



# Thermia Legend Legend Duo



## Legend

### Efficient and reliable

Based on proven and extremely reliable technology, Legend is the ideal choice if you are looking for an easy-to-maintain, low-cost heating system. To minimize energy consumption, the Legend's operating system constantly fine-tunes performance to meet actual heating demand at any given time.

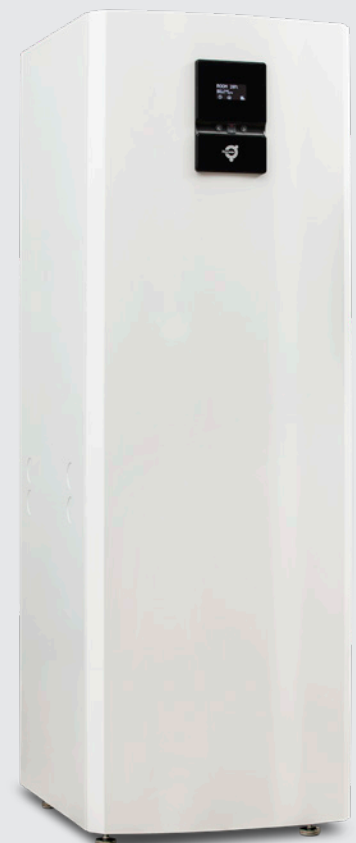
Legend achieves an impressive SCOP rating of 5.24, which means that you can reduce your heating costs by up to 80 percent. SCOP is a measurement of heat pump efficiency throughout the entire year and is the most accurate indication of real-life efficiency.

Further boosting its sustainability credentials, Legend uses the climate-friendly refrigerant R452B. This has a very low GWP value\*, which translates into 85% fewer CO<sub>2</sub> emissions than heat pumps using traditional refrigerants. Thanks to its unique design, Legend also requires less refrigerant than comparable heat pumps.

The hot water tank is equipped with our TWS\*\* technology, which produces hot water faster and at higher temperatures than conventional methods.

For added convenience, the optional Thermia Online tool enables you to remotely monitor and control your heat pump via computer, tablet or smartphone, any time and from anywhere with an internet connection.

Depending on your needs or preferences, the Thermia Legend Duo model offers you added control of your hot water supply. Duo models are designed to work with a separate hot water tank – MBH Legend – which is available in volumes of 200 and 300 liters.



\* Global warming potential and is stated in GWP / gram of gas. See product sheet for the value of each product's CO<sub>2</sub> equivalents.

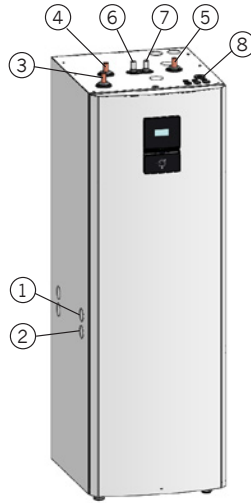
\*\* Tap Water Stratification (TWS) = Patented technology for producing hot water, developed by Thermia.

# Technical data Legend, Legend duo

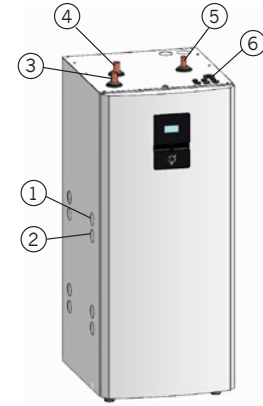
## Connections Legend

The brine can be connected to the left or right side of the heat pump or, with additional pipes, to the top of the unit.

- 1 Brine return (brine in): 28 mm
- 2 Brine supply (brine out): 28 mm
- 3 Heating system supply: 22 mm
- 4 Heating system return: 22 mm
- 5 Connection for bleed valve: 22 mm
- 6 Hot water: 22 mm
- 7 Cold water: 22 mm
- 8 Connection for power supply, sensors and communication cable



Legend



Legend Duo

## Connections Legend Duo

The brine can be connected to the left or right side of the heat pump or, with additional pipes, to the top of the unit.

- 1 Brine return (Brine in), 28 mm
- 2 Brine supply (Brine out), 28 mm
- 3 Heating system supply, 6-10 kW: 22 mm, 13-17 kW: 28mm
- 4 Heating system & hot water tank return: 6-10 kW: 22 mm, 13-17 kW: 28 mm
- 5 Supply line hot water tank, 22 mm
- 6 Lead-in for incoming power supply, sensors and communication cable

Legend		4	6	8	10	13****	17****	
<b>Refrigerant</b>	Type	R452B	R452B	R452B	R452B	R452B	R452B	
	Amount <sup>1</sup>	kg	0,575	0,575	0,85	0,9	1,0	1,25
<b>Compressor</b>	Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	
<b>Electrical data</b>	Max working power, compressor	kW	2,1	2,4	3,0	4,1	5,1	7,1
	Rated power, circulation pumps	kW	0,15	0,15	0,15	0,2	0,25	0,3
<b>400V 3-N, ~50 Hz</b>	Main power supply	Volt	400	400	400	400	400	400
	Auxiliary heater, 3 steps	kW	(0)/3/6/9	(0)/3/6/9	(0)/3/6/9	(0)/3/6/9	(0)/3/6/9	(0)/3/6/9
	Fuse <sup>2</sup>	A	10/13/20	10/16/20	13/16/20	13/16/20	16/20/25	20/25/32
	Start current <sup>3</sup>	A	8	9	10	11	20	30
	<b>230V 1-N***, ~50 Hz</b>	Main power supply	Volt	n/a	n/a	230	230	n/a
	Auxiliary heater, 3 steps	kW	n/a	n/a	(0)/2/4/6	(0)/2/4/6	n/a	n/a
	Fuse <sup>2</sup>	A	n/a	n/a	25/32/40	32/40/50	n/a	n/a
	Start current <sup>3</sup>	A	n/a	n/a	24	30	n/a	n/a
<b>Performance</b>	Heating capacity <sup>4</sup>	kW	4,71	5,56	7,35	9,81	12,42	16,69
	Power Input <sup>4</sup>	kW	1,10	1,26	1,59	2,06	2,75	3,77
	COP <sup>4</sup>		4,30	4,40	4,62	4,76	4,52	4,43
	SCOP, floor heating (35°C) <sup>5</sup>		4,72	4,87	5,10	5,24	5,09	4,92
	SCOP, radiator heating (55°C) <sup>5</sup>		3,41	3,65	3,74	3,94	3,83	3,80
	SCOP, floor heating (35°C) <sup>6</sup>		4,59	4,74	4,96	5,09	4,94	4,79
	SCOP, radiator heating (55°C) <sup>6</sup>		3,33	3,56	3,64	3,84	3,74	3,70
<b>Energy class - system</b>	Floor heating (35°C) <sup>7</sup>		A+++	A+++	A+++	A+++	A+++	A+++
	Radiator (55°C) <sup>7</sup>		A++	A++	A++	A++	A++	A++
<b>Energy class - product</b>	Floor heating (35°C) <sup>8</sup>		A+++	A+++	A+++	A+++	A+++	A+++
	Radiator (55°C) <sup>8</sup>		A++	A++	A++	A++	A++	A++
	Hot water <sup>9</sup>		A	A	A	A	A	A
<b>Max/min temperature</b>	Cooling circuit	°C	25/-10	25/-10	25/-10	25/-10	25/-10	25/-10
	Heating circuit	°C	60/20	60/20	60/20	60/20	60/20	60/20
<b>Anti-freeze</b>	Cooling circuit <sup>10</sup>		Ethanol + water solution -17+/-2 °C					
<b>Sound power level</b>	Legend <sup>11</sup>	dB(A)	40	40	41	41	n/a	n/a
	Legend Duo <sup>11</sup>	dB(A)	n/a	42	42	42	45	45
<b>Water volume</b>	Legend	l	184	184	184	184	n/a	n/a
	Legend Duo <sup>12</sup>	l	n/a	optional	optional	optional	optional	optional
<b>Weight</b>	Legend, Empty	kg	146	148	165	170	n/a	n/a
	Legend, Filled	kg	336	338	355	360	n/a	n/a
	Legend Duo	kg	n/a	113	125	130	135	140
<b>Dimensions</b>	Legend	mm	598x703x1863	598x703x1863	598x703x1863	598x703x1863	n/a	n/a
	Legend Duo	mm	n/a	598x703x1450	598x703x1450	598x703x1450	598x703x1450	598x703x1450

1) The refrigerant circuit is hermetically sealed and subject to the F-gas directive. Global Warming Potential (GWP) for R452B according to EC 517/2014 is 698, giving a CO<sub>2</sub> equivalent corresponding to: 4: 401 kg, 6: 401 kg, 8: 593kg, 10: 628 kg, 13: 698 kg, 17: 873 kg.  
2) The minimum recommended fuse group size depends on the auxiliary heater setting (3/6/9 kW) in combination with the compressor. The maximal steps of auxiliary heater may be configured differently with/without a compressor in the controller. For 230V versions, the feeding for compressor & aux heater can be physically separated if required  
3) According to IEC61000.  
4) At B0/W35, according to EN14511.

5) SCOP according to EN14825, Cold climate (Helsinki), P-design:  
Legend 4: 5 kW (BOW55), 5 kW (BOW35). Legend 6: 6 kW (BOW55), 6 kW (BOW35). Legend 8: 8 kW (BOW55), 8 kW (BOW35). Legend 10: 11 kW (BOW55), 11 kW (BOW35). Legend 13: 14 kW (BOW55), 15 kW (BOW35). Legend 17: 19 kW (BOW55), 19 kW (BOW35)  
6) SCOP according to EN14825, Average climate (Strasbourg), P-design:  
Legend 4: 5 kW (BOW35), 5 kW (BOW55). Legend 6: 6 kW (BOW55), 6 kW (BOW35). Legend 8: 9 kW (BOW55), 8 kW (BOW35). Legend 10: 12 kW (BOW55), 11 kW (BOW35). Legend 13: 15 kW (BOW55), 14 kW (BOW35). Legend 17: 20 kW (BOW55), 18 kW (BOW35)  
7) When the heat pump is part of an integrated system. According to Eco-design Directive 811/2013

8) When the heat pump is the sole heat generator and the built-in controller is not included. According to Eco-design Directive 811/2013.  
9) Hot water performance according to EN16147, according to XL cycle.  
10) Always check local rules and regulations before using antifreeze.  
11) Sound power level according to EN 12102 and EN 3741 (BOW35)  
12) MBH Legend 200 (6-13kW)/MBH Legend 300 (6-17kW).  
\*\*\* 230V version is available only with built-in water heater  
\*\*\*\* Only Legend Duo