133	138
35	217	162	170
50	265	197	207
70	336	250	263
95	415	308	325
120	485	359	380
150	557	412	437
185	646	475	507
240	774	564	604
300	901	-	697
400	1060	-	811
500	1252	-	940

<sup>1)</sup> Rated current for direct current systems with a far-distanced return conductor.



# FLAMEBLOCKER

## N2XH-J,O 0,6/1kV

### (N)2XH-J,O 0,6/1kV\*

National: VDE 0276-604; VDE 0276-627

\* based on norm

#### Current ratings for control cables – HD 627 S1

Number of loaded cores	3
laying in air	
Cross-section, mm <sup>2</sup>	Current ratings in Ampere (A)
1,5	25
2,5	33
4	43

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

#### Conversion factors for multicore cable (≥ 5 cores)

The conversion factors are to be used for laying the cables in ground or in air, to the values given in above tables

Number of loaded cores	Laying in air
5	0,75
7	0,65
10	0,55
14	0,50
19	0,45
24	0,40
40	0,35
61	0,30

Note: valid for cross-section 1,5 to 10 mm<sup>2</sup>

\* As defined in DIN VDE 0276-604, DIN VDE 0276-627, HD 604 S1, HD 627 S1.

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

N2XH 0,6/1kV MK-04-06-2019  
Replace N2XH 0,6/1kV MK-24-05-2019