



The definitive solution for automatic switching between power sources



HMA is an electronic device for switching between power sources that integrates multiple functions:

■ **Automatic power source management**

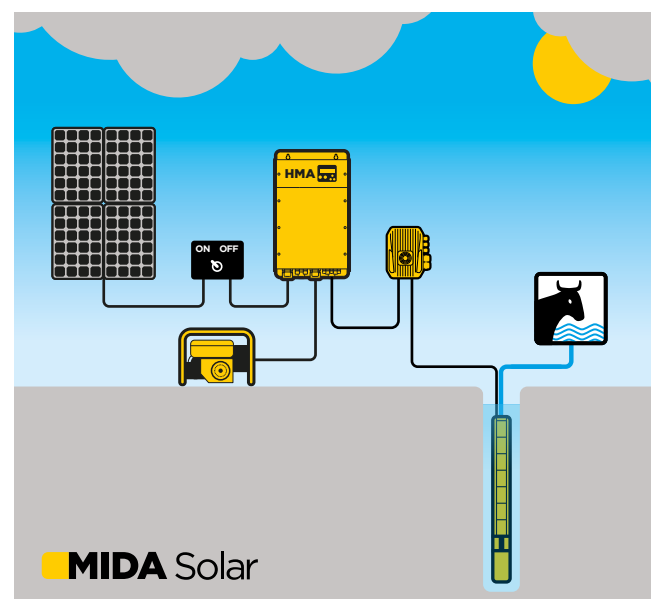
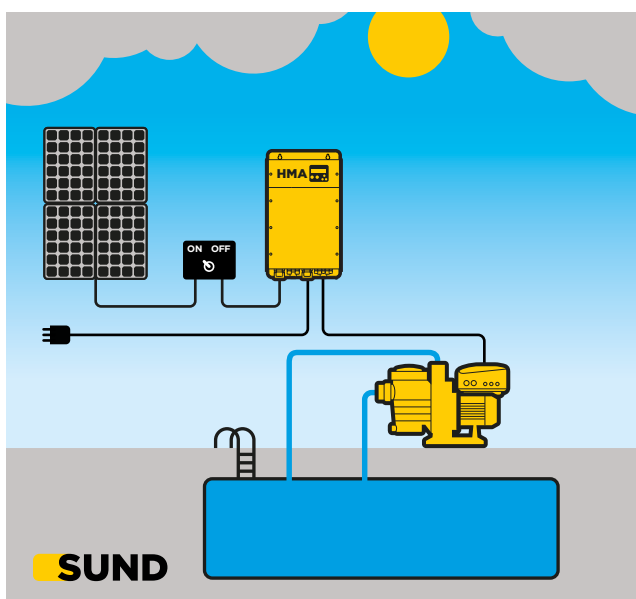
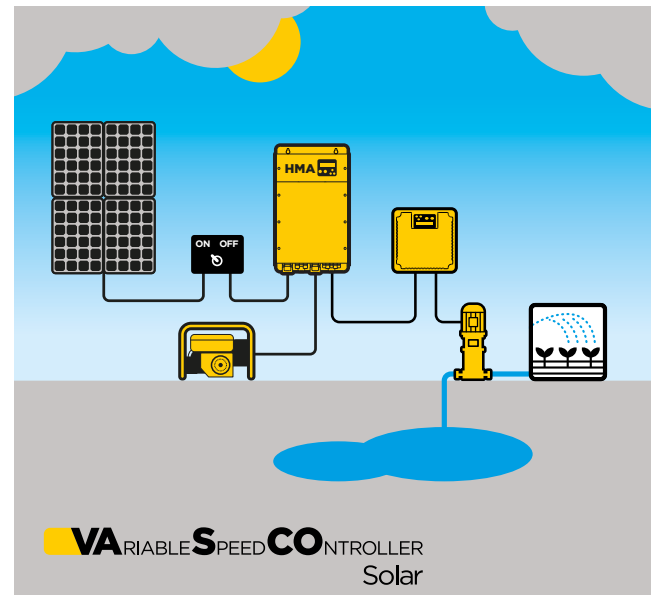
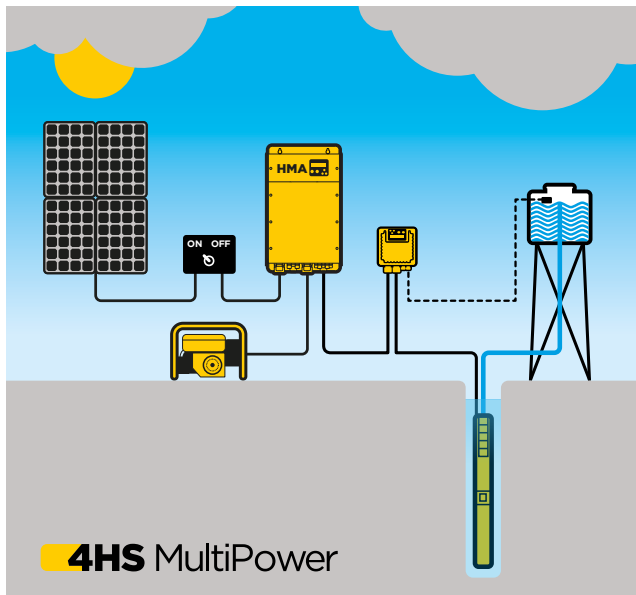
HMA, combined with any MultiPower “HMA ready” device, switches between AC power (mains or generator) and DC power (photovoltaic panels) completely automatically, based on the programmed logic.

■ **Mechanical disconnection of the two power supplies**

Two interlocked contactors guarantee the uniqueness of the power supply and ensure separation in order to ensure maximum electrical safety.

■ **Control of auxiliary generator**

When the AC power is provided by a generator, HMA is able to start or stop it according to need. HMA also monitors any signs of failure or running out of fuel.



Five programmable switching logics can meet any application requirement:

Manual switching

Via the keyboard it is possible to switch from one power supply to another or even interrupt the power supply.

Timed switching

The transition from the photovoltaic power source to the mains supply (or generator) and vice versa takes place at a time set by the user.

Switching from digital input

Switching is controlled by the opening or closing of a digital input.

Switching by flow

Switching from DC to AC power supply takes place automatically to satisfy the desired daily flow. It is also possible to set a time after which transition to AC is allowed.

Switching by irradiation

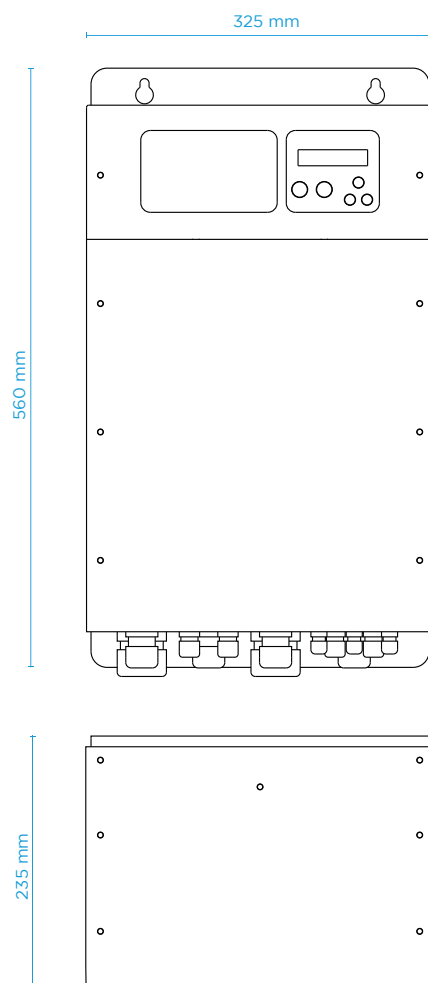
If irradiation falls below a predetermined value or the power generated by the panels is not sufficient to operate the pump, HMA starts up the generator, if present, and switches to AC supply. When irradiation returns above the minimum threshold, the generator is switched off and the pump is restarted with DC power.

Technical specifications

Model	VDC	VAC	I max	Compatibility
HMA 218	90-400	1x90-265	18 A	4HS MP SUND MIDA Solar 203-207 MP VS 218 MP
HMA 430	190-850	3x190-520	30 A	VS 212 MP VS 409-430 MP
HMA 485	190-850	3x190-520	85 A	VS 438-485 MP

Characteristics

- Ambient temperature: -10 to 50°C (14 to 122°F)
- Max altitude at rated current: 1000 m
- Protection degree: IP54 (NEMA 12)
- Digital outputs configurable as N.O or N.C:
 1. Motor run signal
 2. Alarm signal
- Analog inputs, (10 or 15 VDC):
 1. 4-20 mA
 2. 4-20 mA
 3. 4-20 mA or 0-10 VDC
 4. 4-20 mA or 0-10 VDC
- 4 digital inputs, configurable as N.O or N.C
- MODBUS RTU RS485, Bluetooth® SMART (4.0)



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