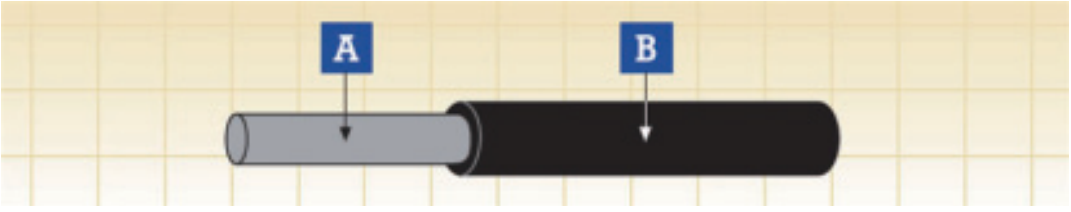
FIREROL Standard Wall Single Core Unsheathed Cables 500 V, 1000 V, 1500 V, 3000 V NF F 63-826 (FRF-SW-05SU/FRF-SW-1SU,FRF-SW-1.5SU/FRF-SW-3SU)



A. Conductor B. Insulation

Application

These cables are used as power and control cable for protected installations inside and outside of rail and transport vehicles, where handling and installation cost are an important factor, suitable for use in control, auxiliary and main circuit wiring such as cable harnesses, switchboards and control panels, driver desks etc.

Construction

Conductor

Stranded tinned copper wires to IEC 60228 Class 5

Insulation

Special halogen free compound

Electrical & Mechanical Properties

Nominal Voltage	500 V, 1000 V, 1500 V, 3000 V
Max. Conductor Temperature	90 °C/105 °C
Temperature Range	-25 °C~90 °C
Bending Radius	4 × Overall Diameter

Standards

NF F 63-826
NF F 16-101
BS 6853

Fire Performance in General

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)	Vertical flame propagation for a single insulated wire or cable
EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804	Vertical flame spread of vertically mounted bunched wires or cables
EN 50268-2; IEC 61034-2; NF C 32-073 ; NF C 20-902; NF F 16 101; VDE 0472 Teil 816	Low Smoke Emission
EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815	Halogen Free
EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813	Low Corrosivity (Acidity & Conductivity)
EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853	Low Toxicity
NF F 63 808; BS6853; NF F 16 101	Smoke Index

FRF-SW-05SU 500 V

Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Overall Diameter		Weight
			Min.	Max.	
mm²	No/mm	mm	mm	mm	kg/km
1.0	32/0.20	1.3	3.8	4.5	26
1.5	30/0.25	1.3	4.1	4.8	33
2.5	50/0.25	1.3	4.5	5.2	43
4.0	56/0.30	1.3	5.0	5.8	59
6.0	84/0.30	1.4	5.7	6.5	82
10.0	80/0.40	1.5	6.9	8.1	135
16.0	126/0.40	1.5	8.2	9.2	210

FRF-SW-1SU 1000 V

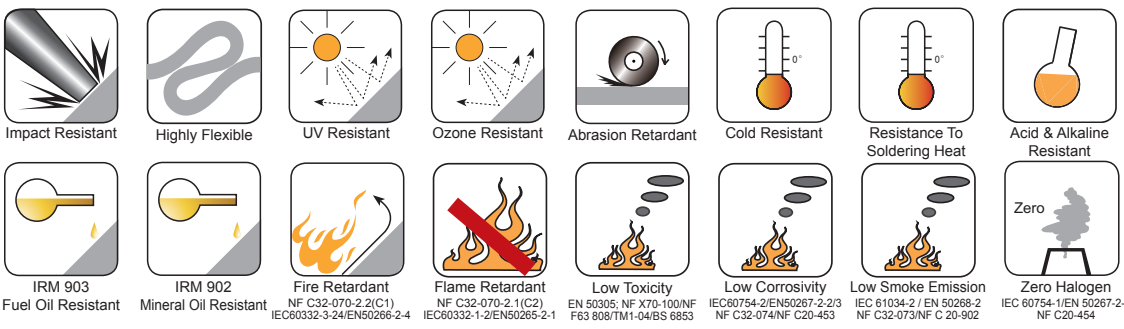
Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Overall Diameter		Weight
			Min.	Max.	
mm²	No/mm	mm	mm	mm	kg/km
1.5	30/0.25	1.5	4.4	5.2	42
2.5	50/0.25	1.5	4.8.	5.6	55
4.0	56/0.30	1.5	5.4	6.2	72
6.0	84/0.30	1.6	6.1	6.9	96
10.0	80/0.40	1.6	7.0	8.3	154
16.0	126/0.40	1.6	8.3	9.4	218
25.0	196/0.40	1.7	9.8	11.0	316
35.0	276/0.40	1.8	11.2	12.5	440
50.0	396/0.40	1.9	13.0	14.3	580
70.0	360/0.50	2.0	14.7	16.3	830
95.0	475/0.50	2.0	16.6	18.4	1040
120.0	608/0.50	2.1	18.6	20.5	1310

FRF-SW-1.5SU 1500 V

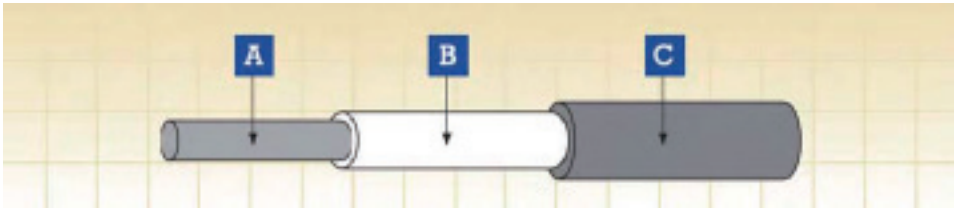
Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Overall Diameter		Weight
			Min.	Max.	
mm²	No/mm	mm	mm	mm	kg/km
1.5	30/0.25	2.3	6.0	6.8	59
2.5	50/0.25	2.3	6.4	7.2	73
4.0	56/0.30	2.3	7.0	7.8	91
6.0	84/0.30	2.3	7.5	8.3	120
10.0	80/0.40	2.3	8.4	9.7	160
16.0	126/0.40	2.3	9.7	10.8	235
25.0	196/0.40	2.3	11.0	12.2	330
35.0	276/0.40	2.4	12.4	13.7	480
50.0	396/0.40	2.5	14.2	15.5	610
70.0	360/0.50	2.7	16.1	17.7	860
95.0	475/0.50	2.7	18.0	19.8	1070
120.0	608/0.50	2.8	20.0	21.9	1340
150.0	756/0.50	2.8	21.8	23.8	1620
185.0	925/0.50	2.9	23.7	25.9	1940
240.0	1221/0.50	3.1	26.6	29.1	2550
300.0	1525/0.50	3.45	29.4	31.9	2950

FRF-SW-3SU 3000 V

Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Overall Diameter		Weight
			Min.	Max.	
mm²	No/mm	mm	mm	mm	kg/km
2.5	50/0.25	3.1	8.0	8.8	94
4.0	56/0.30	3.1	8.5	9.5	124
6.0	84/0.30	3.1	8.8	9.9	135
10.0	80/0.40	3.1	10.0	11.3	200
16.0	126/0.40	3.1	11.2	12.4	265
25.0	196/0.40	3.1	12.5	13.8	375
35.0	276/0.40	3.2	13.9	15.3	493
50.0	396/0.40	3.3	15.7	17.2	680
70.0	360/0.50	3.4	17.5	19.1	930
95.0	475/0.50	3.5	19.5	21.4	1066
120.0	608/0.50	3.6	21.6	23.5	1530
150.0	756/0.50	3.6	23.3	25.5	1740
185.0	925/0.50	3.7	25.2	27.6	2100
240.0	1221/0.50	3.9	28.1	31.7	2460
300.0	1525/0.50	4.45	31.4	35.0	3050



FIREROL Standard Wall Single Core Sheathed Cables 1500 V, 3000 V NF F 63-826 (FRF-SW-1.5S/FRF-SW-3S)



A. Conductor B. Insulation C. Sheath

Application

These cables are used as power and control cable for protected installations inside and outside of rail and transport vehicles, where handling and installation cost are an important factor, suitable for use in control, auxiliary and main circuit wiring such as cable harnesses, switchboards and control panels, driver desks etc.

Construction

Conductor

Stranded tinned copper wires to IEC 60228 Class 5

Insulation

Halogen free compound

Sheath

Halogen free compound

Electrical & Mechanical Properties

Nominal Voltage	1500 V, 3000 V
Max. Conductor Temperature	90 °C/105 °C
Temperature Range	-25 °C~90 °C
Bending Radius	4 × Overall Diameter

Standards

NF F 63-826
NF F 16-101
BS 6853

Fire Performance in General

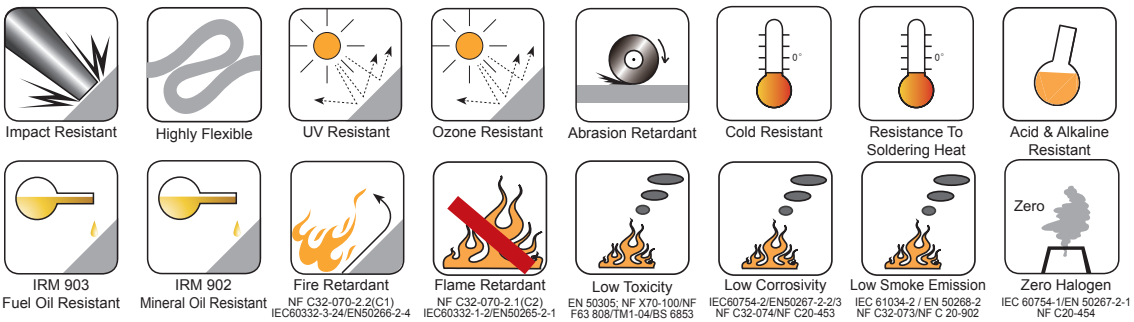
EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)	Vertical flame propagation for a single insulated wire or cable
EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804	Vertical flame spread of vertically mounted bunched wires or cables
EN 50268-2; IEC 61034-2; NF C 32-073 ; NF C 20-902; NF F 16 101; VDE 0472 Teil 816	Low Smoke Emission
EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815	Halogen Free
EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813	Low Corrosivity (Acidity & Conductivity)
EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853	Low Toxicity
NF F 63 808; BS6853; NF F 16 101	Smoke Index

FRF-SW-1.5S 1500 V

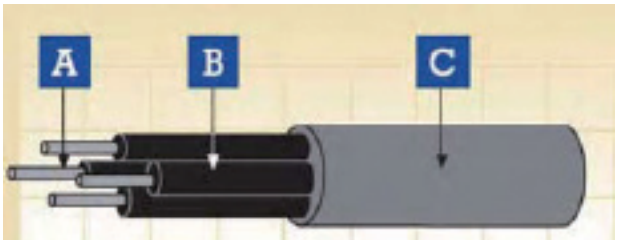
Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter		Weight
				Min.	Max.	
mm²	No/mm	mm	mm	mm	mm	kg/km
1.5	30/0.25	2.3	1.5	8.9	9.9	130
2.5	50/0.25	2.3	1.5	9.3	10.3	145
10.0	80/0.40	2.3	1.8	11.9	13.3	290
50.0	396/0.40	2.5	2.2	18.3	20.3	850
120.0	608/0.50	2.8	2.6	25.0	27.5	1770
150.0	756/0.50	2.8	2.6	26.7	29.3	2150
185.0	925/0.50	2.9	2.8	29.0	31.8	2530

FRF-SW-3S 3000V

Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Diameter		Weight
				Min.	Max.	
mm²	No/mm	mm	mm	mm	mm	kg/km
150.0	756/0.50	3.6	2.6	28.2	30.9	2270
185.0	925/0.50	3.7	2.8	30.5	33.4	2660



FIREROL Standard Wall Multicore Unscreened Cables 500 V NF F 63-826 (FRF-SW-05M)



A. Conductor B. Insulation C. Sheath

Application

These cables are used as power and control cable for protected installations inside and outside of rail and transport vehicles, where handling and installation cost are an important factor, suitable for use in control, auxiliary and main circuit wiring such as cable harnesses, switchboards and control panels, driver desks etc.

Construction

Conductor

Stranded tinned copper wires to IEC 60228 Class 5

Insulation

Halogen free compound

Sheath

Halogen free compound

Electrical & Mechanical Properties

Nominal Voltage	500 V
Max. Conductor Temperature	90 °C/105 °C
Temperature Range	-25 °C~+90 °C
Bending Radius	4 × Overall Diameter

Standards

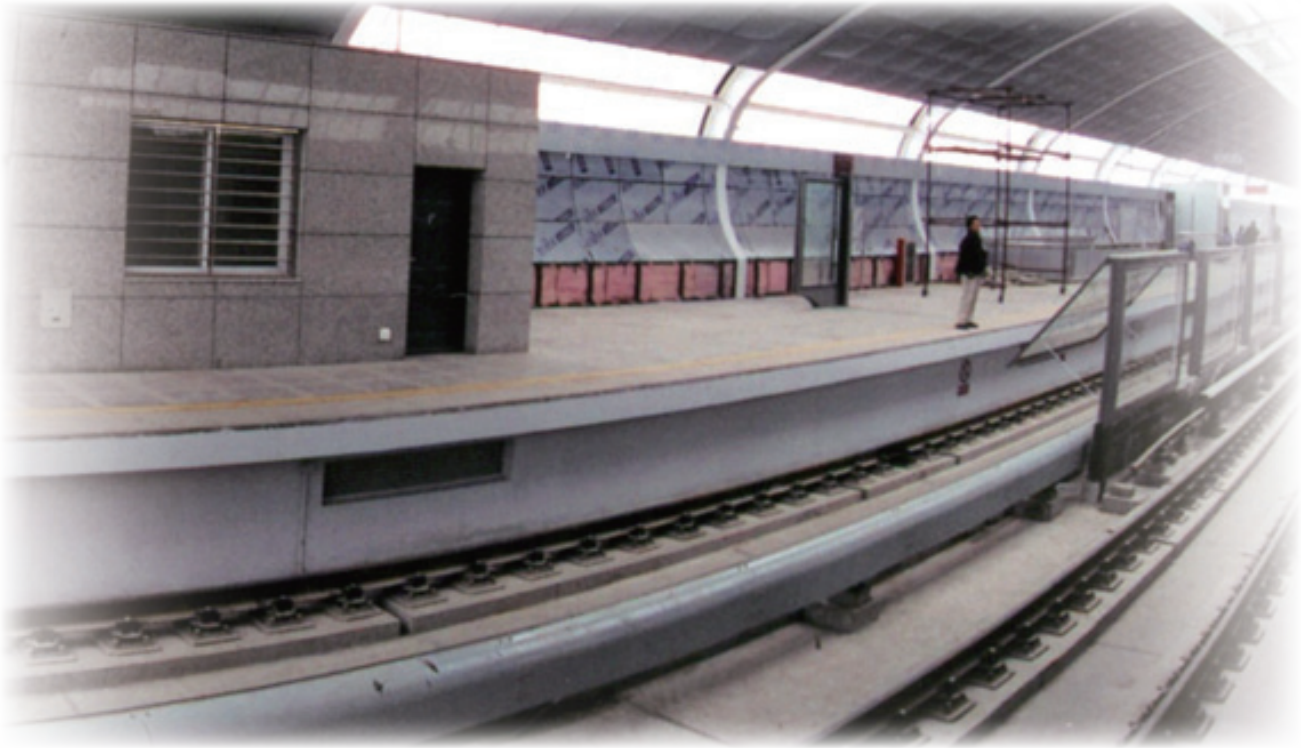
NF F 63-826
NF F 16-101
BS 6853

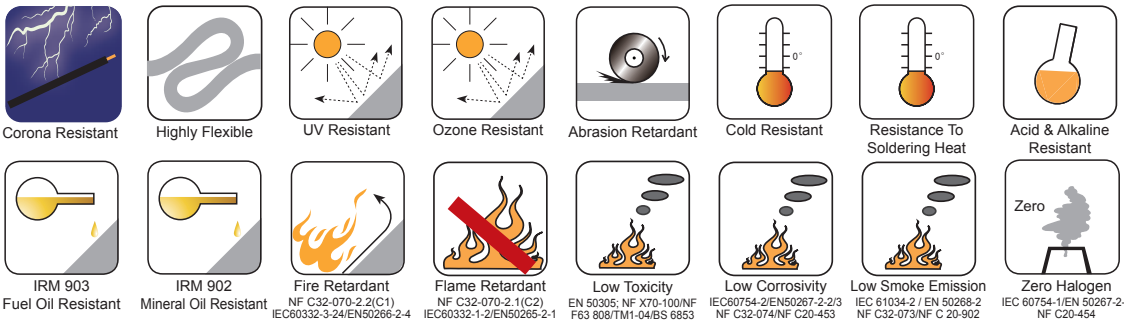
Fire Performance in General

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)	Vertical flame propagation for a single insulated wire or cable
EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804	Vertical flame spread of vertically mounted bunched wires or cables
EN 50268-2; IEC 61034-2; NF C 32-073 ; NF C 20-902; NF F 16 101; VDE 0472 Teil 816	Low Smoke Emission
EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815	Halogen Free
EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813	Low Corrosivity (Acidity & Conductivity)
EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853	Low Toxicity
NF F 63 808; BS6853; NF F 16 101	Smoke Index

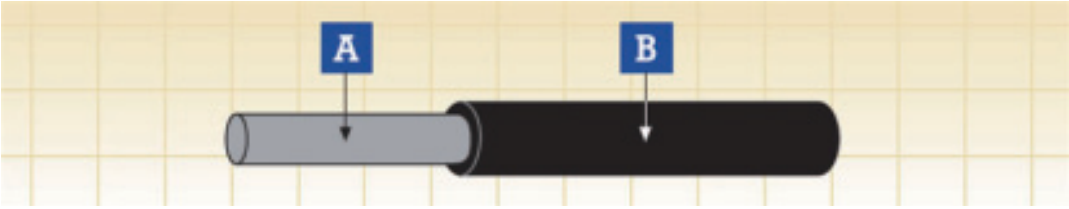
FRF-SW-05M 500 V

Number of Cores	Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Sheath Thickness	Overall Diameter		Weight
				Min.	Max.	
-	mm²	No/mm	mm	mm	mm	kg/km
2	1.5	30/0.25	1.0	8.6	9.9	115
4	1.5	30/0.25	1.1	10.1	11.4	160
7	1.5	30/0.25	1.1	11.9	13.3	245
13	1.5	30/0.25	1.2	16.5	18.0	425
19	1.5	30/0.25	1.2	18.3	19.9	675
37	1.5	30/0.25	1.5	25.1	27.1	1170
2	2.5	50/0.25	1.1	10.0	11.3	185
4	2.5	50/0.25	1.2	11.7	13.1	275
13	2.5	50/0.25	1.4	19.5	21.1	750
19	2.5	50/0.25	1.4	21.6	23.4	980





FIREROL Extra-Flexible Standard Wall Single Core Unsheathed Cable 1500 V NF F 63-826 (FRF-SW-1.5SU-EF)



A. Conductor B. Insulation

Application

These cables are used as power and control cable for protected installations inside and outside of rail and transport vehicles, where handling and installation cost are an important factor, suitable for use in control, auxiliary and main circuit wiring such as cable harnesses, switchboards and control panels, driver desks etc.

Construction

Conductor

Stranded tinned copper wires to IEC 60228 Class 6

Insulation

Special halogen free compound

Electrical & Mechanical Properties

Nominal Voltage	1500 V
Max. Conductor Temperature	90 °C/105 °C
Temperature Range	-25 °C~+90 °C
Bending Radius	3 × Overall Diameter

Standards

NF F 63-826
NF F 16-101
BS 6853

Fire Performance in General

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)	Vertical flame propagation for a single insulated wire or cable
EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804	Vertical flame spread of vertically mounted bunched wires or cables
EN 50268-2; IEC 61034-2; NF C 32-073 ; NF C 20-902; NF F 16 101; VDE 0472 Teil 816	Low Smoke Emission
EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815	Halogen Free
EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813	Low Corrosivity (Acidity & Conductivity)
EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853	Low Toxicity
NF F 63 808; BS6853; NF F 16 101	Smoke Index

FRF-SW-1.5SU-EF 1500 V

Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Overall Diameter		Weight
			Min.	Max.	
mm²	No/mm	mm	mm	mm	kg/km
10.0	320/0.20	2.3	8.4	9.5	187
16.0	512/0.20	2.3	9.7	10.8	266
25.0	800/0.20	2.3	11.0	12.2	354
35.0	1120/0.20	2.4	12.4	13.7	440
50.0	705/0.30	2.5	14.2	15.5	613
70.0	990/0.30	2.7	16.1	17.7	875
95.0	1340/0.30	2.7	18.0	19.8	1045
120.0	1690/0.30	2.8	20.0	21.9	1350
150.0	2123/0.30	2.8	21.8	23.8	1650
185.0	1470/0.40	2.9	23.7	25.9	2130