

## FAC3+ACP Isolation Monitoring FAC3 until 1500 VDC

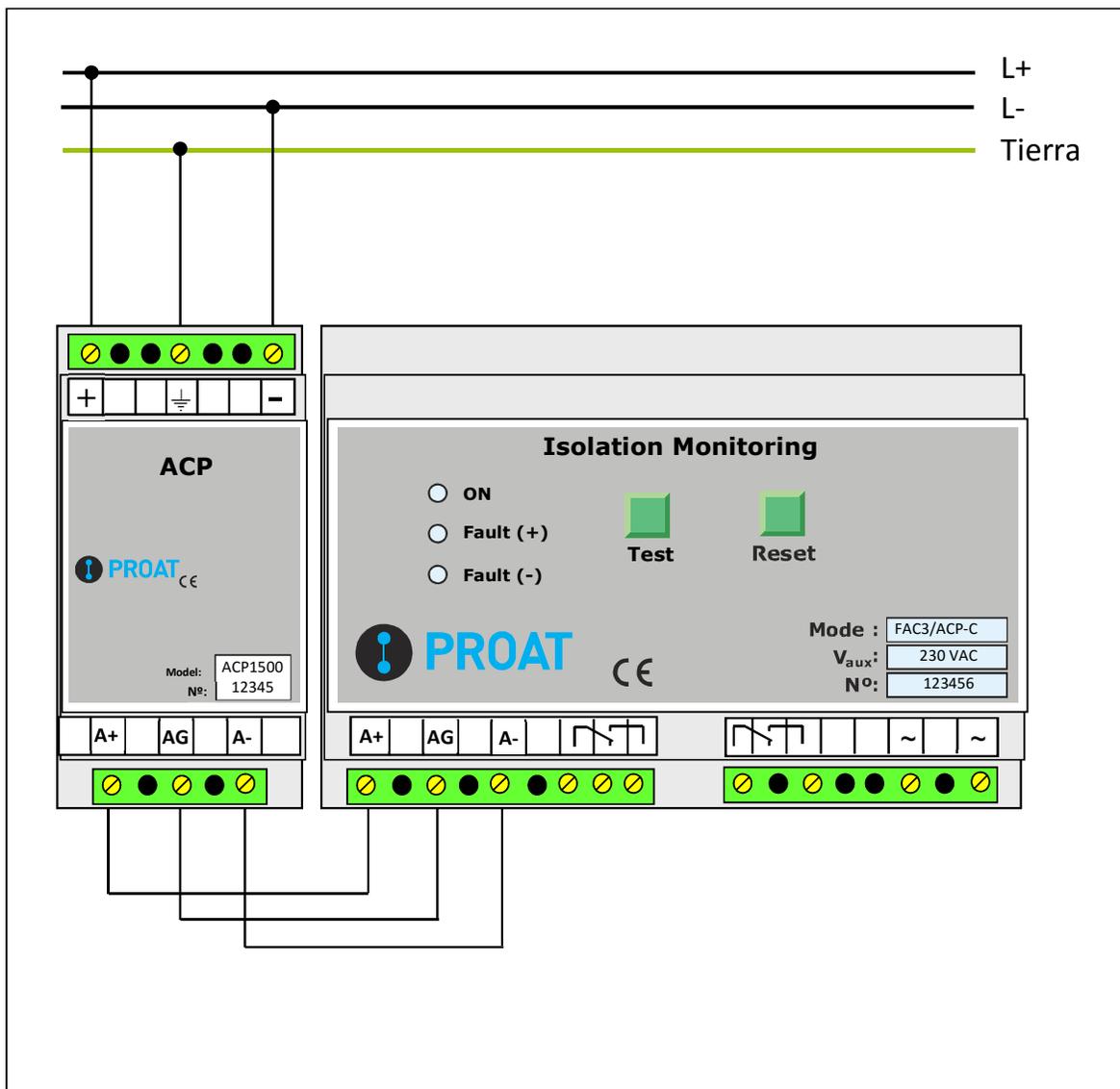
### Description

The device FAC3/ACP with the coupler ACP, detects isolation faults to ground in photovoltaic installations. It does two output orders, one instantaneous and the other temporized.

With the ACP module, the operation voltage range of FAC3 is extended to 1500 VDC.

The order instantaneous opens the line and the order timed short-circuits the output voltage of the panels, thus ensuring that the installation is not energized. It prevents installation and maintenance personnel from being exposed to an electric shock.

Its reset function also enables service to be resumed once the insulation fault has disappeared (for instance, in the case of derivations due to humidity first thing in the morning).



## Characteristics of FAC3/ACP

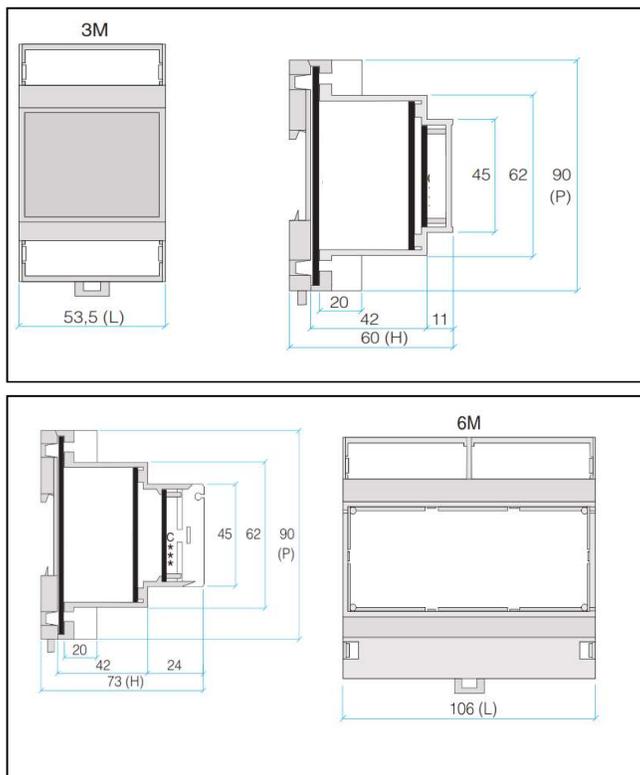
- The device connects the two output contacts permanently. One is connected immediately a fault has been detected and the other is a timed connection, which can be adjusted internally between 1 and 4 seconds.
- Luminous diode which records whether the fault was produced by (+) or (-).
- Push-to-test switch to simulate a (+) or (-) earth fault
- The reset button carries out the connection process in reverse - the LEDs are turned off and the output relays disconnected.
- Eight reset intervals between 1 and 60 minutes can be set inside the device.
- Level of insulation can be adjusted between 20KΩy 80KΩ.
- Includes microcontroller
- Plastic installation box for rail DIN.
- Terminals on front panel
- Potential-free output contacts

## Characteristics of ACP

- Nominal Voltage  $U_n$ .....: 1500 VDC
- Tolerance de  $U_n$  .....:  $U_n+10\%$
- Distance to neighboring teams from  $U_n >800$ :  $\geq 30$  mm
- Weight.....: <100g
- Housing material.....: Polycarbonate
- Operation Temperature .....: -5 ...+55°C
- Storage Temperature .....: -20.... +80°C
- Resistance internal.....:  $\geq 300$  kΩ
- Protection Class .....: IP20
- Service.....: continuous
- Montage .....: rail DIN
- Dimensions .....: 90x54x60

**Model: FAC3/ACP-C + ACP-1500**

## External dimensions ACP y FAC3/ACP



## Technical Data FAC3/ACP

Dielectric Test	
Input VDC to Auxiliary Voltage	3k VDC
Input VDC to outputs contacts	3k VDC
Auxiliary Voltage to outputs contacts	3k VDC

Voltage Range	
Monitoring voltage Un	0,5*Un...Un
Auxiliary Voltage Vaux	AC 207...251V
Frequency range Vaux	50..60 Hz
Power consumption	≤12VA

Programmable and Response values	
Isolation level In	10K...80KΩ
Measure Error (In)	±10%
Response time TR	<100 ms
Timing Failure	1 second
Reconnection time	1...60 min.
Time Switching RL1/RL2 (type C)	<100 ms
Timing between contacts RL1-RL2/RL2-RL1	1...4 s
Pulse duration RL1, RL2 (type I)	250 ms
Switching Time RL1 ((type I)	<100 ms
Switching Time RL2 ((type I)	<100 ms
Switching Time RL1 ((type X)	<100 ms
Timing contact RL2 (type X)	1...4 s

Measuring circuit	
Internal resistance R+	1 MΩ
Internal resistance R-	1 MΩ
Impedance to ground	750 KΩ
Monitoring voltage Un	UN+10%
Permissible system leakage capacitance	40uF

Frontal view	
Signals type	3 leds
VAUX	Led green
Fault (+)	led red
Fault (-)	Led red
Test button	Yes
Reset button	yes

Switching Elements	
Number of switching elements	1-2
Type of outputs	commuted
Voltage outputs	Voltage free
Rated contact voltage	250VAC/300VDC
Making capacity	5A/0,1A
Electrical service life, number of cycles	20,000,000
Breaking Capacity	2A-AC239V
	0,4-0,2 - DC220V

General Data	
Operation Mode	Continuously
Mounting	DIN rail
Connection	screw M2,5
Maximum torque	0,4 Nm
Protection grade	IP20
Flammability class	UL94V-0
Weight	310g.aprox.
Operation temperature	-5°C...+55°C
Storage temperature	-20°C...+80°C
Relative Humidity (without condensation)	<95%
Setting values method	front opening

Ruling	
Emissions EMC	EN50081
Interferences Inmunity EMC	EN50082-1
Low voltage	BT-Standard

Factory Settings	
Isolation level	80KΩ
Reconnection time	1 minute
Timing RL2	4 second