

NEK606 Caledonian Offshore & Marine Cables

Fire Resistant Power and Control Cables

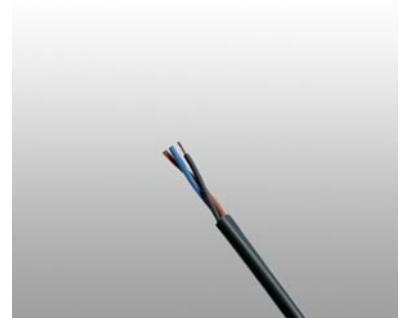


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P17 BU 0.6/1 kV

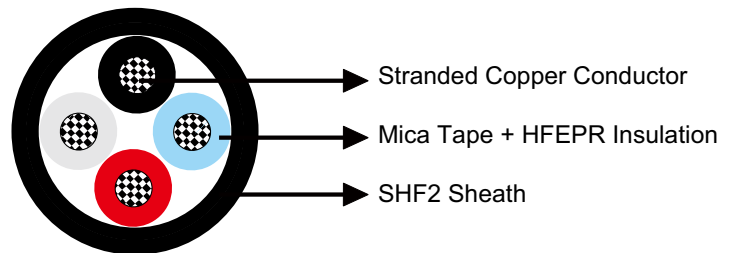
Applications

These cables are fire resistant, flame retardant, low smoke and halogen free, used for control, power and lighting systems.



Standards

- IEC 60092-353
- IEC 60092-351
- IEC 60092-359
- IEC 60331-21
- IEC 60332-1
- IEC 60332-3-22
- IEC 60754-1,2
- IEC 61034-2
- NEK 606:2004



Construction

- **Conductors:** Tinned annealed stranded copper to IEC 60228 class 2.
- **Insulation:** Mica tape + Halogen free EPR.
- **Outer Sheath:** Halogen free thermosetting compound, SHF2, coloured black.

Electrical Characteristics

Nominal Cross Section Area	mm ²	1.5	2.5	4	6	10	16	25	35
Nominal Conductor Diameter	mm	1.6	2.1	2.6	3.2	4	5.1	6.5	7.4
Maximum DC Resistant@20°C	Ω/km	12.2	7.56	4.7	3.11	1.84	1.16	0.734	0.529
Continuous Current Rating@45°C 1 Core	A	23	30	40	52	72	96	127	157
Continuous Current Rating@45°C 2 Core	A	20	26	34	44	61	82	108	133
Continuous Current Rating@45°C 3&4 Core	A	16	21	28	36	50	67	89	110
Short Circuit Current 1s	A	210	360	570	860	1430	2290	3580	5010
Operating Voltage	KV	0.6/1	0.6/1	0.6/1	0.6/1	0.6/1	0.6/1	0.6/1	0.6/1



Nominal Cross Section Area	mm ²	50	70	95	120	150	185	240	300
Nominal Conductor Diameter	mm	8.7	10.3	12.2	13.8	15.1	17.0	19.6	21.9
Maximum DC Resistant@20°C	Ω/km	0.391	0.27	0.195	0.154	0.126	0.1	0.0762	0.0607
Continuous Current Rating@45°C 1 Core	A	196	242	293	339	389	444	522	601
Continuous Current Rating@45°C 2 Core	A	167	206	249	288	331	444	444	511
Continuous Current Rating@45°C 3&4 Core	A	137	169	205	237	272	311	365	421
Short Circuit Current 1s	A	7150	10020	13590	17170	21460	26470	34340	42930
Operating Voltage	KV	0.6/1	0.6/1	0.6/1	0.6/1	0.6/1	0.6/1	0.6/1	0.6/1

Note: For more than 4-cores, the current ratings may be calculated from the following formula ($I_N = I_1 / \sqrt[3]{N}$), I_1 = Current rating for 1-core, N = Number of cores.

Ambient Temperature Correction Factors

Ambient Temperature Correction Factors	35	40	45	50	55	60	65	70	75	80
Rating Factor	1.1	1.05	1.0	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Mechanical and Thermal Properties

- Bending Radius: 8×OD (during installation); 6×OD (fixed installed)
- Temperature Range: -20°C ~ +90°C

Dimensions and Weight

Construction No. of cores×Cross section(mm ²)	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
1×1.5	1.0	1.0	6.4	65
1×2.5	1.0	1.0	6.8	75
1×4	1.0	1.0	7.4	95
1×6	1.0	1.0	7.9	120
1×10	1.0	1.1	8.8	170
1×16	1.0	1.1	10.2	240
1×25	1.2	1.2	12.0	360
1×35	1.2	1.2	13.1	455
1×50	1.4	1.3	14.7	600
1×70	1.4	1.4	16.6	805
1×95	1.6	1.5	19.0	1095
1×120	1.6	1.5	20.6	1345
1×150	1.8	1.6	22.7	1635
1×185	2.0	1.7	25.2	2070



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Construction No. of cores×Cross section(mm ²)	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
1×240	2.2	1.8	28.4	2655
1×300	2.4	1.9	31.1	3335
2×1.5	1.0	1.1	10.3	155
2×2.5	1.0	1.2	11.0	190
2×4	1.0	1.2	12.3	250
2×6	1.0	1.3	13.4	310
2×10	1.0	1.3	15.6	445
2×16	1.0	1.4	18.2	635
2×25	1.2	1.6	22.0	970
2×35	1.2	1.7	24.0	1215
2×50	1.4	1.8	27.4	1615
2×70	1.4	1.9	32.6	2335
2×95	1.6	2.1	37.6	3155
2×120	1.6	2.3	41.2	3875
2×150	1.8	2.4	45.4	4725
2×185	2.0	2.6	50.2	5845
2×240	2.2	2.8	56.8	7570
2×300	2.4	3.1	63.0	9395
3×1.5	1.0	1.2	10.9	180
3×2.5	1.0	1.2	11.9	230
3×4	1.0	1.2	13.1	295
3×6	1.0	1.3	14.2	375
3×10	1.0	1.4	16.5	550
3×16	1.0	1.5	19.3	795
3×25	1.2	1.6	23.5	1220
3×35	1.2	1.7	25.6	1545
3×50	1.4	1.9	29.5	2075
3×70	1.4	2.0	33.2	2775
3×95	1.6	2.2	38.5	3800
3×120	1.6	2.4	42.0	4685
3×150	1.8	2.5	46.3	5685
3×185	2.0	2.7	51.8	7215
3×240	2.2	3.0	58.0	9320
3×300	2.4	3.2	67.6	12280
4×1.5	1.0	1.2	12.1	225
4×2.5	1.0	1.2	13.0	275
4×4	1.0	1.3	14.5	365
4×6	1.0	1.4	15.8	490
4×10	1.0	1.4	18.4	695
4×16	1.0	1.5	21.5	1005
4×25	1.2	1.7	26.1	1550
4×35	1.2	1.8	28.5	1970
4×50	1.4	2.0	32.8	2645
4×70	1.4	2.2	36.9	3545





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Construction No. of cores×Cross section(mm ²)	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
4×95	1.6	2.4	42.8	4850
4×120	1.6	2.6	46.5	5965
4×150	1.8	2.8	54.6	8020
4×185	2.0	3.0	60.3	9930
4×240	2.2	3.3	68.4	12920
4×300	2.4	3.5	75.5	15995
5×1.5	1.0	1.3	14.3	265
6×1.5	1.0	1.3	15.6	305
7×1.5	1.0	1.3	15.6	320
8×1.5	1.0	1.4	18.4	425
9×1.5	1.0	1.5	19.9	440
10×1.5	1.0	1.5	20.2	495
12×1.5	1.0	1.5	20.9	530
14×1.5	1.0	1.6	21.9	630
16×1.5	1.0	1.6	23.3	690
19×1.5	1.0	1.6	24.6	790
20×1.5	1.0	1.7	26.1	880
23×1.5	1.0	1.8	28.4	1030
24×1.5	1.0	1.8	29.2	1035
27×1.5	1.0	1.8	29.9	1080
30×1.5	1.0	1.9	31.1	1250
33×1.5	1.0	1.9	32.3	1335
37×1.5	1.0	2.0	33.8	1445
44×1.5	1.0	2.2	38.4	1765
5×2.5	1.0	1.3	14.5	340
6×2.5	1.0	1.4	17.0	395
7×2.5	1.0	1.4	17.0	420
8×2.5	1.0	1.5	20.0	535
9×2.5	1.0	1.5	21.5	560
10×2.5	1.0	1.5	21.8	620
12×2.5	1.0	1.6	22.7	680
14×2.5	1.0	1.6	23.9	810
16×2.5	1.0	1.7	25.4	895
19×2.5	1.0	1.7	26.8	1000
20×2.5	1.0	1.8	28.4	1140
23×2.5	1.0	1.9	30.9	1325
24×2.5	1.0	1.9	31.8	1340
27×2.5	1.0	1.9	32.5	1395
30×2.5	1.0	2.0	33.9	1620
33×2.5	1.0	2.0	35.2	1735
37×2.5	1.0	2.1	36.8	1865
44×2.5	1.0	2.3	41.8	2295