



**Caledonian**

## **Caledonian Offshore & Marine Cables**



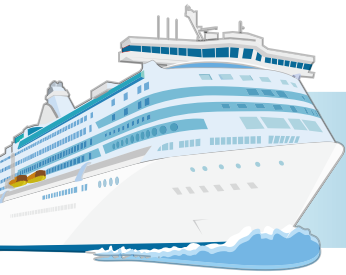
### **NEK606 STANDARD**



 **ADDISON**

[www.caledonian-cables.co.uk](http://www.caledonian-cables.co.uk)

[www.addison-cables.com](http://www.addison-cables.com)



# Company Profile

Caledonian, established in 1978, offers one of the most complete lines of fiber and copper cabling system solutions with over hundreds of different cabling system products. Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS - British Standard; LPCB Fire Performance Standard, ISO Standard etc. Caledonian Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables has continually expanded its global presence in Europe and Asia.

Caledonian & Addison, produces a wide range of cables for communication, power and electronics in its primary plants in UK, Italy and Spain. To stay in front, we continually keep expanding our manufacturing capabilities in more low cost region such as Romania, Taiwan, Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible, scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing, logistic services, and vertically integrated with our E commerce technologies, to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality, excellent service level, competitive pricing and a unique and innovative spirit. With our latest technologies, we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning, we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized, country and industry-specific solutions. Caledonian & Addison has established an extensive network of design, manufacturing, and logistics facilities in the world's major markets to serve the growing outsourcing needs of both multinational and regional customers.

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### Technical Information

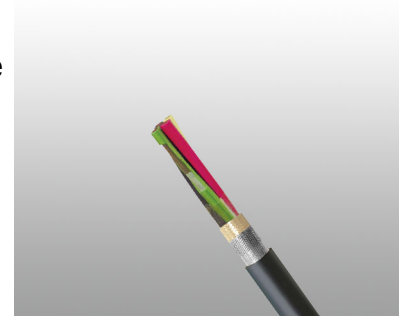
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### P101 (Formerly P1 or P1/P8) RFOU/TFOU 0.6/1KV

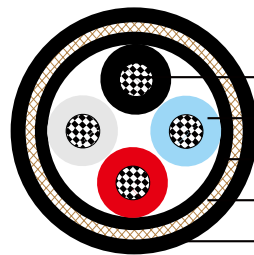
#### Applications

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



#### Standards

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



- ▶ Stranded Copper Conductor
- ▶ Halogen Free EPR/XLPE Insulation
- ▶ Halogen-free Bedding
- ▶ Copper Wire Braid
- ▶ SHF2/SHF MUD Sheath

#### Construction

- **Conductors:** Tinned annealed stranded copper to IEC 60228 class 2 or class 5.
- **Insulation:** Halogen-free EPR or XLPE.
- **Bedding:** Extruded halogen free compound.
- **Armour:** Tinned copper wire braid in accordance with IEC 60092-350.
- **Outer Sheath:** Halogen free thermosetting compound, SHF2 (TYPE 101, formerly TYPE P1). Halogen free, mud resistant thermosetting compound, SHF MUD (formerly TYPE P1/P8), coloured black.

#### Electrical Characteristics

Nominal Cross Section Area	mm <sup>2</sup>	1.5	2.5	4	6	10	16	25	35	50	70
Nominal Conductor Diameter	mm	1.6	2.1	2.6	3.2	4.0	5.1	6.5	7.4	8.7	10.3
Maximum DC Resistant@20°C	Ω/km	12.2	7.56	4.7	3.11	1.84	1.16	0.734	0.529	0.391	0.27
Continuous Current Rating@45°C 1 Core	A	23	30	40	52	72	96	127	157	196	242
Continuous Current Rating@45°C 2 Core	A	20	26	34	44	61	82	108	133	167	206



Continuous Current Rating@45°C 3&4 Core	A	16	21	28	36	50	67	89	110	137	169
Short Circuit Current 1s	A	210	360	570	860	1430	2290	3580	5010	7150	10020
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	0.6/1	0.6/1

Nominal Cross Section Area	mm <sup>2</sup>	95	120	150	185	240	300	400	500	630
Nominal Conductor Diameter	mm	12.2	13.8	15.1	17.0	19.6	21.9	24.6	27.6	32.5
Maximum DC Resistant@20°C	Ω/km	0.195	0.154	0.126	0.1	0.0762	0.0607	0.0475	0.0369	0.0286
Continuous Current Rating@45°C 1 Core	A	293	339	389	444	522	601	690	780	890
Continuous Current Rating@45°C 2 Core	A	249	288	331	444	444	511	587	663	757
Continuous Current Rating@45°C 3&4 Core	A	205	237	272	311	365	421	483	546	623
Short Circuit Current 1s	A	13590	17170	21460	26470	34340	42930	57230	71540	90140
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	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 <sup>2</sup> )	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm		Nominal Overall Diameter mm	Nominal Weight kg/km
		Inner	Outer		
1×1.5	1.0	1.1	1.1	8.9	135
1×2.5	1.0	1.1	1.1	9.3	150
1×4	1.0	1.1	1.1	9.9	180
1×6	1.0	1.1	1.1	10.4	205
1×10	1.0	1.1	1.2	12.2	295
1×16	1.0	1.1	1.2	13.5	385
1×25	1.2	1.1	1.2	15.4	525
1×35	1.2	1.1	1.3	16.9	685



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Construction No. of cores×Cross section(mm <sup>2</sup> )	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm		Nominal Overall Diameter mm	Nominal Weight kg/km
		Inner	Outer		
1×50	1.4	1.1	1.4	18.7	870
1×70	1.4	1.1	1.4	20.4	1105
1×95	1.6	1.1	1.5	22.8	1435
1×120	1.6	1.2	1.6	24.9	1745
1×150	1.8	1.2	1.6	26.8	2055
1×185	2.0	1.2	1.7	29.3	2560
1×240	2.2	1.2	1.8	32.5	3190
1×300	2.4	1.2	1.9	35.2	3935
1×400	2.4	1.4	2.1	40.5	5060
1×500	2.4	1.4	2.2	44.0	6180
1×630	2.4	1.4	2.3	48.0	7620
2×1.5	1.0	1.1	1.2	13.6	295
2×2.5	1.0	1.1	1.2	14.4	335
2×4	1.0	1.1	1.3	16.1	445
2×6	1.0	1.1	1.3	17.1	520
2×10	1.0	1.1	1.4	19.3	680
2×16	1.0	1.1	1.5	21.7	955
2×25	1.2	1.2	1.6	25.9	1335
2×35	1.2	1.2	1.7	27.9	1595
2×50	1.4	1.2	1.9	31.9	2250
2×70	1.4	1.2	2.1	35.8	2795
2×95	1.6	1.2	2.3	41.2	3780
2×120	1.6	1.4	2.4	44.8	4560
2×150	1.8	1.4	2.6	49.2	5500
2×185	2.0	1.4	2.7	53.8	6675
2×240	2.2	1.6	3.0	61.0	8605
2×300	2.4	1.6	3.2	67.0	10510
3×1.5	1.0	1.1	1.2	14.2	320
3×2.5	1.0	1.1	1.3	15.6	415
3×4	1.0	1.1	1.3	16.8	500
3×6	1.0	1.1	1.4	18.1	605
3×10	1.0	1.1	1.4	20.3	795
3×16	1.0	1.1	1.5	22.8	1125
3×25	1.2	1.2	1.6	27.5	1620
3×35	1.2	1.2	1.7	29.6	1955
3×50	1.4	1.2	1.9	33.9	2730
3×70	1.4	1.4	2.0	38.4	3655
3×95	1.6	1.4	2.2	43.8	4885
3×120	1.6	1.4	2.3	47.6	6000
3×150	1.8	1.6	2.5	52.4	7300



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Construction No. of cores×Cross section(mm <sup>2</sup> )	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm		Nominal Overall Diameter mm	Nominal Weight kg/km
		Inner	Outer		
3×185	2.0	1.6	2.7	58.6	8960
3×240	2.2	1.8	2.9	66.1	11610
3×300	2.2	1.8	3.4	71.9	13490
4×1.5	1.0	1.1	1.3	15.7	350
4×2.5	1.0	1.1	1.3	16.6	425
4×4	1.0	1.1	1.4	18.1	590
4×6	1.0	1.1	1.4	19.5	725
4×10	1.0	1.1	1.5	22.1	955
4×16	1.0	1.2	1.6	25.2	1375
4×25	1.2	1.2	1.7	30.0	1965
4×35	1.2	1.2	1.8	32.4	2410
4×50	1.4	1.4	2.0	37.3	3365
4×70	1.4	1.4	2.2	42.1	4580
4×95	1.6	1.4	2.4	48.2	6020
4×120	1.6	1.6	2.5	52.7	7440
4×150	1.8	1.6	2.9	58.3	8800
4×185	2.0	1.6	3.1	64.0	10760
4×240	2.2	1.8	3.4	72.4	13890
4×300	2.4	1.8	3.7	79.8	17405
5×1.5	1.0	1.1	1.3	16.7	420
6×1.5	1.0	1.1	1.3	17.8	495
7×1.5	1.0	1.1	1.3	17.8	540
8×1.5	1.0	1.1	1.5	20.3	645
9×1.5	1.0	1.1	1.5	21.5	675
10×1.5	1.0	1.1	1.5	21.8	705
12×1.5	1.0	1.1	1.5	22.5	805
14×1.5	1.0	1.1	1.6	23.6	860
16×1.5	1.0	1.1	1.7	24.9	940
19×1.5	1.0	1.1	1.7	26.0	1100
20×1.5	1.0	1.1	1.7	27.2	1130
23×1.5	1.0	1.1	1.8	29.3	1285
24×1.5	1.0	1.1	1.8	30.0	1305
27×1.5	1.0	1.1	1.9	30.8	1460
30×1.5	1.0	1.1	1.9	31.8	1520
33×1.5	1.0	1.2	2.0	33.5	1670
37×1.5	1.0	1.2	2.0	34.6	1840
44×1.5	1.0	1.2	2.2	39.2	2210
5×2.5	1.0	1.1	1.4	18.0	555
6×2.5	1.0	1.1	1.4	19.2	590
7×2.5	1.0	1.1	1.4	19.2	655





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Construction No. of cores×Cross section(mm <sup>2</sup> )	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm		Nominal Overall Diameter mm	Nominal Weight kg/km
		Inner	Outer		
8×2.5	1.0	1.1	1.5	21.8	775
9×2.5	1.0	1.1	1.6	23.3	785
10×2.5	1.0	1.1	1.6	23.6	865
12×2.5	1.0	1.1	1.6	24.5	955
14×2.5	1.0	1.1	1.7	25.5	1070
16×2.5	1.0	1.1	1.7	26.7	1155
19×2.5	1.0	1.1	1.8	28.2	1360
20×2.5	1.0	1.1	1.8	29.5	1410
23×2.5	1.0	1.1	1.9	31.8	1610
24×2.5	1.0	1.2	2.0	33.2	1690
27×2.5	1.0	1.2	2.0	33.9	1815
30×2.5	1.0	1.2	2.0	34.9	1960
33×2.5	1.0	1.2	2.1	36.7	2190
37×2.5	1.0	1.2	2.1	38.0	2370
44×2.5	1.0	1.2	2.3	42.6	2795

