RawFlex-P™ Cable

Low Voltage control and power cable for reeling and fixed wiring applications

**Application:**

RawFlex-P™ (out with anti-twist element) cable is especially designed for power supply to mobile equipment with high risk of mechanical damage. Used in harsh environments such as open and closed mines, tunnelling, shore side power supply and is suitable for laying alongside conveyor belts. The cable is also suitable for connection of submersible pump units. Halogen-free, oil, chemical and UV resistant, designed for indoor, wet rooms and outdoor use.

**Special Characteristics:**

- Excellent mechanical resistance
- Flame resistant
- Halogen-free
- Resistant to most oils and chemicals
- Moisture resistant
- UV resistant

**Design:**

- Conductor: Circular, flexible plain annealed copper (Class 5, according to IEC 60228)
- Insulation: XLPE (Cross Linked Polyethylene)
- Laid-up: Insulated cores laid up in concentric layers
- Inner sheath: PUR (Polyurethane)
- Outer sheath: PUR (Polyurethane)
- Outer sheath colour: **Black** (similar to RAL 9005) or **Yellow** (similar to RAL 1021)

**Marking:**

RawFlex-P 0.6/1 kV number of cores – cross-section – AJH Cables – week – year

**Core identification:**

- Phase cores - **Brown**, **Black** and Grey
- Earth cores - **Green/Yellow**
- Pilot cores – White and **Blue**
Mechanical characteristics:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Maximum tensile load:</td>
<td>25 N/mm² of phases copper cross section</td>
</tr>
</tbody>
</table>

- Minimum bending radius
  - Fixed installation: 6 x d
  - Mobile application: 10 x d
  - Guided on deflection pulleys: 10 x d

- Tests: Bending test, torsional test, reeling test
- Reeling speed: Up to 60 m/min (higher speed on request)

Chemical properties:

For outdoor applications, Moisture, UV and Ozone, Oil and Chemical resistant

Electrical and Thermal properties:

<table>
<thead>
<tr>
<th>Nominal voltage:</th>
<th>Uo/U 0.6/1 kV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating voltage in AC systems:</td>
<td>Um 2 x U₀</td>
</tr>
</tbody>
</table>

- Test voltage
  - Power: 3.5 kV in AC
  - Control: 2.5 kV in AC
  - Current rating (A): In accordance with IEC 60354-5-52-12

- Maximum temperature at the conductor
  - In service: + 90 °C
  - Under short-circuit conditions: + 250 °C

- Maximum surface temperature
  - Fixed installation: - 40 °C up to + 80 °C
  - Mobile operation: - 30 °C up to + 80 °C

Technical Characteristics:

<table>
<thead>
<tr>
<th>ORDER REFERENCE NUMBER</th>
<th>NUMBER OF CORES AND NOMINAL CROSS-SECTION (mm²)</th>
<th>APPROX. OUTER DIAMETER (mm)</th>
<th>APPROX. CABLE WEIGHT KG/KM</th>
<th>MAXIMUM TENSILE LOAD (N)</th>
<th>CURRENT CARRYING CAPACITY (AMP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAWFELXP4G16</td>
<td>4G 16</td>
<td>20.0</td>
<td>875</td>
<td>1,280</td>
<td>95</td>
</tr>
<tr>
<td>RAWFLEXP3X25+3G6+2</td>
<td>3x25 + 3G 6.0 + 2x1.5</td>
<td>25.0</td>
<td>1,250</td>
<td>1,500</td>
<td>121</td>
</tr>
<tr>
<td>RAWFLEXP3X35+3G6+2</td>
<td>3x35 + 3G 6.0 + 2x1.5</td>
<td>27.5</td>
<td>1,600</td>
<td>2,100</td>
<td>150</td>
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<tr>
<td>RAWFLEXP3X50+3G10+2</td>
<td>3x50 + 3G 10 + 2x1.5</td>
<td>31.5</td>
<td>2,200</td>
<td>3,000</td>
<td>182</td>
</tr>
<tr>
<td>RAWFLEXP3X70+3G16+2</td>
<td>3x70 + 3G 16 + 2x1.5</td>
<td>36.5</td>
<td>3,000</td>
<td>4,200</td>
<td>234</td>
</tr>
<tr>
<td>RAWFLEXP3X95+3G16+2</td>
<td>3x95 + 3G 16 + 2x1.5</td>
<td>40.5</td>
<td>3,750</td>
<td>5,700</td>
<td>283</td>
</tr>
<tr>
<td>RAWFLEXP3X120+3G25+2</td>
<td>3x120 + 3G 25 + 2x1.5</td>
<td>45.0</td>
<td>4,800</td>
<td>7,200</td>
<td>329</td>
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<tr>
<td>RAWFLEXP3X150+3G25+2</td>
<td>3x150 + 3G 25 + 2x1.5</td>
<td>51.5</td>
<td>5,750</td>
<td>9,000</td>
<td>375</td>
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<td>RAWFLEXP3X185+3G35+2</td>
<td>3x185 + 3G 35 + 2x1.5</td>
<td>57.0</td>
<td>7,300</td>
<td>11,100</td>
<td>428</td>
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<tr>
<td>RAWFLEXP3X240+3G50+2</td>
<td>3x240 + 3G 50 + 2x1.5</td>
<td>61.5</td>
<td>8,950</td>
<td>14,400</td>
<td>511</td>
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</table>
Note:
Current carrying capacities are given for an uncoiled cable laid on the ground, a conductor temperature of 90 °C and ambient temperature of 30 °C. Correction factors must be applied for other conditions.

Options:
Other sizes available upon request as e.g. composite cable including power and control cores, screened pairs or optical fibre element.

E&OE