



# NEK606 Water Blocked Offshore & Marine Cables

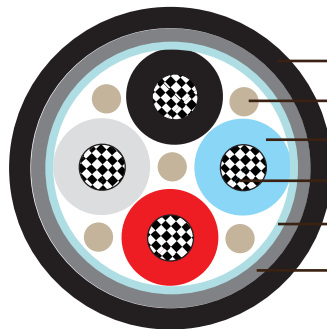
## Water Blocked P18 RU 0.6/1kV

### Applications

These cables are partially water blocked, 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 60332-1
- IEC 60332-3-22
- IEC 60754-1,2
- IEC 61034-1,2
- NEK 606:2004
- VG 95218 part 29



- Polyurethane Outer Sheath
- Water Blocking Fillers
- Halogen Free EPR Insulation
- Stranded Copper Conductor
- Water Blocking tape
- SHF2 Inner Sheath

### Construction

- **Conductors:** Tinned annealed stranded copper to IEC 60228 class 2.
- **Insulation:** Halogen-free EPR.
- **Filler:** Water blocking fillers, if required
- **Water Blocking Elements:** Water blocking tape and strings for providing longitudinal water tightness.
- **Inner Sheath:** Halogen free thermosetting compound, SHF2, coloured black.
- **Outer Sheath:** Polyurethane for providing transversal water tightness, PE is optional, but can not meet low smoke standard.

### Electrical Characteristics

Nominal Cross Section Area	mm <sup>2</sup>	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

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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 <sup>2</sup>	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 <sup>2</sup> )	Nominal Insulation Thickness mm	Nominal Inner Sheath Thickness mm	Nominal Outer Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
1×1.5	1.0	1.0	1.0	8.0±2	63
1×2.5	1.0	1.0	1.0	8.5±2	84
1×4	1.0	1.0	1.0	9.1±2	116
1×6	1.0	1.0	1.0	9.6±2	137
1×10	1.0	1.1	1.0	10.5±2	173
1×16	1.0	1.1	1.0	11.8±2	247
1×25	1.2	1.2	1.2	14.1±2	373
1×35	1.2	1.2	1.2	15.2±2	478



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Construction No. of cores×Cross section(mm <sup>2</sup> )	Nominal Insulation Thickness mm	Nominal Inner Sheath Thickness mm	Nominal Outer Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
1×50	1.4	1.3	1.2	16.8±2	625
1×70	1.4	1.4	1.2	18.7±2	845
1×95	1.6	1.5	1.4	21.5±2	1145
1×120	1.6	1.5	1.4	23.1±2	1412
1×150	1.8	1.6	1.4	25.2±2	1717
1×185	2.0	1.7	1.4	27.7±2	2179
1×240	2.2	1.8	1.6	31.2±2	2793
1×300	2.4	1.9	1.6	34.0±2	3507
2×1.5	1.0	1.1	1.0	11.7±2	152
2×2.5	1.0	1.1	1.0	12.5±2	184
2×4	1.0	1.2	1.0	13.6±2	236
2×6	1.0	1.2	1.0	14.9±2	310
2×10	1.0	1.3	1.0	16.8±2	441
2×16	1.0	1.4	1.0	19.2±2	635
2×25	1.2	1.5	1.2	23.7±2	987
2×35	1.2	1.6	1.2	25.7±2	1244
2×50	1.4	1.8	1.2	29.3±2	1664
2×70	1.4	1.9	1.2	34.3±2	2394
2×95	1.6	2.1	1.4	39.7±2	3245
2×120	1.6	2.2	1.4	43.1±2	3969
2×150	1.8	2.4	1.4	47.5±2	4872
2×185	2.0	2.6	1.4	52.3±2	6038
2×240	2.2	2.8	1.6	59.3±2	7833
2×300	2.4	3.0	1.6	65.2±2	9728
3×1.5	1.0	1.1	1.0	12.3±2	173
3×2.5	1.0	1.2	1.0	13.1±2	215
3×4	1.0	1.2	1.0	14.5±2	294
3×6	1.0	1.3	1.0	15.6±2	378
3×10	1.0	1.3	1.0	18.0±2	557
3×16	1.0	1.4	1.0	20.5±2	809
3×25	1.2	1.6	1.2	25.3±2	1260
3×35	1.2	1.7	1.2	27.4±2	1601
3×50	1.4	1.8	1.2	31.1±2	2132
3×70	1.4	2.0	1.2	35.0±2	2903
3×95	1.6	2.2	1.4	40.4±2	3932
3×120	1.6	2.3	1.4	44.0±2	4872
3×150	1.8	2.5	1.4	48.5±2	5959
3×185	2.0	2.7	1.4	54.0±2	7560
3×240	2.2	3.0	1.6	60.7±2	9765
3×300	2.4	3.2	1.6	70.0±2	12684

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Construction No. of cores×Cross section(mm <sup>2</sup> )	Nominal Insulation Thickness mm	Nominal Inner Sheath Thickness mm	Nominal Outer Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
4×1.5	1.0	1.2	1.0	13.2±2	210
4×2.5	1.0	1.2	1.0	14.4±2	268
4×4	1.0	1.3	1.0	15.7±2	357
4×6	1.0	1.3	1.0	17.2±2	478
4×10	1.0	1.4	1.0	19.5±2	698
4×16	1.0	1.5	1.0	22.4±2	1019
4×25	1.2	1.7	1.2	27.9±2	1607
4×35	1.2	1.8	1.2	30.2±2	2053
4×50	1.4	2.0	1.2	34.3±2	2730
4×70	1.4	2.1	1.2	38.7±2	3717
4×95	1.6	2.4	1.4	44.8±2	5056
4×120	1.6	2.5	1.4	48.8±2	6263
4×150	1.8	2.7	1.4	56.3±2	8106
4×185	2.0	2.9	1.4	62.0±2	10049
4×240	2.2	3.2	1.6	70.5±2	13104
4×300	2.4	3.5	1.6	77.8±2	16664
5×1.5	1.0	1.2	1.0	15.1±2	257
6×1.5	1.0	1.3	1.0	16.4±2	289
7×1.5	1.0	1.3	1.0	16.4±2	299
8×1.5	1.0	1.4	1.0	18.9±2	399
9×1.5	1.0	1.4	1.0	20.1±2	415
10×1.5	1.0	1.4	1.0	20.4±2	457
12×1.5	1.0	1.4	1.0	21.0±2	509
14×1.5	1.0	1.5	1.0	22.2±2	593
16×1.5	1.0	1.5	1.0	23.3±2	646
19×1.5	1.0	1.6	1.0	24.6±2	751
20×1.5	1.0	1.6	1.0	25.8±2	819
23×1.5	1.0	1.7	1.0	27.9±2	950
24×1.5	1.0	1.7	1.0	28.6±2	966
27×1.5	1.0	1.7	1.0	29.2±2	1034
30×1.5	1.0	1.8	1.0	30.4±2	1166
33×1.5	1.0	1.8	1.0	31.5±2	1250
37×1.5	1.0	1.9	1.0	32.8±2	1381
44×1.5	1.0	2.0	1.0	36.8±2	1638
5×2.5	1.0	1.3	1.0	16.3±2	320
6×2.5	1.0	1.3	1.0	17.6±2	378
7×2.5	1.0	1.3	1.0	17.6±2	410
8×2.5	1.0	1.4	1.0	20.4±2	520
9×2.5	1.0	1.5	1.0	21.9±2	530
10×2.5	1.0	1.5	1.0	22.2±2	599



# NEK606 Water Blocked Offshore & Marine Cables

Construction No. of cores×Cross section(mm <sup>2</sup> )	Nominal Insulation Thickness mm	Nominal Inner Sheath Thickness mm	Nominal Outer Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
12×2.5	1.0	1.5	1.0	22.9±2	656
14×2.5	1.0	1.5	1.0	23.9±2	772
16×2.5	1.0	1.6	1.0	25.3±2	851
19×2.5	1.0	1.6	1.0	26.6±2	982
20×2.5	1.0	1.7	1.0	28.1±2	1087
23×2.5	1.0	1.8	1.0	30.4±2	1265
24×2.5	1.0	1.8	1.0	31.2±2	1281
27×2.5	1.0	1.8	1.0	31.9±2	1360
30×2.5	1.0	1.9	1.0	33.1±2	1549
33×2.5	1.0	1.9	1.0	34.3±2	1664
37×2.5	1.0	2.0	1.0	35.8±2	1817
44×2.5	1.0	2.2	1.0	40.4±2	2205



Standard



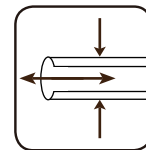
Standard



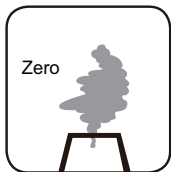
Standard



Standard



Water Tightness  
VG 95218-29



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2



Low Smoke Emission  
IEC 61034-1&2



Flame Retardancy  
IEC60332-1



Reduced Fire Propagation  
IEC60332-3-22