FP-EFT 32M
3 Phase Coupling / Decoupling Network for EFT / Burst

- **IEC / EN and ANSI** standards cover burst testing of single and three phase AC and DC power ports. They include recommendations for the test equipment, the test set-ups and the test procedures. The IEC 61000-4-4 Edition 2: 2004 now defines the impulse shape not only at the generator output but also at the CDN output.

This Edition 2 requires a pure common mode coupling only. This means that the burst signals are coupled simultaneously into all paths at the same time. Because of this no coupling path selection during testing is necessary. This speeds up the test time.

The FP-EFT 32M couples the burst into an EUT while preventing the impulses from polluting the three phase power supply.

The FP-EFT 32M has manual coupling path selection to verify the functionality of each path as recommended in the IEC 61000-4-4 Edition 2: 2004. This can also be used to select different coupling paths according to ANSI standards which requires a path by path burst test.

Used together with the PEFT 4010, PEFT Junior or PEFT.1 generators, the FP-EFT 32M can be used to inject EFT/burst impulses on the three phase supply.

With a 100 year history of innovation, service centers on three continents and a full staff development and support engineers, Haefely is the clear choice for all your transient immunity test needs.

- **Features**
  - 5/50ns impulse shape
  - 8kV impulse voltage
  - manual coupling path selection
  - 690Vac phase-phase
  - 400Vac phase-neutral
  - 32A per phase EUT Current
  - Phase angle synchronisation possible

- **Benefits**
  - **International application** – Specifically designed to meet and exceed the requirements of IEC, EN, and ANSI tests for power line applications.
  - **Maximum Mains voltage** – FP-EFT 32M is designed to operate at the maximum power supply voltages available anywhere in the world.
  - **Easy** – The simple design allows operators to test safely and easily.
  - **Mains switch** – This switch allows the disconnection of all phases and neutral so that no mains voltage is present at the CDN output.
  - **Sturdy and Reliable** – Careful component selection ensures that the FP-EFT 32M will continue to operate under the most strenuous testing regime.
  - **Faster completion of testing program** - Since the IEC 61000-4-4 Edition 2: 2004 requires a pure common mode test only the test time is sped up.

- **Applications**
  - Three phase power line systems
  - IEC/ EN 61000-4-4 Power lines
  - ANSI C62.41 & C.37.90.1 Power lines
  - Many IEC & EN Product standards
### Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Impulse Voltage</td>
<td>8kV Burst</td>
</tr>
<tr>
<td>Maximum AC Voltage</td>
<td>690V (phase – phase) 400V (phase – neutral)</td>
</tr>
<tr>
<td>Maximum DC Voltage</td>
<td>110V</td>
</tr>
<tr>
<td>Maximum AC Current</td>
<td>32A</td>
</tr>
<tr>
<td>Maximum DC Current</td>
<td>32A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains Connections</td>
<td>4mm safety banana sockets</td>
</tr>
<tr>
<td>EUT connections</td>
<td>4mm safety banana sockets</td>
</tr>
<tr>
<td>Phase Sync. source</td>
<td>fixed between L3 and PE</td>
</tr>
<tr>
<td>Coupling Paths</td>
<td>Manual Selection</td>
</tr>
<tr>
<td>Residual pulse voltage at line input</td>
<td>max. 10% of the applied impulse amplitude</td>
</tr>
</tbody>
</table>

Weights and Dimensions (W x H x D, net weight)

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP-EFT 32M</td>
<td>45 x 20 x 50 cm</td>
<td>10 kg</td>
</tr>
</tbody>
</table>

### FP-EFT 32M Art. No. 2490170

- Qty. 1 FP-EFT 32M CDN
- Qty. 1 Coaxial HV cable 0.33m with SHV plugs
- Qty. 1 Cable set
- Qty. 1 Copper foil for ground connection
- Qty. 1 Users Manual

### Options and Accessories

- **PEFT 4010** Burst generator up to 4.8kV with an integrated single phase CDN according to IEC 61000-4-4 Edition 1 and 2 & ANSI C62.41
  - Art. No. 2496010
- **FP-EFT 100M** Manual coupling decoupling network for three phase mains up to 100A per phase
  - Art. No. 2495860
- **Adapter** Verification adapter to verify the impulse shape at the output of the FP-EFT 32M
  - Art. No. 2490040
- **Verification Set** EFT verification set includes all attenuators and cables to perform an impulse verification either at the generator output or the CDN output
  - Art. No. 2499951
- **IP4A** Capacitive coupling clamp for control and data lines according to IEC 61000-4-4 and ANSI C37.90.1
  - Art. No. 2491300
- **WinFEAT&R** Control and reporting software. Runs under Windows 98, NT, ME, 2000, XP
  - Art. No. 2499701

### WinFEAT&R Control Window

![WinFEAT&R Control Window](image)