

BFOU-HCF 0,6/1 (1,2)kV

MGT/EPR/EPR/TCWB/EVA/HCF/SHF1

Hydro Carbon Fire resistant, flame retardant halogen-free instrumentation cable

NEK 606 Code S34

1100°C / 2000°F / 200 kW/m²



Application

Fixed installation for power, control and lightning in both EX- and safe areas, emergency and critical systems where requirement for fire resistance is vital.

Construction

Conductor	: Tinned stranded circular copper, IEC 60228 class 2
Insulation	: Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding	: Cores laid up in concentric layers
Inner covering	: Flame retardant and halogen-free thermoplastic compound
Tape over bedding	: PET tape
Armour/screen	: Tinned copper wire braid
Tape over armour/screen	: PET tape
Outer sheath	: Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC60092-360)
HCF protection	: Extruded heatblock compound
Tape	: Lapped glassfibre tape
Overall sheath	: Flame retardant, halogen-free thermoplastic compound, SHF1 (IEC 60092-360)
Marking text	: E.g. "meter" "year" "manufacturer " BFOU-HCF 0,6/1kV P34 12 x 2,5/10 mm2 HCF 1100/30 FLEX - FLAME IEC 60331-21, IEC 60332-3-22

Outer Sheath Colours

Available colours : Black

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Core Identification

Single core	: Black
Two cores	: Blue, Brown
Two cores + earth	: Blue, Brown, Yellow/Green
Three cores	: Brown, Black, Grey
Three cores + earth	: Brown, Black, Grey, Yellow/Green
Four cores	: Blue, Brown, Black, Grey
Four cores + earth	: Blue, Brown, Black, Grey, Yellow/green
Five cores	: Blue, Brown, Black, Grey, Black
Above five cores	: Black numbers on white base

Installation recommendations

Operating Voltage	: 0,6/1kV
Min. Bending Radius during Installation	: 20 xD
Min. Bending Radius Fix Installed	: 12 xD
Max. Operating Temperature	: 90°C
Minimum installation	: -10°C

Standards applied

IEC 60092-353	Design
IEC 60332-1-2	Flame Retardant
IEC 60332-3-22	Flame Retardant
IEC 60331-21	Fire Resistant
EN 1363-2 / ISO 834	HC Fire resistance
IEC 60754-1,2	Halogen Free
IEC 61034-1,2	Low Smoke

Range and Dimensions

Article Code	Type mm ²	Diameter over bedding mm	Thickness of armour wires mm	Diameter sheath mm	Diameter Overall incl. HCF protection mm	Weight of Cable Approx. (Kg/Km)	Max. pulling tension (N)
N05A01C050BAKBK4	1x 50/6	15.0 ± 0.8	0.20	18.5 ± 0.8	45.5 ± 2.5	2900	2500
N05A01C070BAKBK4	1x 70/6	16.5 ± 0.8	0.30	20.5 ± 1.0	47.5 ± 2.5	3300	3500
N05A01C095BAKBK4	1x 95/10	18.5 ± 0.8	0.30	23.0 ± 1.0	50.5 ± 3.0	3800	4750
N05A01C120BAKBK4	1x 120/10	20.5 ± 1.0	0.30	25.0 ± 1.0	52.5 ± 3.0	4260	600
N05A01C150BAKBK4	1x 150/10	23.0 ± 1.0	0.30	27.0 ± 1.0	54.5 ± 3.0	4750	7500
N05A01C185BAKBK4	1x 185/10	25.0 ± 1.0	0.30	29.5 ± 1.0	57.5 ± 3.0	5380	9250
N05A01C240BAKBK4	1x 240/16	28.0 ± 1.0	0.30	32.5 ± 1.5	66.0 ± 3.5	7050	12000
N05A01C300BAKBK4	1x 300/16	30.5 ± 1.5	0.30	35.5 ± 1.5	68.0 ± 3.5	8000	15000
N05A02C1.5BWWBK4	2x 1.5/4	10.8 ± 0.8	0.20	13.0 ± 0.8	40.5 ± 2.5	1890	150
N05A02C2.5BWWBK4	2x 2.5/6	11.0 ± 0.8	0.30	14.5 ± 0.8	42.0 ± 2.5	2080	250
N05A03C1.5BBABK4	3x 1.5/4	10.5 ± 0.8	0.20	14.0 ± 0.8	42.0 ± 2.5	2140	225
N05A03C2.5BBABK4	3x 2.5/6	11.5 ± 0.8	0.30	15.0 ± 0.8	42.5 ± 2.5	2200	375
N05A03C004BBABK4	3x 4/6	13.0 ± 0.8	0.30	16.5 ± 0.8	43.0 ± 2.5	2400	600
N05A03C006BBABK4	3x 6/6	14.0 ± 0.8	0.30	18.0 ± 0.8	45.0 ± 2.5	2600	900
N05A03C016BBABK4	3x 16/16	18.5 ± 0.8	0.40	23.0 ± 1.0	50.0 ± 3.0	3500	2400
N05A03C035BBABK4	3x 35/16	25.0 ± 1.0	0.30	29.5 ± 1.0	57.5 ± 3.0	4840	5250
N05A03C070BBABK4	3x 70/35	33.0 ± 1.5	0.50	39.0 ± 1.5	72.0 ± 4.0	8150	10500
N05A03C120BBABK4	3x 120/60	41.0 ± 2.0	0.60	48.0 ± 2.0	81.5 ± 4.5	11300	18000
N05A03C150BBABK4	3x 150/70	46.0 ± 2.0	0.40 *	54.5 ± 2.5	88.5 ± 4.5	13300	20000
N05A04C004BBEBK4	3x 4+E	14.0 ± 0.8	0.30	18.0 ± 0.8	45.5 ± 2.5	2580	800
N05A04C006BBEBK4	3x 6+E	15.5 ± 0.8	0.30	19.5 ± 0.8	47.5 ± 2.5	2870	1200
N05A04C010BBEBK4	3x 10+E	18.0 ± 0.8	0.30	22.0 ± 1.0	50.0 ± 3.0	3180	2000
N05A04C016BBEBK4	3x 16+E	20.5 ± 1.0	0.30	25.0 ± 1.0	53.5 ± 3.5	3750	3200
N05A04C2.5BBCBK4	4x 2.5/6	12.5 ± 0.8	0.30	16.5 ± 0.8	44.0 ± 2.5	2300	500
N05A04C004BBCBK4	4x 4/6	14.0 ± 0.8	0.30	18.0 ± 0.8	45.5 ± 2.5	2650	800

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Article Code	Type mm ²	Diameter over bedding mm	Thickness of armour wires mm	Diameter sheath mm	Diameter Overall incl. HCF protection mm	Weight of Cable Approx. (Kg/Km)	Max. pulling tension (N)
N05A04C006BBCBK4	4x 6/6	15.5 ± 0.8	0.30	19.5 ± 0.8	47.5 ± 2.5	2870	1200
N05A04C010BBCBK4	4x 10/10	18.0 ± 0.8	0.30	22.0 ± 1.0	50.0 ± 3.0	3180	2000
N05A04C016BBCBK4	4x 16/16	20.5 ± 1.0	0.40	25.5 ± 1.0	53.0 ± 3.0	3830	3200
N05A04C025BBCBK4	4x 25/16	25.0 ± 1.0	0.30	29.5 ± 1.0	58.5 ± 3.0	4730	5000
N05A05C010BDBBK4	4x 10+E	20.0 ± 1.0	0.30	24.0 ± 1.0	52.5 ± 3.0	3540	2500
N05A07C1.5BAABK4	7x 1.5/6	14.0 ± 0.8	0.30	17.5 ± 0.8	44.5 ± 2.5	2550	525
N05A12C1.5BAABK4	12x 1.5/10	18.5 ± 0.8	0.30	22.5 ± 1.0	50.0 ± 3.0	4130	900
N05A07C2.5BAABK4	7x 2.5/6	15.0 ± 0.8	0.30	19.0 ± 0.8	46.0 ± 2.5	2760	875
N05A12C2.5BAABK4	12x 2.5/10	20.5 ± 1.0	0.30	24.5 ± 1.0	52.0 ± 3.0	3500	1500
N05A27C1.5BAABK4	27x 1.5/16	26.5 ± 1.0	0.30	31.0 ± 1.5	64.5 ± 3.5	5070	2025
N05A37C1.5BAABK4	37x 1.5/16	30.0 ± 1.5	0.30	35.5 ± 1.5	69.0 ± 3.5	5920	2775

* This cable has a double braid (two layers of wires)

Electrical value instrumentation cables

No. of cores x cross section	Conductor resistance DC (Ω/km)		Reactance (Ω/km) at 50/60Hz	Impedance (Ω/km) at 90°C at 50/60Hz	Continous current rating at 45°C	Short circuit [Ampere]	
	at 20°C	at 90°C				1 sec	0.3 sec
1x 50/6	0.391	0.4986	0.161/0.193	0,524/0,535	196	7000	12780
1x 70/6	0.270	0.344	0,152/0,182	0,376/0,390	242	9800	17892
1x 95/10	0.195	0.2486	0,146/0,176	0,289/0,305	293	13300	24282
1x 120/10	0.154	0.1964	0,141/0,170	0,242/0,260	339	16800	30672
1x 150/10	0.126	0.161	0.137/0.164	0,211/0,223	389	21000	38340
1x 185/10	0.100	0.128	0.133/0.160	0,185/0,205	444	25900	47286
1x 240/16	0.0762	0.0972	0.133/0.159	0,165/0,187	522	33600	61344
1x 300/16	0.0607	0.0774	0.128/0.154	0,150/0,173	601	42000	76681
2x 1.5/4	12.2	15.56	0.115/0.138	15,556/15,567	20	210	383
2x 2.5/6	7.56	9.64	0.107/0.129	9,640/9,641	26	350	639
3x 1.5/4	12.2	15.56	0.115/0.138	15,556/15,567	16	210	383
3x 2.5/6	7.56	9.64	0.107/0.129	9,640/9,641	21	350	639
3x 4/6	4.70	5.99	0.100/0.120	5,993/5,994	28	560	1022
3x 6/6	3.11	3.97	0.094/0.112	3,967/3,9672	36	840	1634
3x 16/16	1.16	1.46	0.082/0.099	1,481/1,482	67	2240	4089
3x 35/16	0.529	0.675	0.078/0.094	0,679/0,681	110	4900	9846
3x 70/35	0.270	0.344	0.077/0.092	0,352/0,356	169	9800	17892
3x 120/60	0.154	0.196	0.073/0.088	0,209/0,215	237	16800	30672
3x 150/70	0.126	0.161	0.073/0.083	0,177/0,183	272	21000	38340
3x 4+E	4.70	5.99	0.100/0.120	5,993/5,994	28	560	1022
3x 6+E	3.11	3.97	0.094/0.112	3,967/3,9672	36	840	1634
3x 10+E	1.84	2.35	0.088/0.105	2,351/2,352	50	1400	2556
3x 16+E	1.16	1.46	0.082/0.099	1,481/1,482	67	2240	4089
4x 2.5/6	7.56	9.64	0.107/0.129	9,640/9,641	21	350	639
4x 4/6	4.70	5.99	0.100/0.120	5,991/5,992	28	560	1022
4x 6/6	3.11	3.97	0.094/0.112	3,967/3,9672	36	840	1534
4x 10/10	1.84	2.35	0.088/0.105	2,531/2,352	50	1400	2556
4x 16/16	1.16	1.46	0.082/0.099	1,481/1,482	67	2240	4089
4x 25/16	0.734	0.936	0.081/0.098	0,098	89	3500	6390
4x 10+E	1.84	2.35	0.088/0.105	2,351/2,532	50	1400	2556
7x 1.5/6	12.2	15.56	0.115/0.138	15,556/15,567	12	210	383
12x 1.5/10	12.2	15.56	0.115/0.138	15,556/15,567	10	210	383
7x 2.5/6	7.56	9.64	0.107/0.129	9,640/9,641	15.5	350	639
12x 2.5/10	7.56	9.64	0.107/0.129	6,640/9,641	13	350	639
27x 1.5/16	12.2	15.56	0.115/0.138	15,556/15,567	7.5	210	383
37x 1.5/16	12.2	15.56	0.115/0.138	15,556/15,567	7	210	383

NOTICE

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