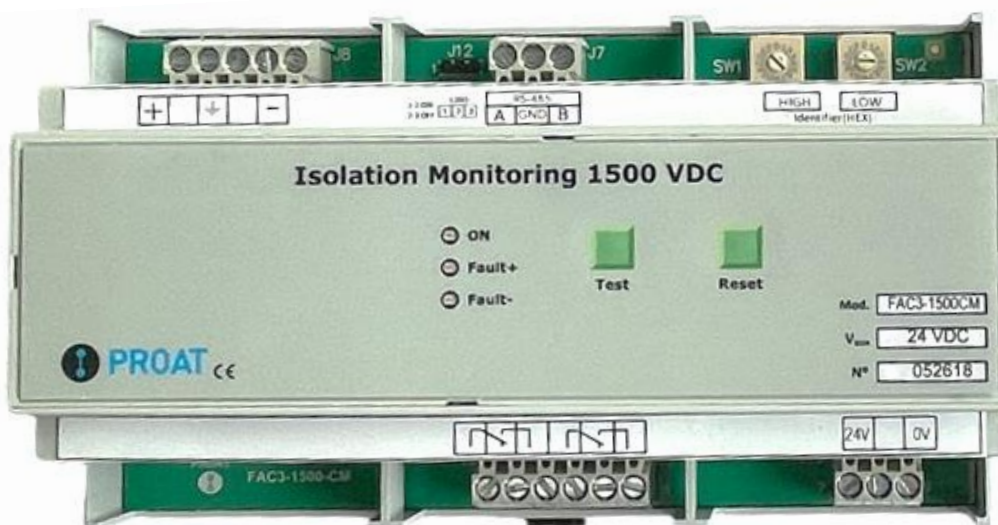


## FAC3/1500CM

### FAC3 Isolation Monitor up to 1500 VDC with ModBus



FAC3/1500CM Isolation Monitor (15/1024)

#### • Description

The FAC3/1500CM equipment detects the lack of ground insulation in 1500 VDC photovoltaic energy installations.

It has an automatic reset, which allows the normal situation to be restored if the insulation defect has disappeared.

It has a ModBus output, which provides the real status of the insulation measurement.

It maintains the same dimensions, connections and operation as the FAC3/ACP-C+ACP-1500 set, in 1 single device and adding the ModBus output.

#### • Applications

In photovoltaic installations, the FAC3/1500/CM detects insulation faults and gives the appropriate commands to the control elements. This prevents possible electric shocks to installation and maintenance personnel.

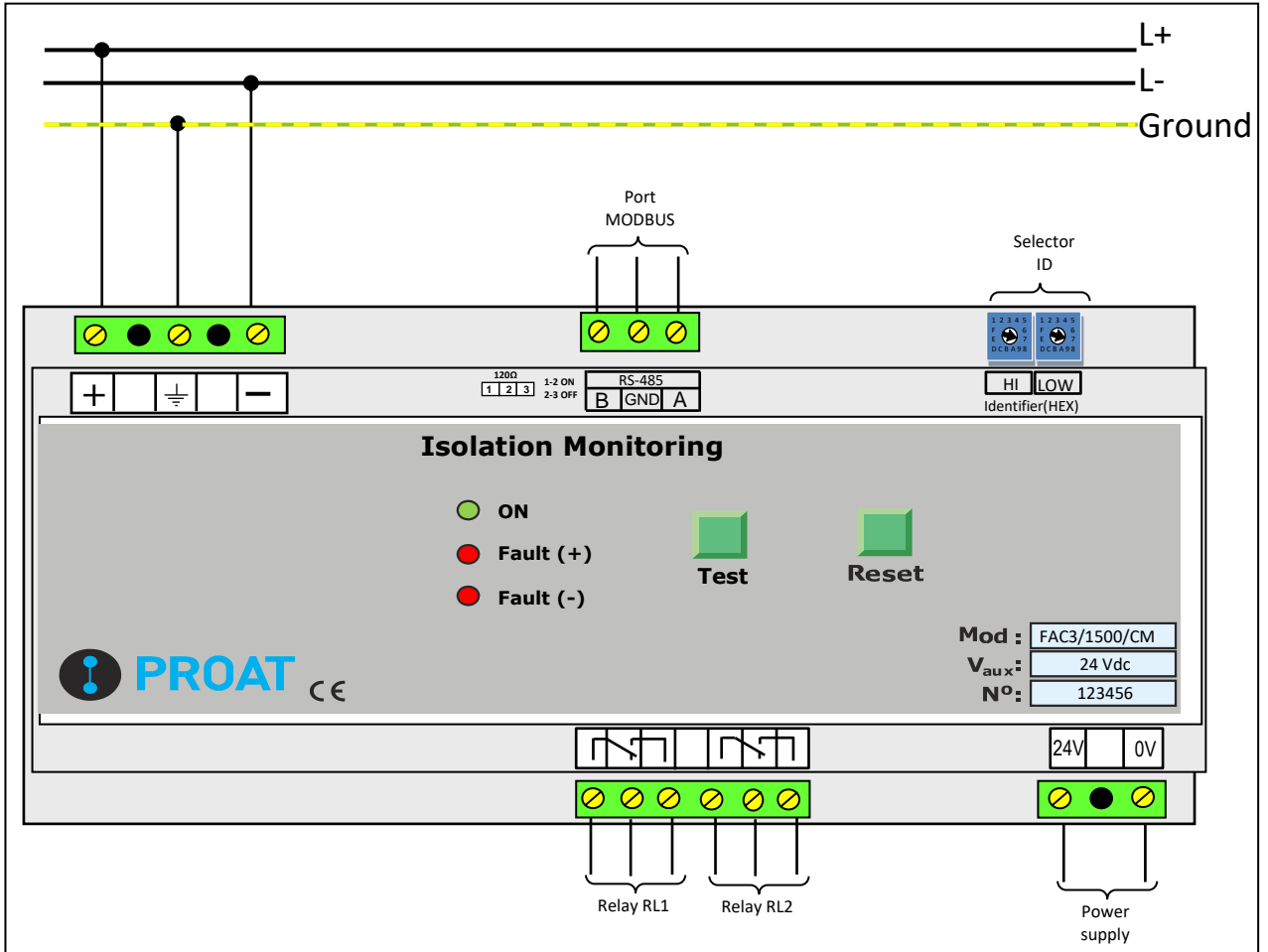
#### • Functional Characteristics

- Permanently connects two output contacts, one instantaneously (RL1), when the fault is detected, and another timed (between 1 and 2 seconds) internally adjustable RL2.
- Contact RL1 acts with inverse logic: It is activated when the power supply is connected, it is disconnected when an insulation fault occurs.
- Light-emitting diodes, which memorize if the fault has been produced by (+) and (-).
- Test button to simulate a ground fault of (+) and (-).
- Reset button performs the reverse process to the connection (turning off the LEDs and disconnecting the output relays).
- Eight internally selectable Reset times (between 1 and 60 minutes).
- Adjustable insulation level between 20 kΩ and 80 kΩ.
- Plastic box for installation on DIN rail.
- Terminals on front cover.
- Potential-free output contacts.
- Models for auxiliary voltage 230 Vac and 24 Vdc.
- External ID selector for ModBus.

• Models

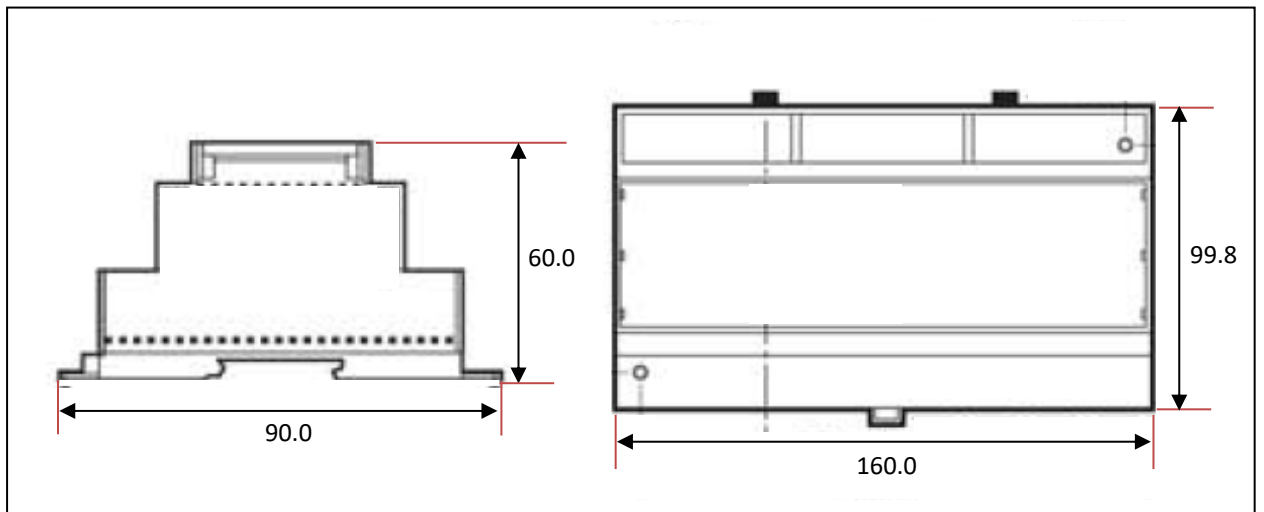
Reference	Power supply
FAC3/1500/CM-C	230 VAC
FAC3/1500/CM-C-24	24 VDC

• Connection Diagram



FAC3/1500CM Isolation Monitor (151024)

• External dimensions (mm)



• **Technical Data FAC3/1500/CM**

<b>Dielectric Test</b>	
VDC input versus power supply	3k VDC
VDC input versus switching elements	3k VDC
Power supply versus switching elements	3k VDC
<b>Voltage Ranges</b>	
Voltage Monitoring UN=1500 VDC	0,3*UN...UN
Power supply Vaux (Model 230Vac)	AC 207...251 V
Power supply Vaux (model 24 Vdc)	DC 18-32 V
Power consumption	≤12VA
<b>Programmable and response values</b>	
Isolation level IL	20 kΩ-80 kΩ
Measurement error	±10%
Response Time TR	<100 msec
Timing Failure	1 sec
Time for Rearmament	1...60 min.
RL1/RL2 Switching Time (Type C)	<100 msec
Timing between contacts RL1-RL2/RL2-RL1	1...2 sec
<b>Measurement circuit</b>	
Internal R+ Resistance	1 MΩ
Internal R- Resistance	1 MΩ
Ground impedance	750 kΩ
max. monitoring voltage UN	UN+10%
Allowable parasitic capacity	40μF
<b>Front view</b>	
Type of signals	3 led's
ON	Green Led
Fault (+)	Red Led
Fault (-)	Red Led
Test button	YES
Reset button	YES
<b>Factory Adjusted Values</b>	
Isolation level IL	80 kΩ
Time for Rearmament	1 minute
Timing between contacts RL1-RL2/RL2-RL1	4 sec
ID ModBus	1

<b>Switching elements.</b>	
Number of switching elements	2 elements
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

<b>General Data</b>	
Operating mode	continuously
Mounting	DIN rail
Connection	screw M2,5
Maximum torque	0,4 Nm
Protection grade	IP20
Flammability	UL94V-0
Weight	310 g.aprox.
Operation temperature	-5°C...+55°C
Storage temperature	-20°C...+80°C
Relative humidity (no condensation)	<95%
Setting values method	Front opening

<b>Standards</b>	
Electrical Safety Requirements	UNE-EN 61010-1
Electrical Safety Requirements	UNE-EN 61010-2-0081
Electromagnetic Compatibility(CEM)	UNE-EN 61000-6-1
Electromagnetic Compatibility(CEM)	UNE-EN 61000-6-3/A1
European standards	2006/95/CE
European standards	2004/108/CE

<b>Serial Interface RS-485</b>	
Interface	9600,8,N,1
Protocol	ModBus-RTU
ID Modbus	1.....240
Available functions	3,4
Functioning	slave
Cable length (m)	≤1200
Connection	Terminals A/B

FAC3/1500CM Isolation Monitor (240824)



Sistema de Gestión  
ISO 9001:2015



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