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## FTM SERIES

High Performance Flexible Twin Marine Cable 300/500V 75°C

### **APPLICATIONS:**

**Marine** Suitable for wiring on pleasure craft and other marine applications requiring flexible tinned copper conductors. **Lighting** Used for festoon and garden lighting where a flexible cable is required.

**Audio** Amplifiers and audio equipment where oxygen free copper wire is required.

#### **PRODUCT FEATURES:**

- Tinned fine stranded copper conductor
- ► UV stabilised
- ► Flame retardant
- ▶ Heat, oil and chemical resistant (See Technical Section)

#### **CONSTRUCTION:**

Conductor Annealed tinned copper stranded high flexibility (Class 5). Insulation Special SPVC V-75. Sheath SPVC 4V-75.

### CHARACTERISTICS:

Operating Temperature Range Fixed -20°C to 75°C / Flexing -5°C to 75°C. Maximum Conductor Temperature 75°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 300/500v. Max AC Operating Voltage Uo 318v. Minimum Bending Radius Fixed 10 x cable diameter / Flexing 15 x cable diameter. Sheath Colour Black.

Standard Core Colours Red, Black.

Relevant Standards AS/NZS 1125, AS/NZS 3808, IEC 60332-1, *ROHS* Compliant.

| Code      | No. of<br>Cores x Size | Approx.<br>Stranding | Approx. Overall<br>Diameter | Approx.<br>Weight | protecte | ps un-enclosed<br>d from sun<br>ed application | 1 Phase Volt Drop<br>@50Hz / MAX.<br>Conductor Temp: |
|-----------|------------------------|----------------------|-----------------------------|-------------------|----------|--|--|
|           | (mm²)                  | No. of<br>wires x mm | (mm)                        | (Kg/Km)           | Spaced 8 | Touching 8                                     | 75°C<br>(Mv/Am)                                      |
| FTM2/0.75 | 2 x 0.75               | 24/0.20              | 4.2h x 6.5w                 | 38                | 14       | 12   | 63.200   |
| FTM2/1.5  | 2 x 1.5                | 48/0.20              | 4.6h x 7.2w                 | 60                | 23       | 21   | 32.300   |
| FTM2/2.5  | 2 x 2.5                | 80/0.20              | 5.4h x 8.8w                 | 90                | 30       | 29   | 19.400   |
| FTM2/4.0  | 2 x 4.0                | 127/0.20             | 6.2h x 10.5w                | 130               | 40       | 38   | 12.000   |



# MTSV SERIES

Survey Compliant Flexible Twin Marine Cable 0.6/1kV 90°C

### **APPLICATIONS:**

**Marine** Suitable for wiring on pleasure craft and commercial vessels that require survey compliant cables.

### **PRODUCT FEATURES:**

- Tinned copper conductor
- UV stabilised
- Flame retardant
- ▶ Heat, oil and chemical resistant (See Technical Section)



### CONSTRUCTION:

Conductor Annealed tinned copper stranded high flexibility (Class 5). Insulation XLPE. Sheath PVC ST2.

#### CHARACTERISTICS:

Temperature Range Fixed -20°C to 90°C. Voltage Rating 0.6/1kV. Minimum Bending Radius Fixed 10 x Cable Diameter. Sheath Colour Black with Blue stripe, or White with Blue stripe. Core Colour Red & Black. Maximum Conductor temperature 90°C. Relevant Standards AS/NZS 3004.1&2, IEC 60228,

IEC 60092-360, IEC 60092-350, IEC 60092-353, IEC 60332-3-22, *RoHS* Compliant.

| Code       | Size        | Conductor<br>Construction | Thickness of<br>Insulation | Thickness<br>of Sheath | Approx. Overall<br>Diameter | Approx.<br>Weight | Max D.C.<br>Resistance<br>at 20°C |
|------------|-------------|---------------------------|----------------------------|------------------------|-----------------------------|-------------------|-----------------------------------|
|            | (Core x mm) | (mm)                      | (mm)                       | (mm)                   | (mm)                        | (Kg/Km)           | (m Ω/mt)                          |
| MTSV2/0.75 | 2 x 0.75    | 24/0.2                    | 0.8                        | 1.0                    | 4.8 x 7.6                   | 38                | 26.7                              |
| MTSV2/1.0  | 2 x 1.0     | 32/0.2                    | 0.8                        | 1.0                    | 5.0 x 8.0                   | 53                | 20                                |
| MTSV2/1.5  | 2 x 1.5     | 48/0.2                    | 0.8                        | 1.1                    | 5.4 x 8.6                   | 60                | 13.7                              |
| MTSV2/2.5  | 2 x 2.5     | 80/0.2                    | 0.8                        | 1.1                    | 5.8 x 9.4                   | 90                | 8.21                              |
| MTSV2/4.0  | 2 x 4.0     | 127/0.2                   | 1.0                        | 1.2                    | 7.0 x 11.6                  | 130               | 5.09                              |
| MTSV2/6.0  | 2 x 6.0     | 190/0.2                   | 1.0                        | 1.2                    | 7.9 x 13.4                  | 143               | 3.39                              |
| MTSV2/10   | 2 x 10      | 318/0.2                   | 1.0                        | 1.3                    | 9.2 x 15.8                  | 310               | 1.95                              |
| MTSV2/16   | 2 x 16      | 504/0.2                   | 1.0                        | 1.4                    | 10.4 x 18.0                 | 403               | 1.24                              |
| MTSV2/25   | 2 x 25      | 770/0.2                   | 1.2                        | 1.6                    | 12.7 x 22.2                 | 615               | 0.795                             |
| MTSV2/35   | 2 x 35      | 703/0.25                  | 1.2                        | 1.7                    | 14.7 x 26.0                 | 765               | 0.565                             |



# TW-T SERIES

### High Performance Flexible Twin Marine Cable 0.6/1kV 90°C

### **APPLICATIONS:**

FLEXIBLE MULT CORE CABLES

**Marine** Flexible tinned copper for battery power supplies and winches.

**Automotive** Suitable for use as battery/jumper cables (indoor/ outdoor) and power leads for forklifts and field conveyers.

**Telecommunications** Where finely stranded large cross section cables are required for minimal volt drop.

**Audio** Power supply to amplifiers and audio equipment where oxygen free copper wire is required.

### **PRODUCT FEATURES:**

Tinned fine stranded copper conductor

- UV stabilised
- Flame retardant
- Heat, oil and chemical resistant (See Technical Section)



#### CONSTRUCTION:

Conductor Annealed tinned copper stranded high flexibility (Class 5). Insulation SPVC. Sheath Transparent SPVC.

### CHARACTERISTICS:

Operating Temperature Range Fixed -20°C to 90°C / Flexing -5°C to 75°C. Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage 0.6/1kV. Sheath Colour Clear sheath. Core Colour Red and Black. Polevant Standards DIN VDE 0250, DIN VDE 472, JEC 60332.1

**Relevant Standards** DIN VDE 0250, DIN VDE 472, IEC 60332-1, AS/NZS 1125, *ROHS* Compliant.

| Code    | No. of<br>Cores x Size | Approx.<br>Stranding | Approx. Overall<br>Diameter | Approx.<br>Weight | Max D.C.<br>Resistance<br>at 20°C | Nominal Amps un-enclosed<br>protected from sun @ 30°C<br>fixed installation 1 Phase |            | 1 Phase Volt Drop<br>@50Hz / MAX.<br>Conductor Temp: |
|---------|------------------------|----------------------|-----------------------------|-------------------|-----------------------------------|---|------------|--|
|         | (mm²)                  | No. of<br>wires x mm | (mm)                        | (Kg/Km)           | (m Ω/mt)                          | Spaced 8  | Touching 8 | 75°C<br>(Mv/Am)                                      |
| TW02.5T | 2 x 2.5                | 80/0.20              | 5.5 x 12.0                  | 90.0              | 7.410                             | 30  | 29         | 19.400   |
| TW04T   | 2 x 4.0                | 128/0.20             | 6.0 x 13.0                  | 130.0             | 4.950                             | 40  | 38         | 12.000   |
| TW06T   | 2 x 6.0                | 192/0.20             | 6.5 x 14.0                  | 220.0             | 3.300                             | 51  | 48         | 7.496  |
| TW10T   | 2 x 10.0               | 322/0.20             | 8.0 x 17.0                  | 340.0             | 1.910                             | 72  | 67         | 4.458  |
| TW16T   | 2 x 16.0               | 511/0.20             | 9.80 x 19.60                | 453.0             | 1.210                             | 95  | 89         | 2.807  |
| TW25T   | 2 x 25.0               | 784/0.20             | 11.30 x 22.60               | 659.0             | 0.780                             | 125   | 119        | 1.778  |
| TW35T   | 2 x 35.0               | 714/0.25             | 12.80 x 25.60               | 894.0             | 0.550                             | 156   | 146        | 1.282  |

|          | Welding, Automoti | Duty Cycle Current Rating (/<br>ve and Battery Charging (% of |     |     |
|----------|-------------------|---|-----|-----|
| Size     | 100%              | 60%   | 30% | 25% |
| 2 x 4.0  | 42                | 54  | 77  | 82  |
| 2 x 6.0  | 62                | 80  | 113 | 120 |
| 2 x 10.0 | 100               | 107   | 126 | 134 |
| 2 x 16.0 | 139               | 152   | 187 | 200 |
| 2 x 25.0 | 183               | 209   | 265 | 285 |
| 2 x 35.0 | 227               | 264   | 243 | 370 |

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.

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# **PF** series

High Performance Flexible Cable 250/440V 90°C

### **APPLICATIONS:**

**Lighting** Used for interconnection for various forms of lighting including fluorescent fittings, high bays / low bays, floodlights and reading lamps.

**Appliance** Suitable for use as interconnection leads for appliances.

**Extension Leads** Suitable for domestic power leads (not recommended for industrial or harsh environments).

#### **PRODUCT FEATURES:**

- Metre marked
- Extremely fine stranded copper conductor
- UV stabilised
- Flame retardant
- ▶ Heat, oil and chemical resistant (See Technical Section)



### CONSTRUCTION:

**Conductor** Annealed plain copper stranded high flexibility (Class 5). **Insulation** SPVC V-90. **Sheath** SPVC 5V-90.

### CHARACTERISTICS:

Operating Temperature Range Fixed -20 to 90°C / Flexing -5 to 75°C. Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 250/440V. Max AC Operating Voltage Uo 318V. Minimum Bending Radius Fixed 7.5 x cable diameter / Flexing 15 x cable diameter. Sheath Colour Black, White (other colours available on request). Standard Core Colour 2 Core – Blue, Brown. 3 Core – Blue, Brown, Green/Yellow. 4 Core – Brown, Black, Grey, Green/Yellow.

5 Core – Blue, Brown, Black, Grey, Green/Yellow. **Relevant Standards** AS/NZS 3191, AS/NZS 3008, AS/NZS 3808, AS/NZS 1125, IEC 60332-1, **ROHS** Compliant.

| Code      | No. of<br>Cores x Size | Approx.<br>Stranding | Approx. Overall<br>Diameter | Approx.<br>Weight | Nominal Amps<br>un-enclosed in air | Single Phase Volt Drop<br>Conductor Temp: 75°C |
|-----------|------------------------|----------------------|-----------------------------|-------------------|------------------------------------|--|
|           | (mm²)                  | No. of wires x mm    | (mm)                        | (Kg/Km)           |                                    | (Mv/Am)  |
| PF02/0.5  | 2 x 0.5                | 16/0.20              | 5.1                         | 40                | 3                                  | 94.7   |
| PF02/0.75 | 2 x 0.75               | 24/0.20              | 6.5                         | 60                | 7.5                                | 63.2   |
| PF02/1.0  | 2 x 1.0                | 32/0.20              | 6.8                         | 70                | 10                                 | 47.5   |
| PF02/1.5  | 2 x 1.5                | 28/0.26              | 7.8                         | 100               | 15                                 | 32.3   |
| PF02/2.5  | 2 x 2.5                | 47/0.26              | 9.6                         | 160               | 20                                 | 19.4   |
| PF02/4.0  | 2 x 4.0                | 60/0.29              | 10.6                        | 180               | 25                                 | 12.0   |
| PF03/0.5  | 3 x 0.5                | 16/0.20              | 6.4                         | 40                | 3                                  | 94.7   |
| PF03/0.75 | 3 x 0.75               | 24/0.20              | 6.8                         | 70                | 7.5                                | 63.2   |
| PF03/1.0  | 3 x 1.0                | 32/0.20              | 7.2                         | 100               | 10                                 | 47.5   |
| PF03/1.5  | 3 x 1.5                | 28/0.26              | 8.5                         | 120               | 15                                 | 32.3   |
| PF03/2.5  | 3 x 2.5                | 47/0.26              | 10.4                        | 150               | 20                                 | 19.4   |
| PF03/4.0  | 3 x 4.0                | 60/0.29              | 11.5                        | 230               | 25                                 | 12.0   |
| PF04/0.5  | 4 x 0.5                | 16/0.20              | 6.9                         | 60                | 3                                  | 94.7   |
| PF04/0.75 | 4 x 0.75               | 24/0.20              | 7.5                         | 70                | 7.5                                | 63.2   |
| PF04/1.0  | 4 x 1.0                | 32/0.20              | 8.1                         | 100               | 10                                 | 47.5   |
| PF04/1.5  | 4 x 1.5                | 28/0.26              | 9.4                         | 140               | 15                                 | 32.3   |
| PF04/2.5  | 4 x 2.5                | 47/0.26              | 11.5                        | 250               | 20                                 | 19.4   |
| PF04/4.0  | 4 x 4.0                | 60/0.29              | 12.7                        | 300               | 25                                 | 12.0   |
| PF05/0.75 | 5 x 0.75               | 24/0.20              | 8.1                         | 100               | 7.5                                | 63.2   |
| PF05/1.0  | 5 x 1.0                | 32/0.20              | 8.8                         | 125               | 10                                 | 47.5   |
| PF05/1.5  | 5 x 1.5                | 28/0.26              | 9.8                         | 170               | 15                                 | 32.3   |
| PF05/2.5  | 5 x 2.5                | 47/0.26              | 11.7                        | 250               | 20                                 | 19.4   |
| PF05/4.0  | 5 x 4.0                | 60/0.29              | 13.8                        | 360               | 25                                 | 12.0   |

Class 5).





# ON ALL FIRSTFLEX STOCKED CABLES

YES - THAT MEANS FROM 0.22mm<sup>2</sup> TO 500mm<sup>2</sup>



# 

### Ultra Performance Flexible Cable 300/500V 90°C

### **APPLICATIONS:**

**Extension Leads** Used on construction sites due to its outstanding flexibility and excellent coiling characteristics in cold conditions. **Power** For machine tools, construction and engineering equipment and conveyers.

### **PRODUCT FEATURES:**

- UV stabilised
- Flame retardant
- Extremely flexible
- Water and moisture resistant
- Suitable for permanent submersion to 200 metres
- ▶ Heat, oil and chemical resistant (See Technical Section)



### CONSTRUCTION:

Conductor Annealed plain copper stranded extreme flexibility (Class 5 & 6). Insulation SER V-90. Sheath SER105.

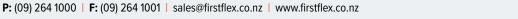
### **CHARACTERISTICS:**

Operating Temperature Range Fixed -20°C to 90°C / Flexing -5°C to 75°C. Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 300/500v. Max AC Operating Voltage Uo 318v. Minimum Bending Radius Fixed 5 x cable diameter / Flexing 6 x cable diameter. Sheath Colour Black, Orange (Blue, Yellow in 3 x 1.5mm only. Subject to availability). Standard Core Colour 2 Core – Blue, Brown. 3 Core – Blue, Brown, Green/Yellow. 4 Core – Grey, Brown, Black, Green/Yellow. Relevant Standards AS/NZS 3191, IEC 60227, IEC 60332-1,

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| Code    | No. of<br>Cores x Size | Approx.<br>Stranding | Approx. Overall<br>Diameter | Approx.<br>Weight | Nominal Amps un-enclosed<br>protected from sun<br>@ 30°C fixed application | 3 Phase Volt Drop<br>@50Hz / MAX.<br>Conductor Temp: |
|---------|------------------------|----------------------|-----------------------------|-------------------|--|--|
|         | (mm²)                  | No. of<br>wires x mm | (mm)                        | (Kg/Km)           | Touching   | 90°C<br>(Mv/Am)                                      |
| OD2/1.0 | 2 x 1.0                | 32/0.20              | 6.8                         | 70                | 10   | 46.800   |
| OD3/1.0 | 3 x 1.0                | 32/0.20              | 7.4                         | 80                | 10   | 46.800   |
| OD3/1.5 | 3 x 1.5                | 48/0.20              | 8.4                         | 105               | 16   | 30.000   |
| OD3/2.5 | 3 x 2.5                | 80/0.20              | 10.0                        | 160               | 20   | 16.400   |
| OD4/1.0 | 4 x 1.0                | 32/0.20              | 8.0                         | 100               | 10   | 46.800   |
| OD4/1.5 | 4 x 1.5                | 48/0.20              | 9.2                         | 130               | 16   | 30.000   |
| OD4/2.5 | 4 x 2.5                | 80/0.20              | 11.2                        | 200               | 20   | 16.400   |



### HD SERIES

### Ultra Performance Flexible Cable Double Sheath 0.6/1kV 90°C

#### **APPLICATIONS:**

**Extension Leads** Used on construction sites due to its outstanding flexibility and cable memory. Suitable for tough climatic and mechanical conditions.

**Power** With a separator acting as a second sheath this cable provides extra safety for machine tools, construction and engineering equipment and conveyers.

Pumping Suitable for permanent submersion to 200 metres.Lighting & Entertainment With its extra durable SER sheath, this cable is suitable for outdoor temporary power supply and lighting leads.

#### **PRODUCT FEATURES:**

- UV stabilised
- Flame retardant
- Extremely flexible
- Water and moisture resistant
- Suitable for permanent submersion to 200 metres
- ▶ Heat, oil and chemical resistant (See Technical Section)

See over for full product table >



#### CONSTRUCTION:

**Conductor** Annealed plain copper stranded extreme flexibility (Class 5 & 6).

Insulation X-90.

**Separator** An added separator or bedding of extruded V-90HT material for safety and durability. Silicate powder lubricant between cores and inner sheath to reduce friction. **Sheath** SER105.

#### CHARACTERISTICS:

Operating Temperature Range Fixed -40°C to 90°C /

Flexing -20°C to 90°C.

Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 0.6/1kV.

Max AC Operating Voltage Uo 0.7kV.

Minimum Bending Radius Fixed 5 x cable diameter /

Flexing 6 x cable diameter.

Sheath Colour Black, Orange.

#### Standard Core Colour

- 2 Core Blue, Brown.
- 3 Core Blue, Brown, Green/Yellow.
- 4 Core Grey, Brown, Black, Green/Yellow.
- 5 Core Blue, Red, White, Black, Green/Yellow.

**Relevant Standards** AS/NZS 3191, AS/NZS 5000.1, AS/NZS 3308, IEC 60227, IEC 60332-1, *ROHS* Compliant.



### HD SERIES continued

| Code     | No. of<br>Cores x Size | Approx.<br>Stranding | Approx. Overall<br>Diameter | Approx.<br>Weight | Nominal Amps un-enclosed<br>protected from sun<br>@ 30°C fixed application | 3 Phase Volt Drop<br>@50Hz / MAX.<br>Conductor Temp: |
|----------|------------------------|----------------------|-----------------------------|-------------------|--|--|
|          | (mm²)                  | No. of<br>wires x mm | (mm)                        | (Kg/Km)           | Touching   | 90°C<br>(Mv/Am)                                      |
| HD02/1.5 | 2 x 1.5                | 48/0.20              | 10.0                        | 130               | 25   | 30.000   |
| HD02/2.5 | 2 x 2.5                | 80/0.20              | 10.8                        | 165               | 33   | 16.400   |
| HD03/1.0 | 3 x 1.0                | 32/0.20              | 9.8                         | 90                | 17   | 46.800   |
| HD03/1.5 | 3 x 1.5                | 48/0.20              | 10.5                        | 140               | 21   | 30.000   |
| HD03/2.5 | 3 x 2.5                | 80/0.20              | 12.4                        | 194               | 29   | 16.400   |
| HD03/4.0 | 3 x 4.0                | 127/0.20             | 14.4                        | 319               | 37   | 10.200   |
| HD03/6.0 | 3 x 6.0                | 190/0.20             | 15.9                        | 406               | 47   | 6.800  |
| HD04/1.5 | 4 x 1.5                | 48/0.20              | 11.6                        | 170               | 21   | 30.000   |
| HD04/2.5 | 4 x 2.5                | 80/0.20              | 14.0                        | 239               | 29   | 16.400   |
| HD04/4   | 4 x 4.0                | 127/0.20             | 16.0                        | 394               | 37   | 10.200   |
| HD04/6.0 | 4 x 6.0                | 190/0.20             | 19.0                        | 505               | 47   | 6.800  |
| HD04/10  | 4 x 10.0               | 318/0.20             | 25.8                        | 975               | 67   | 4.050  |
| HD04/16  | 4 x 16.0               | 504/0.20             | 28.6                        | 1285              | 89   | 2.550  |
| HD05/1.5 | 5 x 1.5                | 48/0.20              | 13.0                        | 210               | 21   | 30.000   |
| HD05/2.5 | 5 x 2.5                | 80/0.20              | 15.4                        | 289               | 29   | 16.400   |
| HD05/4.0 | 5 x 4.0                | 127/0.20             | 17.4                        | 482               | 37   | 10.200   |
| HD05/6.0 | 5 x 6.0                | 190/0.20             | 21.0                        | 619               | 47   | 6.800  |
| HD05/10  | 5 x 10.0               | 318/0.20             | 28.1                        | 1190              | 67   | 4.050  |
| HD05/16  | 5 x 16.0               | 504/0.20             | 31.7                        | 1590              | 89   | 2.550  |



# MLG2 MULTI SERIES

Ultra Performance Flexible Rubber Industrial / Marine Cable 0.6/1kV 90°C AS/NZS 5000.1, IEC 60092, HO7RN-F

### APPLICATIONS:

**FLEXIBLE MULI** 

**Hazardous Areas** With correct explosion proof glands this cable can be installed in locations subject to explosion hazards rated 0.6/1kV (DIN VDE 0165).

Waste Water Treatment Plants Suitable for submersion in polluted liquids and aggressive environments up to 10 metres. Lighting & Entertainment With its extra durable CPE sheath this cable is suitable for outdoor temporary power supplies and lighting leads.

**Marine** Flexible tinned copper & Lloyds approved cable for installation in pleasure craft, super yachts and other marine applications.

**Power** Used on construction sites due to its outstanding flexibility, durability and industrial performance.

Pumping Suitable for permanent submersion to 500 metres.

### **PRODUCT FEATURES:**

- Tinned fine stranded copper conductor
- UV stabilised
- Flame retardant
- Water and moisture resistant
- Good elongation at break
- Good Dielectric properties
- Resistant to environmental factors such as oxidation, ozone and sunlight
- Very good behaviour to variations of outdoor temperature
- Suitable for permanent submersion to 500 metres
- Good tensile strength, tearing strength and abrasion resistance
- Heat, oil and chemical resistant (See Technical Section)

See over for full product table >



### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5). **Insulation** EPR R90. **Sheath** CPE Elastomer Rubber.

### CHARACTERISTICS:

Operating Temperature Range Fixed -40°C to 90°C / Flexing -25°C to 90°C. Maximum Conductor Temperature 90°C. Rated Voltage Uo/U 0.6/1kV. Minimum Bending Radius Fixed 4 x cable diameter / flexing 6 x cable diameter. Sheath Colour Black. **Standard Core Colours** MLCON-G2 3 to 19 Core - Black Numbered + Green/Yellow ML-G2 2 Core - Blue, Brown 3 Core - Blue, Brown, Green/Yellow 4 Core - Brown, Black, Grey, Green/Yellow 5 Core - Blue, Brown, Black, Grey, Green/Yellow Multi Core - Black Numbered + Green/Yellow Relevant Standards DIN VDE 0295, DIN VDE 0165, IEC 60092-360 IEC 60092-353, IEC 60092-359, IEC 60092-351, AS/NZS 1125, AS/ NZS 3808, RoHS Compliant.

**AS/NZS 5000.1** Electric cables for working voltage 0.6/1kV. **IEC 60092-360** Electrical installations in ships - Part 360: Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation and telecommunication cables.

**IEC 60092-350** Electrical installations in ships - Part 350: General construction and test methods.

**IEC 60332-3-22** Test for vertical flame spread of verticallymounted bunched wires or cables.

**HO7RN-F** Harmonised type heavy duty rubber cable construction (1.5mm<sup>2</sup> and above).

Certification Approvals Lloyds Type Approval CEF/SA.

### MLG2 MULTI SERIES continued

| Code                         | No. of<br>Cores x Size<br>(mm²) | Approx.<br>Stranding<br>No. of<br>wires x mm | Approx. Overall<br>Diameter<br>+/ - 10%<br>(mm) | Approx.<br>Weight<br>(Kg/Km) | Nominal Amps un-enclosed<br>protected from sun<br>@ 30°C fixed application<br>Touching | 3 Phase Volt Drop<br>@50Hz / MAX.<br>Conductor Temp:<br>90°C<br>(Mv/Am) |
|------------------------------|---------------------------------|--|---|------------------------------|--|---|
| COMPLIES ONLY TO             | IFC 60092-350                   |  | RS' BLACK NUMB                                  | ERED + GRN/                  | 1<br>  <b>VFI</b>  |   |
| MLCON03/1.0BKG2              | 3 x 1.0                         | 32 x 0.20                                    | 10.1  | 128                          | 18   | 46.800  |
| MLCON04/1.0BKG2              | 4 x 1.0                         | 32 x 0.20                                    | 11.0  | 160                          | 16   | 46.800  |
| MLCON05/1.0BKG2              | 5 x 1.0                         | 32 x 0.20                                    | 12.1  | 172                          | 14   | 46.800  |
| MLCON07/1.0BKG2              | 7 x 1.0                         | 32 x 0.20                                    | 12.8  | 191                          | 12   | 46.800  |
| MLCON12/1.0BKG2              | 12 x 1.0                        | 32 x 0.20                                    | 16.9  | 287                          | 12   | 46.800  |
| MLCON19/1.0BKG2              | 19 x 1.0                        | 32 x 0.20                                    | 20.2  | 432                          | 12   | 46.800  |
| <b>COMPLIES TO AS/NZ</b>     | S 5000.1, IEC 6                 | 0092-350 & H                                 | 07RN-F TYPE                                     |                              |  |   |
| ML02/1.5BKG2                 | 2 x 1.5                         | 30/0.25                                      | 10.8  | 130                          | 25   | 30.000  |
| ML02/2.5BKG2                 | 2 x 2.5                         | 50/0.25                                      | 11.8  | 190                          | 33   | 16.400  |
| ML02/4.0BKG2                 | 2 x 4.0                         | 56/0.30                                      | 13.2  | 260                          | 44   | 10.200  |
| ML02/6.0BKG2                 | 2 x 6.0                         | 84/0.30                                      | 15.0  | 350                          | 56   | 6.800   |
| ML02/10.0BKG2                | 2 x 10.0                        | 80/0.40                                      | 20.1  | 538                          | 67   | 4.050   |
| ML02/16.0BKG2                | 2 x 16.0                        | 128/0.40                                     | 22.9  | 749                          | 89   | 2.550   |
| ML03/1.5BKG2                 | 3 x 1.5                         | 30/0.25                                      | 11.6  | 160                          | 21   | 30.000  |
| ML03/2.5BKG2                 | 3 x 2.5                         | 50/0.25                                      | 12.7  | 230                          | 29   | 16.400  |
| ML03/4.0BKG2                 | 3 x 4.0                         | 56/0.30                                      | 14.2  | 320                          | 37   | 10.200  |
| ML03/6.0BKG2                 | 3 x 6.0                         | 84/0.30                                      | 16.1  | 425                          | 47   | 6.800   |
| ML03/10.0BKG2                | 3 x 10.0                        | 80/0.40                                      | 21.5  | 765                          | 67   | 4.050   |
| ML03/16.0BKG2                | 3 x 16.0                        | 128/0.40                                     | 24.0  | 1060                         | 89   | 2.550   |
| ML04/1.5BKG2                 | 4 x 1.5                         | 30/0.25                                      | 12.8  | 200                          | 21   | 30.000  |
| ML04/2.5BKG2                 | 4 x 2.5                         | 50/0.25<br>56/0.30                           | 13.9<br>15.6                                    | 290<br>400                   | 29<br>37   | 16.400<br>10.200  |
| ML04/4.0BKG2<br>ML04/6.0BKG2 | 4 x 4.0<br>4 x 6.0              | 84/0.30                                      | 15.6  | 400<br>540                   | 47   | 6.800   |
| ML04/10.0BKG2                | 4 x 0.0<br>4 x 10.0             | 80/0.40                                      | 23.0  | 930                          | 67   | 4.050   |
| ML04/16.0BKG2                | 4 x 16.0                        | 128/0.40                                     | 25.0  | 1300                         | 89   | 2.550   |
| ML04/25.0BKG2                | 4 x 25.0                        | 200/0.40                                     | 32.0  | 1950                         | 119  | 1.610   |
| ML04/35.0BKG2                | 4 x 35.0                        | 280/0.40                                     | 35.0  | 2330                         | 149  | 1.170   |
| ML04/50.0BKG2                | 4 x 50.0                        | 400/0.40                                     | 40.0  | 3200                         | 187  | 0.868   |
| ML05/1.5BKG2                 | 5 x 1.5                         | 30/0.25                                      | 14.0  | 240                          | 21   | 30.000  |
| ML05/2.5BKG2                 | 5 x 2.5                         | 50/0.25                                      | 15.3  | 350                          | 29   | 16.400  |
| ML05/4.0BKG2                 | 5 x 4.0                         | 56/0.30                                      | 17.3  | 500                          | 37   | 10.200  |
| ML05/6.0BKG2                 | 5 x 6.0                         | 84/0.30                                      | 19.8  | 670                          | 47   | 6.800   |
| ML05/10.0BKG2                | 5 x 10.0                        | 80/0.40                                      | 25.8  | 1140                         | 67   | 4.050   |
| ML05/16.0BKG2                | 5 x 16.0                        | 128/0.40                                     | 29.0  | 1610                         | 89   | 2.550   |
| ML05/25.0BKG2                | 5 x 25.0                        | 200/0.40                                     | 35.0  | 2440                         | 119  | 1.610   |
| ML05/35.0BKG2                | 5 x 35.0                        | 280/0.40                                     | 38.0  | 3310                         | 149  | 1.170   |
| ML07/1.5BKG2                 | 7 x 1.5                         | 30/0.25                                      | 15.3  | 330                          | 15   | 30.000  |
| ML07/2.5BKG2                 | 7 x 2.5                         | 50/0.25                                      | 17.0  | 470                          | 20   | 16.400  |
| ML12/1.5BKG2                 | 12 x 1.5                        | 30/0.25                                      | 20.8  | 480                          | 15   | 30.000  |
| ML12/2.5BKG2                 | 12 x 2.5                        | 50/0.25                                      | 22.9  | 690                          | 20   | 16.400  |
| ML19/1.5BKG2                 | 19 x 1.5                        | 30/0.25                                      | 24.7  | 710                          | 15   | 30.000  |



### HO PLUS SERIES

### Ultra Performance Flexible Rubber Cable 0.6/1kV 90°C



#### **APPLICATIONS:**

**Hazardous Areas** With correct explosion proof glands this cable can be installed in locations subject to explosion hazards rated 0.6/1kV (DIN VDE 0165).

**Waste Water Treatment Plants** Suitable for submersion in polluted liquids and aggressive environments up to 10 metres.

**Lighting & Entertainment** With its extra durable CPE sheath this cable is suitable for outdoor temporary power supplies and lighting leads.

**Marine** Flexible tinned copper cable for installation in pleasure craft and other marine applications.

**Power** Used on construction sites due to its outstanding flexibility, durability and industrial performance.

Pumping Suitable for permanent submersion to 200 metres.

**Materials and Handling Systems** Suitable for cable spring reelers and large energy chains.

### **PRODUCT FEATURES:**

- Tinned fine stranded copper conductor
- UV stabilised
- Flame retardant
- Water and moisture resistant
- Good elongation at break
- Resistant to environmental factors such as oxidation, ozone and sunlight
- Suitable for permanent submersion to 200 metres
- ▶ Good tensile strength, tearing strength and abrasion resistance
- ▶ Heat, oil and chemical resistant (See Technical Section)

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5). **Insulation** EPR R90. **Sheath** CPE Elastomer Rubber.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -40°C to 90°C / Flexing -25°C to 90°C.

**Maximum Conductor Temperature** 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). **Rated Voltage** Uo/U 0.6/1kV.

Max AC Operating Voltage Uo 0.7kV.

**Minimum Bending Radius** Fixed 4 x cable diameter / flexing 6 x cable diameter / Drag chains and spring reelers 10 x cable diameter.

Sheath Colour Black.

#### **Standard Core Colours**

2 Core - Blue, Brown.

3 Core – Blue, Brown, Green/Yellow.

4 Core - Brown, Black, Grey, Green/Yellow.

5 Core - Blue, Brown, Black, Grey, Green/Yellow.

Multi Core – Black Numbered + Green/Yellow.

**Relevant Standards** HO7RN-F Type, DIN VDE 0295, DIN VDE 0165, IEC 60332-1, EN 50363, EN 50525-2-21, *ROHS* Compliant.

See over for full product table >

| Code             | No. of Cores<br>x Size<br>(mm²) | Approx.<br>Stranding<br>No. of<br>wires x mm | Approx.<br>Overall Diameter<br>+/- 10%<br>(mm) | Approx.<br>Weight<br>(Kg/Km) | Nominal Amps<br>un-enclosed protected from<br>sun @ 30°C fixed application<br>Touching | 3 Phase Volt Drop<br>@50Hz / MAX.<br>Conductor Temp:<br>90°C<br>(Mv/Am) |
|------------------|---------------------------------|--|--|------------------------------|--|---|
| H05RN-F 300/500V |                                 |  |  |                              |  |   |
| HO2/0.75B        | 2 x 0.75                        | 24/0.20                                      | 6.4  | 62                           | 12   | 54.800  |
| HO2/1.0B         | 2 x 1.0                         | 32/0.20                                      | 7.0  | 72                           | 20   | 46.800  |
| HO3G0.75B        | 3 x 0.75                        | 24/0.20                                      | 7.0  | 77                           | 12   | 54.800  |
| HO3G1.0B         | 3 x 1.0                         | 32/0.20                                      | 7.1  | 125                          | 20   | 46.800  |
| HO4G0.75B        | 4 x 0.75                        | 24/0.20                                      | 8.8  | 78                           | 11   | 54.800  |
| HO4G1.0B         | 4 x 1.0                         | 32/0.20                                      | 10.0   | 155                          | 17   | 46.800  |
| HO7RN-F 0.6/1kV  |                                 |  |  |                              |  |   |
| HO2/1.5B         | 2 x 1.5                         | 30/0.25                                      | 9.4  | 130                          | 25   | 30.000  |
| HO2/2.5B         | 2 x 2.5                         | 50/0.25                                      | 11.5   | 190                          | 33   | 16.400  |

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.



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| Code                 | No. of Cores          | Approx.              | Approx.          | Approx.      | Nominal Amps<br>un-enclosed protected from | 3 Phase Volt Drop<br>@50Hz / MAX. |
|----------------------|-----------------------|----------------------|------------------|--------------|--|-----------------------------------|
| ouc                  | x Size                | Stranding            | Overall Diameter | Weight       | sun @ 30°C fixed application               | Conductor Temp:                   |
|                      | (mm²)                 | No. of<br>wires x mm | +/- 10%<br>(mm)  | (Kg/Km)      | Touching                                   | 90°C<br>(Mv/Am)                   |
| HO2/4.0B             | 2 x 4.0               | 56/0.30              | 13.8             | 260          | 44   | 10.200                            |
| HO2/6.0B             | 2 x 6.0               | 84/0.30              | 14.5             | 350          | 56   | 6.800                             |
| HO2/10B              | 2 x 10.0              | 80/0.40              | 18.7             | 538          | 79   | 4.050                             |
| 102/16B              | 2 x 16.0              | 128/0.40             | 21.1             | 749          | 106  | 2.550                             |
| 103G1.5B             | 3 x 1.5               | 30/0.25              | 10.1             | 160          | 21   | 30.000                            |
| 103G2.5B             | 3 x 2.5               | 50/0.25              | 12.0             | 230          | 29   | 16.400                            |
| 103G4.0B             | 3 x 4.0               | 56/0.30              | 14.0             | 320          | 37   | 10.200                            |
| 103G6.0B             | 3 x 6.0               | 84/0.30              | 15.5             | 425          | 47   | 6.800                             |
| 103G10B              | 3 x 10.0              | 80/0.40              | 21.0             | 765          | 67   | 4.050                             |
| 103G16B              | 3 x 16.0              | 128/0.40             | 24.0             | 1060         | 89   | 2.550                             |
| 103G25B              | 3 x 25.0              | 200/0.40             | 29.0             | 1560         | 119  | 1.610                             |
| 104G1.0BH07          | 4 x 1.0               | 32/0.20              | 10.5             | 175          | 17   | 46.800                            |
| 104G1.5B             | 4 x 1.5               | 30/0.25              | 11.5             | 200          | 21   | 30.000                            |
| 104G2.5B             | 4 x 2.5               | 50/0.25              | 13.5             | 290          | 29   | 16.400                            |
| 104G4.0B             | 4 x 4.0               | 56/0.30              | 15.5             | 400          | 37   | 10.200                            |
| 104G6.0B             | 4 x 6.0               | 84/0.30              | 17.5             | 540          | 47   | 6.800                             |
| 104G10B              | 4 x 10.0              | 80/0.40              | 23.0             | 930          | 67   | 4.050                             |
| 104G16B              | 4 x 16.0              | 128/0.40             | 26.0             | 1300         | 89   | 2.550                             |
| 104G25B              | 4 x 25.0              | 200/0.40             | 32.0             | 1950         | 119  | 1.610                             |
| 104G35B              | 4 x 35.0              | 280/0.40             | 35.0             | 2330         | 149  | 1.170                             |
| 104650B              | 4 x 50.0              | 400/0.40             | 40.0             | 3200         | 187  | 0.868                             |
| 104030B<br>104G70B   | 4 x 70.0              | 356/0.50             | 45.0             | 4200         | 235  | 0.609                             |
| 104695B              | 4 x 95.0              | 485/0.50             | 51.0             | 5490         | 282  | 0.450                             |
| 104655B<br>1046120B  | 4 x 95.0<br>4 x 120.0 | 614/0.50             | 56.0             | 7098         | 333  | 0.366                             |
| 105G1.0H07           | 5 x 1.0               | 32/0.20              | 12.0             | 162          | 17   | 46.800                            |
| 105G1.5B             | 5 x 1.5               | 30/0.25              | 12.5             | 240          | 21   | 30.000                            |
| 105G2.5B             | 5 x 2.5               | 50/0.25              | 15.0             | 350          | 29   | 16.400                            |
|                      | 5 x 4.0               | 56/0.30              | 17.0             | 500          | 37   | 10.200                            |
| 105G4.0B<br>105G6.0B | 5 x 4.0<br>5 x 6.0    | 84/0.30              | 19.0             | 670          | 47   | 6.800                             |
|                      |                       |                      |                  |              |  |                                   |
| IO5G10B              | 5 x 10.0              | 80/0.40              | 25.0             | 1140         | 67   | 4.050                             |
| 105G16B              | 5 x 16.0              | 128/0.40<br>200/0.40 | 29.0<br>35.0     | 1610<br>2440 | 89<br>119                                  | 2.550                             |
| 105G25B              | 5 x 25.0              |                      |                  |              |  | 1.610                             |
| IO5G35B              | 5 x 35.0              | 280/0.40             | 39.0<br>45.0     | 3310         | 149  | 1.170                             |
| 105G50B              | 5 x 50.0              | 400/0.40             | 45.0             | 4000         | 187  | 0.868                             |
| IO5G70B              | 5 x 70.0              | 356/0.50             | 48.7             | 5256         | 235  | 0.609                             |
| 105G95B              | 5 x 95.0              | 485/0.50             | 56.6             | 6780         | 282  | 0.450                             |
| 107G1.5B             | 7 x 1.5               | 30/0.25              | 16.0             | 330          | 15   | 30.000                            |
| 107G2.5B             | 7 x 2.5               | 50/0.25              | 18.5<br>21 F     | 470          | 20   | 16.400                            |
| 107G4.0B             | 7 x 4.0               | 56/0.30              | 21.5             | 660          | 27   | 10.200                            |
| 107G6.0B             | 7 x 6.0               | 84/0.30              | 24.8             | 956          | 35   | 6.800                             |
| HO12G1.5B            | 12 x 1.5              | 30/0.25              | 19.0             | 480          | 15   | 30.000                            |
| 1012G2.5B            | 12 x 2.5              | 50/0.25              | 22.5             | 690          | 20   | 16.400                            |
| 1018G1.5B            | 18 x 1.5              | 30/0.25              | 22.0             | 690          | 15   | 30.000                            |
| 1018G2.5B            | 18 x 2.5              | 50/0.25              | 26.5             | 1010         | 20   | 16.400                            |
| 1027G1.5B            | 27 x 1.5              | 30/0.25              | 28.1             | 1102         | 15   | 30.000                            |
| 1027G2.5B            | 27 x 2.5              | 50/0.25              | 33.5             | 1521         | 20   | 16.400                            |



## HR SERIES

High Performance Flexible Rubber Cable 450/750V 60°C

### **APPLICATIONS:**

**Hazardous Areas** With correct explosion proof glands this cable can be installed in locations subject to explosion hazards rated 0.6/1kV (DIN VDE 0165).

**Waste Water Treatment Plants** Suitable for submersion in polluted liquids and aggressive environments up to 10 metres.

**Lighting & Entertainment** With its extra durable CPE sheath this cable is suitable for outdoor temporary power supplies and lighting leads.

**Power** Used on construction sites due to its outstanding flexibility, durability and cable memory.

Pumping Suitable for permanent submersion to 200 metres.

**Materials and Handling Systems** Suitable for cable spring reelers and large energy chains.

### **PRODUCT FEATURES:**

- UV stabilised
- Flame retardant
- Water and moisture resistant
- Good elongation at break
- Resistant to environmental factors such as oxidation, ozone and sunlight
- Suitable for permanent submersion to 200 metres
- ► Good tensile strength, tearing strength and abrasion resistance
- ▶ Heat, oil and chemical resistant (See Technical Section)



### CONSTRUCTION:

**Conductor** Annealed plain copper stranded high flexibility (Class 5). **Insulation** SER. **Sheath** SER.

#### **CHARACTERISTICS:**

Operating Temperature Range Fixed -40°C to 60°C /
Flexing -30°C to 60°C.
Maximum Conductor Temperature 60°C.
Rated Voltage Uo/U 450/750V (Fixed laying permitted up to 1000V).
Minimum Bending Radius Fixed 5 x cable diameter.
Sheath Colour Black.
Standard Core Colours
2 Core – Blue, Brown.
3 Core – Blue, Brown, Green/Yellow.
4 Core – Brown, Black, Grey, Green/Yellow.
5 Core – Blue, Brown, Black, Grey, Green/Yellow.
Multi Core – Black Numbered + Green/Yellow.
Relevant Standards H07RN-F, HD361 S2/S3, VDE 0295, VDE 0282, IEC 60811-2-1, VDE 0293-308, EN 60811-2-1, IEC 60332-1,
C € Directive 2006/95/EC, and *ROHS* Compliant.

See over for full product table ►

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### HR SERIES continued

| Code     | No. of<br>Cores<br>x Size | Approx.<br>Stranding | Approx.<br>Overall<br>Diameter | Approx.<br>Weight | Nominal Amps<br>un-enclosed protected<br>from sun @ 30°C fixed<br>application | 3 Phase Volt Drop<br>@ 50Hz / MAX .<br>Conductor Temp: |
|----------|---------------------------|----------------------|--------------------------------|-------------------|---|--|
|          | (mm²)                     | No. of<br>wires x mm | +/- 10%<br>(mm)                | (Kg/Km)           | Touching  | 90°C<br>(Mv/Am)  |
| HR3G1.5  | 3 x 1.5                   | 30/0.25              | 10.5                           | 130               | 15  | 30.000   |
| HR3G2.5  | 3 x 2.5                   | 50/0.25              | 12.5                           | 191               | 21  | 16.400   |
| HR4G1.5  | 4 x 1.5                   | 30/0.25              | 11.5                           | 162               | 16  | 30.000   |
| HR4G2.5  | 4 x 2.5                   | 50/0.25              | 13.8                           | 238               | 22  | 16.400   |
| HR4G4.0  | 4 x 4.0                   | 56/0.31              | 15.5                           | 331               | 30  | 10.200   |
| HR4G6.0  | 4 x 6.0                   | 84/0.30              | 17.5                           | 472               | 37  | 6.800  |
| HR4G10   | 4 x 10.0                  | 30/0.40              | 23.7                           | 718               | 52  | 4.050  |
| HR4G16   | 4 x 16.0                  | 1280/0.40            | 26.9                           | 1068              | 69  | 2.550  |
| HR4G25   | 4 x 25.0                  | 200/0.41             | 33.4                           | 1400              | 92  | 1.610  |
| HR4G35   | 4 x 35.0                  | 280/0.41             | 36.8                           | 1870              | 114   | 1.170  |
| HR4G50   | 4 x 50.0                  | 400/0.40             | 42.6                           | 3200              | 143   | 0.868  |
| HR4G70   | 4 x 70.0                  | 356/0.50             | 48.3                           | 4200              | 178   | 0.609  |
| HR4G95   | 4 x 95.0                  | 485/0.50             | 54.7                           | 5490              | 210   | 0.450  |
| HR4G120  | 4 x 120.0                 | 614/0.50             | 59.5                           | 7098              | 246   | 0.366  |
| HR5G1.5  | 5 x 1.5                   | 30/0.25              | 12.5                           | 195               | 16  | 30.000   |
| HR5G2.5  | 5 x 2.5                   | 50/0.25              | 15.0                           | 291               | 22  | 16.400   |
| HR5G4.0  | 5 x 4.0                   | 56/0.31              | 17.7                           | 411               | 30  | 10.200   |
| HR5G6.0  | 5 x 6.0                   | 84/0.31              | 19.8                           | 581               | 38  | 6.800  |
| HR5G10   | 5 x 10.0                  | 80/0.41              | 26.0                           | 896               | 54  | 4.050  |
| HR5G16   | 5 x 16.0                  | 128/0.41             | 30.0                           | 1810              | 71  | 2.550  |
| HR5G25   | 5 x 25.0                  | 200/0.40             | 36                             | 2440              | 94  | 1.610  |
| HR5G35   | 5 x 35.0                  | 280/0.40             | 41                             | 3310              | 114   | 1.170  |
| HR5G50   | 5 x 50.0                  | 400/0.40             | 45.0                           | 4000              | 143   | 0.868  |
| HR5G70   | 5 x 70.0                  | 356/0.50             | 52.5                           | 5256              | 178   | 0.609  |
| HR5G95   | 5 x 95.0                  | 485/0.50             | 56.6                           | 6780              | 210   | 0.450  |
| HR7G1.5  | 7 x 1.5                   | 30/0.25              | 16.0                           | 330               | 12  | 30.000   |
| HR7G2.5  | 7 x 2.5                   | 50/0.25              | 18.5                           | 470               | 16  | 16.400   |
| HR12G1.5 | 12 x 1.5                  | 30/0.25              | 19.0                           | 480               | 10  | 30.000   |
| HR12G2.5 | 12 x 2.5                  | 50/0.25              | 22.5                           | 690               | 14  | 16.400   |
| HR19G1.5 | 19 x 1.5                  | 30/0.25              | 23.5                           | 788               | 7   | 30.000   |
| HR19G2.5 | 19 x 2.5                  | 50/0.25              | 27.7                           | 1068              | 10  | 16.400   |
| HR24G1.5 | 24 x 1.5                  | 30/0.25              | 27.5                           | 968               | 7   | 30.000   |
| HR24G2.5 | 24 x 2.5                  | 50/0.25              | 32.6                           | 1400              | 7.5   | 16.400   |



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## HRP SERIES

### High Performance Flexible Rubber Cable C/W 2 X PILOT 0.6/1kV 90°C

### **APPLICATIONS:**

**Pumping** Complete with two 1.5mm pilots, this cable is suitable for permanent submersion to 100 metres.

Waste Water Treatment Plants Suitable for submersion in polluted liquids and aggressive environments up to 10 metres. Lighting and Entertainment With its extra durable CPE sheath, this cable is suitable for outdoor temporary power supplies and lighting leads.

**Marine** Flexible tinned copper cable for installation in pleasure craft and other marine applications.

### **PRODUCT FEATURES:**

- UV stabilised
- Tinned fine stranded copper conductor
- Flame retardant
- Water and moisture resistant
- Good dielectric properties
- Resistant to environmental factors such as oxidation, ozone & sunlight
- Very good behaviour to variations of outdoor temperatures
- Good tensile strength, tearing strength, and abrasion resistance
- Good elongation at break
- ▶ Heat, oil and chemical resistant (See Technical Section)



#### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5). **Insulation** R-90. **Sheath** CPE Elastomer Rubber.

### CHARACTERISTICS:

Operating Temperature Range Fixed -40°C to 90°C / Flexing -25°C to 90°C. Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 0.6/1kV. Max AC Operating Voltage Uo 0.7kV. Minimum Bending Radius Fixed 4 x cable diameter / Flexing 6 x cable diameter. Sheath Colour Black. Standard Core Colours 4 Core – Brown, Black, Grey, Green/Yellow + 2 x white numbered pilots.

**Relevant Standards** DIN VDE 0295, DIN VDE 0165, IEC 60332-1, EN 50363, EN 50525-2-21, *RoHS* Compliant.

| Code     | No. of<br>Cores<br>x Size | Approx.<br>Stranding | Approx.<br>Overall<br>Diameter | Approx.<br>Weight | Nominal Amps<br>un-enclosed protected<br>from sun @ 30°C fixed<br>application<br>a | 3 Phase Volt Drop<br>@ 50Hz / MAX.<br>Conductor Temp:<br>90°C |  |
|----------|---------------------------|----------------------|--------------------------------|-------------------|--|---|--|
|          | (mm²)                     | No. of<br>wires x mm | +/- 10%<br>(mm)                | (Kg/Km)           | Touching   | 90°C<br>(Mv/Am)   |  |
| HRP4G1.5 | 4 x 1.5 + (2 x 1.5)       | 30/0.25 (30/0.25)    | 15.0                           | 310               | 21   | 30.000  |  |
| HRP4G2.5 | 4 x 2.5 + (2 x 1.5)       | 50/0.25 (30/0.25)    | 17.3                           | 420               | 29   | 16.400  |  |
| HRP4G4.0 | 4 x 4.0 + (2 x 1.5)       | 56/0.30 (30/0.25)    | 20.3                           | 570               | 37   | 10.200  |  |
| HRP4G6.0 | 4 x 6.0 + (2 x 1.5)       | 84/0.30 (30/0.25)    | 24.0                           | 720               | 47   | 6.800   |  |
| HRP4G10  | 4 x 10 + (2 x 1.5)        | 80/0.40 (30/0.25)    | 27.5                           | 1170              | 67   | 4.050   |  |
| HRP4G16  | 4 x 16 + (2 x 1.5)        | 128/0.40 (30/0.25)   | 29.5                           | 1310              | 89   | 2.550   |  |
| HRP4G25  | 4 x 25 + (2 x 1.5)        | 200/0.40(30/0.25)    | 33.5                           | 1910              | 119  | 1.610   |  |
| HRP4G35  | 4 x 35 + (2 x 1.5)        | 280/0.40(30/0.25)    | 37.5                           | 2460              | 149  | 1.170   |  |

# FX SERIES

Extreme Performance Flexible Cable 0.6/1kV 90°C

### APPLICATIONS:

**Food, Beverage & Laboratory** With its microbe and hydrolysis resistant and super durable PUR sheath this cable suits the food and beverage industry and laboratory environments.

**Mobile Tools** Suitable for floor sanding and drills where extreme wear resistance and reverse bending is required.

**Power** With its extra durable PUR sheath this cable is suitable for outdoor temporary power supplies, extension leads and agricultural equipment.

**Marine** Flexible tinned copper cable for installation on pleasure craft, ship to shore and other marine applications.

**Low Temperature** Extreme flexibility in low temperatures such as freezers and ski fields.

### **PRODUCT FEATURES:**

- ► Halogen free
- Good elongation at break
- UV stabilised
- Good dielectric properties
- ► Flame retardant
- Avian & rodent resistance
   Water & moisture resistance
- Non-marking sheath
   Microbe & hydrolysis resistant
  - ► Yellow sheath for high visibility
- Tinned fine stranded copper conductor
- Extreme resistance to abrasion, tearing & notching
- Resistant to environmental factors such as oxidation, ozone & sunlight
- Very good behavior to variations of outdoor temperatures
- ▶ High tensile strength, tearing strength & abrasion resistance
- ▶ Heat, oil & chemical resistant (See Technical Section)

### CONSTRUCTION:

Conductor Annealed tinned copper stranded high flexibility (Class 5). Insulation LT-SER 90. Inner Sheath LT-SER 90. Sheath PUR halogen free polyurethane compound.

### CHARACTERISTICS:

Operating Temperature Range Fixed -45°C to 90°C / Flexing -35°C to 90°C. Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 0.6/1kV Max AC Operating Voltage Uo 0.7kV. Minimum Bending Radius Fixed 5 x cable diameter / Flexing 6 x cable diameter. Sheath Colour Yellow. Standard Core Colours 3 Core – Blue, Brown, Green/Yellow. 4 Core – Brown, Black, Grey, Green/Yellow. 5 Core – Blue, Brown, Black, Grey, Green/Yellow.

**Relevant Standards** AS/NZS 1125, AS/NZS 3808 (For insulation & inner sheath), *ROHS* Compliant.

| Code    | No. of<br>Cores<br>x Size | Approx.<br>Stranding | Approx.<br>Overall<br>Diameter | Approx.<br>Weight | Nominal Amps<br>un-enclosed protected from<br>sun @ 30°C fixed application | 3 Phase Volt Drop<br>@ 50Hz / MAX.<br>Conductor Temp: |
|---------|---------------------------|----------------------|--------------------------------|-------------------|--|---|
|         | (mm²)                     | No. of<br>wires x mm |                                | (Kg/Km)           | Touching   | 90°C<br>(Mv/Am)                                       |
| FX3G1.5 | 3 x 1.5                   | 30/0.25              | 11.2                           | 130               | 25   | 30.000  |
| FX3G2.5 | 3 x 2.5                   | 50/0.25              | 12.4                           | 191               | 33   | 16.400  |
| FX3G6.0 | 3 x 6.0                   | 84/0.30              | 16.7                           | 360               | 47   | 6.800   |
| FX4G1.5 | 4 x 1.5                   | 30/0.25              | 12.5                           | 162               | 21   | 30.000  |
| FX4G2.5 | 4 x 2.5                   | 50/0.25              | 13.7                           | 238               | 29   | 16.400  |
| FX4G4.0 | 4 x 4.0                   | 56/0.30              | 15.5                           | 331               | 37   | 10.200  |
| FX4G6.0 | 4 x 6.0                   | 84/0.30              | 17.8                           | 472               | 47   | 6.800   |
| FX5G2.5 | 5 x 2.5                   | 50/0.25              | 15.0                           | 291               | 29   | 16.400  |
| FX5G6.0 | 5 x 6.0                   | 84/0.30              | 19.8                           | 581               | 47   | 6.800   |

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.



FIR

### EP series

### Extreme Performance Flexible Cable 0.6/1kV 90°C

#### **APPLICATIONS:**

**Food, Beverage & Laboratory** With its microbe and hydrolysis resistant and super durable PUR sheath this cable suits the food and beverage industry and laboratory environments.

**Mobile Tools** Suitable for floor sanding and drills where extreme wear resistance and reverse bending is required.

**Power** With its extra durable PUR sheath this cable is suitable for outdoor temporary power supplies, extension leads and agricultural equipment.

**Materials and Handling Systems** Suitable for cable spring reelers and large energy chains.

**Low Temperature** Extreme flexibility in low temperatures such as freezers and ski fields.

### **PRODUCT FEATURES:**

- Extreme resistance to abrasion, tearing & notching
- Good reverse bending strength (min 30,000 reverse bends VDE0472)
- Non-marking sheath
- Microbe and hydrolysis resistant
- Halogen free
- UV stabilised
- Flame retardant
- Resistant to environmental factors such as oxidation, ozone & sunlight
- Very good behaviour to variations of outdoor temperatures
- Good tensile strength, tearing strength and abrasion resistance
- Good elongation at break
- Good dielectric properties
- Avian and rodent resistance
- Water and moisture resistance
- Resistance to seawater and wastewater
- ▶ Heat, oil and chemical resistant (See Technical Section)

See over for full product table >



#### CONSTRUCTION:

**Conductor** Annealed plain copper stranded high flexibility (Class 5). **Insulation** EPR R90 Type E14 (to HD22) PETP. **Inner Sheath** TPE 6mm<sup>2</sup> and above.

**Sheath** PUR halogen free polyurethane compound type TMPU acc. To HD22.10 S1.

#### CHARACTERISTICS:

**Operating Temperature Range** Fixed -45°C to 90°C / Flexing -40°C to 90°C

Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 300/500v HO5BQ-F. Uo/U 0.6/1kV HO7BQ-F. Minimum Bending Radius Fixed 4 x cable diameter / Freely flexing 5 x cable diameter / Drag chains and spring reelers 10 x diameter. Sheath Colour Orange.

### Standard Core Colours

- 2 Core Blue, Brown.
- 3 Core Blue, Brown, Green/Yellow.
- 4 Core Brown, Black, Grey, Green/Yellow.
- 5 Core Blue, Brown, Black, Grey, Green/Yellow.

**Relevant Standards** DIN VDE 0295, DIN VDE 0293-308, (HAR) HD22.10.S1, IEC 60228, **C** € Directive 2006/95/EC and *ROHS* Compliant.

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### **EP SERIES continued**

| Code             | No. of<br>Cores<br>x Size | Approx.<br>Stranding | Approx.<br>Overall<br>Diameter<br>+ / - 10% | Approx.<br>Weight | Nominal Amps<br>un-enclosed protected from<br>sun @ 30°C fixed application | 3 Phase Volt Drop<br>@ 50Hz / MAX.<br>Conductor Temp: |
|------------------|---------------------------|----------------------|---|-------------------|--|---|
|                  | (mm²)                     | No. of<br>wires x mm | (mm)  | (Kg/Km)           | Touching   | 90°C<br>(Mv/Am)                                       |
| H05BQ-F 300/500V |                           |                      |   |                   |  |   |
| EP2/0.750R       | 2 x 0.75                  | 24/0.20              | 7.0   | 65                | 12   | 54.800  |
| EP2/1.00R        | 2 x 1.0                   | 32/0.20              | 7.5   | 78                | 20   | 46.800  |
| EP3G0.75OR       | 3 x 0.75                  | 24/0.20              | 7.5   | 78                | 12   | 54.800  |
| EP3G1.00R        | 3 x 1.0                   | 32/0.20              | 8.0   | 91                | 20   | 46.800  |
| EP4G0.75OR       | 4 x 0.75                  | 24/0.20              | 8.0   | 91                | 11   | 54.800  |
| EP4G1.0OR        | 4 x 1.0                   | 32/0.20              | 8.5   | 108               | 17   | 46.800  |
| EP5G0.75OR       | 5 x 0.75                  | 24/0.20              | 9.0   | 113               | 11   | 54.800  |
| EP5G1.00R        | 5 x 1.0                   | 32/0.20              | 9.5   | 137               | 17   | 46.800  |
| H07BQ-F 0.6/1kV  |                           |                      |   |                   |  |   |
| EP2/1.50R        | 2 x 1.5                   | 30/0.25              | 9.0   | 111               | 25   | 30.000  |
| EP3G1.5OR        | 3 x 1.5                   | 30/0.25              | 9.5   | 130               | 25   | 30.000  |
| EP3G2.5OR        | 3 x 2.5                   | 50/0.25              | 11.0  | 191               | 33   | 16.400  |
| EP3G4.00R        | 3 x 4.0                   | 56/0.30              | 13.0  | 266               | 44   | 10.200  |
| EP4G1.5OR        | 4 x 1.5                   | 30/0.25              | 10.5  | 162               | 21   | 30.000  |
| EP4G2.5OR        | 4 x 2.5                   | 50/0.25              | 12.5  | 238               | 29   | 16.400  |
| EP4G4.0OR        | 4 x 4.0                   | 56/0.30              | 14.0  | 331               | 37   | 10.200  |
| EP4G6.00R        | 4 x 6.0                   | 84/0.30              | 16.5  | 472               | 47   | 6.800   |
| EP4G10.0R        | 4 x 10.0                  | 80/0.40              | 21.1  | 718               | 67   | 4.050   |
| EP4G16.0R        | 4 x 16.0                  | 128/0.40             | 23  | 1068              | 89   | 2.550   |
| EP4G25.0R        | 4 x 25.0                  | 200/0.40             | 29.7  | 1400              | 119  | 1.610   |
| EP4G35.0R        | 4 x 35.0                  | 280/0.40             | 33  | 1870              | 149  | 1.170   |
| EP5G1.5OR        | 5 x 1.5                   | 30/0.25              | 11.5  | 195               | 21   | 30.000  |
| EP5G2.5OR        | 5 x 2.5                   | 50/0.25              | 13.5  | 291               | 29   | 16.400  |
| EP5G4.00R        | 5 x 4.0                   | 56/0.30              | 16.0  | 411               | 37   | 10.200  |
| EP5G6.00R        | 5 x 6.0                   | 84/0.30              | 20  | 581               | 47   | 6.800   |
| EP5G10.0R        | 5 x 10.0                  | 80/0.40              | 23  | 896               | 67   | 4.050   |
| EP5G16.0R        | 5 x 16.0                  | 128/0.40             | 27  | 1210              | 119  | 2.550   |
| EP7G1.5OR        | 7 x 1.5                   | 30/0.25              | 14.0  | 291               | 15   | 30.000  |
| EP7G2.5OR        | 7 x 2.5                   | 50/0.25              | 16.5  | 431               | 20   | 16.400  |



Ultra Performance Flexible Rubber SWB Cable Double Sheath 0.6/1kV 90°C

### **APPLICATIONS:**

FLEXIBLE MULT CORE CABLES

> **Hazardous Areas** With correct explosion proof glands this cable can be installed in locations subject to explosion hazards. **Power** Special steel wire braided flexible cable for where extra mechanical protection is required on machine tools, construction and engineering equipment, conveyors and other industrial applications.

### **PRODUCT FEATURES:**

- Excellent safety and durability
- Very high flexibility
- UV stabilised
- Flame retardant
- Abrasion resistant
- Suitable for permanent submersion to 200 metres
- Resistant to environmental factors such as oxidation, ozone & sunlight
- ▶ Heat, oil, petrol and chemical resistant (See Technical Section)



#### CONSTRUCTION:

**Conductor** Annealed plain copper stranded high flexibility (Class 5). **Insulation** Special SPVC.

**Separator** Added separator or bedding of extruded or taped NBR material for safety and durability. Silicate powder lubricant between cores and inner sheath to reduce friction.

**Screening** Braiding of galvanised steel wires for electrical screening and mechanical protection. 82% coverage. **Sheath** Special NBR.

### **CHARACTERISTICS:**

**Operating Temperature Range** Fixed -20°C to 90°C / Flexing -20°C to 90°C. **Maximum Conductor Temperature** 90°C (Current ratings are based

on 30°C air temp. See technical section for de-rating factors).

Rated Voltage Uo/U 0.6/1kV.

Max AC Operating Voltage Uo 0.7kV.

Minimum Bending Radius Fixed 10 x cable diameter /

Flexing 15 x cable diameter.

### Sheath Colour Black.

Standard Core Colours

3 Core – Blue, Brown, Green/Yellow.

4 Core – Blue, Brown, Black, Green/Yellow. **Relevant Standards** IEC 60092-3, IEC 60092-350, IEC 60092-353, IEC 60332-1, AS/NZS 5000.1, AS/NZS 1125, AS/NZS 3808,

RoHS Compliant.

| Code       | No. of<br>Cores<br>x Size | Approx.<br>Stranding | Approx.<br>Overall Diameter | enclosed protected from sun |          | 3 Phase Volt Drop<br>@ 50Hz / MAX.<br>Conductor Temp: |
|------------|---------------------------|----------------------|-----------------------------|-----------------------------|----------|---|
|            | (mm²)                     | No. of<br>wires x mm |                             | (Kg/Km)                     | Touching | 75°C<br>(Mv/Am)                                       |
| HDSY03/1.5 | 3 x 1.5                   | 48/0.20              | 12.8                        | 220                         | 21       | 28.600  |
| HDSY03/2.5 | 3 x 2.5                   | 80/0.20              | 14.2                        | 260                         | 29       | 15.600  |
| HDSY04/1.5 | 4 x 1.5                   | 48/0.20              | 13.6                        | 261                         | 18       | 28.600  |
| HDSY04/2.5 | 4 x 2.5                   | 80/0.20              | 15.2                        | 295                         | 24       | 15.600  |

# JHCY SERIES

High Performance Flexible CBS Cable Double Sheath 0.6/1kV 90°C

### APPLICATIONS:

**Control and Signals** for use on machines, portable tools, conveying equipment and other industrial applications requiring screened cables for EMC. These cables are flexible for installation and intermittent flexible use with free movement without tensile stress.

### **PRODUCT FEATURES:**

- Tinned fine stranded copper conductor
- High flexibility
- Prevents external interference
- UV stabilised
- Flame retardant
- ▶ To be earthed at both ends using EMC compatible glands
- ▶ Heat, oil and chemical resistant (See Technical Section)



#### CONSTRUCTION:

Conductor Annealed tinned copper stranded high flexibility (Class 5). Insulation Special SPVC T12 V90. Inner Sheath SPVC. Screening Tinned copper braid 85% coverage. Sheath Special SPVC TM2.

### CHARACTERISTICS:

Operating Temperature Range Fixed -20°C to 90°C / Flexing -5°C to 90°C. Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 0.6/1kV. Max AC Operating Voltage Uo 0.7kV. Minimum Bending Radius Fixed 7.5 x cable diameter /

Flexing 15 x cable diameter.

Sheath Colour Black.

Standard Core Colours Black (numbered) + 1 Green/Yellow Earth.
Relevant Standards DIN VDE 0295, IEC 60228, DIN VDE 0281-1,
VDE 0293, IEC 60332-1, C € Directive 2006/95/EC and *ROHS* Compliant.

| Code       | No. of<br>Cores<br>x Size | Approx.<br>Stranding | Approx.<br>Overall Diameter | Approx.<br>Weight Nominal Amps<br>un-enclosed protected from<br>sun @ 30°C fixed application |          | 3 Phase Volt Drop<br>@ 50Hz / MAX.<br>Conductor Temp: |
|------------|---------------------------|----------------------|-----------------------------|--|----------|---|
|            | (mm²)                     | No. of<br>wires x mm |                             | (Kg/Km)  | Touching | 75°C<br>(Mv/Am)                                       |
| JHCY05/4.0 | 5 x 4.0                   | 56/0.30              | 18.6                        | 700  | 32       | 10.200  |
| JHCY07/1.5 | 7 x 1.5                   | 30/0.25              | 16.0                        | 383  | 15       | 30.000  |
| JHCY07/2.5 | 7 x 2.5                   | 50/0.25              | 17.9                        | 561  | 20       | 16.400  |
| JHCY12/1.5 | 12 x 1.5                  | 30/0.25              | 19.6                        | 592  | 15       | 30.000  |
| JHCY12/2.5 | 12 x 2.5                  | 50/0.25              | 21.9                        | 857  | 20       | 16.400  |
| JHCY18/1.5 | 18 x 1.5                  | 30/0.25              | 23.4                        | 806  | 15       | 30.000  |
| JHCY18/2.5 | 18 x 2.5                  | 50/0.25              | 26.1                        | 1355   | 20       | 16.400  |



# SMC SERIES

Flexible Industrial Copper Braid Screen Cable 0.6/1KV 90°C

### APPLICATIONS:

**Power Suitable** for indoor/outdoor power supplies and industrial applications.

**Safety Copper** braid for earth connection and screening purposes.

Leads Suitable for dry and damp industrial applications

### **PRODUCT FEATURES:**

- Yellow sheath for high visibility
- ▶ Tear, notch, pressure and water resistance
- UV stabilised
- Flame retardant
- Resistant to environmental factors like oxidation, ozone and sunlight
- ▶ Heat, oil and chemical resistant (See Technical Section)

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#### CONSTRUCTION:

Conductor Annealed fine wires of plain electrolytic copper stranded for HIGH flexibility VDE 0295 (Class 5). Insulation V-90HT. Inner Sheath SER V-90HT. Screening Flexible copper braid. Sheath SER V-90HT.

#### CHARACTERISTICS:

Operating Temperature Range Fixed -20°C to 90°C / Flexing -5°C to 90°C. Maximum Conductor Temperature 90°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors). Rated Voltage Uo/U 0.6/1kV. Max AC Operating Voltage Uo 0.7kV. Sheath Colour Yellow. Standard Core Colours 4 Core – Red, White, Blue, Black. Relevant Standards AS/NZS 5000.1, AS/NZS 3008, AS/NZS 1125, AS/NZS 3808, IEC 60332-1, *ROHS* Compliant.

| Code         | No. of<br>Cores<br>x Size | Approx.<br>Stranding | Approx.<br>Overall<br>Diameter | Approx.<br>Weight | Nominal Amps<br>enclosed protected<br>from sun @ 30°C fixed<br>application | 3 Phase Volt Drop<br>@ 50Hz / MAX.<br>Conductor Temp: | MAX<br>Conductor<br>Resistance<br>@ 20°C | MAX Screened<br>Resistance<br>@ 20°C |
|--------------|---------------------------|----------------------|--------------------------------|-------------------|--|---|--|--------------------------------------|
|              | (mm²)                     | No. of<br>wires x mm | (mm)                           | (Kg/Km)           | Touching   | 90°C<br>(Mv/Am)                                       | Ω /km                                    | Ω /km                                |
| SMC04/6.0YEL | 4 x 6.0                   | 84/0.30              | 20.5                           | 650               | 47   | 6.800   | 3.3                                      | 3.3                                  |
| SMC04/16YEL  | 4 x 16.0                  | 231/0.30             | 29.2                           | 1407              | 89   | 2.550   | 1.21                                     | 1.21                                 |