**Basic composition of the FC5300:**

- **FC5300E modulator**
- **FC5300D detector**
- **FC5K3SD**

**Characteristics:**

<table>
<thead>
<tr>
<th>Modulator</th>
<th>Detector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>220 V rms to 400 V rms</td>
</tr>
<tr>
<td>Maximum operating voltage</td>
<td>440 V rms</td>
</tr>
<tr>
<td>Network frequency</td>
<td>50 Hz or 60 Hz to be specified</td>
</tr>
<tr>
<td>Number of channels</td>
<td>2</td>
</tr>
<tr>
<td>Duration of tapping per channel</td>
<td>0.256 s (per cycle)</td>
</tr>
<tr>
<td>Pulse cycle</td>
<td>0.16 Hz</td>
</tr>
<tr>
<td>Central frequencies tapped</td>
<td>channel L1 – L2: 527 Hz channel L3 – L2: 574 Hz</td>
</tr>
<tr>
<td>Rms tapping current</td>
<td>≈ 4 A/channel during impulse</td>
</tr>
<tr>
<td>Peak current</td>
<td>under 230 volts: ≈ 16 A peak under 400 volts: ≈ 16 A peak</td>
</tr>
<tr>
<td>Inputs protected internally by 3 HRC fuses</td>
<td>accessible to the user</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>≈ 0.16 Hz</td>
</tr>
<tr>
<td>Approximate mass</td>
<td>9.85 kg</td>
</tr>
</tbody>
</table>
| Power supply | battery
3.7 V (Lithium-ion) |
| Endurance | over 1000 detections |
| Display | screen LCD 128 x 64 backlit |
| Battery level check | battery level indication |
| Choice of functions | by dedicated buttons |
| Standby | automatic |
| Power cutoff | automatic |
| External sensor | connection on connector |
| Analysers | DSP/ARM + PIC |
| Approximate dimensions | 160 x 95 x 50 mm |
| Approximate mass | 0.35 kg (wth battery) |
| Battery charger | USB type, mains and vehicle |
| Protection | shockproof rubber-type shell |

**Use:**
The FC5300 modulator operates by tapping a particular signal on the current. The low value of this current (≈4A RMS on the pulse) means it can be connected to practically any point on the LV network, including domestic sockets. Although it can operate in single-phase mode (live – neutral connection) and two-phase (live - live connection), its standard operating mode is three-phase.

Three-phase connection has the advantage of allowing the user to successively identify the cable and identify the conductors in this cable without needing to touch the modulator or its connection.