

		WPL-S 48 HK 400 Premium
Manufacturer		205250 STIEBEL ELTRON
Space heating energy efficiency class under average climate conditions, medium-temperature applications		A++
Energy efficiency class, space heating under average climate conditions, low-temperature applications		A++
Rated heating output under average climate conditions for medium-temperature applications (P rated)	kW	56
Rated heating output under average climate conditions for low-temperature applications (P rated)	kW	54
Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications $(\boldsymbol{\eta}s)$	%	137
Seasonal space heating energy efficiency under average climate conditions for low-temperature applications ($\ensuremath{\eta s}$)	%	170
Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	kWh/a	32905
Annual energy consumption under average climate conditions for low-temperature applications (QHE)	kWh/a	25952
Sound power level, indoor	dB(A)	63
Option for operation only at off-peak times		<u> </u>
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 under colder climate conditions for medium-temperature applications (P rated)	kW	51
Rated heating output under colder climate conditions for low-temperature applications (P rated)	kW	49
Rated heating output under warmer climate conditions for medium-temperature applications (P rated)	kW	52
Rated heating output under warmer climate conditions for low-temperature applications (P rated)	kW	50
Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications $(\boldsymbol{\eta}s)$	%	133
Seasonal space heating energy efficiency under colder climate conditions for low-temperature applications $(\boldsymbol{\eta} s)$	%	158
Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications $(\boldsymbol{\eta}s)$	%	165
Seasonal space heating energy efficiency under warmer climate conditions for low-temperature applications (η s)	%	198
Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)	kWh/a	37039
Annual energy consumption under colder climate conditions for low-temperature applications (QHE)	kWh/a	30019
Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	kWh/a	16507
Annual energy consumption under warmer climate conditions for low-temperature applications (QHE)	kWh/a	13339
Sound power level, outdoor	dB(A)	67



ENERG Y UA EHEPΓИЯ · ενεργεια IE IA

WPL-S 48 HK 400 Premium

STIEBEL ELTRON





























B

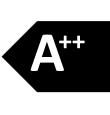
C

D

Ε

F

G



Product datasheet: Space heater to Regulation (EU) No 811/2013 (S.I. 2019 No. 539 / Programme 2)

		WPL-S 48 HK 400 Premium
		205250
Manufacturer		STIEBEL ELTRON
Seasonal space heating energy efficiency under average climate conditions for low-temperature applications (η s)	%	170
Temperature control class		VII
Contribution of temperature control to space heating energy efficiency	%	4
Space heating energy efficiency of package under average climate conditions	%	140
Space heating energy efficiency of package under colder climate conditions	%	136
Space heating energy efficiency of package under warmer climate conditions	%	169
Value of differential between space heating energy efficiency under average climate conditions and that under colder climate conditions	%	4
Value of differential between space heating energy efficiency under warmer climate conditions and that under average climate conditions	%	28
Energy efficiency class, space heating under average climate conditions, low-temperature applications		A++
Space heating energy efficiency class of package under average climate conditions		A++

Product datasheet: Space heater to Regulation (EU) No 811/2013 (S.I. 2019 No. 539 / Programme 2)

Memorisecurer SITEBEL ELTRON Heat source Low temperature heat pump			WPL-S 48 HK 400 Premium
Need source Authentical Convergence Authentical Convergence	Manufacturer		
Lost temperature heat pump With auxiliary heater Combination heater with heat pump Rolled heating output, under coder climate conditions for medium- temperature applications (P rotect) Raced heating output under average climate conditions for medium- temperature applications (P rotect) Roced heating output, under average climate conditions for medium- temperature applications (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rotect) Till = 7 C. heating output, partial load range under average climate conditions (P rot			
With baudlary heater Combination heater with heat pump Raced heating output under coller climate conditions for medium- temperature applications (in raked) Raced heating output under average climate conditions for medium- temperature applications (in raked) Raced heating output under average climate conditions for medium- temperature applications (in raked) Raced heating output under warmer climate conditions for medium- temperature applications (in raked) Raced heating output, pursul load range under colder climate conditions (if this) Raced Reading output, partial load range under average climate conditions (if this) Raced Rac			Aubenluit
Combination needs with heat pump			
Nated heating output under colder climate conditions for medium-temperature autiputations of practice the temperature autiputations for sections of the temperature autiputations for sections of the temperature autiputations for sections of the temperature autiputations for sections for medium-temperature autiputations for sections			
temperature applications (Prated) Red Heading output under average climate conditions for medium-temperature applications (Prated) Red Heading output under average climate conditions for medium-temperature applications (Prated) Red Heading output under warmer climate conditions for medium-temperature applications (Prated) Red Heading output, partial load range under colder climate conditions (Pah) Red Heading output, partial load range under colder climate conditions (Pah) Red Heading output, partial load range under colder climate conditions (Pah) Red Heading output, partial load range under average climate conditions (Pah) Red Heading output, partial load range under average climate conditions (Pah) Red Heading output, partial load range under average climate conditions (Pah) Red Heading output, partial load range under colder climate conditions (Pah) Red Heading output, partial load range under colder climate conditions (Pah) Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red Red Heading output, partial load range under average climate conditions (Pah) Red			
temperature applications (P rated) Agent Patial proupts under warmer climate conditions for medium- temperature applications (P rated) 19 – 7.* Cheating output, partial load range under colder climate conditions (Pdh) 19 – 7.* Cheating output, partial load range under average climate conditions (Pdh) 19 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 19 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 19 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 19 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 19 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 19 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 19 – 2.* Cheating output, partial load range under colder climate conditions (Pdh) 19 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 10 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 10 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 10 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 10 – 2.* Cheating output, partial load range under colder climate conditions (Pdh) 11 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 11 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 11 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 11 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 11 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 11 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 12 – 2.* Cheating output, partial load range under average climate conditions (Pdh) 13 – 3.* Cheating output, partial load range under average climate conditions (Pdh) 24 – 3.* Cheating output, partial load ran	9 ,	KW	51
temperature applications (Prated) 19 = 77 Cheating output, partial load range under colder climate conditions (Pdh) 19 = 77 Cheating output, partial load range under average climate conditions (Pdh) 19 = 27 Cheating output, partial load range under average climate conditions (Pdh) 11 = 27 Cheating output, partial load range under average climate conditions (Pdh) 11 = 27 Cheating output, partial load range under average climate conditions (Pdh) 11 = 27 Cheating output, partial load range under average climate conditions (Pdh) 11 = 7 Cheating output, partial load range under average climate conditions (Pdh) 11 = 7 Cheating output, partial load range under colder climate conditions (Pdh) 11 = 7 Cheating output, partial load range under average climate conditions (Pdh) 11 = 7 Cheating output, partial load range under average climate conditions (Pdh) 11 = 7 Cheating output, partial load range under average climate conditions (Pdh) 11 = 7 Cheating output, partial load range under average climate conditions (Pdh) 11 = 12 Cheating output, partial load range under average climate conditions (Pdh) 11 = 12 Cheating output, partial load range under average climate conditions (Pdh) 11 = 12 Cheating output, partial load range under average climate conditions (Pdh) 11 = 12 Cheating output, partial load range under average climate conditions (Pdh) 11 = 12 Cheating output, partial load range under average climate conditions (Pdh) 11 = 12 Cheating output, partial load range under average climate conditions (Pdh) 11 = 12 Cheating output, partial load range under average climate conditions (Pdh) 11 = 10 dual mode temperature under average climate conditions (Pdh) 11 = 10 dual mode temperature under average climate conditions (Pdh) 12 = 0 dual mode temperature limit under colder climate conditions (Pdh) 13 = 0 perating temperature limit under average climate conditions (Pdh) 14 = 0 perating temperature limit under average climate conditions (Pdh) 15 = 0 perating temperature under average climate conditions (Pdh) 15 = 0 perating tem	5 1	kW	56
conditions (Pdh) 1 = 7 **C heating output, partial load range under older climate conditions (Pdh) 1 = 2 **C heating output, partial load range under average climate conditions (Pdh) 1 = 2 **C heating output, partial load range under average climate conditions (Pdh) 1 = 2 **C heating output, partial load range under average climate conditions (Pdh) 1 = 7 **C heating output, partial load range under colder climate conditions (Pdh) 1 = 7 **C heating output, partial load range under colder climate conditions (Pdh) 1 = 7 **C heating output, partial load range under warmer climate conditions (Pdh) 1 = 7 **C heating output, partial load range under average climate conditions (Pdh) 1 = 1 **C heating output, partial load range under average climate conditions (Pdh) 1 = 1 **C heating output, partial load range under average climate conditions (Pdh) 1 = 1 **C heating output, partial load range under average climate conditions (Pdh) 1 = 1 **C **C heating output, partial load range under average climate conditions (Pdh) 1 = 1 **C **C heating output, partial load range under average climate conditions (Pdh) 1 = 1 **C **C heating output, partial load range under average climate conditions (Pdh) 1 = 1 **C **N **C **C **N **C **C **T **C **C **C **T **C **C **C		kW	52
conditions (Pdh) 1 = 2 °C heating output, partial load range under colder climate conditions (Pdh) 1 = 2 °C heating output, partial load range under average climate conditions (Pdh) 7 = 7 °C heating output, partial load range under average climate conditions (Pdh) 7 = 7 °C reating output, partial load range under average climate conditions (Pdh) 7 = 7 °C reating output, partial load range under average climate conditions (Pdh) 7 = 7 °C reating output, partial load range under average climate conditions (Pdh) 7 = 12 °C heating output, partial load range under average climate conditions (Pdh) 7 = 12 °C heating output, partial load range under average climate conditions (Pdh) 7 = 12 °C heating output, partial load range under average climate conditions (Pdh) 7 = 12 °C heating output, partial load range under average climate conditions (Pdh) 7 = 12 °C heating output, partial load range under average climate conditions (Pdh) 7 = 12 °C heating output, partial load range under average climate conditions (Pdh) 8		kW	49,5
conditions (Pdh) Till = 2 °C heating output, partial load range under average climate conditions (Pdh) Till = 7 °C heating output, partial load range under average climate conditions (Pdh) Till = 7 °C heating output, partial load range under colder climate conditions (Pdh) Till = 7 °C heating output, partial load range under average climate conditions (Pdh) Till = 7 °C heating output, partial load range under average climate conditions (Pdh) Till = 7 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under colder climate conditions (Pdh) Till = 12 °C heating output, partial load range under average climate conditions (Pdh) Till = 12 °C heating output, partial load range under average climate conditions (Pdh) Till = 12 °C heating output, partial load range under average climate conditions (Pdh) Till = 12 °C heating output, partial load range under average climate conditions (Pdh) Till = 12 °C heating output, partial load range under average climate conditions (Pdh) Till = 12 °C heating output, partial load range under average climate conditions (Pdh) Till = 12 °C heating output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under average climate conditions (Pdh) Till = 0 output, partial load range under ave		kW	49,2
conditions (Pdh) Till = 2 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 7 °C heating output, partial load range under colder climate conditions (Pdh) Till = 7 °C heating output, partial load range under colder climate conditions (Pdh) Till = 7 °C heating output, partial load range under average climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under colder climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 12 °C heating output, partial load range under warmer climate conditions (Pdh) Till = 4 outpartial emperature under colder climate conditions (Pdh) Till = 4 outpartial emperature under warmer climate conditions (Pdh) Till = 4 outpartial emperature under warmer climate conditions (Pdh) Till = 4 outpartial emperature limit under warmer climate conditions (Pdh) Till = 4 operating temperature limit under warmer climate conditions (Pdh) Dual mode temperature under warmer climate conditions (Pdh) Till = 7 °C COP, partial load range under average climate conditions (Pdh) Till = 7 °C COP, partial load range under average climate conditions (Pdh) Till = 7 °C COP, partial load range under average clima		kW	50,2
conditions (Pdh) 1] = 7 °C heating output, partial load range under colder climate conditions (Pdh) 7] = 7 °C heating output, partial load range under average climate conditions (Pdh) 66.7 7] = 7 °C heating output, partial load range under average climate conditions (Pdh) 66.7 7] = 12 °C heating output, partial load range under colder climate conditions (Pdh) 7] = 12 °C heating output, partial load range under colder climate conditions (Pdh) 7] = 12 °C heating output, partial load range under average climate conditions (Pdh) 7] = 12 °C heating output, partial load range under average climate conditions (Pdh) 7] = 12 °C heating output, partial load range under average climate conditions (Pdh) 8] 20 °C heating output, partial load range under average climate conditions (Pdh) 8] 40 °C heating output, partial load range under warmer climate conditions (Pdh) 8] 40 °C heating output, partial load range under warmer climate conditions (Pdh) 8] 40 °C heating output, partial load range under warmer climate conditions (Pdh) 8] 40 °C warmer climate conditions (Pdh) 8] 40 °C warmer climate conditions (Pdh) 8] 5 °C warmer climate conditions (Pdh) 8] 6 °C warmer climate conditions (Pdh) 8] 7] 6 °C warmer climate conditions (Pdh) 8] 7] 6 °C warmer climate conditions (Pdh) 8] 80 °C warmer climate conditions (Pdh) 9 °C warmer climate conditions (Pdh) 9 °C warmer climate conditions (Pdh) 10 °C warmer climate conditions (Pdh) 10 °C warmer climate conditions (Pdh) 11 °C warmer climate conditions (Pdh) 12 °C warmer climate conditions (Pdh) 13 °C warmer climate conditions (Pdh) 14 °C warmer climate conditions (Pdh) 15 °C warmer climate conditions (Pdh) 15 °C warmer climate conditions (Pdh) 16 °C warmer climate conditions (Pdh) 17 °C warmer climate conditions (Pdh) 18 °C warmer climate conditions (Pdh) 18 °C warmer climate conditions (Pdh) 19 °C warmer climate conditions (Pdh) 10 °C warmer climate conditions (Pdh) 11 °C warmer climate conditions (Pdh) 12 °C warmer climate conditions (Pdh) 13 °C		kW	51,3
conditions (Pdh) 1] = 7 °C heating output, partial load range under average climate conditions (Pdh) 7] = 17 °C heating output, partial load range under warmer climate conditions (Pdh) 7] = 12 °C heating output, partial load range under colder climate conditions (Pdh) 7] = 12 °C heating output, partial load range under colder climate conditions (Pdh) 7] = 12 °C heating output, partial load range under average climate conditions (Pdh) 7] = 12 °C heating output, partial load range under average climate conditions (Pdh) 7] = 12 °C heating output, partial load range under average climate conditions (Pdh) 7] = 12 °C heating output, partial load range under average climate conditions (Pdh) 8		kW	51,9
conditions (Pdh) T] = 17 °C heating output, partial load range under warmer climate conditions (Pdh) T] = 12 °C heating output, partial load range under colder climate conditions (Pdh) T] = 12 °C heating output, partial load range under average climate conditions (Pdh) T] = 12 °C heating output, partial load range under average climate conditions (Pdh) T] = 12 °C heating output, partial load range under warmer climate conditions (Pdh) T] = 12 °C heating output, partial load range under warmer climate conditions (Pdh) T] = 12 °C heating output, partial load range under warmer climate conditions (Pdh) T] = dual mode temperature under colder climate conditions (Pdh) T] = dual mode temperature under average climate conditions (Pdh) T] = operating temperature limit under colder climate conditions (Pdh) T] = operating temperature limit under older climate conditions (Pdh) T] = operating temperature limit under average climate conditions (Pdh) Dual mode temperature under colder climate conditions (Pbh) Dual mode temperature under colder climate conditions (Pbh) Dual mode temperature under warmer climate conditions (Tbiv) C		kW	68,0
conditions (Pdh) T] = 12 °C heating output, partial load range under colder climate conditions (Pdh) T] = 12 °C heating output, partial load range under average climate conditions (Pdh) T] = 12 °C heating output, partial load range under average climate conditions (Pdh) T] = 12 °C heating output, partial load range under warmer climate conditions (Pdh) T] = 12 °C heating output, partial load range under warmer climate conditions (Pdh) T] = dual mode temperature under colder climate conditions (Pdh) T] = dual mode temperature under average climate conditions (Pdh) T] = dual mode temperature under warmer climate conditions (Pdh) T] = dual mode temperature under warmer climate conditions (Pdh) T] = operating temperature limit under colder climate conditions (Pdh) T] = operating temperature limit under older climate conditions (Pdh) T] = operating temperature limit under warmer climate conditions (Pdh) T] = operating temperature limit under warmer climate conditions (Pdh) T] = operating temperature under colder climate conditions (Pdh) T] = operating temperature under wareage climate conditions (Pdh) T] = operating temperature under colder climate conditions (Pdh) T] = operating temperature under wareage climate conditions (Pdh) T] = operating temperature under wareage climate conditions (Tbiv) T] = Operating temperature under wareage climate conditions (Tbiv) T] = Operating temperature under wareage climate conditions (Tbiv) T] = Operating temperature under wareage climate conditions (Tbiv) T] = Operating temperature under wareage climate conditions (Tbiv) T] = Operating temperature under wareage climate conditions (Tbiv) T] = Operating temperature under wareage climate conditions (Tbiv) T] = Operating temperature under wareage climate conditions (Tbiv) T] = Operating temperature under vareage climate conditions (Tbiv) T] = Operating temperature under vareage climate conditions (Tbiv) T] = Operating temperature under vareage climate conditions (Tbiv) T] = Operating temperature under va		kW	67,2
conditions (Pdh) T] = 12 °C heating output, partial load range under average climate conditions (Pdh) T] = 12 °C heating output, partial load range under warmer climate conditions (Pdh) T] = 12 °C heating output, partial load range under warmer climate conditions (Pdh) T] = dual mode temperature under colder climate conditions (Pdh) T] = dual mode temperature under average climate conditions (Pdh) T] = dual mode temperature under average climate conditions (Pdh) T] = dual mode temperature under average climate conditions (Pdh) T] = operating temperature limit under colder climate conditions (Pdh) T] = operating temperature limit under average climate conditions (Pdh) T] = operating temperature limit under average climate conditions (Pdh) T] = operating temperature limit under average climate conditions (Pdh) T] = operating temperature limit under average climate conditions (Pdh) T] = operating temperature under colder climate conditions (Pbh) Dual mode temperature under average climate conditions (Tbiv) C] -7 Dual mode temperature under average climate conditions (Tbiv) C] -7 Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications (Ts) Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (Ts) Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (Ts) T] = -7 °C COP, partial load range under average climate conditions (COPd) T] = -7 °C COP, partial load range under average climate conditions (COPd) T] = 2 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average cli		kW	66,7
conditions (Pdh) T] = 12 °C heating output, partial load range under warmer climate conditions (Pdh) T] = dual mode temperature under colder climate conditions (Pdh) T] = dual mode temperature under average climate conditions (Pdh) T] = dual mode temperature under average climate conditions (Pdh) T] = dual mode temperature under average climate conditions (Pdh) T] = dual mode temperature under warmer climate conditions (Pdh) T] = operating temperature limit under colder climate conditions (Pdh) T] = operating temperature limit under colder climate conditions (Pdh) T] = operating temperature limit under warmer climate conditions (Pdh) T] = operating temperature under varmer climate conditions (Pdh) T] = operating temperature under colder climate conditions (Pdh) T] = operating temperature under colder climate conditions (Pdh) T] = operating temperature under colder climate conditions (Tbiv) T] = 0 C T] = 0 C Seasonal space heating energy efficiency under older climate conditions (Tbiv) T] = 0 C Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (Tsiv) Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (Tsiv) Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (Tsiv) Seasonal space heating energy efficiency under average climate conditions (Tsiv) T] = 7 °C COP, partial load range under colder climate conditions (CoPd) T] = 2 °C COP, partial load range under average climate conditions (COPd) T] = 2 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate conditions (COPd) T] = 7 °C COP, partial load range under average climate con		kW	73,8
Ti = 12 °C heating output, partial load range under warmer climate conditions (Pdh) kW 41,5 Ti = dual mode temperature under colder climate conditions (Pdh) kW 49,2 Ti = dual mode temperature under average climate conditions (Pdh) kW 49,2 Ti = dual mode temperature under warmer climate conditions (Pdh) kW 51,9 Ti = operating temperature limit under colder climate conditions (Pdh) kW 32,2 Ti = operating temperature limit under average climate conditions (Pdh) kW 46,8 Ti = operating temperature limit under average climate conditions (Pdh) kW 51,9 Dual mode temperature under warmer climate conditions (Pdh) kW 51,9 Dual mode temperature under colder climate conditions (Pdh) kW 51,9 Dual mode temperature under average climate conditions (Tbiv) °C 7.7 Dual mode temperature under average climate conditions (Tbiv) °C 7.7 Dual mode temperature under average climate conditions (Tbiv) °C 2.8 Seasonal space heating energy efficiency under average climate conditions (Tbiv) °C 7.7 Dual mode temperature under average climate conditions (Tbiv) °C 7.7 Dual mode temperature under average climate conditions (Tbiv) °C 7.7 Seasonal space heating energy efficiency under average climate (Tbiv) °C 7.7 Seasonal space heating energy efficiency under average climate (Tbiv) °C 7.7 Ti = 7 °C COP, partial load range under colder climate conditions (Tbiv) °C 7.7 Ti = 7 °C COP, partial load range under average climate conditions (COPd) 7.7 7.		kW	76,5
Tj = dual mode temperature under average climate conditions (Pdh) kW 51,9 Tj = dual mode temperature under warmer climate conditions (Pdh) kW 51,9 Tj = operating temperature limit under colder climate conditions (Pdh) kW 32,2 Tj = operating temperature limit under average climate conditions (Pdh) kW 46,8 Tj = operating temperature limit under average climate conditions (Pdh) kW 51,9 Dual mode temperature under colder climate conditions (Pdh) kW 51,9 Dual mode temperature under oclder climate conditions (Tbiv) °C 1.15 Dual mode temperature under average climate conditions (Tbiv) °C 2.2 Seasonal space heating energy efficiency under colder climate enditions (Tbiv) °C 2.2 Seasonal space heating energy efficiency under colder climate enditions for medium-temperature applications (Tbiv) °C 2.3 Seasonal space heating energy efficiency under average climate enditions for medium-temperature applications (Tbiv) °C 2.3 Seasonal space heating energy efficiency under average climate enditions for medium-temperature applications (Tbiv) °C 2.3 Seasonal space heating energy efficiency under average climate enditions for medium-temperature applications (Tbiv) °C 9.3 Tj = -7 °C COP, partial load range under colder climate conditions (COPd) 9.3 Tj = -7 °C COP, partial load range under average climate conditions (COPd) 9.3 Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) 9.3 Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) 9.3 Tj = 7 °C COP, partial load range under warmer climate conditions (COPd) 9.3 Tj = 7 °C COP, partial load range under warmer climate conditions (COPd) 9.3 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 9.3 Tj = 7 °C COP, partial load range under warmer climate conditions (COPd) 9.3 Tj = 7 °C COP, partial load range under warmer climate conditions (COPd) 9.3 Tj = 7 °C COP, partial load range under warmer climate conditions (COPd) 9.3 Tj = 7 °C COP, partial load range under warmer climate conditions (COPd) 9.3 Tj = 7 °C COP, partial loa		kW	73,1
Tj = dual mode temperature under warmer climate conditions (Pdh) kW 32,2 Tj = operating temperature limit under colder climate conditions (Pdh) kW 46,8 Tj = operating temperature limit under average climate conditions (Pdh) kW 51,9 Dual mode temperature limit under warmer climate conditions (Pdh) kW 51,9 Dual mode temperature under colder climate conditions (Tbiv) °C -15 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under under average climate conditions (Tbiv) °C -7 Dual mode temperature under under average climate conditions (Tbiv) °C -7 Dual mode temperature under under average climate conditions (Tbiv) °C -7 Dual mode temperature under under average climate conditions (Tbiv) °C -7 Dual mode temperature under under average climate conditions (Tbiv) °C -7 Dual mode temperature under under average climate conditions (Tbiv) °C -7 Dual mode temperature under under average climate conditions (Tbiv) °C -7 Dual mode temperature under under average climate conditions (Tbiv)	Tj = dual mode temperature under colder climate conditions (Pdh)	kW	41,5
Tj = operating temperature limit under colder climate conditions (Pdh) kW 46,8 Tj = operating temperature limit under average climate conditions (Pdh) kW 51,9 Dual mode temperature under colder climate conditions (Tbiv) °C -15 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions for medium-temperature applications (Πs) -7 Dual mode temperature under warmer climate conditions for medium-temperature applications (Πs) -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under under under varmer climate conditions (Tbiv) °C -7 Dual mode temperature under under under conditions (Tbiv) °C -7 Dual mode temperature under under under conditions (Tbiv) °C -7 Dual mode temperature under under under under conditions (Tbiv) °C -7 Dual mode temperature under under under under conditions (Tbiv) °C -7 Dual mode temperature under under under conditions (Tbiv) °C -7 Dual mode temperature under under under conditions (Tbiv) °C -7 Dual mode temperature under under under conditions (Tbiv) °C -7 Dual mode temperature under under under conditions (Tbiv) °C -7 Dual mode temperature under under under conditions (Tbiv) °C -7 Du	Tj = dual mode temperature under average climate conditions (Pdh)	kW	49,2
Tj = operating temperature limit under average climate conditions (Pdh) kW 51,9 Tj = operating temperature limit under warmer climate conditions (Pdh) kW 51,9 Dual mode temperature under colder climate conditions (Tbiv) °C -15 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under average climate conditions (Tbiv) °C -7 Easonal space heating energy efficiency under colder climate conditions (Tbiv) °C -7 Seasonal space heating energy efficiency under average climate conditions (Tbiv) °C -7 Seasonal space heating energy efficiency under average climate conditions (Tbiv) °C -7 Tj = -7 °C COP, partial load range under colder climate conditions (COPd) ·7 Tj = -7 °C COP, partial load range under average climate conditions (COPd) ·7 Tj = 2 °C COP, partial load range under average climate conditions (COPd) ·7 Tj = 7 °C COP, partial load range under colder climate conditions (COPd) ·7 Tj = 7 °C COP, partial load range under colder climate conditions (COPd) ·7 Tj = 7 °C COP, partial load range under average climate conditions (COPd) ·7 Tj = 7 °C COP, partial load range under average climate conditions (COPd) ·7 Tj = 7 °C COP, partial load range under average climate conditions (COPd) ·7 Tj = 7 °C COP, partial load range under average climate conditions (COPd) ·7 Tj = 7 °C COP, partial load range under average climate conditions (COPd) ·7 Tj = 7 °C COP, partial load range under average climate conditions (COPd) ·7 Tj = 7 °C C	Tj = dual mode temperature under warmer climate conditions (Pdh)	kW	51,9
Ij = operating temperature limit under warmer climate conditions (Pdh) kW 51,9 Dual mode temperature under colder climate conditions (Tbiv) °C .15 Dual mode temperature under average climate conditions (Tbiv) °C .7 Dual mode temperature under warmer climate conditions (Tbiv) °C .2 Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications (Ips) % .133 Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (Ips) % .137 Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (Ips) % .165 Seasonal space heating energy efficiency under average climate conditions (COPd) % .165 Tj = -7 °C COP, partial load range under colder climate conditions (COPd) 3,32 Tj = -7 °C COP, partial load range under average climate conditions (COPd) 3,65 Tj = 2 °C COP, partial load range under average climate conditions (COPd) 3,37 Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) 2,76 Tj = 7 °C COP, partial load range under colder climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 4,40 <	Tj = operating temperature limit under colder climate conditions (Pdh)	kW	32,2
Dual mode temperature under colder climate conditions (Tbiv) °C -15 Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C 2 Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications (Ŋs) % 133 Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (Ŋs) % 137 Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications (Ŋs) % 165 Tj = -7 °C COP, partial load range under colder climate conditions (COPd) 3,32 (COPd) 3,32 Tj = -7 °C COP, partial load range under average climate conditions (COPd) 3,65 Tj = 2 °C COP, partial load range under average climate conditions (COPd) 3,37 Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) 3,37 Tj = 7 °C COP, partial load range under colder climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 4,86	Tj = operating temperature limit under average climate conditions (Pdh)	kW	46,8
Dual mode temperature under average climate conditions (Tbiv) °C -7 Dual mode temperature under warmer climate conditions (Tbiv) °C 2 Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications (ηs) % 133 Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (ηs) % 137 Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (ηs) % 165 Tj = -7 °C COP, partial load range under colder climate conditions (COPd) 3,32 Tj = -7 °C COP, partial load range under average climate conditions (COPd) 2,71 Tj = 2 °C COP, partial load range under colder climate conditions (COPd) 3,65 Tj = 2 °C COP, partial load range under average climate conditions (COPd) 3,37 Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) 2,76 Tj = 7 °C COP, partial load range under colder climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions 4,40	Tj = operating temperature limit under warmer climate conditions (Pdh)	kW	51,9
Dual mode temperature under warmer climate conditions (Tbiv)°C2Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications (ηs)%133Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (ηs)%137Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications (ηs)%165Tj = -7 °C COP, partial load range under colder climate conditions (COPd)3,32Tj = -7 °C COP, partial load range under average climate conditions (COPd)2,71Tj = 2 °C COP, partial load range under colder climate conditions (COPd)3,65Tj = 2 °C COP, partial load range under average climate conditions (COPd)3,37Tj = 2 °C COP, partial load range under warmer climate conditions (COPd)3,37Tj = 7 °C COP, partial load range under warmer climate conditions (COPd)2,76Tj = 7 °C COP, partial load range under colder climate conditions (COPd)4,86Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,86Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,40Tj = 7 °C COP, partial load range under warmer climate conditions4,40	Dual mode temperature under colder climate conditions (Tbiv)	°C	-15
Seasonal space heating energy efficiency under colder climate conditions for medium-temperature applications (ηs) % 133 Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (ηs) % 137 Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (ηs) % 165 Tj = -7 °C COP, partial load range under colder climate conditions (COPd) 3,32 Tj = -7 °C COP, partial load range under average climate conditions (COPd) 3,65 Tj = 2 °C COP, partial load range under average climate conditions (COPd) 3,37 Tj = 2 °C COP, partial load range under average climate conditions (COPd) 3,37 Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) 2,76 Tj = 7 °C COP, partial load range under colder climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) 4,40 Tj = 7 °C COP, partial load range under warmer climate conditions 4,40 Tj = 7 °C COP, partial load range under warmer climate conditions 4,40	Dual mode temperature under average climate conditions (Tbiv)	°C	-7
conditions for medium-temperature applications (ηs)70Seasonal space heating energy efficiency under average climate conditions for medium-temperature applications (ηs)%137Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications (ηs)%165Tj = -7 °C COP, partial load range under colder climate conditions (COPd)3,32Tj = -7 °C COP, partial load range under average climate conditions (COPd)2,71Tj = 2 °C COP, partial load range under colder climate conditions (COPd)3,65Tj = 2 °C COP, partial load range under average climate conditions (COPd)3,37Tj = 2 °C COP, partial load range under warmer climate conditions (COPd)2,76Tj = 7 °C COP, partial load range under colder climate conditions (COPd)4,86Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,40Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,40Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,40		°C	2
conditions for medium-temperature applications (ηs)%Seasonal space heating energy efficiency under warmer climate conditions for medium-temperature applications (ηs)%Tj = -7 °C COP, partial load range under colder climate conditions (COPd)3,32Tj = -7 °C COP, partial load range under average climate conditions (COPd)2,71Tj = 2 °C COP, partial load range under colder climate conditions (COPd)3,65Tj = 2 °C COP, partial load range under average climate conditions (COPd)3,37Tj = 2 °C COP, partial load range under average climate conditions (COPd)2,76Tj = 7 °C COP, partial load range under warmer climate conditions (COPd)4,86Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,40Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,40Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,40		%	133
conditions for medium-temperature applications (ηs)%Tj = -7 °C COP, partial load range under colder climate conditions (COPd)3,32Tj = -7 °C COP, partial load range under average climate conditions (COPd)2,71Tj = 2 °C COP, partial load range under colder climate conditions (COPd)3,65Tj = 2 °C COP, partial load range under average climate conditions (COPd)3,37Tj = 2 °C COP, partial load range under warmer climate conditions (COPd)2,76Tj = 7 °C COP, partial load range under colder climate conditions (COPd)4,86Tj = 7 °C COP, partial load range under average climate conditions (COPd)4,40Tj = 7 °C COP, partial load range under warmer climate conditions (COPd)4,40	, , , ,	%	137
(COPd) Tj = -7 °C COP, partial load range under average climate conditions (COPd) Tj = 2 °C COP, partial load range under colder climate conditions (COPd) 3,65 Tj = 2 °C COP, partial load range under average climate conditions (COPd) Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) Tj = 7 °C COP, partial load range under colder climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd)	, , ,	%	165
(COPd) Tj = 2 °C COP, partial load range under colder climate conditions (COPd) Tj = 2 °C COP, partial load range under average climate conditions (COPd) Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) Tj = 7 °C COP, partial load range under colder climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd)	, , , , , , , , , , , , , , , , , , , ,		3,32
Tj = 2 °C COP, partial load range under average climate conditions (COPd) Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) Tj = 7 °C COP, partial load range under colder climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under warmer climate conditions			2,71
(COPd) Tj = 2 °C COP, partial load range under warmer climate conditions (COPd) Tj = 7 °C COP, partial load range under colder climate conditions (COPd) 4,86 Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under warmer climate conditions 4.14	Tj = 2 °C COP, partial load range under colder climate conditions (COPd)		3,65
(COPd)2,76 $Tj = 7$ °C COP, partial load range under colder climate conditions (COPd)4,86 $Tj = 7$ °C COP, partial load range under average climate conditions (COPd)4,40 $Tj = 7$ °C COP, partial load range under warmer climate conditions4.14	,		3,37
Tj = 7 °C COP, partial load range under average climate conditions (COPd) Tj = 7 °C COP, partial load range under warmer climate conditions 4.40	· ·		2,76
$\frac{\text{(COPd)}}{\text{Tj} = 7 °C COP, partial load range under warmer climate conditions}}{4.14}$	Tj = 7 °C COP, partial load range under colder climate conditions (COPd)		4,86
4.14	, , , , , , , , , , , , , , , , , , , ,		4,40
	· ·		4,14

Tj = 12 °C COP, partial load range under colder climate conditions (COPd)		5,27
Tj = 12 °C COP, partial load range under average climate conditions (COPd)		530,00
Tj = 12 °C COP, partial load range under warmer climate conditions (COPd)		5,04
Tj = dual mode temperature under colder climate conditions (COPd)		2,48
Tj = dual mode temperature under average climate conditions (COPd)		2,71
Tj = dual mode temperature under warmer climate conditions (COPd)		2,76
Tj = operating temperature limit under colder climate conditions (COPd)		1,80
Tj = operating temperature limit under average climate conditions (COPd)		2,44
Tj = operating temperature limit under warmer climate conditions (COPd)		2,76
Operating temperature limit under colder climate conditions (TOL)	°C	-22
Operating temperature limit under average climate conditions (TOL)	°C	-10
Operating temperature limit under warmer climate conditions (TOL)	°C	2
Operating temperature limit of heating water under colder climate conditions (WTOL)	°C	65
Operating temperature limit of heating water under average climate conditions (WTOL)	°C	65
Operating temperature limit of heating water under warmer climate conditions (WTOL)	°C	65
Power consumption, off-mode (Poff)	W	113
Power consumption, thermostat off-mode (PTO)	W	114
Power consumption, standby state (PSB)	W	113
Power consumption, operating state, with crankcase heating (PCK)	W	0
Type of energy supply, auxiliary heater		elektrisch
Output control		fest
Sound power level, outdoor	dB(A)	67
Sound power level, indoor	dB(A)	63
Annual energy consumption under colder climate conditions for medium-temperature applications (QHE)	kWh/a	37039
Annual energy consumption under average climate conditions for medium-temperature applications (QHE)	kWh/a	32905
Annual energy consumption under warmer climate conditions for medium-temperature applications (QHE)	kWh/a	16507
Special measures		For all special measures to be taken during assembly, installation or maintenance of the room heater, see the installation instructions