



www.ukcables.co.uk





FLATFORM ELASTOMERIC NGFLGOEU

A flexible flat rubber cable for use in applications, indoor or outdoor, with high mechanical stresses, such as crane, festoon, conveyor or handling systems. The elastomeric compound demonstrates excellent abrasion resistance, can withstand extremely arduous conditions and is resistant to many chemicals and oils.

CONSTRUCTION

Plain or tinned copper class 5 or 6 conductor with ethylene propylene rubber (EPR) insulation, colour coded to 5 cores, 6 cores and above number coded with green yellow CPC. Cores laid parallel with a heavy duty polychloroprene (PCP) or chlorosulphonated polyethylene (CSP) sheath overall.

TECHNICAL DATA

VDE 0250-809

| Nominal Voltage | 300/500v |
|-------------------------------|--|
| Test Voltage | 2000v |
| Operating Temperature Static | -50°C to +80°C |
| Operating Temperature Flexing | -35°C to +80°C |
| Bending Radius | 4 x cable thickness to 12mm, 5 x cable thickness above 12mm |
| Current Rating Table | 4F1A & 4F1B* |

















FLATFORM ELASTOMERIC DIMENSIONS

| - FA | | |
|----------------|---------------|-------------------|
| Cores x mm² | Nom Dim mm | Weight kg / km |
| 4 x 1.5 | 6.3 x 17.6 | 175 |
| 8 x 1.5 | 6.3 x 31.5 | 375 |
| 10 x 1.5 | 6.3 x 39.5 | 422 |
| 12 x 1.5 | 6.3 x 46.5 | 512 |
| 24 x 1.5 | 11.8 x 57.8 | 1065 |
| 4 x 2.5 | 7.5 x 19.8 | 255 |
| 7 x 4.0 | 8.5 x 37.8 | 675 |
| 7 x 6.0 | 8.7 x 42.6 | 912 |
| 7 x 10.0 | 10.3 x 53.2 | 1380 |
| 7 x 16.0 | 12.7 x 64.2 | 2350 |
| 7 x 25.0 | 14.2 x 74.5 | 3250 |
| 8 x 2.5 | 7.2 x 36.5 | 455 |
| 10 x 2.5 | 7.9 x 46.5 | 655 |
| 12 x 2.5 | 7.9 x 55.4 | 772 |
| 24 x 2.5 | 16.2 x 69.5 | 1575 |
| 4 x 4.0 | 8.5 x 24.3 | 425 |
| 4 x 6.0 | 9.2 x 26.5 | 535 |
| 4 x 10.0 | 10.8 x 32.8 | 735 |
| 4 x 50.0 | 18.6 x 59.8 | 2920 |
| 4 x 70.0 | 21.2 x 68.5 | 3844 |
| 4 x 95.0 | 23.8 x 76.6 | 4966 |
| 4 x 120.0 | 26.5 x 88.4 | 6350 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| Aberdeen | Birmingham | Bristol | Glasgow | Gateshead | Manchester | London |
|-----------------------------|-------------------------------|----------------------------|----------------------------|------------------------------|-------------------------------|---------------------------|
| T: 01224 898114 | T: 0121 565 7040 | T: 0117 966 1583 | T: 0141 779 7804 | T: 0191 419 5410 | T: 0161 653 6789 | T: 01708 86446 |
| F: 01224 898900 | F: 0121 565 7050 | F: 0117 963 7011 | F: 0141 779 7801 | F: 0191 417 9200 | F: 0161 653 7184 | F: 01708 865385 |
| aberdeen.001@ukcables.co.uk | birmingham.002@ukcables.co.uk | bristol.003@ukcables.co.uk | glasgow.610@ukcables.co.uk | gateshead.011@ukcables.co.uk | manchester.606@ukcables.co.uk | london.016@ukcables.co.uk |



FLATFORM ELASTOMERIC NGFLGOEU

Table 4F1A 60°C thermosetting insulated flexible cables with sheath, non-armoured (Copper Conductors)

CURRENT-CARRYING CAPACITY (amperes):

| Conductor Cross sectional area | Single-phase a.c. or d.c. | Three-phase a.c. | Single-phase a.c. or d.c. | |
|--------------------------------------|--|---|------------------------------|--|
| | 1 Two core cable, with or without protective conductor | 1 Three core, four core or five core cable | 2 Single core cables | |
| 1 | 2 | 3 | 4 | |
| (mm²) | (A) | (A) | (A) | |
| 4 | 30 | 27 | - | |
| 6 | 39 | 34 | - | |
| 10 | 51 | 47 | - | |
| 16 | 73 | 63 | - | |
| 25 | 97 | 83 | - | |
| 35 | - | 102 | 140 | |
| 50 | - | 124 | 175 | |
| 70 | = | 158 | 216 | |
| 95 | = | 192 | 258 | |
| 120 | - | 222 | 302 | |
| 150 | - | 255 | 347 | |
| 185 | - | 291 | 394 | |
| 240 | - | 343 | 471 | |
| 300 | - | 394 | 541 | |
| 400 | - | - | 644 | |
| 500 | - | - | 738 | |
| 630 | × | - | 861 | |

NOTES:

1. The current ratings tabulated are for cables in free air but may also be used for cables resting on a surface. If the cable is to be wound on a drum on load the ratings should be reduced in accordance with NOTE 2 below and for cables which may be covered, NOTE 3 below

Ambient temperature: 30°C

Conductor operating temperature: 60°C

2. Flexible cables wound on reeling drums.

The current ratings of cables used on reeling drums are to be reduced by the following factors:

a) Radial type drum ventilated: 85% unventilated: 75%

b) Ventilated cylindrical type drum

1 layer of cable: 85% 2 layers of cable: 65% 3 layers of cable: 45% 4 layers of cable: 35%

A radial type drum is one where spiral layers of cable are accommodated between closely spaced flanges; if fitted with solid flanges the ratings given above should be reduced and the drum is described as non-ventilated. If the flanges have suitable apertures the drum is described as ventilated.

A ventilated cylindrical cable drum is one where layers of cable are accommodated between widely spaced flanges and the drum and end flanges have suitable ventilating apertures.

3. Where cable may be covered over or coiled up whilst on load, or the air movement over the cable restricted, the current rating should be reduced.

It is not possible to specify the amount of reduction but the table of rating factors for reeling drums can be used as a guide.

Permission to reproduce extracts from BS 7671:2008+A1:2011 is granted by the British Standards Institution (BSI) and the Institution of Engineering and Technology (IET). No other use of this material is permitted. BS 7671:2008 Incorporating Amendment No 1: 2011 can be purchased from the IET website http://electrical.theiet.org/ and the BSI online shop: http://shop.bsigroup.com

| ١ | Aberdeen | Birmingham | Bristol | Glasgow | Gateshead | Manchester | London |
|---|-----------------------------|-------------------------------|----------------------------|----------------------------|------------------------------|-------------------------------|---------------------------|
| ŀ | T: 01224 898114 | T: 0121 565 7040 | T: 0117 966 1583 | T: 0141 779 7804 | T: 0191 419 5410 | T: 0161 653 6789 | T: 01708 86446 |
| l | F: 01224 898900 | F: 0121 565 7050 | F: 0117 963 7011 | F: 0141 779 7801 | F: 0191 417 9200 | F: 0161 653 7184 | F: 01708 865385 |
| L | aberdeen.001@ukcables.co.uk | birmingham.002@ukcables.co.uk | bristol.003@ukcables.co.uk | glasgow.610@ukcables.co.uk | gateshead.011@ukcables.co.uk | manchester:606@ukcables.co.uk | london.016@ukcables.co.uk |



FLATFORM ELASTOMERIC NGFLGOEU

Table 4F1B

VOLTAGE DROP (per ampere per metre)

Conductor operating temperature: 60°C

| Conductor Cross sectional | Two core cable d.c | Two core Single-pl | | | 1 Three core, four core or five core cable, Three-phase | | | 2 Single core cables, touching | | | |
|------------------------------|--------------------|-----------------------|-------|----------|---|--------------|----------|--------------------------------|-------|-------|-------|
| area | | | | | a.c. | | d.c. | Single-phase a.c.* | | | |
| 1 | 2 | 3 | | 4 | | 5 | 6 | | | | |
| (mm²) | (mV/A/m) | (mV/A/m) | | (mV/A/m) | | (mV/ A/m) | (mV/A/m) | | | | |
| 4 | 12 | | 12 | | 10 | | - | - | | | |
| 6 | 7.8 | | 7.8 | | | 6.7 | | - | - | | |
| 10 | 4.6 | | 4.6 | | | 4.0 | | - | | - | |
| 16 | 2.9 | | 2.9 | | | 2.5 | | - | | - | |
| | | r x y | | r | r x y | | | | | | |
| 25 | 1.80 | 1.80 | 0.175 | 1.85 | 1.55 | 0.150 | 1.55 | - | - | - | - |
| 35 | - | - | - | - | 1.10 | 0.145 | 1.15 | 1.31 | 1.31 | 0.21 | 1.32 |
| 50 | - | - | - | - | 0.83 | 0.140 | 0.84 | 0.91 | 0.91 | 0.21 | 0.93 |
| 70 | - | - | - | - | 0.57 | 0.135 | 0.58 | 0.64 | 0.64 | 0.20 | 0.67 |
| 95 | - | - | - | - | 0.42 | 0.135 | 0.44 | 0.49 | 0.49 | 0.195 | 0.53 |
| 120 | - | - | - | - | 0.33 | 0.135 | 0.36 | 0.38 | 0.38 | 0.190 | 0.43 |
| 150 | - | - | - | - | 0.27 | 0.130 | 0.30 | 0.31 | 0.31 | 0.190 | 0.36 |
| 185 | - | - | - | - | 0.22 | 0.130 | 0.26 | 0.25 | 0.25 | 0.190 | 0.32 |
| 240 | - | - | - | - | 0.170 | 0.130 | 0.21 | 0.190 | 0.195 | 0.185 | 0.27 |
| 300 | - | - | - | - | 0.135 | 0.125 | 0.185 | 0.150 | 0.155 | 0.180 | 0.24 |
| 400 | - | - | - | - | - | - | - | 0.115 | 0.120 | 0.175 | 0.21 |
| 500 | - | - | - | - | - | - | - | 0.090 | 0.099 | 0.170 | 0.20 |
| 630 | - | - | - | - | - | - | - | 0.068 | 0.079 | 0.170 | 0.185 |

NOTE: * A larger voltage drop will result if the cables are spaced

Permission to reproduce extracts from BS 7671:2008+A1:2011 is granted by the British Standards Institution (BSI) and the Institution of Engineering and Technology (IET). No other use of this material is permitted. BS 7671:2008 Incorporating Amendment No 1: 2011 can be purchased from the IET website http://electrical.theiet.org/ and the BSI online shop: http://shop.bsigroup.com

| ١ | Aberdeen | Birmingham | Bristol | Glasgow | Gateshead | Manchester | London |
|---|-----------------------------|-------------------------------|----------------------------|----------------------------|------------------------------|-------------------------------|---------------------------|
| ŀ | T: 01224 898114 | T: 0121 565 7040 | T: 0117 966 1583 | T: 0141 779 7804 | T: 0191 419 5410 | T: 0161 653 6789 | T: 01708 86446 |
| l | F: 01224 898900 | F: 0121 565 7050 | F: 0117 963 7011 | F: 0141 779 7801 | F: 0191 417 9200 | F: 0161 653 7184 | F: 01708 865385 |
| L | aberdeen.001@ukcables.co.uk | birmingham.002@ukcables.co.uk | bristol.003@ukcables.co.uk | glasgow.610@ukcables.co.uk | gateshead.011@ukcables.co.uk | manchester.606@ukcables.co.uk | london.016@ukcables.co.uk |