



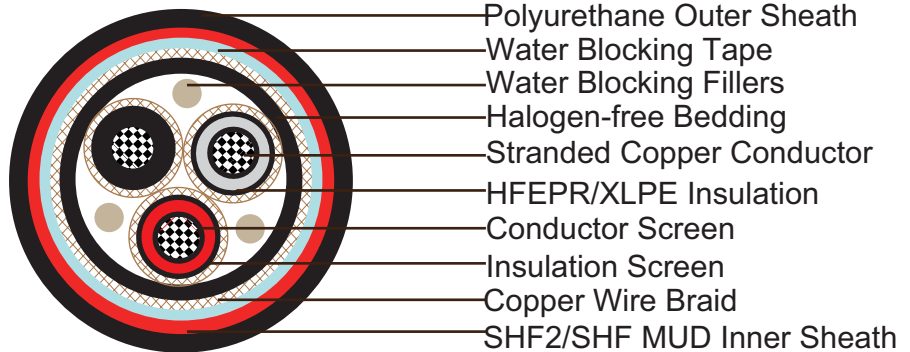
Water Blocked P4 or P4/P11 RFOU/TFOU 8.7/15KV

Applications

These cables are partially water blocked, flame retardant, low smoke, halogen free and mud resistant, used for fixed installation for medium voltage power.

Standards

- IEC 60092-354
- 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



Construction

- **Conductors:** Circular tinned annealed stranded copper to IEC 60228 class 2.
- **Conductor Screen:** Semi conducting material.
- **Insulation:** Halogen-free EPR. XLPE can be offered as an option (for TFOU cable).
- **Insulation Screen:** Semi conducting material and tinned copper wire braid.
- **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 P4), or halogen free mud resistant thermosetting compound, SHF MUD (for TYPE P4/P11), coloured red.
- **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 ² | 25 | 35 | 50 | 70 | 95 | 120 | |
| Nominal Conductor Diameter | mm | 6.5 | 7.4 | 8.7 | 10.3 | 12.2 | 13.8 | |
| Maximum DC Resistant@20°C | Ω/km | 0.734 | 0.529 | 0.391 | 0.27 | 0.195 | 0.154 | |
| Continuous Current Rating@45°C 1 Core | A | 127 | 157 | 196 | 242 | 293 | 339 | |
| Continuous Current Rating@45°C 3 Core | A | 89 | 110 | 137 | 169 | 205 | 237 | |
| Short Circuit Current 1s | A | 3580 | 5010 | 7150 | 10020 | 13590 | 17170 | |
| Operating Voltage | KV | 8.7/15 | 8.7/15 | 8.7/15 | 8.7/15 | 8.7/15 | 8.7/15 | |
| Nominal Cross Section Area | mm ² | 150 | 185 | 240 | 300 | 400 | 500 | 630 |
| Nominal Conductor Diameter | mm | 15.1 | 17.0 | 19.6 | 21.9 | 24.5 | 27.5 | 32.3 |
| Maximum DC Resistant@20°C | Ω/km | 0.126 | 0.1 | 0.0762 | 0.0607 | 0.0475 | 0.0369 | 0.0286 |
| Continuous Current Rating@45°C 1 Core | A | 389 | 444 | 522 | 601 | 690 | 780 | 890 |
| Continuous Current Rating@45°C 3 Core | A | 272 | 311 | 365 | 421 | 483 | 546 | 623 |
| Short Circuit Current 1s | A | 21460 | 26470 | 34340 | 42930 | 57230 | 71540 | 90140 |
| Operating Voltage | KV | 8.7/15 | 8.7/15 | 8.7/15 | 8.7/15 | 8.7/15 | 8.7/15 | 8.7/15 |

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:** 15×OD (during installation); 9×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 Bedding Thickness mm | Nominal Inner Sheath Thickness mm | Nominal Outer Sheath Thickness mm | Nominal Overall Diameter mm | Nominal Weight kg/km |
|-----------------------------------------------------------|---------------------------------|------------------------------|-----------------------------------|-----------------------------------|-----------------------------|----------------------|
| 1×25 | 4.5 | 1.6 | 1.2 | 1.2 | 30.8±2 | 1370 |
| 1×35 | 4.5 | 1.6 | 1.3 | 1.2 | 31.7±2 | 1502 |
| 1×50 | 4.5 | 1.7 | 1.3 | 1.2 | 33.1±2 | 1701 |
| 1×70 | 4.5 | 1.8 | 1.3 | 1.2 | 34.8±2 | 1995 |
| 1×95 | 4.5 | 1.8 | 1.4 | 1.4 | 37.2±2 | 2363 |
| 1×120 | 4.5 | 1.9 | 1.5 | 1.4 | 39.4±2 | 2756 |





Caledonian

Any inquiries, please feel free to contact
enquiry@shipboard-cables.com or kitty@shipboard-cables.com



| Construction No. of cores×Cross section(mm ²) | 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 |
|--------------------------------------------------------------------|------------------------------------------|---------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------|-------------------------|
| 1×150 | 4.5 | 2.0 | 1.5 | 1.4 | 40.9±2 | 3087 |
| 1×185 | 4.5 | 2.0 | 1.5 | 1.4 | 43.4±2 | 3722 |
| 1×240 | 4.5 | 2.1 | 1.6 | 1.6 | 46.6±2 | 4431 |
| 1×300 | 4.5 | 2.2 | 1.7 | 1.6 | 49.5±2 | 5324 |
| 1×400 | 4.5 | 2.4 | 1.8 | 1.6 | 53.4±2 | 6048 |
| 1×500 | 4.5 | 2.5 | 1.8 | 1.6 | 56.8±2 | 7224 |
| 1×630 | 4.5 | 2.6 | 1.9 | 1.6 | 61.1±2 | 8883 |
| 3×25 | 4.5 | 2.6 | 1.9 | 1.2 | 57.7±2 | 4961 |
| 3×35 | 4.5 | 2.7 | 2.0 | 1.2 | 59.9±2 | 5476 |
| 3×50 | 4.5 | 2.8 | 2.0 | 1.2 | 63.0±2 | 6258 |
| 3×70 | 4.5 | 2.9 | 2.1 | 1.2 | 66.8±2 | 7387 |
| 3×95 | 4.5 | 3.1 | 2.2 | 1.4 | 71.5±2 | 8789 |
| 3×120 | 4.5 | 3.2 | 2.3 | 1.4 | 75.5±2 | 10232 |
| 3×150 | 4.5 | 3.4 | 2.4 | 1.4 | 79.6±2 | 11697 |
| 3×185 | 4.5 | 3.6 | 2.6 | 1.4 | 87.0±2 | 14165 |
| 3×240 | 4.5 | 3.8 | 2.7 | 1.6 | 93.8±2 | 16653 |
| 3×300 | 4.5 | 4.0 | 2.9 | 1.6 | 99.8±2 | 19236 |



Standard



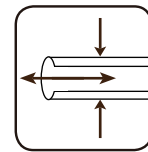
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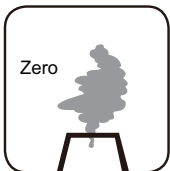
Standard



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

