FIREROL Thin Wall Single Core Unsheathed Cables
250 V
NF F 63-808 (FRF-TW-025SU)

Application
These cables are used as signal and control cable for protected installations inside and outside of rail and transport vehicles, where space and weight are an important factor, suitable for use in cable harnesses, switchboards and control panels, driver desks etc

Construction
Conductor
Stranded tinned copper wires
Insulation
Radiation crosslinkable LSZH compound

Electrical & Mechanical Properties
Nominal Voltage 250 V
Max. Conductor Temperature 105 °C/125 °C
Temperature Range -40 °C~+105 °C
Bending Radius 5 × Overall Diameter

Standards
NF F 63-808
NF F 16-101
BS 6853
DIN 5510

Fire Performance in General
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 63-808 Rolling Stock Cables

## FRF-TW-025SU 250 V

<table>
<thead>
<tr>
<th>Nominal Cross-Sectional Area (mm²)</th>
<th>Number &amp; Nominal Diameter of Strands (No/mm)</th>
<th>Overall Diameter (mm)</th>
<th>Weight (kg/km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.38</td>
<td>19/0.16</td>
<td>Min. 1.15, Max. 1.35</td>
<td>4.7</td>
</tr>
<tr>
<td>0.60</td>
<td>19/0.20</td>
<td>Min. 1.30, Max. 1.55</td>
<td>6.5</td>
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<tr>
<td>0.93</td>
<td>19/0.25</td>
<td>Min. 1.55, Max. 1.80</td>
<td>9.9</td>
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<tr>
<td>1.34</td>
<td>19/0.30</td>
<td>Min. 1.80, Max. 2.00</td>
<td>14.0</td>
</tr>
<tr>
<td>1.82</td>
<td>37/0.25</td>
<td>Min. 2.10, Max. 2.40</td>
<td>18.4</td>
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<tr>
<td>2.61</td>
<td>37/0.30</td>
<td>Min. 2.50, Max. 2.80</td>
<td>27.8</td>
</tr>
<tr>
<td>4.32</td>
<td>61/0.30</td>
<td>Min. 3.00, Max. 3.30</td>
<td>44.2</td>
</tr>
</tbody>
</table>

- **Nominal Cross-Sectional Area (mm²)**: The cross-sectional area of the cable, which determines its current-carrying capacity.
- **Number & Nominal Diameter of Strands (No/mm)**: The number of strands and their nominal diameter, which contribute to the cable's conductivity and flexibility.
- **Overall Diameter (mm)**: The total diameter of the cable, including insulation and sheathing, ensuring it fits the required space in the application.
- **Weight (kg/km)**: The weight of the cable per kilometer, affecting installation costs and structural integrity.

### Additional Features
- **Impact Resistant**: Ensures safety in high-impact environments.
- **Highly Flexible**: Allows for easy installation and movement.
- **UV Resistant**: Protects the cable from UV damage, extending its lifespan.
- **Ozone Resistant**: Prevents degradation from ozone, ensuring durability.
- **Abrasion Resistant**: Protects the cable from abrasion damage.
- **Resistance to Soldering Heat**: Resists damage from soldering heat.
- **Low Corrosivity**: Resists corrosion, ensuring long-term reliability.
- **Zero Halogen**: Compliant with zero halogen standards for safety.
- **Low Smoke Emission**: Reduces smoke emission, enhancing safety in enclosed spaces.
- **Acid & Alkaline Resistant**: Resists corrosion from acidic or alkaline environments.
- **Flame Retardant**: Reduces the spread of fire, enhancing safety.
- **Low Toxicity**: Reduces harmful emissions, improving safety.
- **Zero Fire Retardant**: Further enhances fire safety.

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**Notes:**
- **NF F 63-808** is a standard for rolling stock cables.
- **IRM 902** indicates mineral oil resistance.
- **IRM 903** indicates fuel oil resistance.
- **NF C32-070-2.1(C2)**, **IEC60332-1-2/EN50265-2-1**, and **NF C20-453** are certifications for low corrodibility.
- **NF C32-073/NF C 20-902** are certifications for low smoke emission.
- **NF C32-070-2.2(C1)**, **IEC60332-3-24/EN50266-2-4** are certifications for zero fire resistance.
- **NF C20-454** indicates zero halogen resistance.
- **Low Toxicity** and **Low Smoke Emission** are certifications indicating the cable's compliance with safety standards.