CF38.PE/2

TPE - e-chain® - PE/2 power cable for maximum load requirements (class 4.5.4): symmetrical partitioned PE, shielded, oil- and biooil-resistant, hydrolysis- and microbe-resistant as well as UV- resistant.

Subject to misprints and errors. Technical modifications are possible at any time. Maybe older batches do not have all or other features. Please refer regarding the availability of the items especially the information in the latest chainflex® catalogue.

Core design:
Conductor: Conductor strand in especially bending-stable version made of bare copper wires (following DIN EN 60228).
Core insulation: Mechanically high-quality, especially low-capacitance TPE mixture.
Core identification: 3 black (BK) cores with white printing & 3 cores green yellow in exchange:
1. BK core: U/L1/C/L+
2. BK core: V/L2
3. BK core: W/L3/D/L-

Shield design:
Material: Extremely bending-stable braid made of tinned copper wires.
Shield coverage: Linear: approx. 70 % Optical: approx. 90 %

Jacket design:
Inner jacket: TPE mixture adapted to suit the requirements in e-chains®.
Outer jacket: Low-adhesion mixture on the basis of TPE, especially abrasion-stable and highly bending-stable, adapted to suit the requirements in e-chains®.
- oil-resistant (following DIN EN 60811-2-1)
- biooil-resistant (following VDMA 24568 (tested by DEA with Plantocut 8 S-MB))
- hydrolysis-resistant (following DIN VDE 0282 Part 10 - A)
- microbe-resistant (following DIN EN 50396)
- silicon-free (following PV 3.10.7 - status 1992)
- lead-free (following 2011/65/EU (RoHS-II))
- clean room ISO class 1 (following DIN ISO 14644-1 tested by IPA)
- UV-resistance: High

Colour outer jacket: Jet Black (similar to RAL 9005)
Cable marking (White): 00000 m* igus chainflex CF38.---.03.PE/2 500/1000V CE

General mechanical values:
(For individual details see technical table)

<table>
<thead>
<tr>
<th>Double strokes *</th>
<th>2,5 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (from/to) (°C)</td>
<td>Travel distance (TD)</td>
</tr>
<tr>
<td>-35 / -25</td>
<td>≤ 200 m</td>
</tr>
<tr>
<td>-25 / +80</td>
<td></td>
</tr>
<tr>
<td>+80 / +90</td>
<td></td>
</tr>
</tbody>
</table>

*: Minimum guarantee lifetime of the cable under the specified conditions. The installation of the cable is recommended within the middle temperature range.

Temperature range: -40 °C ≤ -35 °C ≤ -25 °C ≤ +80 °C → +90 °C
Min. bending radius for fixed installation: 15.0 x d 12.5 x d 10.0 x d 12.5 x d

Torsion (at 1 m cable length): --- --- --- ---

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TPE - e-chain® - PE/2 power cable for maximum load requirements (class 4.5.4): symmetrical partitioned PE, shielded, oil- and biooil-resistant, hydrolysis- and microbe-resistant as well as UV-resistant.

General electrical values:
(for individual details see technical table)
Nominal voltage: 600 / 1000 V (following DIN VDE 0250)
Test voltage: 4 kV (following VDE 0281-2)
Guidelines: CE, EAC

Dynamic values:
Max. speed in e-chain® use:** Unsupported: v = 10 m / s Gliding (up to 200 m): v = 3 m / s
Max. acceleration in e-chain® use:** a = 40 m / s²
** These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Typical lab test setup for this cable group:
Test bending radius R: approx. 200 - 300 mm
Test travel S: approx. 1 - 15 m
Test period: min. 2 - 4 million double strokes
Test speed: approx. 0,5 - 2 m / s
Test acceleration: approx. 0,5 - 1,5 m / s²

e-chain® - power cable for maximum load requirements:
- especially abrasion-stable
- almost unlimited resistance to oil, also with biooils
- for unsupported travel distances and up to 200 m in gliding applications
- UV-resistant
- CE, RoHS-II, EAC

Typical application areas:
Indoor and outdoor applications.
Machining units / machine tools, ship to shore, outdoor cranes.

Subject to misprints and errors. Technical modifications are possible at any time.
Maybe older batches do not have all or other features.
Please refer regarding the availability of the items especially the information in the latest chainflex® catalogue.
TPE - e-chain® - PE/2 power cable for maximum load requirements (class 4.5.4): symmetrical partitioned PE, shielded, oil- and biooil-resistant, hydrolysis- and microbe-resistant as well as UV-resistant.

Technical tables:

Mechanical values:

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Number of cores &amp; nominal cross section [mm²]</th>
<th>External diameter (d) [max. mm]</th>
<th>Copper index [kg / km]</th>
<th>Weight [kg / km]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF38.350.03.PE/2 (3x35+3G6)C</td>
<td>28,5</td>
<td>1383</td>
<td>1821</td>
<td></td>
</tr>
<tr>
<td>CF38.500.03.PE/2 (3x50+3G10)C</td>
<td>33,5</td>
<td>1993</td>
<td>2559</td>
<td></td>
</tr>
<tr>
<td>CF38.700.03.PE/2 (3x70+3G12)C</td>
<td>38,0</td>
<td>2778</td>
<td>3504</td>
<td></td>
</tr>
</tbody>
</table>

*** G → Cable contains greenyellow cores.

**** External diameters are maximum values and may tend toward lower tolerance limits.

Electrical values:

<table>
<thead>
<tr>
<th>Nominal cross section [mm²]</th>
<th>Conductor resistance [approx. Ω / km] at 20 °C</th>
<th>Max. current rating [A] at 30 °C*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective earth (PE) conductor</td>
<td>DIN EN 50289-1-2</td>
<td>DIN VDE 0298-4</td>
</tr>
<tr>
<td>6,0</td>
<td>3,50</td>
<td>33</td>
</tr>
<tr>
<td>10,0</td>
<td>2,00</td>
<td>44</td>
</tr>
<tr>
<td>12,0</td>
<td>1,55</td>
<td>54</td>
</tr>
<tr>
<td>Energy conductor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35,0</td>
<td>0,59</td>
<td>162</td>
</tr>
<tr>
<td>50,0</td>
<td>0,41</td>
<td>202</td>
</tr>
<tr>
<td>70,0</td>
<td>0,29</td>
<td>250</td>
</tr>
</tbody>
</table>

* The max. current rating depends on factors such as the individual environmental conditions and the type of installation.