

# PHASE COUPLING FILTER FD10



**Couples X-10 signals across phases for use of the Marmitek X-10 system in a multi-phase installation.**

**Filters Marmitek X-10 signals from the mains, to prevent signals come into or go out of the property. Can be used to suppress interference of heavy loads on the mains (heavy tools, etc.). Heavy duty design: 63A, 230V.**

## FEATURES

With the FD10 Phase Coupling Filter Marmitek X-10 signals can be transferred from one phase to another. The Marmitek X-10 system can be used in installations with 3 phases, in which wall sockets and switches are divided over more phases.

Marmitek X-10 signals are often coupled by the way a 3-phase system is constructed, or by any connected appliances in the house. When the signals are not coupled across the phases, this needs to be achieved with a FD10 Phase Coupling Filter. For full coupling of all 3 phases, 3 FD10 Phase Coupling Filters are required.

The FD10 Phase Coupling Filters can be placed directly behind the main switch at the distribution panel. **Phase** and **Neutral** need to be available before the module can be installed. When using multiple filters in a multiple-phase system, all coupling filters need to be interconnected with a single wire.

FD10 Phase Coupling Filters also adjust mains impedance inside a property compared to outside, which enhances the transmission of Marmitek X-10 signals. This configuration is ideal for use in showrooms and other rooms close to areas where heavy machinery is used.

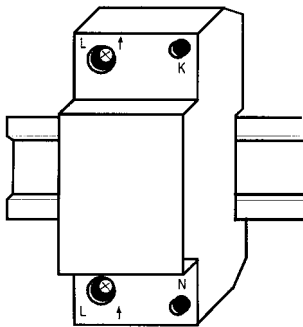
# PHASE COUPLING FILTER FD10



Power:	230V +10% -15%, 50Hz
Maximum load:	63A
Central Filtering Frequency:	120kHz
Filter Bandwidth:	5kHz min. (3dB points)
Forward Attenuation:	20dB min. at I = 0A 15dB min. at I = 63A
Reverse Attenuation:	15dB min.
Input impedance:	20_ min. at f=120kHz
Coupling loss:	2dB max. at f=120kHz
Terminals:	Screw connectors for phase (in), phase (out) neutral and coupling
Dimensions wxhxl:	35x80x65mm (2e wide)
Ambient Temperature:	-10°C to 50°C (operating), -20°C to 70°C (storage)



**TURN OFF THE ELECTRICITY BEFORE INSTALLING THE MODULE!  
INSTALLERS ONLY**



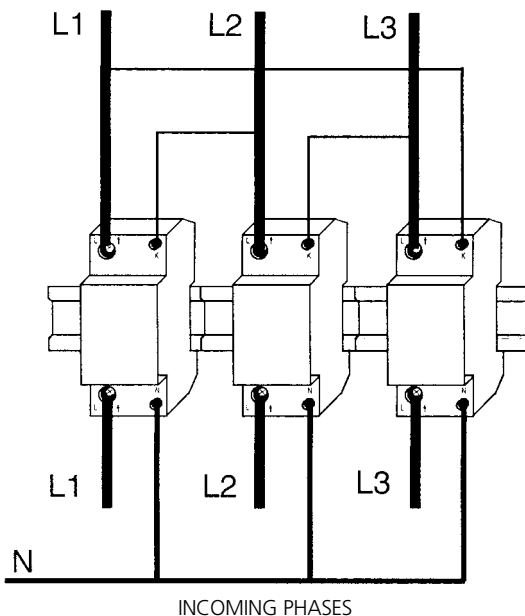
**Coupling without filtering**

The FD10 Phase Couple Filter can also be used as signal coupler only. This has two practical advantages:

- 1 The phases do not need to be fed through the filters, this makes installation a lot easier.
- 2 The maximum currents through the filters are not restricted to 63A.  
The filter is connected in parallel to the phases, so that it is only used for X-10 signals.

**COUPLING AND FILTERING**

OUTGOING PHASES



**COUPLING WITHOUT FILTERING**

OUTGOING PHASES

