



Revamping in **N-TYPE** solar cell modules which require **grounding of the positive pole**.



## **XENIT.IT**

Xenit is a division of ATEX INDUSTRIES for Photovoltaic and Safety.

# Replacing the inverters in N-TYPE solar cell modules

In photovoltaic systems with N-TYPE modules that **require grounding of the positive pole, the problem is replacing the inverters with a new generation**, which however do not allow this type of connection. The consequence, by installing a standard inverter without positive ground, is the progressive deterioration of the PV modules due to the PID phenomenon, with consequent loss of power and also the need for their replacement.

## PID effect and loss of power in N-Type photovoltaic modules

In this image, taken with the electroluminescence technique, you can see the cells of the photovoltaic modules, which **are gradually shutting down**. PID effect on N-TYPE photovoltaic modules, after replacing the **inverter with one of the latest generation without positive ground**.



# The solution

APID-NG

## Maintain the efficiency of N-TYPE modules

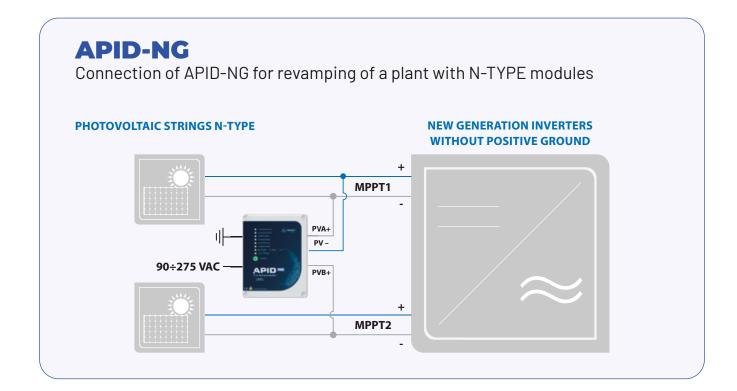
APID-NG allows the replacement of the old inverter with a standard one of any brand, maintaining the current N-TYPE modules and their efficiency. APID-NG is suitable for any size of plant and it's easy to install.



# **How APID-NG works**

# **Features**





# **Functionality and benefits**



#### **Prevention**

It allows you to replace the inverter without having to change all the N-Type photovoltaic modules, preventing the occurrence of the PID phenomenon.



#### **Power**

Stops the loss of power in the solar system.



#### **Protection**

Immediately protects new systems with PID-Free modules from a possible drop in power by up to 5%.



## **Profitability**

Stops the economic damage caused by Potential Induced Degradation and ensures the profitability of the solar system.



#### Regeneration

Regenerates the power of solar systems by up to 100% in around 30 days.



#### Resistance

Measures the insulation resistance.





	APID-NG
FOR PV MODULES WITH MODEL CELLS	N-Type
(needing positive pole earthing)	
MPPT OUTPUTS	2
POWER	90275 Vac
ABSORPTION	Standby 0.5w, 2W Operation, 20W Max
INTERNAL GENERATOR	Voltage with output resistance of 165K Max. 1000 Vdc output power 2.7mA Max. at 1000v – 3.9mA Max. at 800v – 6.3mA Max. at 400V – 8mA in short circuit
AUTOMATIC MANAGEMENT OF OPERATION AND OUTPUT VOLTAGE	✓
RELAY OUTPUT WITH NC AND NA CONTACTS FOR ALARM SIGNALLING	✓
CLOCK/CALENDAR WITH 6-MONTH BACKUP	✓
ANTI-CONDENSATION VALVE	ØM12 F16 litres/hour at 0.07 bar
CONNECTIONS TO STRINGS	MC4
OPERATING TEMPERATURE	-20 °C/+50 °C
WEIGHT	950 g
CONTAINER TYPE	IP56
DIMENSIONS (L X H X D)	240 x 190 x 90 mm



	LCDAM08
Display	Backlit 16x2 LCD display with 4 keys
BUTTONS	no.4: Prog-Exit-Up-Down
HOUSING	6-module HOUSING, DIN rail or wall mounting
OPERATING TEMPERATURE	From -10 °C to +50 °C
DIMENSIONS (L X H X D)	105 x 110 x 65 mm
WEIGHT	180 g



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