

FIREROL High Temperature Single Core Unsheathed Cables 3000 V NF F 63-827 (FRF-HT-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

Separator
Polyester tape

Insulation
Halogen free silicone rubber

Electrical & Mechanical Properties

Nominal Voltage	3000 V
Max. Conductor Temperature	120 °C/140 °C
Temperature Range	-40 °C~+135 °C
Bending Radius	4 × Overall Diameter

Standards

NF F 63-827
NF F 16-101

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 NF F 63 808; BS6853; NF F 16 101	Low Toxicity Smoke Index



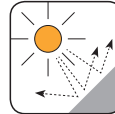
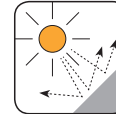
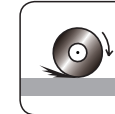

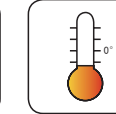
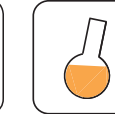







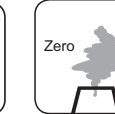
NF F 63-827 Rolling Stock Cables

FRF-HT-3SU 3000 V

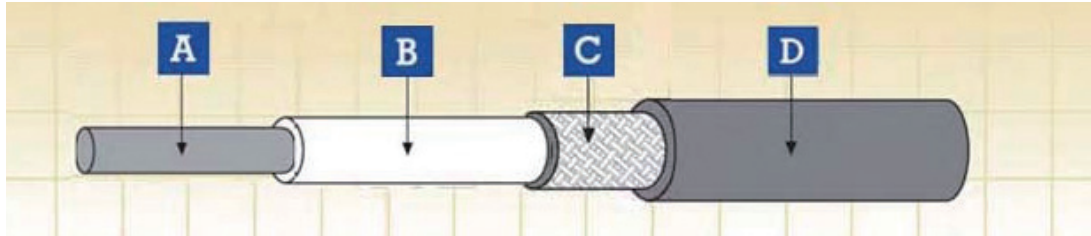
Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Overall Diameter		Weight
			Min.	Max.	
mm ²	No/mm	mm	mm	mm	kg/km
2.5	50/0.25	2.3	6.4	7.2	65
4.0	56/0.30	2.3	7.0	7.8	85
6.0	84/0.30	2.3	7.5	8.3	108
10.0	80/0.40	2.3	8.4	9.5	160
16.0	126/0.40	2.3	9.7	10.8	230
25.0	196/0.40	2.3	11.0	12.2	310
35.0	276/0.40	2.4	12.2	13.5	420
50.0	396/0.40	2.5	14.2	15.5	580
70.0	360/0.50	2.7	16.1	17.7	790
95.0	475/0.50	2.7	18.0	19.8	1030
120.0	608/0.50	2.8	20.0	21.9	1250
150.0	756/0.50	2.8	21.8	23.8	1560
185.0	925/0.50	2.9	23.7	25.9	1880
240.0	1221/0.50	3.1	26.6	29.1	2420

NF F 63-827 Rolling Stock Cables



 Impact Resistant	 Highly Flexible	 UV Resistant	 Ozone Resistant	 Abrasion Retardant	 Cold Resistant	 Resistance To Soldering Heat	 Acid & Alkaline Resistant
 IRM 903 Fuel Oil Resistant	 IRM 902 Mineral Oil Resistant	 Fire Retardant NF C32-070-2.2(C1) IEC60332-3-24/EN50266-2-4	 Flame Retardant NF C32-070-2.1(C2) IEC60332-1-2/EN50265-2-1	 Low Toxicity EN 50305; NF X70-100/NF F63 809/TM1-04/BS 6853	 Low Corrosivity IEC60754-2/EN50267-2-2/3 NF C32-074/NF C20-453	 Low Smoke Emission IEC 61034-2 / EN 50268-2 NF C32-073/NF C 20-902	 Zero IEC 60754-1/EN 50267-2-1 NF C20-454

FIREROL Extra-Flexible High Temperature Single Core Screened & Sheathed Cables 3000 V NF F 63-827 (FRF-HT-3S-EF)



A. Conductor B. Insulation C. Reinforcement D. 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 used 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

Halogen free silicone rubber

Reinforcement

Textile braid

Sheath

Halogen free silicone rubber

Electrical & Mechanical Properties

Nominal Voltage	3000 V
Max. Conductor Temperature	120 °C/140 °C
Temperature Range	-40 °C~135 °C
Bending Radius	3 × Overall Diameter

Standards

NF F 63-827

NF F 16-101

Fire Performance in General

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)
 EN 50266-2-4 + EN 50305; IEC 60332-3-24;
 NF C 32-070 2.2 (C1); VDE 0472 Teil 804
 EN 50268-2; IEC 61034-2; NF C 32-073 ;
 NF C 20-902; NF F 16 101; VDE 0472 Teil 816
 EN 50267-2-1; IEC 60754-1; NF C 32-074;
 NF C 20-454; VDE 0472 Teil 815
 EN 50267-2-2/3; IEC 60754-2; NF C 32-074;
 NF C 20-453; VDE 0472 Teil 813
 EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853
 NF F 63 808; BS6853; NF F 16 101

Vertical flame propagation for a single insulated wire or cable
 Vertical flame spread of vertically mounted bunched wires or cables

Low Smoke Emission

Halogen Free

Low Corrosivity (Acidity & Conductivity)

Low Toxicity
 Smoke Index



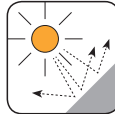
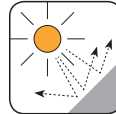
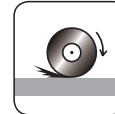

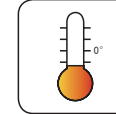









NF F 63-827 Rolling Stock Cables

FRF-HT-3S-EF 3000 V

Nominal Cross-Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Overall Diameter		Weight
			Min.	Max.	
mm ²	No/mm	mm	mm	mm	kg/km
25.0	800/0.20	2.8	12.0	13.2	390
35.0	1120/0.20	2.8	13.2	14.7	500
50.0	705/0.30	3.0	15.2	16.7	680
70.0	990/0.30	3.2	17.1	18.8	930
95.0	1340/0.30	3.2	19.0	21.0	1150
120.0	1690/0.30	3.3	21.0	23.1	1470
150.0	2123/0.30	3.3	22.8	25.0	1800
185.0	1470/0.40	3.4	24.7	27.1	2240
240.0	1905/0.40	3.6	27.6	31.2	2820

NF F 63-827 Rolling Stock Cables



- 
Impact Resistant
- 
Highly Flexible
- 
UV Resistant
- 
Ozone Resistant
- 
Abrasion Retardant
- 
Cold Resistant
- 
Resistance To Soldering Heat
- 
Acid & Alkaline Resistant
- 
IRM 903
Fuel Oil Resistant
- 
IRM 902
Mineral Oil Resistant
- 
Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4
- 
Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1
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Low Toxicity
EN 50305; NF X70-100/NF
F63 808/TM1-04/BS 6855
- 
Low Corrosivity
IEC60754-2/EN50267-2-2/3
NF C32-074/NF C20-453
- 
Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902
- 
Zero
Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454