



HALLEY CABLES

RE-2X(St)H 90° C

CU/XLPE/OSCR/LSZH

Instrumentation Cables HFFR DK 500 V

XLPE insulated, collective screened, HFFR sheathed cable



Construction:

- Conductor : plain copper wire, stranded.
- Insulation : XLPE compound (RE-2X...).
- Core identification : black / blue / red cores are numbered (1-1-1, 2-2-2,...). Upon request: colour coded according to IEC 60189-2. Other core configurations manufactured upon request.
- Triple : three conductors twisted to a triple.
- Lay-up : triples laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over stranded tinned copper drain wire 0,50 mm².
- Outer sheath : HFFR compound.
- Sheath colour : RAL 9005, black or RAL 5015, blue.

Technical data and tests:

- Rated voltage : 500 V.
- Test voltage : Urms core-core : 2000 V;
Urms core-screen : 2000 V.
- Temperature range : operation : - 30° C ~ + 90° C;
installation : - 5° C ~ + 50° C.
- Min. bending radius : 7.5 x D.
- Insulation resistance : min. 5000 MΩ/km.

Standards:

- Design : EN 50288-7.
- Conductor : IEC 60228 class 2, DIN EN 60228 class 2.
- Insulation : EN 50290-2-29.
- Outer sheath : EN 50290-2-27.
- Flame test : IEC 60332-1 & EN 60332-1.
IEC 60332-3 & DIN EN 50266-2-4.
- Smoke density : IEC 61034-2 & DIN EN 61034-2.
- Halogen-free : IEC 60754-1/2 & DIN EN 50267-2.

Applications:

These cables are used for transmission of analogue and digital signals in instrumentation and control systems in chemistry and petrochemistry industry plants, power plants, natural gas and petroleum plants, etc... These cables are used in environments which must have no corrosive gases emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. Instrumentation cables are not allowed for direct connection to a low impedance source, e.g. public mains electricity supply. With blue sheath it is suitable for intrinsically safe systems. These cables are not recommended for direct burial. They are for indoor and outdoor installation, in dry and wet locations; on racks, trays, in conduits.

Technical data and tests:

- Conductor resistance : 0,50 mm² : 36,7 Ω/km;
0,75 mm² : 25,0 Ω/km;
1,0 mm² : 18,5 Ω/km;
1,3 mm² : 14,2 Ω/km;
1,5 mm² : 12,3 Ω/km.
- L/R (ratio) (max) : 0,50 mm² : 25 μH/Ω;
0,75 mm² : 25 μH/Ω;
1,0 mm² : 25 μH/Ω;
1,3 mm² : 40 μH/Ω;
1,5 mm² : 40 μH/Ω.
- Mutual Capacitance : ≤ 4 pairs all other pairs
0,50 mm² : max. 100 pF/m max. 65 pF/m;
0,75 mm² : max. 100 pF/m max. 65 pF/m;
1,0 mm² : max. 100 pF/m max. 65 pF/m;
1,3 mm² : max. 100 pF/m max. 75 pF/m;
1,5 mm² : max. 100 pF/m max. 75 pF/m.
- Capacitance unbalanced: (1 kHz) : max. 500 pF/500 m.

www.halleycables.com

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DIMENSIONS

No. of cores x cross section mm ²	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
1x3x0,50	6,5	19	50
1x3x0,75	6,9	26	60
1x3x1	7,3	34	70
1x3x1,3	8,0	42	90
1x3x1,5	8,4	48	100
2x3x0,50	10,2	34	95
2x3x0,75	11,1	48	120
2x3x1	11,9	62	140
2x3x1,3	12,9	80	165
2x3x1,5	13,7	91	190
4x3x0,50	11,9	62	150
4x3x0,75	12,8	91	190
4x3x1	13,9	120	235
4x3x1,3	15,1	155	280
4x3x1,5	15,8	177	315
5x3x0,50	12,7	77	175
5x3x0,75	13,9	113	230
5x3x1	14,9	149	280
5x3x1,3	16,4	192	345
5x3x1,5	17,1	220	385
6x3x0,50	13,9	91	210
6x3x0,75	15,0	134	265
6x3x1	16,3	178	330
6x3x1,3	17,7	230	400
6x3x1,5	18,5	264	450
8x3x0,50	15,6	120	265
8x3x0,75	17,1	177	345
8x3x1	18,3	235	420
8x3x1,3	20,1	304	525
8x3x1,5	21,1	350	585
10x3x0,50	17,3	149	325
10x3x0,75	18,7	221	415
10x3x1	20,4	293	520
10x3x1,3	22,3	379	645
10x3x1,5	23,4	436	720
12x3x0,50	18,7	178	380
12x3x0,75	20,4	264	495

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No. of cores x cross section mm ²	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
12x3x1	22,2	350	620
12x3x1,3	24,3	454	770
12x3x1,5	25,5	523	860
16x3x0,50	21,3	235	490
16x3x0,75	23,3	350	645
16x3x1	25,3	466	805
16x3x1,3	27,8	604	1000
16x3x1,5	29,1	696	1120
20x3x0,50	23,6	293	605
20x3x0,75	25,8	437	795
20x3x1	28,1	581	990
20x3x1,3	30,8	754	1235
20x3x1,5	32,5	868	1400
24x3x0,50	25,7	350	720
24x3x0,75	28,2	523	945
24x3x1	30,6	696	1180
24x3x1,3	33,5	903	1470
24x3x1,5	35,4	1041	1665

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