

## Product datasheet: Room heater to regulation (EU) no. 811/2013 / (S.I. 2019 No. 539 / Schedule 2)

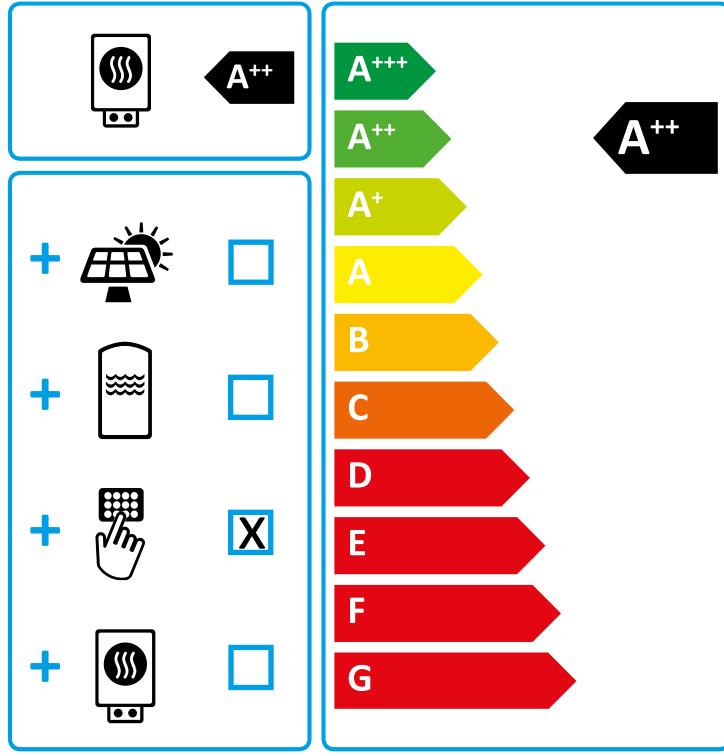
		HPA-O 13 S Premium
Manufacturer		238980 STIEBEL ELTRON
Energy efficiency class for central heating in moderate climates for medium temperature applications		A++
Energy efficiency class for central heating in moderate climates for low temperature applications		A++
Rated heating output in moderate climates for average temperature applications (Prated)	kW	15
Rated heating output in moderate climates for low temperature applications (Prated)	kW	15
Seasonal room heating efficiency in moderate climates for average temperature applications ( $\ensuremath{\Pi}$ s)	%	136
Seasonal room heating efficiency in moderate climates for low temperature applications ( $\ensuremath{\Pi}$ s)	%	173
Annual energy consumption in moderate climates for average temperature applications (QHE)	kWh/a	8940
Annual energy consumption in moderate climates for low temperature applications (QHE)	kWh/a	7055
Sound power level external	dB(A)	55
Special measures		For all special measures to be taken during assembly, installation or maintenance of the room heater, see the installation instructions
Rated heating output in colder climates for average temperature applications (Prated)	kW	22
Rated heating output in colder climates for low temperature applications (Prated)	kW	21
Rated heating output in warmer climates for average temperature applications (Prated)	kW	7
Rated heating output in warmer climates for low temperature applications (Prated)	kW	8
Seasonal room heating efficiency in colder climates for average temperature applications ( $\ensuremath{\Pi}$ s)	%	126
Seasonal room heating efficiency in colder climates for low temperature applications $(\boldsymbol{\eta}s)$	%	153
Seasonal room heating efficiency in warmer climates for average temperature applications ( $\ensuremath{\Pi}$ s)	%	155
Seasonal room heating efficiency in warmer climates for low temperature applications ( $\ensuremath{\Pi s}\xspace)$	%	206
Annual energy consumption in colder climates for average temperature applications (QHE)	kWh/a	16814
Annual energy consumption in colder climates for low temperature applications (QHE)	kWh/a	13312
Annual energy consumption in warmer climates for average temperature applications (QHE)	kWh/a	2367
Annual energy consumption in warmer climates for low temperature applications (QHE)	kWh/a	2050



## STIEBEL ELTRON

HPA-O 13 S Premium

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Product datasheet: Composite system consisting of room heater and temperature controller to regulation (EU) no. 811/2013 / (S.I. 2019 No. 539 / Schedule 2)

		HPA-O 13 S Premium
		238980
Manufacturer		STIEBEL ELTRON
Seasonal room heating efficiency in moderate climates for average temperature applications ( $\ensuremath{\Pi}$ s)	%	136
Temperature controller class		VI
Contribution of temperature controller to room heating energy efficiency	%	4
Room heating energy efficiency of composite system under moderate climatic conditions	%	140
Room heating energy efficiency of composite system under colder climatic conditions	%	130
Room heating energy efficiency of composite system under warmer climatic conditions	%	159
Value of differential between room heating energy efficiency under moderate climatic conditions and that under colder climatic conditions	%	6
Value of differential between room heating energy efficiency under warmer climatic conditions and that under moderate climatic conditions	%	20
Energy efficiency class for central heating in moderate climates for medium temperature applications		A++
Room heating energy efficiency class of composite system under moderate climatic conditions		A++

## Required details about room heater and combi heater with heat pump to regulation (EU) no. 813/2013 & 811/2013

Manufacturer   STIEBEL EL     Heat source   Outs     With booster heater   Outs     Combi bolier with heat pump   Rated heating output in colder climates for average temperature applications (Prated)   kW     Rated heating output in moderate climates for average temperature applications (Prated)   kW     Rated heating output in moderate climates for average temperature applications (Prated)   kW     Tj = -7 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = -7 * C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 2 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 * C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 * C heating output, partial load range in colder climates (Pdh)   kW	
Heat source   Outs     With booster heater   Outs     Combi boiler with heat pump   Rated heating output in colder climates for average temperature applications (Prated)   kW     Rated heating output in moderate climates for average temperature applications (Prated)   kW     Rated heating output in warmer climates for average temperature applications (Prated)   kW     Tj = -7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = -7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh) </th <th></th>	
With booster heater	
Combi boiler with heat pump   Rated heating output in colder climates for average temperature applications (Prated)   kW     Rated heating output in moderate climates for average temperature applications (Prated)   kW     Rated heating output in warmer climates for average temperature applications (Prated)   kW     Tj = -7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = -7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 2 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 12 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 12 °C heating output	X
Rated heating output in colder climates for average temperature applications (Prated)   kW     Rated heating output in moderate climates for average temperature applications (Prated)   kW     Rated heating output in warmer climates for average temperature applications (Prated)   kW     Tj = -7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = -7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = -7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C	
applications (Prated)   KW     Rated heating output in moderate climates for average temperature applications (Prated)   kW     Rated heating output in warmer climates for average temperature applications (Prated)   kW     Tj = -7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = -7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)	
applications (Prated)   KW     Rated heating output in warmer climates for average temperature applications (Prated)   kW     Tj = -7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = -7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = -7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)	22
applications (Prated)   NV     Tj = -7 °C heating output, partial load range in colder climates (Pdh)   KW     Tj = -7 °C heating output, partial load range in warmer climates (Pdh)   KW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   KW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   KW     Tj = 2 °C heating output, partial load range under moderate climatic conditions (Pdh)   KW     Tj = 2 °C heating output, partial load range under moderate climatic conditions (Pdh)   KW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   KW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   KW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   KW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   KW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   KW     Tj = 12 °C heating output, partial load range in colder climates (Pdh)   KW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   KW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   KW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   KW     Tj = operating temperature incolder climates (Pdh)	15
Tj = -7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = -7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = dual mode temperature in colder climates (Pdh)   kW     Tj = dual mode temperature under moderate clima	7
conditions (Pdh)kWTj = 7° C heating output, partial load range in warmer climates (Pdh)kWTj = 2° C heating output, partial load range in colder climates (Pdh)kWTj = 2° C heating output, partial load range under moderate climatickWTj = 2° C heating output, partial load range in warmer climates (Pdh)kWTj = 7° C heating output, partial load range in colder climates (Pdh)kWTj = 7° C heating output, partial load range in colder climates (Pdh)kWTj = 7° C heating output, partial load range under moderate climatickWTj = 7° C heating output, partial load range in colder climates (Pdh)kWTj = 12° C heating output, partial load range in warmer climates (Pdh)kWTj = 12° C heating output, partial load range in colder climates (Pdh)kWTj = 12° C heating output, partial load range in colder climates (Pdh)kWTj = 12° C heating output, partial load range under moderate climatickWconditions (Pdh)kWTj = 12° C heating output, partial load range under moderate climatickWTj = 12° C heating output, partial load range in warmer climates (Pdh)kWTj = dual mode temperature in colder climates (Pdh)kWTj = dual mode temperature under moderate climatic conditions (Pdh)kWTj = operating temperature limit in colder climates (Pdh)kWTj = operating temperature limit under moderate climatic conditions (Pdh)kWTj = operating temperature limit in colder climates (Pdh)kWTj = operating temperature limit in warmer climates (Pdh)kWTj = operating temperature lim	13.5
Tj = 2 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 2 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = dual mode temperature in colder climates (Pdh)   kW     Tj = dual mode temperature limit in colder climat	13.8
Tj = 2 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 12 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 12 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = dual mode temperature in colder climates (Pdh)   kW     Tj = dual mode temperature under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit i	14.0
conditions (Pdh)   kW     Tj = 2 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 12 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 12 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = dual mode temperature in colder climates (Pdh)   kW     Tj = dual mode temperature under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW <	7.9
Tj = 7 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 1 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 1 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = dual mode temperature in colder climates (Pdh)   kW     Tj = dual mode temperature under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)	7.7
Tj = 7 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 7 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in colder climates (Pdh)   kW     Tj = 12 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = dual mode temperature in colder climates (Pdh)   kW     Tj = dual mode temperature under moderate climatic conditions (Pdh)   kW     Tj = dual mode temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW <tr< td=""><td>7.4</td></tr<>	7.4
conditions (Pdh)kWTj = 7 °C heating output, partial load range in warmer climates (Pdh)kWTj = 12 °C heating output, partial load range in colder climates (Pdh)kWTj = 12 °C heating output, partial load range under moderate climatic conditions (Pdh)kWTj = 12 °C heating output, partial load range in warmer climates (Pdh)kWTj = 12 °C heating output, partial load range in warmer climates (Pdh)kWTj = 12 °C heating output, partial load range in warmer climates (Pdh)kWTj = dual mode temperature in colder climates (Pdh)kWTj = dual mode temperature under moderate climatic conditions (Pdh)kWTj = dual mode temperature in warmer climates (Pdh)kWTj = operating temperature limit in colder climates (Pdh)kWTj = operating temperature limit under moderate climatic conditions (Pdh)kWTj = operating temperature limit in warmer climates (Pdh)kWDual mode temperature limit in colder climates (Pdh)kWDual mode temperature limit in warmer climates (Pdh)kW	8.0
Tj = 12 °C heating output, partial load range in colder climates (Pdh)kWTj = 12 °C heating output, partial load range under moderate climatic conditions (Pdh)kWTj = 12 °C heating output, partial load range in warmer climates (Pdh)kWTj = 12 °C heating output, partial load range in warmer climates (Pdh)kWTj = dual mode temperature in colder climates (Pdh)kWTj = dual mode temperature under moderate climatic conditions (Pdh)kWTj = dual mode temperature in warmer climates (Pdh)kWTj = operating temperature limit in colder climates (Pdh)kWTj = operating temperature limit under moderate climatic conditions (Pdh)kWTj = operating temperature limit in warmer climates (Pdh)kWDual mode temperature limit in colder climates (Pdh)kWDual mode temperature limates (Tbiv)°C	7.9
Tj = 12 °C heating output, partial load range under moderate climatic conditions (Pdh)   kW     Tj = 12 °C heating output, partial load range in warmer climates (Pdh)   kW     Tj = dual mode temperature in colder climates (Pdh)   kW     Tj = dual mode temperature under moderate climatic conditions (Pdh)   kW     Tj = dual mode temperature under moderate climatic conditions (Pdh)   kW     Tj = dual mode temperature in warmer climates (Pdh)   kW     Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Dual mode temperature in colder climates (Tbiv)   °C	7.7
conditions (Pdh)kWTj = 12 °C heating output, partial load range in warmer climates (Pdh)kWTj = dual mode temperature in colder climates (Pdh)kWTj = dual mode temperature under moderate climatic conditions (Pdh)kWTj = dual mode temperature in warmer climates (Pdh)kWTj = dual mode temperature in warmer climates (Pdh)kWTj = operating temperature limit in colder climates (Pdh)kWTj = operating temperature limit under moderate climatic conditions (Pdh)kWTj = operating temperature limit under moderate climates (Pdh)kWTj = operating temperature limit under moderate climates (Pdh)kWTj = operating temperature limit in warmer climates (Pdh)kWTj = operating temperature limit in warmer climates (Pdh)kWDual mode temperature limit in colder climates (Tbiv)°C	7.1
Tj = dual mode temperature in colder climates (Pdh)kWTj = dual mode temperature under moderate climatic conditions (Pdh)kWTj = dual mode temperature in warmer climates (Pdh)kWTj = operating temperature limit in colder climates (Pdh)kWTj = operating temperature limit under moderate climatic conditions (Pdh)kWTj = operating temperature limit under moderate climates (Pdh)kWTj = operating temperature limit in warmer climates (Pdh)kWTj = operating temperature limit in warmer climates (Pdh)kWTj = operating temperature limit in warmer climates (Pdh)kWDual mode temperature in colder climates (Tbiv)°C	9.0
Tj = dual mode temperature under moderate climatic conditions (Pdh)   kW     Tj = dual mode temperature in warmer climates (Pdh)   kW     Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit under moderate climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     For air/water heat pumps:Tj = -15 °C (if TOL< -20 °C) (Pdh)	6.9
Tj = dual mode temperature in warmer climates (Pdh)   kW     Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     For air/water heat pumps:Tj = -15 °C (if TOL< -20 °C) (Pdh)	12.8
Tj = operating temperature limit in colder climates (Pdh)   kW     Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     For air/water heat pumps:Tj = -15 °C (if TOL< -20 °C) (Pdh)	12.4
Tj = operating temperature limit under moderate climatic conditions (Pdh)   kW     Tj = operating temperature limit in warmer climates (Pdh)   kW     For air/water heat pumps:Tj = -15 °C (if TOL< -20 °C) (Pdh)	7.4
Tj = operating temperature limit in warmer climates (Pdh)   kW     For air/water heat pumps:Tj = -15 °C (if TOL< -20 °C) (Pdh)	23.2
For air/water heat pumps:Tj = -15 °C (if TOL< -20 °C) (Pdh)kWDual mode temperature in colder climates (Tbiv)°C	13.4
Dual mode temperature in colder climates (Tbiv) °C	7.4
	13.4
	-7
Dual mode temperature in moderate climates (Tbiv) °C	-5
Dual mode temperature in warmer climates (Tbiv) °C	2
Seasonal room heating efficiency in colder climates for average %	126
Seasonal room heating efficiency in moderate climates for average %	136
Seasonal room heating efficiency in warmer climates for average %	155
Tj = -7 °C COP, partial load range in colder climates (COPd)	2.65
Tj = -7 °C COP, partial load range under moderate climatic conditions (COPd)	2.43
Tj = -7 °C COP, partial load range in warmer climates (COPd)	2.36
Tj = 2 °C COP, partial load range in colder climates (COPd)	3.75
Tj = 2 °C COP, partial load range under moderate climatic conditions (COPd)	3.37
Tj = 2 °C COP, partial load range in warmer climates (COPd)	2.59
Tj = 7 °C COP, partial load range in colder climates (COPd)	4.86
Tj = 7 °C COP, partial load range under moderate climatic conditions (COPd)	4.45
Tj = 7 °C COP, partial load range in warmer climates (COPd)	3.60
Tj = 12 °C COP, partial load range in colder climates (COPd)	6.35
Tj = 12 °C COP, partial load range under moderate climatic conditions (COPd)	6,66
Tj = 12 °C COP, partial load range in warmer climates (COPd)	5.51
Tj = dual mode temperature in colder climates (COPd)	2.90

Tj = dual mode temperature under moderate climatic conditions (COPd)		2.53
Tj = dual mode temperature in warmer climates (COPd)		2.59
Tj = operating temperature limit in colder climates (COPd)		2.28
Tj = operating temperature limit under moderate climatic conditions (COPd)		2.28
Tj = operating temperature limit in warmer climates (COPd)		2.59
For air/water heat pumps:Tj= -15°C (if TOL< -20 °C) (COPd)		2.28
Operating temperature limit in colder climates (TOL)	°C	-20
Operating temperature limit in moderate climates (TOL)	°C	-10
Operating temperature limit in warmer climates (TOL)	°C	2
Heating water operating temperature limit in colder climates (WTOL)	°C	65
Heating water operating temperature limit (WTOL)	°C	65
Heating water operating temperature limit in warmer climates (WTOL)	°C	65
Power consumption, OFF state (Poff)	W	16
Power consumption, thermostat OFF state (PTO)	W	16
Standby power consumption (PSB)	W	16
Power consumption, operating state, with crankcase heating (PCK)	W	43
Booster heater heating output in colder climates (Psup)	kW	10.9
Booster heater heating output in moderate climate (Psup)	kW	1.6
Booster heater heating output in warmer climates (Psup)	kW	0.0
Type of energy supply, booster heater		electric
Power control		variable
Sound power level external	dB(A)	55
Annual energy consumption in colder climates for average temperature applications (QHE)	kWh/a	16814
Annual energy consumption in moderate climates for average temperature applications (QHE)	kWh/a	8940
Annual energy consumption in warmer climates for average temperature applications (QHE)	kWh/a	2367
Flow rate, heat source side	m³/h	4000
Special measures		For all special measures to be taken during assembly, installation or maintenance of the room heater, see the installation instructions