

### Electronics Protectors PFN-110/220

**Ideal for Air Conditioning  
Manufacturers and Installers:**

- Split
- Chillers
- Central Equipment
- One-Phase Contactor

### PFA-220

**Ideal for manufacturers of:**

- Refrigerators
- Beverage Containers
- Commercial Refrigerators
- Displays
- Air Conditioners

El **BREAKERMATIC® PFN-110** is an electronic protector designed to be incorporated as an original part in refrigeration and air conditioning equipment. It is capable of handling refrigeration compressors of up to 1/3 HP (110V 8A./220V 5A) and ½ HP (110V 30 A). There are several models available in different presentations and with different connections: With wiring, line outlets, **faston** terminals, etc. It is also available in a 30A model (110V 1HP or 220V 2H). PFN-110 protects your equipment from high or low line voltage conditions by interrupting the feed line when it detects an abnormal condition. It also protects the compressor from short cycles by delaying its restart during 3:30 min. Some models have a special feature called **Autostart** which delays the equipment's starting cycle if the protector it's turned on for the first time or if it has been disconnected for more than 10 minutes.

### PFA-220

### PFN-110



**BREAKERMATIC® PFA-220** is a one-phase 220V electronic protector for refrigeration and air conditioning equipment of any capacity; that acts on the control side of your equipment. It protects your equipment automatically, turning it off whenever there is a blackout or when it detects an extremely high or low input voltage for your appliance. It turns your appliance off by opening an isolated switch (SPST); that can be used to switch the machine contactor off. The control switch can handle a wide range of voltage controls, from 2V up to 250V DC or AC and up to 10 Amp. After the input voltage returns to normal levels, the PFA 220 begins a delay cycle of 3 minutes approximately, before closing the output switch again. This delay stabilizes the pressures inside the refrigeration system before the compressor restart, reducing the magnitude and duration of the inrush (start) current and the risk of compressor failures.

*Check the technical Specifications on the reverse for more details.*

MODELS:

**PFN-110**

**PFN 110-080** (1/3 H.P. - 10A.)  
**PFN 110-150** (1/2 H.P. - 15A.)  
**PFN 110-300** (1 H.P. - 30A.)

**PFN-220**

**PFN 220-080** (1/3 H.P. - 5A.)  
**PFN 220-150** (1/2 H.P. - 10A.)  
**PFN 220-300** (1 H.P. - 30A.)

**PFA-220**

**PFA 220** (10A.)

APPLICATION:

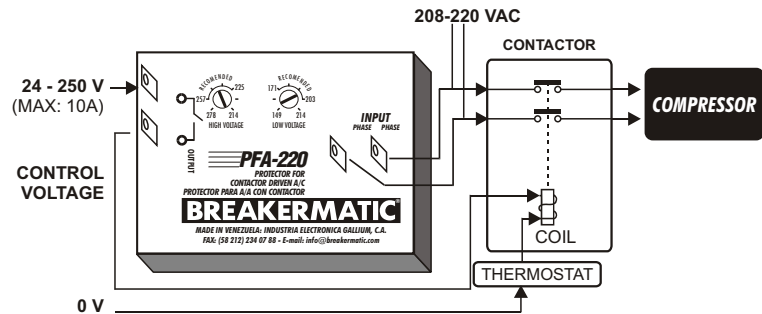
**INDUSTRIAL**

CATEGORY:

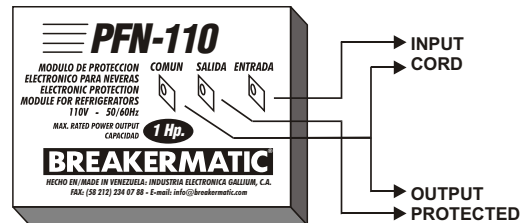
**PROTECTOR**

## INSTALLATION:

### PFA TYPICAL CONNECTION:



### PFN TYPICAL CONNECTION:



SERIES O.E.M CHARACTERISTICS*	PFN	PFA	UNITS
Operation Voltage	PFN-110: 110 PFN-220: 220	220	VAC
Switch Current (@ cos =1)	10, 15 ó 30	10	AMPERES AC
Cut out voltage <i>*(Some specials models may vary this values).</i>	PFN-110: 95 - 135* PFN-220: 185 - 253	185-253	VAC
Delay-on-make time	3:50	3:50	MINUTES
Typical loads (Compressor)	PFN-110: 1/3 (10A.), 1/2 (15A.), 1 HP (30A.) PFN-220: 1/3 (5A.), 1/2 (10A.) ó 2 HP (30A.)	CONTACTOR COIL	
Weight	75	75	grs.
Operating temperature range	0-65	0-65	°C

\*Technical specifications will vary according to the model and can be changed without notice.