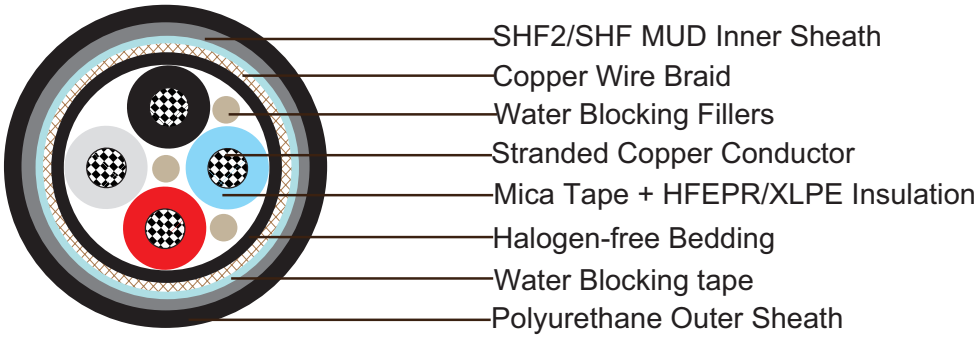
Water Blocked P5 or P5/P12 BFOU 0.6/1KV

Applications

These cables are partially water blocked, fire resistant, 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 60331-21
- IEC 60332-1
- IEC 60332-3-22
- IEC 60754-1,2
- IEC 61034-1,2
- NEK 606:2004
- VG 95218 part 29



Construction

- **Conductors:** Tinned annealed stranded compacted copper to IEC 60228 class 2.
- **Insulation:** Mica tape + Halogen free EPR/Mica tape + XLPE.
- **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 P5). Halogen free, mud resistant thermosetting compound, SHF MUD (for TYPE P5/P12), 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
Nominal Conductor Diameter	mm	1.6	2.1	2.6	3.2	4	5.1	6.5	7.4	8.7
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
Continuous Current Rating@45˚C 1 Core	A	23	30	40	52	72	96	127	157	196
Continuous Current Rating@45˚C 2 Core	A	20	26	34	44	61	82	108	133	167
Continuous Current Rating@45˚C 3&4 Core	A	16	21	28	36	50	67	89	110	137
Short Circuit Current 1s	A	210	360	570	860	1430	2290	3580	5010	7150
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

Nominal Cross Section Area	mm²	70	95	120	150	185	240	300	400	630
Nominal Conductor Diameter	mm	10.3	12.2	13.8	15.1	17.0	19.6	21.9	24.6	32.5
Maximum DC Resistant@20˚C	Ω/km	0.27	0.195	0.154	0.126	0.1	0.0762	0.0607	0.0475	0.0286
Continuous Current Rating@45˚C 1 Core	A	242	293	339	389	444	522	601	690	890
Continuous Current Rating@45˚C 2 Core	A	206	249	288	331	444	444	511	587	757
Continuous Current Rating@45˚C 3&4 Core	A	169	205	237	272	311	365	421	483	623
Short Circuit Current 1s	A	10020	13590	17170	21460	26470	34340	42930	57230	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	11.3±2	152
1×2.5	1.0	1.1	1.1	1.0	11.7±2	168
1×4	1.0	1.1	1.1	1.0	12.4±2	231
1×6	1.0	1.1	1.1	1.0	12.9±2	263
1×10	1.0	1.1	1.2	1.0	14.7±2	326
1×16	1.0	1.1	1.2	1.0	15.9±2	410
1×25	1.2	1.1	1.3	1.2	18.7±2	614
1×35	1.2	1.1	1.3	1.2	19.6±2	725
1×50	1.4	1.1	1.4	1.2	21.4±2	935
1×70	1.4	1.1	1.4	1.2	23.0±2	1166
1×95	1.6	1.1	1.5	1.4	25.9±2	1512
1×120	1.6	1.2	1.6	1.4	27.8±2	1822
1×150	1.8	1.2	1.7	1.4	29.8±2	2163
1×185	2.0	1.2	1.7	1.4	32.2±2	2672
1×240	2.2	1.2	1.8	1.6	35.8±2	3329
1×300	2.4	1.2	1.9	1.6	38.5±2	4106
1×400	2.4	1.4	2.1	1.6	44.2±2	5355
1×630	2.8	1.4	2.3	1.6	51.7±2	8043
2×1.5	1.0	1.1	1.2	1.0	16.2±2	326
2×2.5	1.0	1.1	1.3	1.0	17.1±2	378
2×4	1.0	1.1	1.3	1.0	18.6±2	494
2×6	1.0	1.1	1.4	1.0	19.9±2	583
2×10	1.0	1.1	1.4	1.0	21.9±2	740
2×16	1.0	1.1	1.5	1.0	24.5±2	1034
2×25	1.2	1.2	1.6	1.2	28.8±2	1428
2×35	1.2	1.2	1.7	1.2	30.8±2	1701
2×50	1.4	1.2	1.9	1.2	34.8±2	2405
2×70	1.4	1.2	2.1	1.2	40.4±2	3423
2×95	1.6	1.2	2.3	1.4	44.4±2	4106
2×120	1.6	1.4	2.4	1.4	48.1±2	4946
2×150	1.8	1.4	2.6	1.4	52.5±2	5954
2×185	2.0	1.4	2.7	1.4	57.1±2	7182
2×240	2.2	1.6	3.0	1.6	64.7±2	9230
2×300	2.4	1.6	3.2	1.6	71.0±2	11162
3×1.5	1.0	1.1	1.3	1.0	16.8±2	362
3×2.5	1.0	1.1	1.3	1.0	18.2±2	467
3×4	1.0	1.1	1.3	1.0	19.4±2	557

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
3×6	1.0	1.1	1.4	1.0	20.7±2	667
3×10	1.0	1.1	1.5	1.0	23.1±2	872
3×16	1.0	1.1	1.5	1.0	25.7±2	1218
3×25	1.2	1.2	1.7	1.2	30.5±2	1722
3×35	1.2	1.2	1.8	1.2	32.6±2	2079
3×50	1.4	1.2	2.0	1.2	36.7±2	2888
3×70	1.4	1.2	2.2	1.2	41.4±2	3859
3×95	1.6	1.4	2.4	1.4	47.5±2	5203
3×120	1.6	1.4	2.5	1.4	51.1±2	6337
3×150	1.8	1.4	2.7	1.4	56.0±2	7723
3×185	2.0	1.6	2.9	1.4	62.3±2	9476
3×240	2.2	1.6	3.2	1.6	69.7±2	12170
3×300	2.4	1.8	3.4	1.6	75.8±2	14427
4×1.5	1.0	1.1	1.3	1.0	18.4±2	420
4×2.5	1.0	1.1	1.3	1.0	19.3±2	530
4×4	1.0	1.1	1.4	1.0	20.8±2	651
4×6	1.0	1.1	1.4	1.0	22.1±2	788
4×10	1.0	1.1	1.5	1.0	24.7±2	1034
4×16	1.0	1.2	1.6	1.0	27.9±2	1470
4×25	1.2	1.2	1.8	1.2	33.1±2	2095
4×35	1.2	1.2	1.9	1.2	35.5±2	2562
4×50	1.4	1.4	2.0	1.2	40.6±2	3602
4×70	1.4	1.4	2.2	1.2	45.1±2	4830
4×95	1.6	1.6	2.4	1.4	52.2±2	6442
4×120	1.6	1.6	2.5	1.4	56.4±2	7891
4×150	1.8	1.6	2.9	1.4	61.8±2	9461
4×185	2.0	1.6	3.1	1.4	67.5±2	11550
4×240	2.2	1.8	3.4	1.6	76.3±2	14868
4×300	2.4	1.8	3.7	1.6	83.9±2	18428
5×1.5	1.0	1.1	1.4	1.0	19.7±2	536
6×1.5	1.0	1.1	1.4	1.0	21.0±2	572
7×1.5	1.0	1.1	1.4	1.0	21.0±2	620
8×1.5	1.0	1.1	1.5	1.0	23.8±2	751
9×1.5	1.0	1.1	1.6	1.0	25.3±2	756
10×1.5	1.0	1.1	1.6	1.0	25.6±2	830
12×1.5	1.0	1.2	1.6	1.0	26.3±2	924
14×1.5	1.0	1.2	1.7	1.0	27.5±2	1013
16×1.5	1.0	1.2	1.7	1.0	28.7±2	1087
19×1.5	1.0	1.2	1.7	1.0	29.4±2	1244
20×1.5	1.0	1.2	1.8	1.0	31.5±2	1323

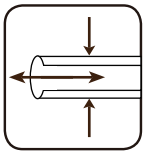
Construction No. of cores×Cross section(mm²)	Nominal Insulation Thickness mm	Nominal Bedding Thickness mm	Nominal Inner Sheath Thickness mm	Nominal Outer Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
23×1.5	1.0	1.2	1.9	1.0	33.8±2	1507
24×1.5	1.0	1.2	2.0	1.0	35.2±2	1586
27×1.5	1.0	1.2	2.0	1.0	35.9±2	1696
30×1.5	1.0	1.2	2.0	1.0	36.9±2	1822
32×1.5	1.0	1.4	2.0	1.0	37.5±2	1890
33×1.5	1.0	1.4	2.0	1.0	38.7±2	2037
37×1.5	1.0	1.4	2.0	1.0	40.0±2	2195
44×1.5	1.0	1.4	2.3	1.0	44.6±2	2583
5×2.5	1.0	1.1	1.4	1.0	20.8±2	625
6×2.5	1.0	1.1	1.4	1.0	22.4±2	683
7×2.5	1.0	1.1	1.4	1.0	22.4±2	735
8×2.5	1.0	1.1	1.5	1.0	25.5±2	830
9×2.5	1.0	1.1	1.6	1.0	27.1±2	903
10×2.5	1.0	1.1	1.6	1.0	27.4±2	1003
12×2.5	1.0	1.2	1.6	1.0	28.1±2	1097
14×2.5	1.0	1.2	1.7	1.0	29.3±2	1218
16×2.5	1.0	1.2	1.8	1.0	30.8±2	1328
19×2.5	1.0	1.2	1.8	1.0	31.6±2	1517
20×2.5	1.0	1.2	1.9	1.0	33.8±2	1622
23×2.5	1.0	1.4	2.0	1.0	36.7±2	1895
24×2.5	1.0	1.4	2.0	1.0	37.8±2	1943
27×2.5	1.0	1.4	2.0	1.0	37.4±2	2069
30×2.5	1.0	1.4	2.1	1.0	40.1±2	2347
33×2.5	1.0	1.4	2.2	1.0	41.6±2	2510
37×2.5	1.0	1.4	2.3	1.0	43.2±2	2741
44×2.5	1.0	1.4	2.4	1.0	48.2±2	3229

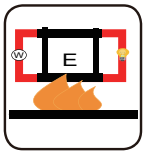
Standard

Standard

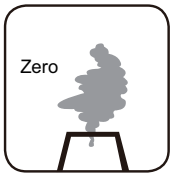
Standard

Standard


Water Tightness
VG 95218-29



Circuit Integrity
IEC 60331-21



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