

## DeltaTherm® PHM

### Power-to-Heat-Manager

The *DeltaTherm*® PHM is the ideal solution for using excess PV current for the control of different loads. Heat pumps, electric immersion heaters, and charging stations for electric vehicles can be controlled as needed. All the while household power has absolute priority.

Each load can also be supplied with mains current on a time-controlled basis.

Furthermore, the *DeltaTherm*® PHM measures the electric loads at the energy meter which can be visualised via VBus.net.

## Intelligent distribution of excess PV current

- Increase in self-consumption
- Reduction of heating costs
- Control of a heat pump
- Control of a wallbox
- Control of up to 3 electric immersion heaters (via auxiliary relays)
- Household current priority
- Can be used with all PV systems
- Time-controlled backup heating (with mains current)

Article no.

Article

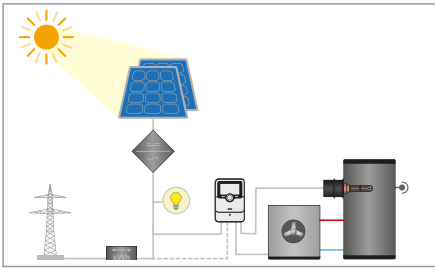
Price bracket

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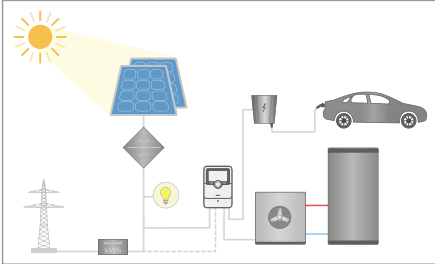
*DeltaTherm*® PHM – Full kit » incl. sensor module, 3 current sensors and 3 Pt1000 sensors (FRP6)

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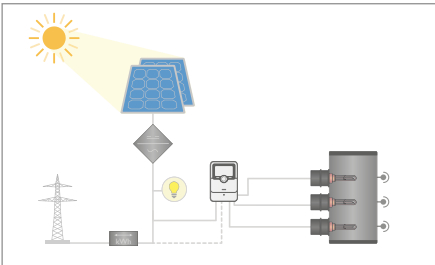
## EXAMPLES



Control of an electric immersion heater\* and of a heat pump



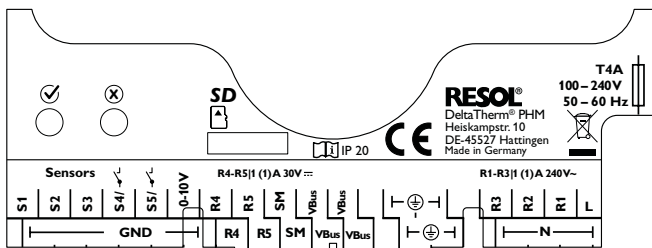
Control of a heat pump and of a wallbox



Control of 3 electric immersion heaters\*

\* via auxiliary relay(s) (not included with the controller)

## ELECTRICAL CONNECTION



## TECHNICAL DATA

### DeltaTherm® PHM

**Inputs:** 5 Pt1000 temperature sensors  
(2 of them convertible to switch)

**Outputs:** 3 electromechanical relays, 2 potential-free extra-low voltage relays and 1 PWM output (convertible to 0-10V)

**Switching capacity:**

1 (1) A 240 V~ (electromechanical relay)

1 (1) A 30 V= (potential-free relay)

**Total switching capacity:** 3 A 240 V~

**Power supply:** 100 – 240 V~ (50 – 60 Hz)

**Supply connection:** type X attachment

**Standby:** 1.25 W

**Mode of operation:** type 1.B.C. action

**Rated impulse voltage:** 2,5 kV

**Data interface:** RESOL VBus®, MicroSD card slot

**VBus® current supply:** 35 mA

**Functions:** measurement and balancing of the current flow at the energy meter, control of a heat pump, control of up to 3 electric loads (e.g. immersion heaters), control of a wallbox

**Housing:** plastic, PC-ABS and PMMA

**Mounting:** wall mounting, mounting into patch panels is possible

**Indication / Display:** full graphic display, operating control LED (Lightwheel®) and background illumination

**Operation:** 4 buttons and 1 adjustment dial (Lightwheel®)

**Ingress protection:** IP 20 / EN 60529

**Protection class:** I

**Ambient temperature:** 0 ... 40 °C

**Degree of pollution:** 2

**Fuse:** T4A

**Maximum altitude:** 2000 m above MSL

**Dimensions:** 110 x 166 x 47 mm

### Sensor module DeltaTherm® E sensor

**Inputs:**

3 current inputs and 3 voltage inputs for SW16 current sensors

**Power supply:** 100–240 V~ (50–60 Hz)

**Supply connection:** type Y attachment

**Standby:** < 1W

**Rated impulse voltage:** 1.0kV

**Data interface:** VBus®

**Functions:** energy measuring unit

**Housing:** plastic, PC (UL 94 V-0)

**Mounting:** DIN rail in the domestic distribution board

**Indication / Display:** 2 operating control LEDs

**Protection type:** IP 20/EN 60529

**Protection class:** II

**Ambient temperature:** 0 ... 40 °C

**Degree of pollution:** 2

**Dimensions:** 71 x 90 x 58 mm

## ACCESSORIES

### Datalogger DL2



For visualisation via VBus.net, incl. SD card and network cable, mains adapter and VBus® cable pre-connected

### Electric immersion heater



Electric immersion heater  
3 kW 230V~ (1½")

### KM2 Communication module



Incl. service CD, network cable and mains adapter, VBus® cable pre-connected

### MicroSD card



MicroSD card, 16 GB memory capacity, incl. adapter

### Auxiliary relay HR230



Single-phase, suitable for all RESOL controllers

### HR230/3 Auxiliary relay



Three-phase, suitable for all RESOL controllers