

# FRONT GUARD COMPACT III

Protection against transient electric surges for electro electronic equipment connected to the electric power supply.

- Main protection provided by Silicon Avalanche Diode - SAD Technology
- Surge current capacity of 200kA per phase
- Response time and precise residual voltage levels by SAD
- Visual operation status signals and reversible contact system (NO and NC) for remote signals
- Event counter



## Description

FRONT GUARD COMPACT III is constituted of two protection technologies, being a main phase composed of SAD with energy absorption capacity of 500 joules and another phase of backup composed of MOV with energy absorption capacity of 5000 joules. SAD technology enables the product to have a low time of response and precise residual tensions levels compatible with rather sensitive electronic equipment.

It has an internal visual signal of energized equipment (yellow led) and status of protection elements (red led on shows protection in service) and reversible contacts (C-NO-NC) electrically isolated from the protection circuit. It is assembled in a carbon steel box with powder electrostatic painting, protection level IP65 and can be installed visible, embedded or in open air.

This protection device against electrical occurrences may come with several optional accessories, like, Event Counter (EC) that shows and counts the number of times the device has been used, and/or Fuse Divider Switch to use backup fuse.

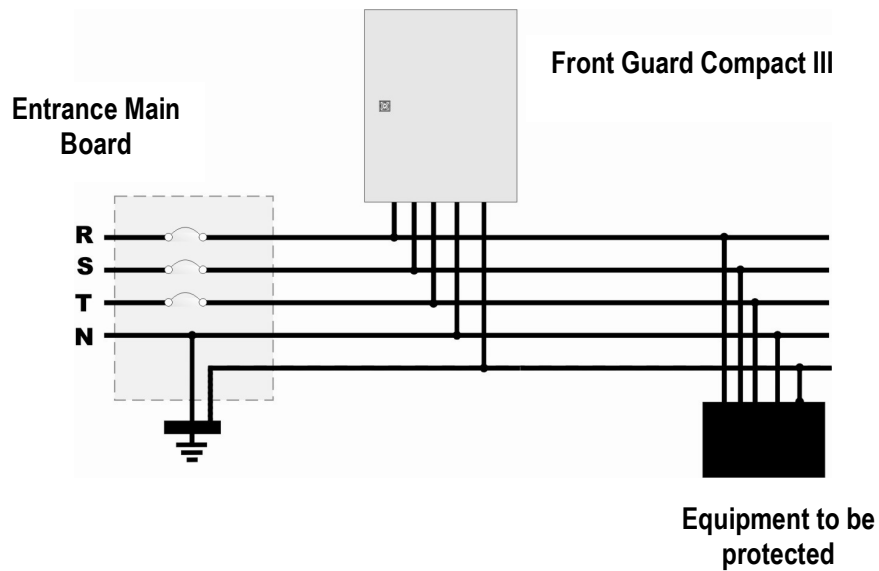
## Technical features

Technical Features	127/220V three phase	220/380V three phase
Electrical System	Star-three phase with neutral earthed	
Frequency	50/60Hz	
Protection Technology (main phase)	Silicon Avalanche Diode - SAD	
Protection Technology (backup phase)	Metal Oxide Varistor - MOV	
Rated Service Voltage (RMS)	127 Volts (Phase/Neutral)	220 Volts (Phase/Neutral)
Protected Conductors	03 (three)	
Component Response Time (theory)	SAD: <1 picosecond MOV: <1 nanosecond	
Maximum Continuous Operating Voltage	175V (Phase/Neutral)	275V (Phase/Neutral)
Suppressed Voltage Rating (UL 1449)	330V	600V
Maximum Surge Current (8/20 $\mu$ s per conductor)	SAD: 20kA MOV: 180kA	
Energy Absorption Capacity	SAD: 500 joules MOV: 5000 Joules	
Maximum Values for Remote Supervision Contacts	10A @ 120Vac 10A @ 24Vdc	
Phase and Neutral Connections	Terminal for cable connection up to 16mm <sup>2</sup>	
Remote Supervision Connection	Terminals and screws for cable connection up to 2,5mm <sup>2</sup>	
Enclosure	Assembled in a steel case with polyester powder electrostatic coat and IP65 protection degree	
Operating Temperature	-30°C to +85°C	
Dimension	Length: 320mm	Width: 170mm      Height: 380mm
Weight	13 Kg	

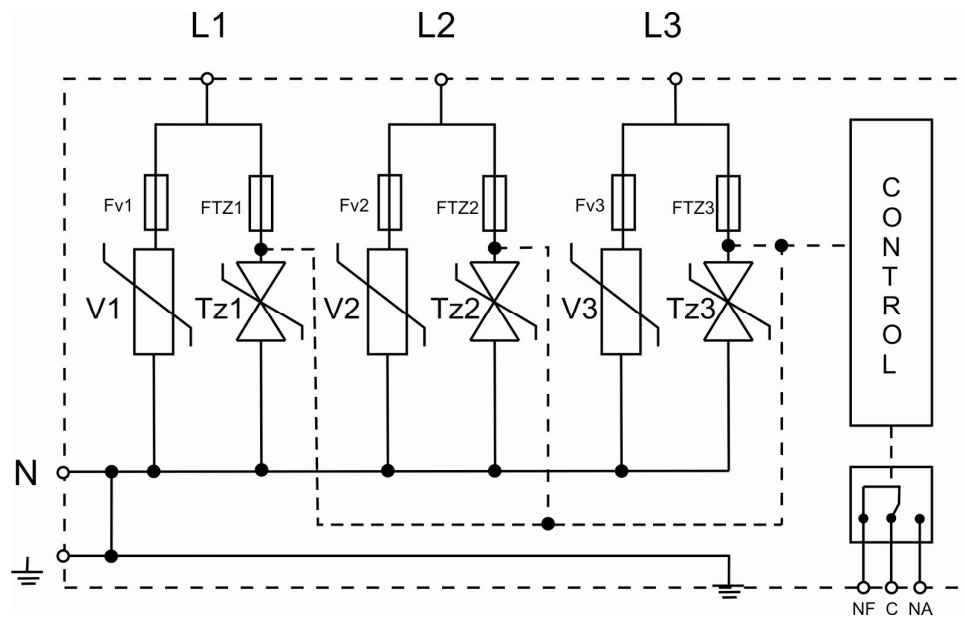
## TECHNICAL DATA

Product:	FRONT GUARD COMPACT III	Date:	April 2006	Revision:	A	Page:	1/2		
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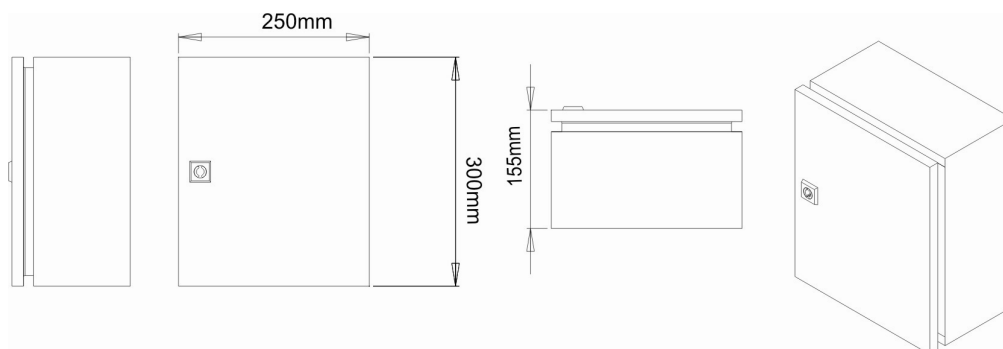
## Installation Diagram



## Equivalent Electrical Circuit



## Mechanical Drawing



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