

IH5040 - DIN-FILTER/COUPLER

Qualities



© IH5040 - FD10

KEY Features:

- * Install at the breaker panel/fuse box , prevents X-10 Signals from leaving/entering the home.
- * Couples signals across phases.
- * Rated 230V/63A

Applications

The signal transmission of high frequency pulses via the mains network can be affected by active or passive interferences. When used correctly, the filter/phase coupler will extensively suppress these interferences.

Typical active interference sources are appliances that do not dispose of a regular interference suppression according to the norms, as well as wireless intercommunication systems which use mains borne signaling, as they transmit high frequency signal resp, interferences into the mains network.

These disturbances are usually carried into the house network from outside, e.g. from neighbours or industrial installations. They are suppressed by the filter/phase coupler. Remaining interferences generated within the house network are without significance as the special dynamic filtering techniques of the X-10 system ensure undisturbed performance.

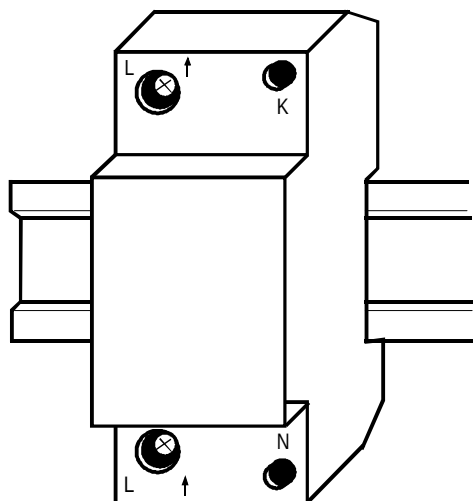
The FD10 also include the ability to couple X-10 signals across phases. For installation with three phases, use three FD10 filters and couples the filters by connecting their terminals K to the next phase, respectively.

Technical information

Supply voltage:	230V + 10% -15% 50Hz
Maximum current:	63A
Filter centre frequency:	120KHz
Filter band width:	5KHz Min. (3 dB points)
Forward attenuation:	20 dB min. at zero current 15 dB min. at 63 A
Reverse attenuation:	15 dB min.
EMC emission:	according to EN 50081-1
EMC immunity:	according to EN 50082-1
Electrical safety:	according to EN 60950 and EN 60065
Forward input impedance:	20 Ohm min. at 120 KHz
Coupling loss:	2 dB max. at 120 KHz
Connections:	screw type terminals for phase (supply), phase (house), neutral, coupling
Ambient temperature:	- 10° C to + 40°C (operation) -20° C to + 70° C (storage)



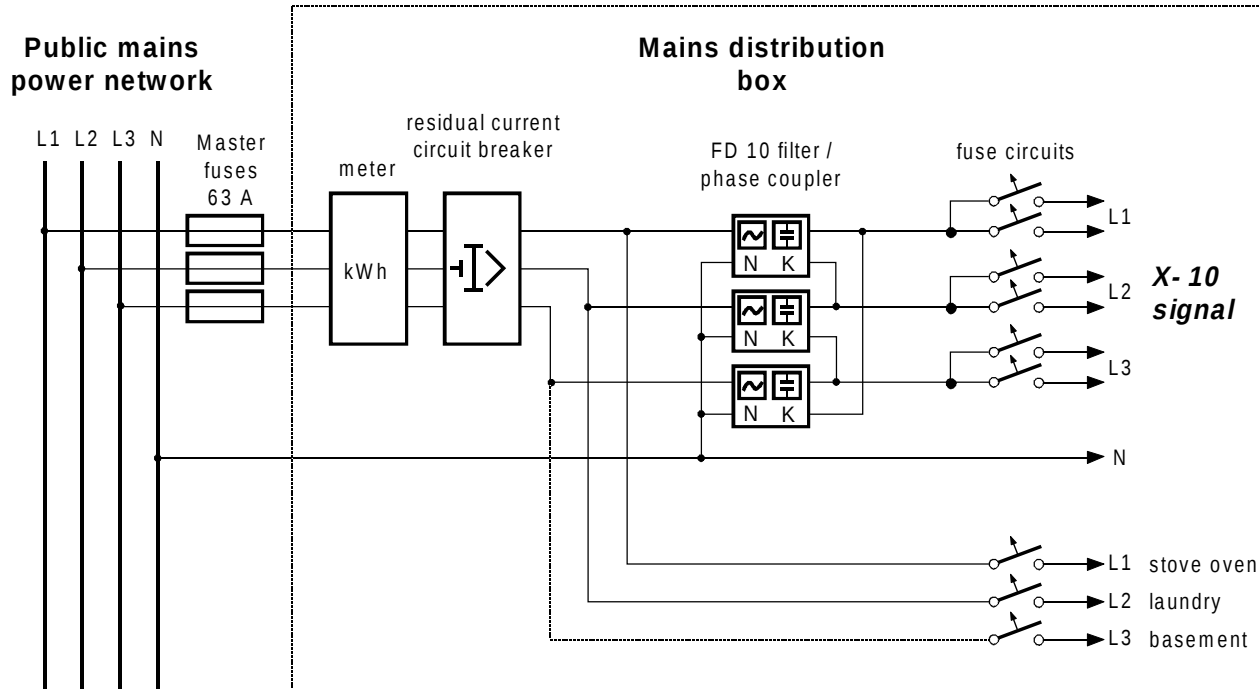
Switch off mains master switch before carrying out installation work inside the mains distribution box !



The connection diagram shows how to install the DIN 63 A FD 10 filter coupler correctly: behind the residual current circuit breaker, yet in front of the fuses for separate circuits. The filter is mounted by simply snapping it onto the DIN rail (see figure) and has the following screw-type terminals:

- L (below) for the phase input (from residual current breaker)
- N for neutral
- L (above) for the phase output (to the fuses/separate circuits).

Use additional X-10 filters (up to three) for installations with more than one phase. Couple the filters by connecting their terminals K to the next phase, respectively (see figure). For connecting, use a wire of 1mm² cross section.



Installation Diagram

