



Connection instructions

PV READY DEHUMIDIFIERS





This manual is for all users or applications where photovoltaic panels are installed and used as energy source.

Your Microwell swimming pool dehumidifier is equipped with PV Ready solution enabling you to

minimize your energy bill by powering your swimming pool dehumidifier from photovoltaic energy

source. You have several options how to operate your swimming pool dehumidifier:

1.Maximum comfort – swimming pool dehumidifier works as per your request on desired air

relative humidity. This is recommended for users who target to achieve desired air relative humidity

at all times.

Advantage: air relative humidity is always at your requested % value.

Disadvantage: energy bill may be higher since system's priority is air relative humidity. But Microwell

strongly recommends that air humidity control is priority inside pool hall. Microwell advises that air humidity in levels above 70% RH causes favorable environment for bacteria and mold growth and can

deteriorate the building fabrics. That is why relative humidity should be kept within recommended

55~65% at all times.

Technical set up: swimming pool dehumidifier is connected and operated as described in User's

manual. Power generated from PV panels is used to lower monthly energy consumption but it is not

necessary used to power the swimming pool dehumidifier. The swimming pool dehumidifier will work

even if there isn't enough power generated by PV panels.

Connection: On/off contacts 5-6 (or alternative) aren't connected to gateway.

Compatibility PV: All ON-GRID, OFF-GRID or HYBRID PV systems.

Compatibility swimming pool dehumidifier: all Microwell swimming pool dehumidifiers DRY

2.Maximum savings – swimming pool dehumidifier will only work while there is enough power

generated by PV panels.

Advantage: minimum energy bill.

Disadvantage: air relative humidity may not always be at your requested % value. Microwell advises

that air humidity in levels above 70% RH causes favorable environment for bacteria and mold growth and can deteriorate the building fabrics. That is why relative humidity should be kept within

recommended 55~65% at all times. Microwell does not recommend Maximum savings mode but offers

it since customers show demand for this solution.

Technical set up: swimming pool dehumidifier is connected and operated as described in User's manual. Power generated from PV panels is used directly to power your swimming pool dehumidifier and your swimming pool dehumidifier will not work unless there is sufficient power from PV panels.

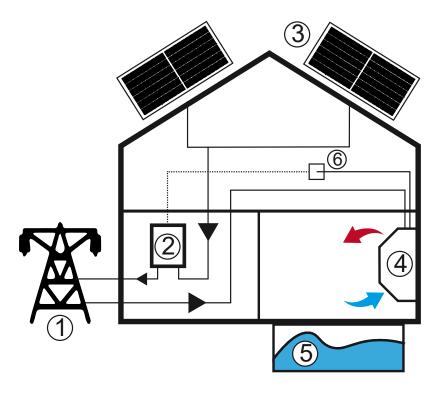
Connection: On/off contacts 5-6 (or alternative) are connected to gateway or alternative and system is set to close (C) the contacts if PV generated power surpasses the power input of the swimming pool dehumidifier.

In the case of sudden interruption in generated power (e.g. clouds), the swimming pool dehumidifier will kept operating for 10~60seconds after which internal processor based control board powers the pool dehumidifier off. If the power comes back on, the swimming pool dehumidifier will increase its speed again to requested set point. If the power keeps on being low, then the swimming pool dehumidifier will be turned off.

Please note that even in the case PV panels generate enough power, your swimming pool dehumidifier may be off and not working. This can be the case if your requested air relative humidity is reached and there is no need for the swimming pool dehumidifier to continue drying.

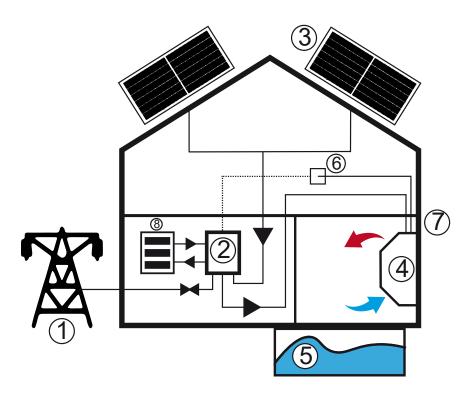
Compatibility PV: All OFF-GRID or HYBRID PV systems.

Compatibility swimming pool dehumidifier: all Microwell swimming pool dehumidifiers



A – ON-GRID FVE system + Microwell dehumidifier

- 1. Power grid
- 2. DC-AC converter
- 3. Photovoltaic panels
- 4. Microwell dehumidifier
- 5. Pool
- 6. Smart house manager / Gateway
- 7. Signal wire connection to Microwell dehumidifier



B – HYBRID system + Microwell dehumidifier

- 1. Power grid
- 2. DC-AC converter
- 3. Photovoltaic panels
- 4. Microwell dehumidifier
- 5. Pool
- 6. Smart house manager / Gateway
- 7. Signal wire connection to Microwell dehumidifier
- 8. Battery (optional)

Manufacturer:

MICROWELL, spol. s r.o.

SNP 2018/42, 927 01 Šaľa, Slovakia

tel.: +421/31/770 7082 e-mail: microwell@microwell.sk w w w . m i c r o w e l l . e u **Distributor:**

Made in: EUROPEAN UNION (SLOVAK REPUBLIC)

Country of Origin: EUROPEAN UNION (SLOVAK REPUBLIC)

