



## CABLE STRUCTURE

|              |  |
|--------------|--|
| Conductor    | Tinned or bare annealed stranded copper wires<br>Class 5 acc. to IEC 60228 |
| Insulation   | PVC compound   |
| Bedding      | PVC compound (for multicore cables)  |
| Outer Sheath | PVC compound type ST2  |

## STANDARDS & MAIN CHARACTERISTICS

|                      |                                     |
|----------------------|-------------------------------------|
| Construction         | IEC 60092-353:2016, IEC60092-507    |
| Test Methods         | IEC 60092-350:2014                  |
| Insulation Material  | IEC 60092-351                       |
| Sheath Material      | IEC 60092-359                       |
| Flame Retardant      | IEC 60332-1-2, IEC60332-3-22 Cat. A |
| Conductor Resistance | IEC 60228                           |

## OPERATING CHARACTERISTICS

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -15°C to +70°C |
| Rated Voltage         | 0,6/1 kV       |
| Test Voltage          | 3,5 kV         |
| Bending Radius        | IEC 60092-352  |
| For $D \leq 25$ mm    | 4 x D          |
| For $D > 25$ mm       | 6 x D          |

## VISUAL AND MARKING

|                   |                                  |
|-------------------|----------------------------------|
| Sheath Color      | Black (other colours on request) |
| Core Colours      | HD 308 S2                        |
| 1 Core            | Black                            |
| 2 Cores           | Blue-Brown                       |
| 3 Cores           | Brown-Black-Grey                 |
| 4 Cores           | Blue-Brown-Black-Grey            |
| 5 Cores           | Blue-Brown-Black-Grey-Black      |
| 6 Cores and above | Black cores with white numbered  |

## APPLICATION

Used as fixed installation cables in various electromechanical and electronic equipments of yachts and other marine vehicles.



FLAME RETARDANT



RATED VOLTAGE



TEST VOLTAGE



MIN. BENDING RADIUS

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| CAN*    | Cross-Section (mm <sup>2</sup> ) | Outer Sheath Diameter |           |           | Approx. Cable Weight (kg/km) | Min. Bending Radius (mm) | Current Carrying Capacity (*) (A) | Max, Electrical Resistance at 20 °C (ohm/km) |
|---------|----------------------------------|-----------------------|-----------|-----------|------------------------------|--------------------------|-----------------------------------|--|
|         |                                  | Min. (mm)             | Nom. (mm) | Max. (mm) |                              |                          |                                   |  |
| 1511.1  | 1x1                              | 4,7                   | 5,2       | 6,0       | 39                           | 24                       | 11                                | 20   |
| 1511.2  | 1x1,5                            | 4,8                   | 5,5       | 6,5       | 45                           | 26                       | 14                                | 13,7   |
| 1511.3  | 1x2,5                            | 5,2                   | 5,9       | 7,0       | 57                           | 28                       | 20                                | 8,21   |
| 1511.4  | 1x4                              | 6,2                   | 6,8       | 8,0       | 80                           | 32                       | 28                                | 5,09   |
| 1511.5  | 1x6                              | 6,6                   | 7,4       | 8,5       | 103                          | 34                       | 36                                | 3,39   |
| 1511.6  | 1x10                             | 7,6                   | 8,4       | 9,5       | 149                          | 38                       | 50                                | 1,95   |
| 1511.7  | 1x16                             | 8,8                   | 9,6       | 10,5      | 212                          | 42                       | 67                                | 1,24   |
| 1511.8  | 1x25                             | 11,0                  | 11,9      | 13,0      | 324                          | 52                       | 89                                | 0,795  |
| 1511.9  | 1x35                             | 12,0                  | 13,2      | 14,5      | 424                          | 58                       | 110                               | 0,565  |
| 1511.10 | 1x50                             | 14,0                  | 15,4      | 17,0      | 596                          | 68                       | 138                               | 0,393  |
| 1511.11 | 1x70                             | 16,0                  | 17,4      | 19,0      | 803                          | 76                       | 170                               | 0,277  |
| 1511.12 | 1x95                             | 18,0                  | 19,5      | 21,0      | 1.040                        | 84                       | 206                               | 0,21   |
| 1511.13 | 1x120                            | 20,0                  | 21,4      | 23,0      | 1.298                        | 92                       | 239                               | 0,164  |
| 1511.14 | 1x150                            | 22,0                  | 23,8      | 25,5      | 1.601                        | 153                      | 274                               | 0,132  |
| 1511.15 | 1x185                            | 24,5                  | 26,1      | 28,0      | 1.945                        | 168                      | 313                               | 0,108  |
| 1511.16 | 1x240                            | 27,5                  | 29,5      | 31,5      | 2.541                        | 189                      | 368                               | 0,0817                                       |
| 1511.17 | 1x300                            | 30,5                  | 32,7      | 35,0      | 3.148                        | 210                      | 424                               | 0,0654                                       |
| 1511.21 | 2x1                              | 9,2                   | 10,5      | 11,5      | 138                          | 46                       | 9                                 | 20   |
| 1511.22 | 2x1,5                            | 9,5                   | 11,0      | 12,5      | 158                          | 50                       | 12                                | 13,7   |
| 1511.23 | 2x2,5                            | 10,5                  | 11,8      | 13,0      | 193                          | 52                       | 17                                | 8,21   |
| 1511.24 | 2x4                              | 12,0                  | 13,9      | 15,5      | 277                          | 62                       | 24                                | 5,09   |
| 1511.25 | 2x6                              | 13,5                  | 15,3      | 17,0      | 352                          | 68                       | 31                                | 3,39   |
| 1511.26 | 2x10                             | 15,5                  | 17,2      | 19,0      | 486                          | 76                       | 43                                | 1,95   |
| 1511.27 | 2x16                             | 17,5                  | 19,4      | 21,0      | 662                          | 84                       | 57                                | 1,24   |
| 1511.28 | 2x25                             | 22,0                  | 24,1      | 26,0      | 1.017                        | 156                      | 76                                | 0,795  |
| 1511.41 | 3x1                              | 9,6                   | 10,9      | 12,0      | 156                          | 48                       | 8                                 | 20   |
| 1511.42 | 3x1,5                            | 10,0                  | 11,5      | 13,0      | 180                          | 52                       | 10                                | 13,7   |
| 1511.43 | 3x2,5                            | 11,0                  | 12,6      | 14,0      | 230                          | 56                       | 14                                | 8,21   |
| 1511.44 | 3x4                              | 13,0                  | 14,6      | 16,0      | 324                          | 64                       | 19                                | 5,09   |
| 1511.45 | 3x6                              | 14,5                  | 16,1      | 17,5      | 418                          | 70                       | 25                                | 3,39   |
| 1511.46 | 3x10                             | 16,5                  | 18,4      | 20,0      | 597                          | 80                       | 35                                | 1,95   |
| 1511.47 | 3x16                             | 19,0                  | 20,7      | 22,5      | 824                          | 90                       | 47                                | 1,24   |
| 1511.48 | 3x25                             | 23,5                  | 25,5      | 27,5      | 1.250                        | 165                      | 62                                | 0,795  |
| 1511.49 | 3x35                             | 26,5                  | 28,6      | 31,0      | 1.649                        | 186                      | 77                                | 0,565  |

\* Conductor temperature at 70 °C, Ambient air temperature at 45 °C

\* CAN : Cable Article Number for Black Outer Sheath and core colours according to HD 308 S2

\* D : Cable Nominal Outer Diameter

| CAN*     | Cross-Section (mm <sup>2</sup> ) | Outer Sheath Diameter |           |           | Approx. Cable Weight (kg/km) | Min. Bending Radius (mm) | Current Carrying Capacity (*) (A) | Max. Electrical Resistance at 20 °C (ohm/km) |
|----------|----------------------------------|-----------------------|-----------|-----------|------------------------------|--------------------------|-----------------------------------|--|
|          |                                  | Min. (mm)             | Nom. (mm) | Max. (mm) |                              |                          |                                   |  |
| 1511.50  | 3x50                             | 31,0                  | 33,6      | 36,0      | 2.318                        | 216                      | 96                                | 0,393  |
| 1511.51  | 3x70                             | 35,0                  | 37,8      | 40,5      | 3.084                        | 243                      | 119                               | 0,277  |
| 1511.52  | 3x95                             | 40,0                  | 42,8      | 45,5      | 4.016                        | 273                      | 144                               | 0,21   |
| 1511.53  | 3x120                            | 44,0                  | 47,2      | 50,5      | 4.996                        | 303                      | 167                               | 0,164  |
| 1511.61  | 4x1                              | 10,0                  | 11,7      | 13,0      | 182                          | 52                       | 8                                 | 20   |
| 1511.62  | 4x1,5                            | 11,0                  | 12,6      | 14,0      | 219                          | 56                       | 10                                | 13,7   |
| 1511.63  | 4x2,5                            | 12,0                  | 13,5      | 15,0      | 274                          | 60                       | 14                                | 8,21   |
| 1511.64  | 4x4                              | 14,0                  | 16,1      | 17,5      | 399                          | 70                       | 19                                | 5,09   |
| 1511.65  | 4x6                              | 15,5                  | 17,4      | 19,0      | 507                          | 76                       | 25                                | 3,39   |
| 1511.66  | 4x10                             | 18,0                  | 20,0      | 21,5      | 732                          | 86                       | 35                                | 1,95   |
| 1511.67  | 4x16                             | 20,5                  | 22,6      | 24,5      | 1.018                        | 98                       | 47                                | 1,24   |
| 1511.68  | 4x25                             | 25,5                  | 28,1      | 30,5      | 1.566                        | 183                      | 62                                | 0,795  |
| 1511.69  | 4x35                             | 29,0                  | 31,6      | 34,0      | 2.069                        | 204                      | 77                                | 0,565  |
| 1511.70  | 4x50                             | 34,5                  | 37,3      | 40,0      | 2.931                        | 240                      | 96                                | 0,393  |
| 1511.71  | 4x70                             | 39,0                  | 41,8      | 44,5      | 3.886                        | 267                      | 119                               | 0,277  |
| 1511.72  | 4x95                             | 44,5                  | 47,9      | 51,0      | 5.141                        | 306                      | 144                               | 0,21   |
| 1511.73  | 4x120                            | 49,0                  | 52,3      | 55,5      | 6.334                        | 333                      | 167                               | 0,164  |
| 1511.81  | 5x1                              | 11,0                  | 12,8      | 14,0      | 219                          | 56                       | 6                                 | 20   |
| 1511.82  | 5x1,5                            | 12,0                  | 13,5      | 15,0      | 256                          | 60                       | 8                                 | 13,7   |
| 1511.83  | 5x2,5                            | 13,0                  | 14,6      | 16,0      | 323                          | 64                       | 11                                | 8,21   |
| 1511.84  | 5x4                              | 15,5                  | 17,4      | 19,0      | 474                          | 76                       | 15                                | 5,09   |
| 1511.85  | 5x6                              | 17,0                  | 19,2      | 21,0      | 616                          | 84                       | 20                                | 3,39   |
| 1511.86  | 5x10                             | 20,0                  | 22,0      | 24,0      | 892                          | 96                       | 28                                | 1,95   |
| 1511.87  | 5x16                             | 22,5                  | 24,9      | 27,0      | 1.244                        | 162                      | 38                                | 1,24   |
| 1511.88  | 5x25                             | 28,5                  | 31,0      | 33,5      | 1.915                        | 201                      | 50                                | 0,795  |
| 1511.89  | 5x35                             | 32,5                  | 35,2      | 38,0      | 2.571                        | 228                      | 62                                | 0,565  |
| 1511.90  | 5x50                             | 38,0                  | 41,1      | 44,0      | 3.588                        | 264                      | 77                                | 0,393  |
| 1511.91  | 5x70                             | 43,5                  | 46,7      | 50,0      | 4.838                        | 300                      | 95                                | 0,277  |
| 1511.92  | 5x95                             | 49,5                  | 52,9      | 56,5      | 6.298                        | 339                      | 115                               | 0,21   |
| 1511.93  | 5x120                            | 54,5                  | 58,4      | 62,0      | 7.862                        | 372                      | 133                               | 0,164  |
| 1511.101 | 6x1                              | 12,0                  | 13,7      | 15,0      | 251                          | 60                       | 6                                 | 20   |
| 1511.107 | 7x1                              | 12,0                  | 13,7      | 15,0      | 260                          | 60                       | 5                                 | 20   |
| 1511.113 | 8x1                              | 14,0                  | 15,8      | 17,5      | 332                          | 70                       | 5                                 | 20   |
| 1511.114 | 9x1                              | 14,0                  | 15,8      | 17,5      | 332                          | 70                       | 5                                 | 20   |

\* Conductor temperature at 70 °C, Ambient air temperature at 45 °C

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|----------|----------------------------------|-----------------------|-----------|-----------|------------------------------|--------------------------|-----------------------------------|--|
|          |                                  | Min. (mm)             | Nom. (mm) | Max. (mm) |                              |                          |                                   |  |
| 1511.115 | 10x1                             | 15,0                  | 16,9      | 18,5      | 376                          | 74                       | 5                                 | 20   |
| 1511.116 | 12x1                             | 15,5                  | 17,4      | 19,0      | 404                          | 76                       | 5                                 | 20   |
| 1511.117 | 14x1                             | 16,5                  | 18,4      | 20,0      | 459                          | 80                       | 5                                 | 20   |
| 1511.118 | 16x1                             | 17,0                  | 19,3      | 21,0      | 508                          | 84                       | 5                                 | 20   |
| 1511.119 | 18x1                             | 18,0                  | 20,2      | 22,0      | 560                          | 88                       | 5                                 | 20   |
| 1511.120 | 19x1                             | 18,0                  | 20,2      | 22,0      | 568                          | 88                       | 5                                 | 20   |
| 1511.121 | 20x1                             | 19,0                  | 21,3      | 23,0      | 625                          | 92                       | 5                                 | 20   |
| 1511.122 | 24x1                             | 21,0                  | 23,6      | 25,5      | 737                          | 153                      | 5                                 | 20   |
| 1511.102 | 6x1,5                            | 12,5                  | 14,5      | 16,0      | 296                          | 64                       | 8                                 | 13,7   |
| 1511.108 | 7x1,5                            | 12,5                  | 14,5      | 16,0      | 307                          | 64                       | 7                                 | 13,7   |
| 1511.129 | 8x1,5                            | 14,5                  | 16,7      | 18,5      | 392                          | 74                       | 7                                 | 13,7   |
| 1511.130 | 9x1,5                            | 14,5                  | 16,7      | 18,5      | 394                          | 74                       | 7                                 | 13,7   |
| 1511.131 | 10x1,5                           | 16,0                  | 18,2      | 20,0      | 455                          | 80                       | 7                                 | 13,7   |
| 1511.132 | 12x1,5                           | 16,5                  | 18,7      | 20,5      | 492                          | 82                       | 7                                 | 13,7   |
| 1511.133 | 14x1,5                           | 17,5                  | 19,6      | 21,5      | 549                          | 86                       | 7                                 | 13,7   |
| 1511.134 | 16x1,5                           | 18,5                  | 20,7      | 22,5      | 620                          | 90                       | 7                                 | 13,7   |
| 1511.135 | 18x1,5                           | 19,5                  | 21,7      | 23,5      | 685                          | 94                       | 7                                 | 13,7   |
| 1511.136 | 19x1,5                           | 19,5                  | 21,7      | 23,5      | 696                          | 94                       | 7                                 | 13,7   |
| 1511.137 | 20x1,5                           | 20,5                  | 22,7      | 24,5      | 752                          | 98                       | 7                                 | 13,7   |
| 1511.138 | 24x1,5                           | 22,5                  | 25,2      | 27,0      | 888                          | 162                      | 7                                 | 13,7   |
| 1511.103 | 6x2,5                            | 14,0                  | 15,9      | 17,5      | 384                          | 70                       | 11                                | 8,21   |
| 1511.109 | 7x2,5                            | 14,0                  | 15,9      | 17,5      | 401                          | 70                       | 9                                 | 8,21   |
| 1511.145 | 8x2,5                            | 16,5                  | 18,4      | 20,0      | 509                          | 80                       | 9                                 | 8,21   |
| 1511.146 | 9x2,5                            | 16,5                  | 18,4      | 20,0      | 514                          | 80                       | 9                                 | 8,21   |
| 1511.147 | 10x2,5                           | 17,5                  | 19,8      | 21,5      | 583                          | 86                       | 9                                 | 8,21   |
| 1511.148 | 12x2,5                           | 18,5                  | 20,6      | 22,5      | 646                          | 90                       | 9                                 | 8,21   |
| 1511.149 | 14x2,5                           | 19,5                  | 21,6      | 23,5      | 724                          | 94                       | 9                                 | 8,21   |
| 1511.150 | 16x2,5                           | 20,5                  | 22,6      | 24,5      | 807                          | 98                       | 9                                 | 8,21   |
| 1511.151 | 18x2,5                           | 21,5                  | 24,0      | 26,0      | 907                          | 156                      | 9                                 | 8,21   |
| 1511.152 | 19x2,5                           | 21,5                  | 24,0      | 26,0      | 924                          | 156                      | 9                                 | 8,21   |
| 1511.153 | 20x2,5                           | 22,5                  | 25,1      | 27,0      | 998                          | 162                      | 9                                 | 8,21   |
| 1511.154 | 24x2,5                           | 25                    | 27,9      | 30,0      | 1.179                        | 180                      | 9                                 | 8,21   |

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