**Features**
- This design offers a reliable transmission performance over a broad temperature range.
- Multiple fiber types, including hybrid.
- High Fiber density.
- Improved compressive strength.
- Rodent Proof.
- Flame Retardant (Optional).
- Multiple Network applications.

**Applications**
- Direct Buried, underground duct.
- Trunk distribution and feeder cable.
- Metro, Long Haul and broadband network.

**Product Options**
- Available with all kinds of Single Mode and Multimode fibers.
- Length option of 2.0, 4.0 km.

**Construction Details**
Optical fibers along with the water blocking elements are placed inside the buffer tubes. The core is constructed by stranding the buffer tubes around a central strength member. The core is then encased with an extruded sheath of HDPE/LSZH which completes the construction. Ripcords are provided under the armour for ease of access to the core.

**Specifications**

<table>
<thead>
<tr>
<th>Fiber Count</th>
<th>Number of Fibers per tube</th>
<th>Number of tubes</th>
<th>Diameter (mm)</th>
<th>Cable Weight (kg/km)</th>
<th>Tensile Strength (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-12F</td>
<td>2</td>
<td>1-6</td>
<td>10.5</td>
<td>110</td>
<td>2000</td>
</tr>
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<td>24F</td>
<td>4</td>
<td>6</td>
<td>10.5</td>
<td>110</td>
<td>2000</td>
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<td>6</td>
<td>11.0</td>
<td>125</td>
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<tr>
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<td>12</td>
<td>8</td>
<td>12.5</td>
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<td>2500</td>
</tr>
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<td>12</td>
<td>12</td>
<td>15.0</td>
<td>250</td>
<td>2500</td>
</tr>
</tbody>
</table>

**Environmental Specifications (Temperature)**
- Operation and Storage: -40°C to +70°C
- Installation: -30°C to +75°C

**Standards Compliant**
- ITU-T
- Telecordia GR-20
- EIA/TIA
- IEC 60793 & 60794
- EN187000
- RUS1755.900

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Armoured CSTA Cables

Multitube Double Sheath

**Construction Details**
Optical fibers along with the water blocking elements are placed inside the buffer tubes. The core is constructed by stranding the buffer tubes around a central strength member. The core is then encased with an extruded sheath of HDPE/LSZH which forms the inner sheath. A corrugated steel tape is applied over the inner and another sheath (HDPE/LSZH) over the armouring completes the construction. Ripcords are provided under the inner sheath and armor for ease of access to the core.

**Specifications**

<table>
<thead>
<tr>
<th>Fiber Count</th>
<th>Number of Fibers per tube</th>
<th>Number of tubes</th>
<th>Diameter (mm)</th>
<th>Cable Weight (kg/km)</th>
<th>Tensile Strength (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-12F</td>
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<td>1-6</td>
<td>13.5</td>
<td>170</td>
<td>3000</td>
</tr>
<tr>
<td>24F</td>
<td>4</td>
<td>6</td>
<td>13.5</td>
<td>170</td>
<td>3000</td>
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<tr>
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<td>8</td>
<td>6</td>
<td>14.5</td>
<td>185</td>
<td>4000</td>
</tr>
<tr>
<td>96F</td>
<td>12</td>
<td>8</td>
<td>16.0</td>
<td>285</td>
<td>4000</td>
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<td>144F</td>
<td>12</td>
<td>12</td>
<td>18.5</td>
<td>320</td>
<td>4000</td>
</tr>
</tbody>
</table>

**Environmental Specifications (Temperature)**

Operation and Storage: -40°C to +70°C
Installation: -30°C to +75°C

**Standards Compliant**
- ITU-T
- Telecordia GR-20
- IEC 60793 & 60794
- EIA/TIA
- EN187000
- RUS1755.900

**Features**
- This design offers a reliable transmission performance over a broad temperature range.
- Multiple fiber types, including hybrid.
- High Fiber density.
- Improved compressive strength
- Rodent Proof
- Flame Retardant (Optional)
- Multiple Network applications.

**Applications**
- Direct Buried, underground duct
- Trunk distribution and feeder cable
- Metro, Long Haul and broadband network

**Product Options**
- Available with all kinds of Single Mode and Multimode fibers.
- Length option of 2.0, 4.0 km.

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Armoured CSTA Cables

Unitube Single Sheath

Construction Details
Single Loose tube cables offer a low cost alternative to traditional stranded loose tube cables. The rugged single loose tube design features optical fibers placed inside a single gel-filled tube. The core tube includes up to 24 fibers. The core is covered with a water-blocking tape. Corrugated steel tape armor is applied and then encased with the outer sheath. A ripcord is provided under the armor for ease of access.

Specifications

<table>
<thead>
<tr>
<th>Fiber Count</th>
<th>Number of Fibers per tube</th>
<th>Diameter (mm)</th>
<th>Cable Weight (kg/km)</th>
<th>Tensile Strength (N)</th>
</tr>
</thead>
<tbody>
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<td>1000</td>
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</tr>
</tbody>
</table>

Environmental Specifications (Temperature)
Operation and Storage: -40°C to +70°C
Installation: -30°C to +75°C

Product Options
• Available with all kinds of Single Mode and Multimode fibers.
• Length option of 2.0, 4.0 km.

Features
• This design offers a reliable transmission performance over a broad temperature range.
• Easy handling
• Flexible
• Rodent Proof
• Flame Retardant (Optional)
• Multiple Network applications.

Applications
• Direct Buried, underground duct
• Trunk distribution and feeder cable
• Metro, Long Haul and broadband network

Standards Compliant
• ITU-T
• Telecordia GR-20
• IEC 60793 & 60794
• EIA/TIA
• EN187000
• RUS1755.900

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**Construction Details**

Fiber ribbons are produced with high dimensional precision and low planarity which equates low losses during mass fusion splicing. Steel tape armouring gives protection to the cable against rodent attacks. Stranded tube design features optical fibers ribbons placed in gel filled tubes.

**Specifications**

<table>
<thead>
<tr>
<th>Fiber Count</th>
<th>Number of Ribbons per tube</th>
<th>Number of tubes</th>
<th>Diameter (mm)</th>
<th>Cable Weight (kg/km)</th>
<th>Tensile Strength (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>1</td>
<td>6</td>
<td>16.0</td>
<td>250</td>
<td>3000</td>
</tr>
<tr>
<td>96</td>
<td>2</td>
<td>6</td>
<td>16.0</td>
<td>250</td>
<td>3000</td>
</tr>
<tr>
<td>144</td>
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<td>6</td>
<td>18.0</td>
<td>300</td>
<td>3000</td>
</tr>
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<td>6</td>
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<td>6</td>
<td>22.0</td>
<td>480</td>
<td>4000</td>
</tr>
</tbody>
</table>

**Environmental Specifications (Temperature)**

Operation and Storage: -40°C to +70°C  
Installation: -30°C to +75°C  

**Standards Compliant**

- ITU-T  
- Telecordia GR-20  
- IEC 60793 & 60794  
- EIA/TIA  
- EN187000  
- RUS1755.900  

**Features**

- This design offers a reliable transmission performance over a broad temperature range.
- Ribbon fibers – 8 fibers per ribbon
- High Fiber density
- Improved compressive strength
- Rodent Proof
- Flame Retardant (Optional)
- Multiple Network applications.
- Saves labour cost by offering mass fusion splicing

**Applications**

- Direct Buried, underground duct
- Trunk distribution and feeder cable
- Metro, Long Haul and broadband network

**Product Options**

- Available with all kinds of Single Mode and Multimode fibers.
- Length option of 2.0, 4.0 km.

**Product Options**

- Available with all kinds of Single Mode and Multimode fibers.
- Length option of 2.0, 4.0 km.
Armoured CSTA Cables  

**Ribbon Unitube**

**Construction Details**

Fiber ribbons are produced with high dimensional precision and low planarity which equates low losses during mass fusion splicing. Steel tape armouring gives protection to the cable against rodent attacks. Unitube design features optical fibers ribbons placed in a single gel filled tube.

**Specifications**

<table>
<thead>
<tr>
<th>Fiber Count</th>
<th>Number of ribbons per tube</th>
<th>Diameter (mm)</th>
<th>Cable Weight (kg/km)</th>
<th>Tensile Strength (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>3</td>
<td>11.5</td>
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<td>2500</td>
</tr>
<tr>
<td>48</td>
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<tr>
<td>96</td>
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<tr>
<td>144</td>
<td>12</td>
<td>14.5</td>
<td>210</td>
<td>2500</td>
</tr>
</tbody>
</table>

**Environmental Specifications (Temperature)**

Operation and Storage: -40°C to +70°C  
Installation: -30°C to +75°C

**Standards Compliant**

- ITU-T  
- Telecordia GR-20  
- IEC 60793 & 60794  
- EIA/TIA  
- EN187000  
- RUS1755.900

**Features**

- This design offers a reliable transmission performance over a broad temperature range.  
- Ribbon fibers – 8 fibers per ribbon  
- High Fiber density  
- Improved compressive strength  
- Rodent Proof  
- Flame Retardant (Optional)  
- Multiple Network applications.  
- Saves labour cost by offering mass fusion splicing

**Applications**

- Direct Buried, underground duct  
- Trunk distribution and feeder cable  
- Metro, Long Haul and broadband network

**Product Options**

- Available with all kinds of Single Mode and Multimode fibers.  
- Length option of 2.0, 4.0 km.

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