

## 12.3 Package fiche - Combination heaters (boilers or heat pumps)

Fig. 16 Package fiche for combination heaters (boilers or heat pumps) indicating the water heating energy efficiency of the package

**Water heating energy efficiency of combination heater** ①  
 %

Declared load profile:

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**Solar contribution** ②  
 from fiche of solar device Auxiliary electricity  
 $(1.1 \times \text{'I'} - 10\%) \times \text{'II'} - \text{'III'} - \text{'I'} = +$   %

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**Water heating energy efficiency of package under average climate** ③  
 %

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**Water heating energy efficiency class of package under average climate**

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>G</b>	<b>F</b>	<b>E</b>	<b>D</b>	<b>C</b>	<b>B</b>	<b>A</b>	<b>A<sup>+</sup></b>	<b>A<sup>++</sup></b>	<b>A<sup>+++</sup></b>
<input type="checkbox"/> <b>M</b>	<27%	≥27%	≥30%	≥33%	≥36%	≥39%	≥65%	≥100%	≥130%	≥163%
<input type="checkbox"/> <b>L</b>	<27%	≥27%	≥30%	≥34%	≥37%	≥50%	≥75%	≥115%	≥150%	≥188%
<input type="checkbox"/> <b>XL</b>	<27%	≥27%	≥30%	≥35%	≥38%	≥55%	≥80%	≥123%	≥160%	≥200%
<input type="checkbox"/> <b>XXL</b>	<28%	≥28%	≥32%	≥36%	≥40%	≥60%	≥85%	≥131%	≥170%	≥213%

### Water heating energy efficiency under colder and warmer climate conditions

**Colder:**  $\text{③} - 0.2 \times \text{②} = \text{ } \%$

**Warmer:**  $\text{③} + 0.4 \times \text{②} = \text{ } \%$

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as this efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

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- I The value of the water heating energy efficiency of the combination heater, expressed in %.
- II The value of the mathematical expression  $(220 \cdot Q_{ref})/Q_{non\,sol}$ , where  $Q_{ref}$  is taken from Regulation EU 811/2013, Annex VII Table 15 and  $Q_{non\,sol}$  from the product fiche of the solar device for the declared load profile M, L, XL or XXL of the combination heater.
- III The value of the mathematical expression  $(Q_{aux} \cdot 2,5)/(220 \cdot Q_{ref})$ , expressed in %, where  $Q_{aux}$  is taken from the product fiche of the solar device and  $Q_{ref}$  from Regulation EU 811/2013, Annex VII Table 15 for the declared load profile M, L, XL or XXL.

- I The value of the seasonal space heating energy efficiency of the preferential space heater, expressed in %.
- II The factor for weighting the heat output of preferential and supplementary heaters of a package as set out in the following table.
- III The value of the mathematical expression:  $294/(11 \cdot \text{Prated})$ , whereby 'Prated' is related to the preferential space heater.
- IV The value of the mathematical expression  $115/(11 \cdot \text{Prated})$ , whereby 'Prated' is related to the preferential space heater.

Tab.12 Weighting of boilers

$P_{sup} / (Prated + P_{sup})^{(1)(2)}$	II, package without hot water storage tank	II, package with hot water storage tank
0	0	0
0.1	0.3	0.37
0.2	0.55	0.70
0.3	0.75	0.85
0.4	0.85	0.94
0.5	0.95	0.98
0.6	0.98	1.00
$\geq 0.7$	1.00	1.00

(1) The intermediate values are calculated by linear interpolation between the two adjacent values.  
(2) Prated is related to the preferential space heater or combination heater.

Tab.13 Package efficiency

<b>Baxi Combi</b>		<b>624</b>	<b>630</b>	<b>636</b>
Temperature control X	%			
Temperature control Y	%			

## 12.2 Package fiche - boilers

Fig.15 Package fiche for boilers indicating the space heating energy efficiency of the package

<b>Seasonal space heating energy efficiency of boiler</b>		① [ ] %																														
<b>Temperature control</b> from fiche of temperature control	Class I = 1%, Class II = 2%, Class III = 1.5%, Class IV = 2%, Class V = 3%, Class VI = 4%, Class VII = 3.5%, Class VIII = 5%	② + [ ] %																														
<b>Supplementary boiler</b> from fiche of boiler	Seasonal space heating energy efficiency (in %)  ( [ ] - 'I' ) x 0.1 = ± [ ] %	③ [ ] %																														
<b>Solar contribution</b> from fiche of solar device	<div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;">Collector size (in m<sup>2</sup>)</div> <div style="border: 1px solid black; padding: 2px;">Tank volume (in m<sup>3</sup>)</div> <div style="border: 1px solid black; padding: 2px;">Collector efficiency (in %)</div> <div style="border: 1px solid black; padding: 2px;">           Tank rating <sup>(1)</sup>            A* = 0.95, A = 0.91,            B = 0.86, C = 0.83,            D - G = 0.81         </div> </div> ('III' x [ ] + 'IV' x [ ]) x 0.9 x ([ ] / 100) x [ ] = + ④ [ ] %	④ [ ] %																														
<b>Supplementary heat pump</b> from fiche of heat pump	Seasonal space heating energy efficiency (in %)  ( [ ] - 'I' ) x 'II' = + ⑤ [ ] %	⑤ [ ] %																														
<b>Solar contribution AND Supplementary heat pump</b> select smaller value	0.5 x ④ [ ] OR 0.5 x ⑤ [ ] = - ⑥ [ ] %	⑥ [ ] %																														
<b>Seasonal space heating energy efficiency of package</b>		⑦ [ ] %																														
<b>Seasonal space heating energy efficiency class of package</b>																																
<table border="1" style="width: 100%; text-align: center;"> <tbody> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> <tr> <td><b>G</b></td><td><b>F</b></td><td><b>E</b></td><td><b>D</b></td><td><b>C</b></td><td><b>B</b></td><td><b>A</b></td><td><b>A*</b></td><td><b>A**</b></td><td><b>A***</b></td> </tr> <tr> <td>&lt;30%</td><td>≥30%</td><td>≥34%</td><td>≥36%</td><td>≥75%</td><td>≥82%</td><td>≥90%</td><td>≥98%</td><td>≥125%</td><td>≥150%</td> </tr> </tbody> </table>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>G</b>	<b>F</b>	<b>E</b>	<b>D</b>	<b>C</b>	<b>B</b>	<b>A</b>	<b>A*</b>	<b>A**</b>	<b>A***</b>	<30%	≥30%	≥34%	≥36%	≥75%	≥82%	≥90%	≥98%	≥125%	≥150%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																							
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<30%	≥30%	≥34%	≥36%	≥75%	≥82%	≥90%	≥98%	≥125%	≥150%																							
<b>Boiler and supplementary heat pump installed with low temperature heat emitters at 35°C ?</b> from fiche of heat pump	⑦ [ ] + (50 x 'II') = [ ] %	[ ] %																														

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## 12 Appendix

### 12.1 Product fiche - Combination boilers

Tab.11 Product fiche for combination boilers

<b>Baxi 600 Combi</b>		624	630	636
Space heating - Temperature application		Medium	Medium	Medium
Water heating - Declared load profile		XL	XL	XL
Seasonal space heating energy efficiency class		<b>A</b>	<b>A</b>	<b>A</b>
Water heating energy efficiency class		<b>A</b>	<b>A</b>	<b>A</b>
Rated heat output ( <i>Prated or Psup</i> )	kW	20	20	25
Space heating - Annual energy consumption	GJ	62	62	77
Water heating - Annual energy consumption	kWh <sup>(1)</sup>	42	43	43
	GJ <sup>(2)</sup>	16	17	17
Seasonal space heating energy efficiency	%	93	93	93
Water heating energy efficiency	%	90	89	89
Sound power level L <sub>WA</sub> indoors	dB	48	48	51
(1) Electricity				
(2) Fuel				



#### See

For specific precautions about assembling, installing and maintaining: Safety, page 5