Power-to-Heat Compact
Intelligent conversion of electrical Power-to-Heat
ELWA P2H systems are built to convert accurate to the second electrical surplus energy to thermal energy, relieving both the local grid and the heating system. By its variable power control, power line expansion costs in the building can be avoided or mitigated. Feed-in regulations can easily be fulfilled, especially in combination with CHP or renewable energy sources. Additional value by usage for peak demand heating, post heating, emergency heating or for avoiding legionella contamination.

Advantages
> additional earnings  
> avoiding electrical grid expansion  
> reducing maintenance costs  
> fast amortization  
> auxiliary-/emergency-/pre-/post-heating  
> heating power can be limited to:  
  - existing cable size  
  - excess power from PV  
  - residual power not used by other  
  - electrical installations  
> optional prevention of legionella contamination  
> easy installation  
> smart extension of existing heating installations (only 0.7 sqm needed for heater)  
> no maintenance needed  
> adjusting setpoints directly at the front display  
> monitoring of actual temperature values on the front display

Technical Description
> for heating water, deionized water, drinking/sanitary water  
> power range from ≤ 11 kW (16A) to 48 kW (70A)  
> power reduction to intermediate sizes possible during installation  
> almost stepless power control for low grid interaction, switching cabinet included  
> HotSpare configuration optional (replacement heating elements already installed)  
> flange diameter DN32, optionally special diameter or flange position  
> 400 VAC voltage 50 Hz 3-phase – other voltages or 60 Hz available on request  
> optional single phase connection (230 VAC), max. power 7.3 kW  
> optional offsetting of asymmetrical loads (e.g. with PV, storage, charging station)  
> optional monitoring and/or parameterizing from remote  
> optional preparation for feed-in regulation requirements or control power

Overview table

<table>
<thead>
<tr>
<th>Description</th>
<th>P2H36</th>
<th>P2H48</th>
<th>P2H48</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pmax</td>
<td>36 kW</td>
<td>48 kW</td>
<td>48 kW</td>
<td>rated power</td>
</tr>
<tr>
<td>Medium</td>
<td>Deionized water</td>
<td>Potable water</td>
<td>Heating water</td>
<td></td>
</tr>
<tr>
<td>Rated current</td>
<td>52A</td>
<td>70A</td>
<td>70A</td>
<td></td>
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<tr>
<td>or power reduction to e.g. max.</td>
<td>7.3 kW/32A 1ph 11 kW/16A 3ph 22 kW/32A 3ph or residual load</td>
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<td>7.3 kW/32A 1ph 11 kW/16A 3ph 22 kW/32A 3ph 43 kW/63A 3ph or residual load</td>
<td>Almost stepless power control, DN32, PN 16, IP54, 10 bar</td>
</tr>
<tr>
<td>Weight/Height</td>
<td>120 kg/1205 mm</td>
<td>120 kg/1205 mm</td>
<td>120 kg/1205 mm</td>
<td>&quot;323wB*556D</td>
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<tr>
<td>Vessel</td>
<td>Stainless steel</td>
<td>Stainless steel</td>
<td>Steel</td>
<td></td>
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