

SIENOPYR FR M2XCH 1,8/3 kV

Power cables for ships and offshore units with screen



Application

For fixed installation on ships and offshore units in all locations and on open decks. Special measures, e.g. screening are necessary for installation of unarmoured cables in radio stations or above the upper metallic deck. The cables are not suitable for continuous use in water.

Global data

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|------------------|---------------|
| Brand | SIENOPYR FR |
| Type designation | M2XCH |
| Standard | IEC 60092-353 |

Design features

| | |
|---------------------|--|
| Conductor | Copper, round stranded acc. to IEC 60228 class 2 or class 5 |
| Insulation | Cross-linked-polyethylene (XLPE) acc. to IEC 60092-360 |
| Core identification | 1-core: brown 3-core: brown, black, grey |
| Inner covering | Halogen free, flame retardant compound |
| Screen | Plain copper wire braid |
| Outer sheath | Polyolefine compound, type SHF-1, according to IEC 60092-360 |

Electrical parameters

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|---------------------------------------|---|
| Rated voltage | 1.8/3 kV |
| Max. permissible operating voltage AC | 2.1/3.6 kV |
| Max. permissible operating voltage DC | 2.7/5.4 kV |
| AC test voltage | 6,5 kV |
| Current Carrying Capacity description | The definitions in IEC 60092-201 apply. |

Chemical parameters

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|-----------------------|-----------------------------|
| Smoke emission | according to IEC 61034 |
| Acidity of fire gases | according to IEC 60754-2 |
| Flame propagation | according to IEC 60332-3-22 |
| Flame propagation | according to IEC 60332-1-2 |

Thermal parameters

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|---|--------|
| Max. permissible temperature at conductor | 90 °C |
| Max. short circuit temperature of the conductor | 250 °C |
| Ambient temperature for fix installation min. | -35 °C |
| Laying temperature min. | -15 °C |

Mechanical parameters

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|------------------------------------|----------------------|
| Max. tensile load on the conductor | 50 N/mm ² |
| Min. bending radius | 6 x D |

| Number of cores x cross section | Part number | MLFB Number | Outer diameter max. mm | Bending radius fixed min. mm | Weight (ca.) kg/km | Permissible tensile force max. N | Current carrying capacity (1) A |
|---------------------------------|-------------|-------------|------------------------|------------------------------|--------------------|----------------------------------|---------------------------------|
| M2XCH 1 core | | | | | | | |
| 1 x 95 | | 5BG4512 | 21.5 | 129 | 1160 | 4750 | 293 |
| 1 x 120 | 20001771 | 5BG4513 | 22.5 | 135 | 1430 | 6000 | 339 |
| 1 x 150 | | 5BG4514 | 24.5 | 147 | 1690 | 7500 | 389 |
| 1 x 185F | 20170491 | 5BG4515 | 28 | 160 | 2060 | 9250 | 422 |
| 1 x 240F | 20001772 | 5BG4516 | 30.5 | 183 | 2630 | 12000 | 496 |
| 1 x 300F | 20157620 | 5BG4517 | 34 | 204 | 3150 | 15000 | 571 |
| M2XCH 3 cores | | | | | | | |
| 3 x 70 | | 5BG4541 | 41 | 246 | 3360 | 10500 | 169 |
| 3 x 95 | 20001773 | 5BG4542 | 45 | 270 | 4480 | 14250 | 205 |
| 3 x 120 | | 5BG4543 | 48 | 288 | 5250 | 18000 | 237 |

F = flexible conductor, stranded copper, class 5 acc. to IEC 60228

(1) The values are for continuous load at 45 °C ambient temperature and laying of max. 6 cables in horizontal arrangement, tightly packed, free air circulation around the cable bundle.

At ambient temperatures below -15 °C the cables should be subjected to no further mechanical movement than normal ship's vibrations