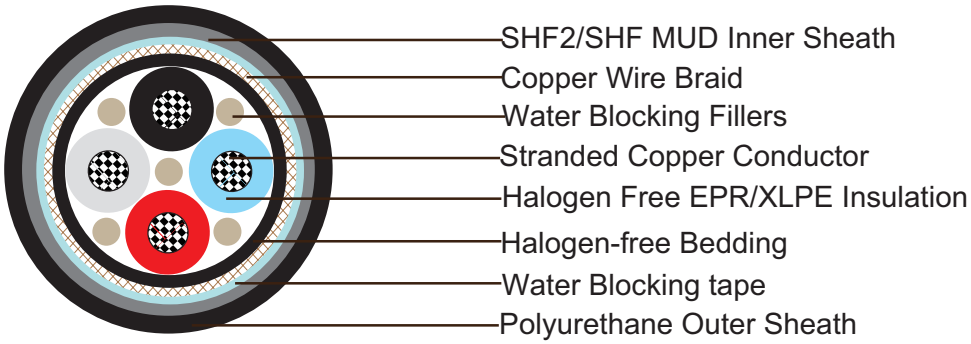
Water Blocked P1 or P1/P8 RFOU/TFOU 0.6/1KV

Applications

These cables are partially water blocked, 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 606:200
- VG 95218 part 29



Construction

- **Conductors:** Tinned annealed stranded copper to IEC 60228 class 2.
- **Insulation:** Halogen-free EPR. XLPE can be offered as an option (for TFOU cable)
- **Filler:** Water blocking fillers, if required.
- **Bedding:** Halogen free compound, PETP wrapping tape will be applied over the bedding, if required.
- **Armour:** Tinned copper wire braid, PETP wrapping tape will be applied over the braiding, if required.
- **Water Blocking Elements**:Water blocking tape and strings for providing longitudinal water tightness.
- **Inner Sheath:** Halogen free thermosetting compound, SHF2 (for TYPE P1). Halogen free, mud resistant thermosetting compound, SHF MUD (for TYPE P1/P8), 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	mm²	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	mm²	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(mm²)	Nominal Insulation Thickness mm	Nominal Bedding 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	1.1	1.1	1.0	10.9±2	142
1×2.5	1.0	1.1	1.1	1.0	11.3±2	158
1×4	1.0	1.1	1.1	1.0	11.9±2	189
1×6	1.0	1.1	1.1	1.0	12.4±2	215
1×10	1.0	1.1	1.2	1.0	14.2±2	310
1×16	1.0	1.1	1.2	1.0	15.5±2	404
1×25	1.2	1.1	1.2	1.2	17.8±2	551
1×35	1.2	1.1	1.3	1.2	19.3±2	719
1×50	1.4	1.1	1.4	1.2	21.1±2	914
1×70	1.4	1.1	1.4	1.2	22.8±2	1160
1×95	1.6	1.1	1.5	1.4	25.6±2	1507
1×120	1.6	1.2	1.6	1.4	27.7±2	1832
1×150	1.8	1.2	1.6	1.4	29.6±2	2158
1×185	2.0	1.2	1.7	1.4	32.1±2	2688
1×240	2.2	1.2	1.8	1.6	35.7±2	3350
1×300	2.4	1.2	1.9	1.6	38.4±2	4132
1×400	2.4	1.4	2.1	1.6	43.7±2	5313
1×500	2.4	1.4	2.2	1.6	47.2±2	6489
1×630	2.4	1.4	2.3	1.6	51.2±2	8001
2×1.5	1.0	1.1	1.2	1.0	15.6±2	310
2×2.5	1.0	1.1	1.2	1.0	16.4±2	352
2×4	1.0	1.1	1.3	1.0	18.1±2	467
2×6	1.0	1.1	1.3	1.0	19.1±2	546
2×10	1.0	1.1	1.4	1.0	21.3±2	714
2×16	1.0	1.1	1.5	1.0	23.7±2	1003
2×25	1.2	1.2	1.6	1.2	28.3±2	1402
2×35	1.2	1.2	1.7	1.2	30.3±2	1675
2×50	1.4	1.2	1.9	1.2	34.3±2	2363
2×70	1.4	1.2	2.1	1.2	38.2±2	2935
2×95	1.6	1.2	2.3	1.4	44.0±2	3969
2×120	1.6	1.4	2.4	1.4	47.6±2	4788
2×150	1.8	1.4	2.6	1.4	52.0±2	5775
2×185	2.0	1.4	2.7	1.4	56.6±2	7009
2×240	2.2	1.6	3.0	1.6	64.2±2	9035
2×300	2.4	1.6	3.2	1.6	70.2±2	11036
3×1.5	1.0	1.1	1.2	1.0	16.2±2	336
3×2.5	1.0	1.1	1.3	1.0	17.6±2	436

NEK606 Water Blocked Offshore & Marine Cables

Construction No. of cores×Cross section(mm²)	Nominal Insulation Thickness mm	Nominal Bedding Thickness mm	Nominal Inner Sheath Thickness mm	Nominal Outer Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
3×4	1.0	1.1	1.3	1.0	18.8±2	525
3×6	1.0	1.1	1.4	1.0	20.1±2	635
3×10	1.0	1.1	1.4	1.0	22.3±2	835
3×16	1.0	1.1	1.5	1.0	24.8±2	1181
3×25	1.2	1.2	1.6	1.2	29.9±2	1701
3×35	1.2	1.2	1.7	1.2	32.0±2	2053
3×50	1.4	1.2	1.9	1.2	36.3±2	2867
3×70	1.4	1.4	2.0	1.2	40.8±2	3838
3×95	1.6	1.4	2.2	1.4	46.6±2	5129
3×120	1.6	1.4	2.3	1.4	50.4±2	6300
3×150	1.8	1.6	2.5	1.4	55.2±2	7665
3×185	2.0	1.6	2.7	1.4	61.4±2	9408
3×240	2.2	1.8	2.9	1.6	69.3±2	12191
3×300	2.2	1.8	3.4	1.6	74.1±2	14165
4×1.5	1.0	1.1	1.3	1.0	17.7±2	368
4×2.5	1.0	1.1	1.3	1.0	18.6±2	446
4×4	1.0	1.1	1.4	1.0	20.1±2	620
4×6	1.0	1.1	1.4	1.0	21.5±2	761
4×10	1.0	1.1	1.5	1.0	24.1±2	1003
4×16	1.0	1.2	1.6	1.0	27.2±2	1444
4×25	1.2	1.2	1.7	1.2	32.4±2	2063
4×35	1.2	1.2	1.8	1.2	34.8±2	2531
4×50	1.4	1.4	2.0	1.2	39.7±2	3533
4×70	1.4	1.4	2.2	1.2	44.5±2	4809
4×95	1.6	1.4	2.4	1.4	51.0±2	6321
4×120	1.6	1.6	2.5	1.4	55.5±2	7812
4×150	1.8	1.6	2.9	1.4	61.1±2	9240
4×185	2.0	1.6	3.1	1.4	66.8±2	11298
4×240	2.2	1.8	3.4	1.6	75.6±2	14585
4×300	2.4	1.8	3.7	1.6	83.0±2	18275
5×1.5	1.0	1.1	1.3	1.0	18.7±2	441
6×1.5	1.0	1.1	1.3	1.0	19.8±2	520
7×1.5	1.0	1.1	1.3	1.0	19.8±2	567
8×1.5	1.0	1.1	1.5	1.0	22.3±2	677
9×1.5	1.0	1.1	1.5	1.0	23.5±2	709
10×1.5	1.0	1.1	1.5	1.0	23.8±2	740
12×1.5	1.0	1.1	1.5	1.0	24.5±2	845
14×1.5	1.0	1.1	1.6	1.0	25.6±2	903
16×1.5	1.0	1.1	1.7	1.0	26.9±2	987
19×1.5	1.0	1.1	1.7	1.0	28.0±2	1155

NEK606 Water Blocked Offshore & Marine Cables

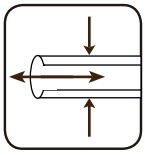
Construction No. of cores×Cross section(mm²)	Nominal Insulation Thickness mm	Nominal Bedding Thickness mm	Nominal Inner Sheath Thickness mm	Nominal Outer Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
20×1.5	1.0	1.1	1.7	1.0	29.2±2	1187
23×1.5	1.0	1.1	1.8	1.0	31.3±2	1349
24×1.5	1.0	1.1	1.8	1.0	32.0±2	1370
27×1.5	1.0	1.1	1.9	1.0	32.8±2	1533
30×1.5	1.0	1.1	1.9	1.0	33.8±2	1596
33×1.5	1.0	1.2	2.0	1.0	35.5±2	1754
37×1.5	1.0	1.2	2.0	1.0	36.6±2	1932
44×1.5	1.0	1.2	2.2	1.0	41.2±2	2321
5×2.5	1.0	1.1	1.4	1.0	20.0±2	583
6×2.5	1.0	1.1	1.4	1.0	21.2±2	620
7×2.5	1.0	1.1	1.4	1.0	21.2±2	688
8×2.5	1.0	1.1	1.5	1.0	23.8±2	814
9×2.5	1.0	1.1	1.6	1.0	25.3±2	824
10×2.5	1.0	1.1	1.6	1.0	25.6±2	908
12×2.5	1.0	1.1	1.6	1.0	26.5±2	1003
14×2.5	1.0	1.1	1.7	1.0	27.5±2	1124
16×2.5	1.0	1.1	1.7	1.0	28.7±2	1213
19×2.5	1.0	1.1	1.8	1.0	30.2±2	1428
20×2.5	1.0	1.1	1.8	1.0	31.5±2	1481
23×2.5	1.0	1.1	1.9	1.0	33.8±2	1691
24×2.5	1.0	1.2	2.0	1.0	35.2±2	1775
27×2.5	1.0	1.2	2.0	1.0	35.9±2	1906
30×2.5	1.0	1.2	2.0	1.0	36.9±2	2058
33×2.5	1.0	1.2	2.1	1.0	38.7±2	2300
37×2.5	1.0	1.2	2.1	1.0	40.0±2	2489
44×2.5	1.0	1.2	2.3	1.0	44.6±2	2935

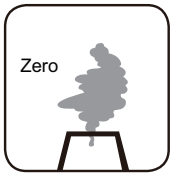
Standard

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