Data sheet
chainflex® CF885

Motor cable (Class 3.1.1.1) ● For flexing applications ● PVC outer jacket ● Flame retardant

Example image
For detailed overview please see design table

Cable structure
Conductor
Conductor consisting of bare copper wires (according to DIN EN 60228).

Core insulation
Mechanically high-quality, especially low-capacitance TPE mixture.

Core structure
Cores wound with an optimised pitch length.

Core identification
Black cores with white numbers, one green-yellow core.
1. Core: U / L1 / C / L+
2. Core: V / L2
3. Core: W / L3 / D / L-

Outer jacket
Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®.
Colour: Pastel orange (similar to RAL 2003)
Printing: black

Example image
For detailed overview please see design table

Example: ... chainflex ... CF885.15.04 ... 4G1.5 ... 600/1000V ...

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Dynamic information

Bend radius
- e-chain® linear
  - flexible: minimum 15 x d
  - fixed: minimum 8 x d
- Temperature
  - e-chain® linear
    - flexible: +5 °C up to +70 °C
    - fixed: -5 °C up to +70 °C (following DIN EN 60811-504)
  - fixed: -15 °C up to +70 °C (following DIN EN 50305)
- v max.
  - unsupported: 3 m/s
- a max.
  - 20 m/s²
- Travel distance
  - Unsupported travel distances up to 10 m, Class 1

These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Guaranteed service life according to guarantee conditions

<table>
<thead>
<tr>
<th>Double strokes</th>
<th>1 million</th>
<th>3 million</th>
<th>5 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature, from/to [°C]</td>
<td>R min. [factor x d]</td>
<td>R min. [factor x d]</td>
<td>R min. [factor x d]</td>
</tr>
<tr>
<td>+5/+15</td>
<td>17.5</td>
<td>18.5</td>
<td>19.5</td>
</tr>
<tr>
<td>+15/+60</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>+60/+70</td>
<td>17.5</td>
<td>18.5</td>
<td>19.5</td>
</tr>
</tbody>
</table>

Minimum guaranteed service life of the cable under the specified conditions. The installation of the cable is recommended within the middle temperature range.

Electrical information

| Nominal voltage | 600/1000 V (following DIN VDE 0298-3) |
| Testing voltage  | 4000 V (following DIN EN 50395) |

Example image

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**Properties and approvals**

- **Flame retardant**
  - According to IEC 60332-1-2, CEI 20-35, FT1, VW-1

- **Silicone-free**
  - Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

- **UL/CSA**
  - Style 10492 and 2570, 1000 V, 80 °C

- **NFPA**
  - Following NFPA 79-2012, chapter 12.9

- **EAC**
  - Certificate No. RU C-DE.ME77.B.01561 (TR ZU)

- **CTP**
  - Certificate No. C-DE.PB49.B.00450 (Fire protection)

- **Lead-free**
  - Following 2011/65/EC (RoHS-II)

- **CE**
  - Following 2014/35/EU

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**Typical lab test setup for this cable series**

- **Test bend radius** *R*  
  - approx. 75 - 225 mm

- **Test travel** *S*  
  - approx. 1 - 15 m

- **Test duration**  
  - minimum 2 - 4 million double strokes

- **Test speed**  
  - approx. 0.5 - 2 m / s

- **Test acceleration**  
  - approx. 0.5 - 1.5 m / s²

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Typical application areas
● For flexing applications, Class 3
● Especially for unsupported travels, Class 1
● Without influence of oil, Class 1
● No torsion, Class 1
● Preferably indoor applications
● Wood/stone processing, Packaging industry, supply systems, Handling, adjusting equipment

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### Technical tables:
#### Mechanical information

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Number of cores and conductor nominal cross section [mm²]</th>
<th>Outer diameter (d) max. [mm]</th>
<th>Copper index [kg/km]</th>
<th>Weight [kg/km]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF885.15.04</td>
<td>4G1.5</td>
<td>9.0</td>
<td>60</td>
<td>118</td>
</tr>
<tr>
<td>CF885.25.04</td>
<td>4G2.5</td>
<td>10.5</td>
<td>100</td>
<td>176</td>
</tr>
<tr>
<td>CF885.40.04</td>
<td>4G4.0</td>
<td>12.0</td>
<td>159</td>
<td>256</td>
</tr>
<tr>
<td>CF885.60.04</td>
<td>4G6.0</td>
<td>14.0</td>
<td>238</td>
<td>358</td>
</tr>
<tr>
<td>CF885.100.04</td>
<td>4G10</td>
<td>16.5</td>
<td>396</td>
<td>546</td>
</tr>
<tr>
<td>CF885.160.04</td>
<td>4G16</td>
<td>20.0</td>
<td>627</td>
<td>843</td>
</tr>
</tbody>
</table>

**Note:** The given outer diameters are maximum values and may tend toward lower tolerance limits. 
G = with green-yellow earth core x = without earth core

### Electrical information

<table>
<thead>
<tr>
<th>Conductor nominal cross section [mm²]</th>
<th>Maximum conductor resistance at 20 °C (following DIN EN 50289-1-2) [Ω/km]</th>
<th>Maximum current rating at 30 °C (following DIN VDE 0298-4) [A]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>13.3</td>
<td>21</td>
</tr>
<tr>
<td>2.5</td>
<td>7.98</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>4.95</td>
<td>41</td>
</tr>
<tr>
<td>6</td>
<td>3.3</td>
<td>53</td>
</tr>
<tr>
<td>10</td>
<td>1.91</td>
<td>74</td>
</tr>
<tr>
<td>16</td>
<td>1.21</td>
<td>99</td>
</tr>
</tbody>
</table>

The final maximum current rating depends among other things on the ambient conditions, the type of the installation and the number of loaded cores.
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Design table

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Number of cores</th>
<th>Core design</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF885.XX.04</td>
<td>4</td>
<td>L1 L2 L3</td>
</tr>
</tbody>
</table>

Example image

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