

# BiT 1000<sup>®</sup> CY FR

Flexible, screened, highly flame retardant control and power supply cables, rated 0,6/1kV



industrial application



internal application



external application



underground installation



EN 60332-1-2



EN 60332-3



oxygen index



high flexibility



UV resistance



EMC

## Technical data:

### Thermal parameters:

#### Operating temperature:

fixed installation: -40 °C to 80 °C

flexible connections: -5 °C to 80 °C

### Electrical parameters:

Operating voltage:  $U_0/U=0,6/1kV$

Test voltage (50Hz): 4000V

Insulation resistance: 20MΩxkm

### Mechanical parameters:

#### Min. bending radius:

flexible connections: 12xØ

fixed installation: 6xØ

## Design:

### Conductors:

bare copper conductors, multi-stranded class 5 acc.

to EN 60228

### Insulation:

#### Core identification:

black, numbered conductors, cables with protective earth conductor marked G (e.g. 7G1,5)

#### Core arrangement:

cores twisted together

#### Inner sheath:

special PVC (single core cables without inner sheath)

#### Screen:

tinned copper wire braid with coverage ≥85%

#### Outer sheath:

special PVC, oil resistant (see table of chemical resistance), self-extinguishing and flame retardant

(acc. to EN 60332-1-2, EN 60332-3-24, cat. C),

UV resistant, LOI>29; colour: black

## Application:

BiT 1000<sup>®</sup> CY FR cables are designed for connections in control and signalling circuits, as power supply cables for mobile and portable devices in places exposed to vibrations. Insulation compounds and construction of BiT 1000<sup>®</sup> CY FR cable enable easy and fast connections and ensure their high durability. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms, especially in applications in places with increased fire safety requirements (limited flame propagation). Cables suitable for outdoor installation - outer sheath is UV resistant. **Cables designed also for direct burial in ground.** Properly connected screen ensures full electromagnetic compatibility (EMC).

Cables classified according to **EN 50575 (CPR)**.

| Cat. no. | n x mm <sup>2</sup> | Outer diameter* [mm] | Approximate cable weight [kg/km] |
|----------|---------------------|----------------------|----------------------------------|
| S66560   | 2x0,5               | 9,6                  | 138                              |
| S66561   | 3G0,5               | 10,0                 | 152                              |
| S66562   | 4G0,5               | 10,6                 | 172                              |
| S66563   | 5G0,5               | 11,2                 | 195                              |
| S66564   | 6G0,5               | 12,0                 | 223                              |
| S66565   | 7G0,5               | 12,0                 | 227                              |
| S66566   | 8G0,5               | 13,1                 | 260                              |
| S66567   | 10G0,5              | 14,9                 | 320                              |
| S66568   | 12G0,5              | 14,9                 | 325                              |
| S66569   | 14G0,5              | 15,4                 | 355                              |
| S66570   | 16G0,5              | 16,3                 | 400                              |
| S66571   | 18G0,5              | 17,1                 | 435                              |
| S66572   | 19G0,5              | 17,1                 | 440                              |
| S66573   | 20G0,5              | 17,8                 | 470                              |
| S66574   | 21G0,5              | 17,8                 | 475                              |
| S66575   | 25G0,5              | 20,0                 | 570                              |
| S66576   | 30G0,5              | 20,6                 | 620                              |
| S66577   | 37G0,5              | 22,2                 | 720                              |
| S66578   | 2x0,75              | 10,0                 | 144                              |
| S66579   | 3G0,75              | 10,4                 | 161                              |
| S66580   | 4G0,75              | 10,9                 | 184                              |
| S66581   | 5G0,75              | 11,8                 | 224                              |
| S66582   | 6G0,75              | 12,6                 | 250                              |
| S66583   | 7G0,75              | 12,6                 | 255                              |
| S66584   | 8G0,75              | 13,8                 | 295                              |
| S66585   | 10G0,75             | 15,7                 | 365                              |

| Cat. no. | n x mm <sup>2</sup> | Outer diameter* [mm] | Approximate cable weight [kg/km] |
|----------|---------------------|----------------------|----------------------------------|
| S66586   | 12G0,75             | 15,7                 | 375                              |
| S66587   | 14G0,75             | 16,5                 | 420                              |
| S66588   | 16G0,75             | 17,3                 | 465                              |
| S66589   | 18G0,75             | 18,1                 | 505                              |
| S66590   | 19G0,75             | 18,1                 | 510                              |
| S66591   | 20G0,75             | 19,0                 | 560                              |
| S66592   | 21G0,75             | 19,0                 | 565                              |
| S66593   | 25G0,75             | 21,2                 | 665                              |
| S66594   | 2x1,0               | 10,1                 | 157                              |
| S66595   | 3G1,0               | 10,6                 | 186                              |
| S66596   | 4G1,0               | 11,4                 | 201                              |
| S66597   | 5G1,0               | 12,2                 | 244                              |
| S66598   | 6G1,0               | 13,2                 | 280                              |
| S66599   | 7G1,0               | 13,2                 | 285                              |
| S66600   | 8G1,0               | 14,3                 | 325                              |
| S66601   | 10G1,0              | 16,5                 | 415                              |
| S66602   | 12G1,0              | 16,5                 | 430                              |
| S66603   | 14G1,0              | 17,2                 | 470                              |
| S66604   | 16G1,0              | 18,0                 | 520                              |
| S66605   | 18G1,0              | 18,8                 | 570                              |
| S66606   | 19G1,0              | 18,8                 | 575                              |
| S66607   | 20G1,0              | 19,8                 | 625                              |
| S66608   | 21G1,0              | 19,8                 | 635                              |
| S66609   | 25G1,0              | 22,3                 | 770                              |
| S66610   | 2x1,5               | 10,9                 | 195                              |
| S66611   | 3G1,5               | 11,4                 | 209                              |

# BiT 1000<sup>®</sup> CY FR

Flexible, screened, highly flame retardant control and power supply cables, rated 0,6/1kV

| Cat. no. | n x mm <sup>2</sup> | Outer diameter* [mm] | Approximate cable weight [kg/km] |
|----------|---------------------|----------------------|----------------------------------|
| S66612   | 4G1,5               | 12,4                 | 250                              |
| S66613   | 5G1,5               | 13,5                 | 300                              |
| S66614   | 6G1,5               | 14,4                 | 340                              |
| S66615   | 7G1,5               | 14,4                 | 350                              |
| S66616   | 8G1,5               | 15,6                 | 405                              |
| S66617   | 10G1,5              | 18,2                 | 510                              |
| S66618   | 12G1,5              | 18,2                 | 535                              |
| S66620   | 16G1,5              | 20,2                 | 655                              |
| S66400   | 2x2,5               | 12,2                 | 231                              |
| S66401   | 3G2,5               | 12,9                 | 285                              |
| S66402   | 4G2,5               | 13,9                 | 330                              |
| S66403   | 5G2,5               | 15,0                 | 385                              |
| S66404   | 7G2,5               | 16,3                 | 450                              |
| S66405   | 10G2,5              | 20,8                 | 685                              |
| S66406   | 14G2,5              | 21,8                 | 795                              |
| S66407   | 16G2,5              | 23,1                 | 900                              |
| S66408   | 18G2,5              | 24,7                 | 1025                             |
| S66409   | 25G2,5              | 29,0                 | 1385                             |
| S66410   | 2x4                 | 13,4                 | 305                              |
| S66411   | 3G4                 | 14,0                 | 355                              |
| S66412   | 4G4                 | 15,2                 | 430                              |
| S66413   | 5G4                 | 16,5                 | 505                              |
| S66414   | 7G4                 | 17,7                 | 610                              |
| S66415   | 10G4                | 22,8                 | 915                              |
| S66416   | 3G6                 | 15,3                 | 445                              |
| S66417   | 4G6                 | 16,9                 | 550                              |
| S66418   | 5G6                 | 18,1                 | 640                              |
| S66419   | 7G6                 | 19,7                 | 795                              |

| Cat. no. | n x mm <sup>2</sup> | Outer diameter* [mm] | Approximate cable weight [kg/km] |
|----------|---------------------|----------------------|----------------------------------|
| S66420   | 3G10                | 18,7                 | 690                              |
| S66421   | 4G10                | 20,8                 | 855                              |
| S66422   | 5G10                | 22,2                 | 995                              |
| S66423   | 7G10                | 24,2                 | 1245                             |
| S66424   | 3G16                | 21,1                 | 925                              |
| S66425   | 4G16                | 23,4                 | 1155                             |
| S66426   | 5G16                | 25,3                 | 1375                             |
| S66427   | 7G16                | 27,4                 | 1720                             |
| S66428   | 3G25                | 25,7                 | 1410                             |
| S66429   | 4G25                | 28,6                 | 1755                             |
| S66430   | 5G25                | 30,8                 | 2080                             |
| S66431   | 3G35                | 27,9                 | 1740                             |
| S66432   | 4G35                | 31,4                 | 2220                             |
| S66433   | 5G35                | 33,9                 | 2645                             |
| S66434   | 3G50                | 33,0                 | 2440                             |
| S66435   | 4G50                | 36,8                 | 3055                             |
| S66436   | 5G50                | 39,9                 | 3670                             |
| S66437   | 3G70                | 37,7                 | 3285                             |
| S66438   | 4G70                | 42,0                 | 4125                             |
| S66439   | 5G70                | 45,6                 | 4960                             |
| S66440   | 3G95                | 42,4                 | 4275                             |
| S66441   | 4G95                | 47,5                 | 5405                             |
| S66442   | 5G95                | 51,4                 | 6580                             |
| S66443   | 3G120               | 45,4                 | 4985                             |
| S66444   | 4G120               | 50,9                 | 6365                             |
| S66445   | 4G150               | 57,5                 | 7945                             |
| S66446   | 4G185               | 64,1                 | 9540                             |
| S66447   | 4G240               | 71,1                 | 12330                            |

## single core cables

| Cat. no. | n x mm <sup>2</sup> | Outer diameter* [mm] | Approximate cable weight [kg/km] |
|----------|---------------------|----------------------|----------------------------------|
| S66630   | 1x1,5               | 8,9                  | 90                               |
| S66631   | 1x2,5               | 9,5                  | 110                              |
| S66632   | 1x4                 | 9,9                  | 176                              |
| S66633   | 1x6                 | 10,5                 | 210                              |
| S66634   | 1x10                | 11,8                 | 291                              |
| S66635   | 1x16                | 13,0                 | 387                              |
| S66636   | 1x25                | 14,9                 | 453                              |
| S66637   | 1x35                | 16,2                 | 550                              |
| S66638   | 1x50                | 18,4                 | 748                              |
| S66639   | 1x70                | 20,5                 | 976                              |
| S66640   | 1x95                | 22,8                 | 1268                             |
| S66641   | 1x120               | 24,6                 | 1536                             |
| S66642   | 1x150               | 26,8                 | 1875                             |
| S66643   | 1x185               | 29,4                 | 2242                             |
| S66644   | 1x240               | 32,6                 | 2883                             |
| S66645   | 1x300               | 36,7                 | 3618                             |

| Cat. no. | n x mm <sup>2</sup> | Outer diameter* [mm] | Approximate cable weight [kg/km] |
|----------|---------------------|----------------------|----------------------------------|
| S66646   | 1G1,5               | 8,9                  | 90                               |
| S66647   | 1G2,5               | 9,5                  | 110                              |
| S66648   | 1G4                 | 9,9                  | 176                              |
| S66649   | 1G6                 | 10,5                 | 210                              |
| S66650   | 1G10                | 11,8                 | 291                              |
| S66651   | 1G16                | 13,0                 | 387                              |
| S66652   | 1G25                | 14,9                 | 453                              |
| S66653   | 1G35                | 16,2                 | 550                              |
| S66654   | 1G50                | 18,4                 | 748                              |
| S66655   | 1G70                | 20,5                 | 976                              |
| S66656   | 1G95                | 22,8                 | 1268                             |
| S66657   | 1G120               | 24,6                 | 1536                             |
| S66658   | 1G150               | 26,8                 | 1875                             |
| S66659   | 1G185               | 29,4                 | 2242                             |
| S66660   | 1G240               | 32,6                 | 2883                             |
| S66661   | 1G300               | 36,7                 | 3618                             |

\*Outer diameter tolerance: +/-5%

Cable Factory BITNER reserves the right to modify the specifications without prior notice

G - cables with green/yellow earthing conductor

x- cables without green/yellow earthing conductor

Note: On customer's request other cross sections or number of cores can be produced