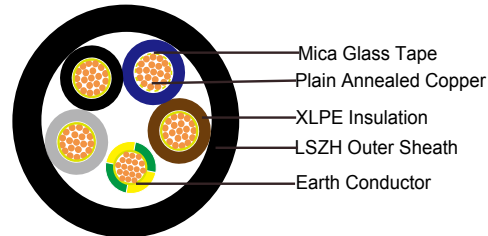
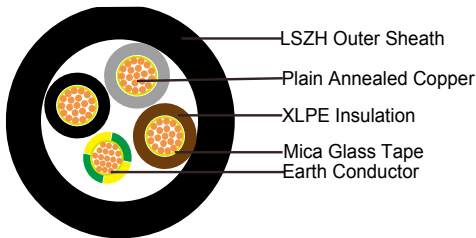
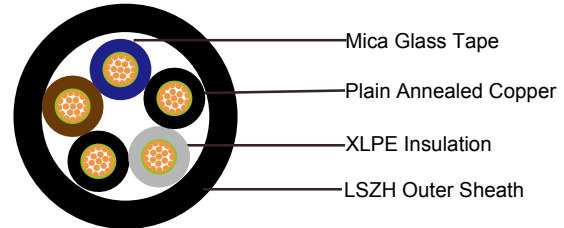
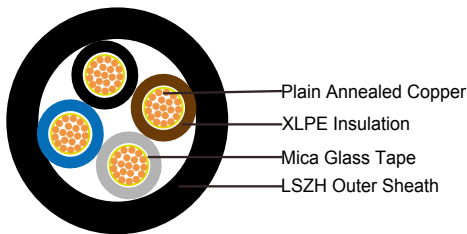
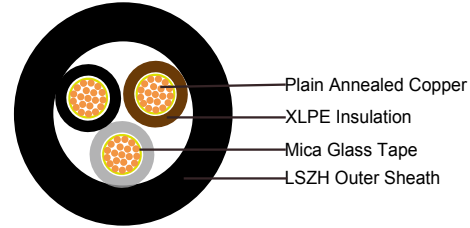
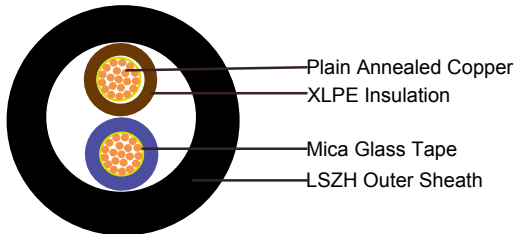




### 600/1000V Mica+XLPE Insulated, LSZH Sheathed Power Cables (Multicore)

#### FFX400 1mRZ1-R (CU/MGT+XLPE/LSZH 600/1000V CLASS 2)

#### Emergency Lighting Cables



#### APPLICATION

This cable is designed for areas where the integrity of the electrical properties circuit is critical in maintaining power supply. Applications can be found in emergency lightings, control and power circuits, power stations, fire alarm systems, underground tunnels, communications systems, sewage treatment plants, lifts, escalators, and high-rise buildings.

#### STANDARDS

Basic design to IEC 60502-1

#### FIRE PERFORMANCE

|  |  |
|--|--|
| Circuit Integrity                            | IEC 60331-21; BS 6387 CWZ; DIN VDE 0472-814(FE180); CEI 20-36/2-1; SS229-1; NBN C 30-004 (cat. F3); NF C32-070-2.3(CR1); BS 7846-(F2)                          |
| System Circuit Integrity                     | DIN 4102-12, E30 depending on lay system   |
| Flame Retardance (Single Vertical Wire Test) | EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1* |

|   |  |
|---|--|
| Reduced Fire Propagation<br>(Vertically-mounted bundled wires & cable test) | EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4 |
| Halogen Free  | IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*  |
| No Corrosive Gas Emission   | IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*  |
| Minimum Smoke Emission  | IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*  |
| No Toxic Gases  | NES 02-713; NF C 20-454  |

Note: Asterisk \* denotes superseded standard.

## VOLTAGE RATING

600/1000V

## CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC 60228 class 2.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound

**Cabling:** The cores are cabled together in concentric layers with suitable non-hygroscopic fillers.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1

## COLOUR CODE

Insulation Colour as per BS7671

|               | With Earth Conductor                   | Without Earth Conductor         |
|---------------|--|---------------------------------|
| 2 Cores       | -                                      | Brown, Blue                     |
| 3 Cores       | Yellow/Green, Brown, Blue              | Brown, Gray, Black              |
| 4 Cores       | Yellow/Green, Brown, Gray, Black       | Brown, Gray, Black, Blue        |
| 5 Cores       | Yellow/Green, Brown, Gray, Black, Blue | Brown, Gray, Black, Blue, Black |
| Above 5 Cores | Yellow/Green, Black Numbered           | Black Numbered                  |

**Sheath Colour:** Black (other colors upon request)

## PHYSICAL AND THERMAL PROPERTIES

**Temperature Range During Operation:** -30°C ~ 90°C

**Temperature Range during Installation :** -5°C ~ 50°C

**Minimum Bending Radius:** 6 x OD

## ELECTRICAL PROPERTIES

|                  |                                    |
|------------------|------------------------------------|
| Dielectric Test: | 3500 V r.m.s. x 5' ( core / core ) |
|------------------|------------------------------------|



|                           |                          |
|---------------------------|--------------------------|
| Insulation Resistance     | 1000 MΩ x km ( at 20°C ) |
| Short Circuit Temperature | 250°C ( up to 5 secs )   |

### CONSTRUCTION PARAMETERS

| Cable Code           | Conductor   |   |                      | Nominal Insulation Thickness | Nominal Overall Diameter | Approx. Weight |
|----------------------|---|---|----------------------|------------------------------|--------------------------|----------------|
|                      | No. of Core<br>× Cross<br>Section /<br>CPC Cross<br>Section | No./<br>Nominal<br>Diameter<br>of Strands | Dia. of<br>Conductor |                              |                          |                |
|                      |   | No./mm                                    | mm                   | mm                           | mm                       | kg/km          |
| <b>2 CORES</b>       |   |   |                      |                              |                          |                |
| FFX400 1mRZ1-R 2G1.5 | 2×1.5   | 7/0.53                                    | 1.59                 | 0.7                          | 12.2                     | 150            |
| FFX400 1mRZ1-R 2G2.5 | 2×2.5   | 7/0.67                                    | 2.01                 | 0.7                          | 12.6                     | 180            |
| FFX400 1mRZ1-R 2G4   | 2×4   | 7/0.85                                    | 2.55                 | 0.7                          | 14.7                     | 250            |
| FFX400 1mRZ1-R 2G6   | 2×6   | 7/1.04                                    | 3.12                 | 0.7                          | 16.2                     | 290            |
| FFX400 1mRZ1-R 2G10  | 2×10  | 7/1.35                                    | 4.05                 | 0.7                          | 17.1                     | 450            |
| FFX400 1mRZ1-R 2G16  | 2×16  | 7/1.70                                    | 5.1                  | 0.7                          | 19.2                     | 550            |
| FFX400 1mRZ1-R 2G25  | 2×25  | 7/2.14                                    | 6.42                 | 0.9                          | 20                       | 680            |
| FFX400 1mRZ1-R 2G35  | 2×35  | 19/1.53                                   | 7.65                 | 0.9                          | 22                       | 940            |
| FFX400 1mRZ1-R 2G50  | 2×50  | 19/1.78                                   | 8.9                  | 1                            | 24                       | 1250           |
| FFX400 1mRZ1-R 2G70  | 2×70  | 19/2.14                                   | 10.7                 | 1.1                          | 27                       | 1700           |
| FFX400 1mRZ1-R 2G95  | 2×95  | 19/2.52                                   | 12.6                 | 1.1                          | 31                       | 2300           |
| FFX400 1mRZ1-R 2G120 | 2×120   | 37/2.03                                   | 14.21                | 1.2                          | 36                       | 3150           |
| <b>3 CORES</b>       |   |   |                      |                              |                          |                |
| FFX400 1mRZ1-R 3G1.5 | 3×1.5   | 7/0.53                                    | 1.59                 | 0.7                          | 12.3                     | 170            |
| FFX400 1mRZ1-R 3G2.5 | 3×2.5   | 7/0.67                                    | 2.01                 | 0.7                          | 13.8                     | 200            |
| FFX400 1mRZ1-R 3G4   | 3×4   | 7/0.85                                    | 2.55                 | 0.7                          | 15.2                     | 300            |
| FFX400 1mRZ1-R 3G6   | 3×6   | 7/1.04                                    | 3.12                 | 0.7                          | 16.8                     | 380            |
| FFX400 1mRZ1-R 3G10  | 3×10  | 7/1.35                                    | 4.05                 | 0.7                          | 18                       | 550            |
| FFX400 1mRZ1-R 3G16  | 3×16  | 1/1.70                                    | 5.1                  | 0.7                          | 21                       | 760            |
| FFX400 1mRZ1-R 3G25  | 3×25  | 7/2.14                                    | 6.42                 | 0.9                          | 22                       | 960            |
| FFX400 1mRZ1-R 3G35  | 3×35  | 19/1.53                                   | 7.65                 | 0.9                          | 24                       | 1300           |
| FFX400 1mRZ1-R 3G50  | 3×50  | 19/1.78                                   | 8.9                  | 1                            | 28                       | 1700           |
| FFX400 1mRZ1-R 3G70  | 3×70  | 19/2.14                                   | 10.7                 | 1.1                          | 31                       | 2400           |
| FFX400 1mRZ1-R 3G95  | 3×95  | 19/2.52                                   | 12.6                 | 1.1                          | 36                       | 3250           |

|                                   |           |         |       |     |      |       |
|-----------------------------------|-----------|---------|-------|-----|------|-------|
| FFX400 1mRZ1-R 3G120              | 3×120     | 37/2.03 | 14.21 | 1.2 | 38   | 4000  |
| FFX400 1mRZ1-R 3G150              | 3×150     | 37/2.25 | 15.75 | 1.4 | 42   | 5000  |
| FFX400 1mRZ1-R 3G185              | 3×185     | 37/2.52 | 17.64 | 1.6 | 47   | 6100  |
| FFX400 1mRZ1-R 3G240              | 3×240     | 61/2.25 | 20.25 | 1.7 | 52   | 8000  |
| FFX400 1mRZ1-R 3G300              | 3×300     | 61/2.52 | 22.68 | 1.8 | 59   | 9850  |
| FFX400 1mRZ1-R 3G400              | 3×400     | 61/2.85 | 25.65 | 2   | 63   | 13000 |
| <b>3 CORES+ 1 EARTH CONDUCTOR</b> |           |         |       |     |      |       |
| FFX400 1mRZ1-R 3G16/6             | 3×16/6    | 7/1.70  | 5.1   | 0.7 | 22.9 | 1230  |
| FFX400 1mRZ1-R 3G16/10            | 3×16/10   | 7/1.70  | 5.1   | 0.7 | 25.7 | 1385  |
| FFX400 1mRZ1-R 3G25/6             | 3×25/6    | 7/2.14  | 6.42  | 0.9 | 26.1 | 1810  |
| FFX400 1mRZ1-R 3G25/10            | 3×25/10   | 7/2.14  | 6.42  | 0.9 | 26.8 | 1890  |
| FFX400 1mRZ1-R 3G25/16            | 3×25/16   | 7/2.14  | 6.42  | 0.9 | 27.3 | 1980  |
| FFX400 1mRZ1-R 3G35/10            | 3×35/10   | 19/1.53 | 7.65  | 0.9 | 28.1 | 2010  |
| FFX400 1mRZ1-R 3G35/16            | 3×35/16   | 19/1.53 | 7.65  | 0.9 | 29.8 | 2070  |
| FFX400 1mRZ1-R 3G35/25            | 3×35/25   | 19/1.53 | 7.65  | 0.9 | 30.5 | 2190  |
| FFX400 1mRZ1-R 3G50/16            | 3×50/16   | 19/1.78 | 8.9   | 0.9 | 32.8 | 2400  |
| FFX400 1mRZ1-R 3G50/25            | 3×50/25   | 19/1.78 | 8.9   | 1   | 29   | 1800  |
| FFX400 1mRZ1-R 3G50/35            | 3×50/35   | 19/1.78 | 8.9   | 0.9 | 28.4 | 1870  |
| FFX400 1mRZ1-R 3G70/25            | 3×70/25   | 19/2.14 | 10.7  | 1   | 31   | 1920  |
| FFX400 1mRZ1-R 3G70/35            | 3×70/35   | 19/2.14 | 10.7  | 1.1 | 32   | 2200  |
| FFX400 1mRZ1-R 3G70/50            | 3×70/50   | 19/2.14 | 10.7  | 1.1 | 33   | 2400  |
| FFX400 1mRZ1-R 3G95/25            | 3×95/25   | 19/2.52 | 12.6  | 1.1 | 36   | 3300  |
| FFX400 1mRZ1-R 3G95/35            | 3×95/35   | 19/2.52 | 12.6  | 1.1 | 37   | 3560  |
| FFX400 1mRZ1-R 3G95/50            | 3×95/50   | 19/2.52 | 12.6  | 1.1 | 38   | 3700  |
| FFX400 1mRZ1-R 3G95/70            | 3×95/70   | 19/2.52 | 12.6  | 1.1 | 38.4 | 3809  |
| FFX400 1mRZ1-R 3G120/35           | 3×120/35  | 37/2.03 | 14.21 | 1.1 | 39   | 3910  |
| FFX400 1mRZ1-R 3G120/50           | 3×120/50  | 37/2.03 | 14.21 | 1.1 | 40   | 4200  |
| FFX400 1mRZ1-R 3G120/70           | 3×120/70  | 37/2.03 | 14.21 | 1.1 | 40   | 4250  |
| FFX400 1mRZ1-R 3G120/95           | 3×120/95  | 37/2.03 | 14.21 | 1.2 | 41   | 6990  |
| FFX400 1mRZ1-R 3G150/50           | 3×150/50  | 37/2.25 | 15.75 | 1.2 | 42   | 7200  |
| FFX400 1mRZ1-R 3G150/70           | 3×150/70  | 37/2.25 | 15.75 | 1.2 | 43   | 7600  |
| FFX400 1mRZ1-R 3G150/95           | 3×150/95  | 37/2.25 | 15.75 | 1.4 | 44   | 9000  |
| FFX400 1mRZ1-R 3G150/120          | 3×150/120 | 37/2.25 | 15.75 | 1.4 | 45   | 10600 |
| FFX400 1mRZ1-R 3G185/70           | 3×185/70  | 37/2.25 | 17.64 | 1.4 | 47   | 11100 |
| FFX400 1mRZ1-R 3G185/95           | 3×185/95  | 37/2.52 | 17.64 | 1.6 | 49   | 11650 |



|                                    |           |         |       |     |      |       |
|------------------------------------|-----------|---------|-------|-----|------|-------|
| FFX400 1mRZ1-R 3G185/120           | 3×185/120 | 37/2.52 | 17.64 | 1.6 | 50   | 12000 |
| FFX400 1mRZ1-R 3G185/150           | 3×185/150 | 37/2.52 | 17.64 | 1.6 | 51   | 12300 |
| FFX400 1mRZ1-R 3G240/95            | 3×240/95  | 61/2.25 | 20.25 | 1.7 | 52   | 12900 |
| FFX400 1mRZ1-R 3G240/120           | 3×240/120 | 61/2.25 | 20.25 | 1.7 | 57   | 13500 |
| FFX400 1mRZ1-R 3G240/150           | 3×240/150 | 61/2.25 | 20.25 | 1.7 | 58   | 14000 |
| FFX400 1mRZ1-R 3G240/185           | 3×240/185 | 61/2.25 | 20.25 | 1.7 | 58.4 | 14700 |
| FFX400 1mRZ1-R 3G300/120           | 3×300/120 | 61/2.52 | 22.68 | 1.8 | 58.9 | 15100 |
| FFX400 1mRZ1-R 3G300/150           | 3×300/150 | 61/2.52 | 22.68 | 1.8 | 60   | 15600 |
| FFX400 1mRZ1-R 3G300/180           | 3×300/180 | 61/2.52 | 22.68 | 1.8 | 61   | 15720 |
| FFX400 1mRZ1-R 3G300/240           | 3×300/240 | 61/2.52 | 22.68 | 1.8 | 62   | 16000 |
| <b>4 CORES</b>                     |           |         |       |     |      |       |
| FFX400 1mRZ1-R 4G1.5               | 4×1.5     | 7/0.53  | 1.59  | 0.7 | 14.3 | 210   |
| FFX400 1mRZ1-R 4G2.5               | 4×2.5     | 7/0.67  | 2.01  | 0.7 | 15.2 | 270   |
| FFX400 1mRZ1-R 4G4                 | 4×4       | 7/0.85  | 2.55  | 0.7 | 17.2 | 380   |
| FFX400 1mRZ1-R 4G6                 | 4×6       | 7/1.04  | 3.12  | 0.7 | 19   | 440   |
| FFX400 1mRZ1-R 4G10                | 4×10      | 7/1.35  | 4.05  | 0.7 | 20.6 | 670   |
| FFX400 1mRZ1-R 4G16                | 4×16      | 1/1.70  | 5.1   | 0.7 | 23.6 | 820   |
| FFX400 1mRZ1-R 4G25                | 4×25      | 7/2.14  | 6.42  | 0.9 | 26   | 1320  |
| FFX400 1mRZ1-R 4G35                | 4×35      | 19/1.53 | 7.65  | 0.9 | 29   | 1730  |
| FFX400 1mRZ1-R 4G50                | 4×50      | 19/1.78 | 8.9   | 1   | 32   | 2300  |
| FFX400 1mRZ1-R 4G70                | 4×70      | 19/2.14 | 10.7  | 1.1 | 38   | 3180  |
| FFX400 1mRZ1-R 4G95                | 4×95      | 19/2.52 | 12.6  | 1.1 | 41.9 | 4370  |
| FFX400 1mRZ1-R 4G120               | 4×120     | 37/2.03 | 14.21 | 1.2 | 44   | 5400  |
| FFX400 1mRZ1-R 4G150               | 4×150     | 37/2.25 | 15.75 | 1.4 | 50.8 | 6500  |
| FFX400 1mRZ1-R 4G185               | 4×185     | 37/2.52 | 17.64 | 1.6 | 55   | 8200  |
| FFX400 1mRZ1-R 4G240               | 4×240     | 61/2.25 | 20.25 | 1.7 | 60.5 | 10600 |
| FFX400 1mRZ1-R 4G300               | 4×300     | 61/2.52 | 22.68 | 1.8 | 68.5 | 13200 |
| FFX400 1mRZ1-R 4G400               | 4×400     | 61/2.85 | 25.65 | 2   | 76   | 17000 |
| <b>4 CORES + 1 EARTH CONDUCTOR</b> |           |         |       |     |      |       |
| FFX400 1mRZ1-R 4G16/16             | 4×16/6    | 7/1.70  | 5.1   | 0.7 | 21   | 1300  |
| FFX400 1mRZ1-R 4G16/10             | 4×16/10   | 7/1.70  | 5.1   | 0.7 | 22   | 1600  |
| FFX400 1mRZ1-R 4G25/6              | 4×25/6    | 7/2.14  | 6.42  | 0.7 | 23   | 1820  |
| FFX400 1mRZ1-R 4G25/10             | 4×25/10   | 7/2.14  | 6.42  | 0.7 | 24   | 2015  |
| FFX400 1mRZ1-R 4G25/16             | 4×25/16   | 7/2.14  | 6.42  | 0.7 | 25   | 2450  |
| FFX400 1mRZ1-R 4G35/10             | 4×35/10   | 19/1.53 | 7.65  | 0.9 | 28.9 | 2810  |
| FFX400 1mRZ1-R 4G35/16             | 4×35/16   | 19/1.53 | 7.65  | 0.9 | 29.4 | 3000  |

|                          |           |         |       |     |      |       |
|--------------------------|-----------|---------|-------|-----|------|-------|
| FFX400 1mRZ1-R 4G35/25   | 4×35/25   | 19/1.53 | 7.65  | 0.9 | 29.6 | 3170  |
| FFX400 1mRZ1-R 4G50/16   | 4×50/16   | 19/1.78 | 8.9   | 1   | 33   | 3800  |
| FFX400 1mRZ1-R 4G50/25   | 4×50/25   | 19/1.78 | 8.9   | 1   | 35.8 | 4100  |
| FFX400 1mRZ1-R 4G50/35   | 4×50/35   | 19/1.78 | 8.9   | 1   | 36.9 | 4400  |
| FFX400 1mRZ1-R 4G70/25   | 4×70/25   | 19/2.14 | 10.7  | 1.1 | 40   | 6270  |
| FFX400 1mRZ1-R 4G70/35   | 4×70/35   | 19/2.14 | 10.7  | 1.1 | 41   | 6900  |
| FFX400 1mRZ1-R 4G70/50   | 4×70/50   | 19/2.14 | 10.7  | 1.1 | 41.5 | 7200  |
| FFX400 1mRZ1-R 4G95/25   | 4×95/25   | 19/2.52 | 12.6  | 1.1 | 41.8 | 8000  |
| FFX400 1mRZ1-R 4G95/35   | 4×95/35   | 19/2.52 | 12.6  | 1.1 | 42.6 | 8100  |
| FFX400 1mRZ1-R 4G95/50   | 4×95/50   | 19/2.52 | 12.6  | 1.1 | 43.4 | 8250  |
| FFX400 1mRZ1-R 4G95/70   | 4×95/70   | 19/2.52 | 12.6  | 1.1 | 43.6 | 8310  |
| FFX400 1mRZ1-R 4G120/35  | 4×120/35  | 37/2.03 | 14.21 | 1.1 | 43.9 | 8390  |
| FFX400 1mRZ1-R 4G120/50  | 4×120/50  | 37/2.03 | 14.21 | 1.2 | 44   | 8600  |
| FFX400 1mRZ1-R 4G120/70  | 4×120/70  | 37/2.03 | 14.21 | 1.2 | 45   | 8800  |
| FFX400 1mRZ1-R 4G120/95  | 4×120/95  | 37/2.03 | 14.21 | 1.2 | 46   | 9100  |
| FFX400 1mRZ1-R 4G150/50  | 4×150/50  | 37/2.25 | 15.75 | 1.2 | 47   | 9400  |
| FFX400 1mRZ1-R 4G150/70  | 4×150/70  | 37/2.25 | 15.75 | 1.4 | 52   | 10800 |
| FFX400 1mRZ1-R 4G150/95  | 4×150/95  | 37/2.25 | 15.75 | 1.4 | 53   | 11100 |
| FFX400 1mRZ1-R 4G150/120 | 4×150/120 | 37/2.25 | 15.75 | 1.4 | 54   | 11500 |
| FFX400 1mRZ1-R 4G185/70  | 4×185/70  | 37/2.52 | 17.64 | 1.4 | 55   | 11900 |
| FFX400 1mRZ1-R 4G185/95  | 4×185/95  | 37/2.52 | 17.64 | 1.6 | 56   | 12900 |
| FFX400 1mRZ1-R 4G185/120 | 4×185/120 | 37/2.52 | 17.64 | 1.6 | 57   | 13600 |
| FFX400 1mRZ1-R 4G185/150 | 4×185/150 | 37/2.52 | 17.64 | 1.6 | 58   | 14700 |
| FFX400 1mRZ1-R 4G240/95  | 4×240/95  | 61/2.25 | 20.25 | 1.7 | 62   | 16000 |
| FFX400 1mRZ1-R 4G240/120 | 4×240/120 | 61/2.25 | 20.25 | 1.7 | 65   | 16600 |
| FFX400 1mRZ1-R 4G240/150 | 4×240/150 | 61/2.25 | 20.25 | 1.7 | 66   | 16900 |
| FFX400 1mRZ1-R 4G240/185 | 4×240/185 | 61/2.25 | 20.25 | 1.7 | 67   | 17100 |
| FFX400 1mRZ1-R 4G300/120 | 4×300/120 | 61/2.52 | 22.68 | 1.7 | 68   | 17200 |
| FFX400 1mRZ1-R 4G300/150 | 4×300/150 | 61/2.52 | 22.68 | 1.8 | 69   | 19700 |
| FFX400 1mRZ1-R 4G300/180 | 4×300/185 | 61/2.52 | 22.68 | 1.8 | 70   | 20700 |
| FFX400 1mRZ1-R 4G300/240 | 4×300/240 | 61/2.52 | 22.68 | 1.8 | 71   | 21060 |
| <b>5 CORES</b>           |           |         |       |     |      |       |
| FFX400 1mRZ1-R 5G1.5     | 5×1.5     | 7/0.53  | 1.59  | 0.7 | 16.8 | 247   |
| FFX400 1mRZ1-R 5G2.5     | 5×2.5     | 7/0.67  | 2.01  | 0.7 | 17.9 | 317   |
| FFX400 1mRZ1-R 5G4       | 5×4       | 7/0.85  | 2.55  | 0.7 | 20.2 | 447   |
| FFX400 1mRZ1-R 5G6       | 5×6       | 7/1.04  | 3.12  | 0.7 | 22.3 | 517   |



|                      |       |         |       |     |      |       |
|----------------------|-------|---------|-------|-----|------|-------|
| FFX400 1mRZ1-R 5G10  | 5×10  | 7/1.35  | 4.05  | 0.7 | 24.2 | 787   |
| FFX400 1mRZ1-R 5G16  | 5×16  | 1/1.70  | 5.1   | 0.7 | 27.7 | 964   |
| FFX400 1mRZ1-R 5G25  | 5×25  | 7/2.14  | 6.42  | 0.9 | 30.6 | 1551  |
| FFX400 1mRZ1-R 5G35  | 5×35  | 19/1.53 | 7.65  | 0.9 | 34.1 | 2033  |
| FFX400 1mRZ1-R 5G50  | 5×50  | 19/1.78 | 8.9   | 1   | 37.6 | 2703  |
| FFX400 1mRZ1-R 5G70  | 5×70  | 19/2.14 | 10.7  | 1.1 | 44.7 | 3737  |
| FFX400 1mRZ1-R 5G95  | 5×95  | 19/2.52 | 12.6  | 1.1 | 49.2 | 5135  |
| FFX400 1mRZ1-R 5G120 | 5×120 | 37/2.03 | 14.21 | 1.2 | 51.7 | 6345  |
| FFX400 1mRZ1-R 5G150 | 5×150 | 37/2.25 | 15.75 | 1.4 | 59.7 | 7638  |
| FFX400 1mRZ1-R 5G185 | 5×185 | 37/2.52 | 17.64 | 1.6 | 64.6 | 9635  |
| FFX400 1mRZ1-R 5G240 | 5×240 | 61/2.25 | 20.25 | 1.7 | 71.1 | 12455 |
| FFX400 1mRZ1-R 5G300 | 5×300 | 61/2.52 | 22.68 | 1.8 | 80.5 | 15510 |
| FFX400 1mRZ1-R 5G400 | 5×400 | 61/2.85 | 25.65 | 2   | 89.3 | 19975 |

### ELECTRICAL PROPERTIES

**Conductor Operating Temperature : 90°C**

**Ambient Temperature : 30°C**

### Current-Carrying Capacities (Amp)

| Nominal Cross Section Area | Reference Method 4<br>(enclosed in an conduit insulated wall etc) | Reference Method 3<br>(enclosed in conduit on a wall or ceiling, or in trunking) |   | Reference Method 1<br>(clipped direct)     |   | Reference Method 11<br>(on a perforated cable tray), or Reference Method 13 (free air) |   |   |
|----------------------------|---|--|---|--|---|--|---|---|
|                            |   | one 2-core cable single phase a.c. or d.c.                                       | one 3-core cable or one 4-core cable 3-phase a.c. | one 2-core cable single phase a.c. or d.c. | one 3-core cable or one 4-core cable 3-phase a.c. | one 2-core cable single phase a.c. or d.c.   | one 3-core cable or one 4-core cable 3-phase a.c. |   |
|                            | one 3-core cable or one 4-core cable 3-phase a.c.                 | one 2-core cable single phase a.c. or d.c.                                       | one 3-core cable or one 4-core cable 3-phase a.c. | one 2-core cable single phase a.c. or d.c. | one 3-core cable or one 4-core cable 3-phase a.c. | a.c. or d.c.   | one 2-core cable single phase a.c. or d.c.        | one 3-core cable or one 4-core cable 3-phase a.c. |
|                            | one 3-core cable or one 4-core cable 3-phase a.c.                 | one 2-core cable single phase a.c. or d.c.                                       | one 3-core cable or one 4-core cable 3-phase a.c. | one 2-core cable single phase a.c. or d.c. | one 3-core cable or one 4-core cable 3-phase a.c. | a.c. or d.c.   | one 2-core cable single phase a.c. or d.c.        | one 3-core cable or one 4-core cable 3-phase a.c. |
| 1                          | 2   | 3  | 4   | 5  | 6   | 7  | 8   |   |
| mm <sup>2</sup>            | A   | A  | A   | A  | A   | A  | A   |   |
| 1.5                        | 16.5  | 22   | 19.5  | 24   | 22  | 26   | 23  |   |
| 2.5                        | 22  | 30   | 26  | 33   | 30  | 36   | 32  |   |
| 4                          | 30  | 40   | 35  | 45   | 40  | 49   | 42  |   |
| 6                          | 38  | 51   | 44  | 58   | 52  | 63   | 54  |   |
| 10                         | 51  | 69   | 60  | 80   | 71  | 86   | 75  |   |
| 16                         | 68  | 91   | 80  | 107  | 96  | 115  | 100   |   |

|     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 25  | 89  | 119 | 105 | 138 | 119 | 149 | 127 |
| 35  | 109 | 146 | 128 | 171 | 147 | 185 | 158 |
| 50  | 130 | 175 | 154 | 209 | 179 | 225 | 192 |
| 70  | 164 | 221 | 194 | 269 | 229 | 289 | 246 |
| 95  | 197 | 265 | 233 | 328 | 278 | 352 | 298 |
| 120 | 227 | 305 | 268 | 382 | 322 | 410 | 346 |
| 150 | 259 | 334 | 300 | 441 | 371 | 473 | 399 |
| 185 | 295 | 384 | 340 | 506 | 424 | 542 | 456 |
| 240 | 346 | 459 | 398 | 599 | 500 | 641 | 538 |
| 300 | 396 | 532 | 455 | 693 | 576 | 741 | 621 |
| 400 | -   | 625 | 536 | 803 | 667 | 865 | 741 |

### Voltage Drop (Per Amp Per Meter)

| Nominal Cross Section Area | 2-core cable d.c. | 2-core cable single-phase a.c. |       |      | 3-core or 4-core cable 3-phase a.c. |       |      |
|----------------------------|-------------------|--------------------------------|-------|------|-------------------------------------|-------|------|
| 1                          | 2                 | 3                              |       |      | 4                                   |       |      |
| mm <sup>2</sup>            | mV/A/m            | mV/A/m                         |       |      | mV/A/m                              |       |      |
| 1.5                        | 31                | 31                             |       |      | 27                                  |       |      |
| 2.5                        | 19                | 19                             |       |      | 16                                  |       |      |
| 4                          | 12                | 12                             |       |      | 10                                  |       |      |
| 6                          | 7.9               | 7.9                            |       |      | 6.8                                 |       |      |
| 10                         | 4.7               | 4.7                            |       |      | 4                                   |       |      |
| 16                         | 2.9               | 2.9                            |       |      | 2.5                                 |       |      |
|                            |                   | r                              | x     | z    | r                                   | x     | z    |
| 25                         | 1.85              | 1.85                           | 0.16  | 1.9  | 1.6                                 | 0.14  | 1.65 |
| 35                         | 1.35              | 1.35                           | 0.155 | 1.35 | 1.15                                | 0.135 | 1.15 |
| 50                         | 0.98              | 0.99                           | 0.155 | 1    | 0.86                                | 0.135 | 0.87 |
| 70                         | 0.67              | 0.67                           | 0.15  | 0.69 | 0.59                                | 0.13  | 0.6  |
| 95                         | 0.49              | 0.5                            | 0.15  | 0.52 | 0.43                                | 0.13  | 0.45 |
| 120                        | 0.39              | 0.4                            | 0.145 | 0.42 | 0.34                                | 0.13  | 0.37 |
| 150                        | 0.31              | 0.32                           | 0.145 | 0.35 | 0.28                                | 0.125 | 0.3  |





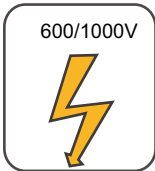
|     |       |      |       |      |       |       |       |
|-----|-------|------|-------|------|-------|-------|-------|
| 185 | 0.25  | 0.26 | 0.145 | 0.29 | 0.22  | 0.125 | 0.26  |
| 240 | 0.195 | 0.2  | 0.14  | 0.24 | 0.175 | 0.125 | 0.21  |
| 300 | 0.155 | 0.16 | 0.14  | 0.21 | 0.14  | 0.12  | 0.185 |
| 400 | 0.12  | 0.13 | 0.14  | 0.19 | 0.115 | 0.12  | 0.165 |

**Note :**

r = conductor resistance at operating temperature

x = reactance

z = impedance



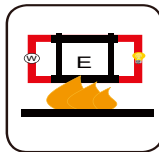
600/1000V

Rated Voltage



IEC 60502-1

Standard



Circuit Integrity  
IEC 60331/BS 6387  
NF C32-070-2.3(GR1)



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24/EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



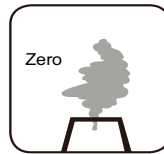
Low Toxicity  
NES 02-713/NF C 20-454



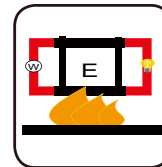
Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07



Zero  
Halogen Free  
IEC60754-1  
EN50267-2-1



Functional Integrity  
DIN 4102-12