

## Subtype WPE-I 12/15 H(K)(W) 230 (GB) Premium

Certificate Holder	STIEBEL ELTRON GmbH & Co KG
Address	Dr. Stiebel Straße 33
ZIP	37603
City	Holzminden
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	WPE-I 12/15 H(K)(W) 230 (GB) Premium
Registration number	011-1W0395
Heat Pump Type	Brine/Water
Refrigerant	R454C
Mass of Refrigerant	3.1 kg
Certification Date	08.09.2020

## Model WPE-I 12 H(K)(W) 230 Premium

Model name	WPE-I 12 H(K)(W) 230 Premium
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Brine/Water

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	216 %	169 %
Prated	12.03 kW	11.99 kW
SCOP	5.59	4.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.61 kW	10.59 kW
COP Tj = -7°C	4.81	3.55
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	6.45 kW	6.44 kW
COP Tj = +2°C	5.72	4.49
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	4.14 kW	4.13 kW
COP Tj = +7°C	6.12	4.99
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.30 kW	2.21 kW
COP Tj = 12°C	6.29	5.25
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.03 kW	11.99 kW
COP Tj = Tbiv	4.53	3.29

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.03 kW	11.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	3.29
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4445 kWh	5607 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	224 %	174 %
Prated	12.03 kW	11.99 kW
SCOP	5.80	4.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.26 kW	7.24 kW
COP Tj = -7°C	5.69	4.31
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	4.41 kW	4.40 kW
COP Tj = +2°C	6.16	4.91
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	2.82 kW	2.82 kW
COP Tj = +7°C	6.19	5.16
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.23 kW
COP Tj = 12°C	6.12	5.40
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.03 kW	11.99 kW
COP Tj = Tbiv	4.53	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.03 kW	11.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	3.29
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	5108 kWh	6485 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	214 %	168 %
Prated	12.03 kW	11.99 kW
SCOP	5.55	4.39
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	12.03 kW	11.99 kW
COP T <sub>j</sub> = +2°C	4.53	3.29
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	7.71 kW	7.69 kW
COP T <sub>j</sub> = +7°C	5.51	4.12
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.41 kW	3.41 kW
COP T <sub>j</sub> = 12°C	6.14	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	12.03 kW	11.99 kW
COP T <sub>j</sub> = T <sub>biv</sub>	4.53	3.29
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	12.03 kW	11.99 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.53	3.29
WTOL	75 °C	75 °C
P <sub>off</sub>	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2896 kWh	3650 kWh

## Model WPE-I 15 H(K)(W) 230 Premium

Model name	WPE-I 15 H(K)(W) 230 Premium
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Brine/Water

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	210 %	168 %
Prated	14.46 kW	13.77 kW
SCOP	5.44	4.39
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.77 kW	12.16 kW
COP Tj = -7°C	4.46	3.40
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.76 kW	7.40 kW
COP Tj = +2°C	5.51	4.44
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	4.98 kW	4.75 kW
COP Tj = +7°C	6.13	5.03
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.22 kW
COP Tj = 12°C	6.18	5.31
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	14.46 kW	13.77 kW
COP Tj = Tbiv	4.30	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.46 kW	13.77 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	3.26
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5489 kWh	6476 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	218 %	174 %
Prated	14.46 kW	13.77 kW
SCOP	5.66	4.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.73 kW	8.32 kW
COP Tj = -7°C	5.32	4.24
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.30 kW	5.05 kW
COP Tj = +2°C	6.15	4.94
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.40 kW	3.24 kW
COP Tj = +7°C	6.27	5.24
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.23 kW
COP Tj = 12°C	6.12	5.44
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	14.46 kW	13.77 kW
COP Tj = Tbiv	4.30	3.26
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.46 kW	13.77 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	3.26
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	6298 kWh	7451 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	208 %	167 %
Prated	14.46 kW	13.77 kW
SCOP	5.41	4.37
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	14.46 kW	13.77 kW
COP T <sub>j</sub> = +2°C	4.30	3.26
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	9.27 kW	8.83 kW
COP T <sub>j</sub> = +7°C	5.13	3.99
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.11 kW	3.92 kW
COP T <sub>j</sub> = 12°C	6.17	5.16
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	14.46 kW	13.77 kW
COP T <sub>j</sub> = T <sub>biv</sub>	4.30	3.26
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	14.46 kW	13.77 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.30	3.26
WTOL	75 °C	75 °C
P <sub>off</sub>	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	3573 kWh	4211 kWh

## Model WPE-I 12 H(W) 230 GB Premium

Model name	WPE-I 12 H(W) 230 GB Premium
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	n/a
Off-peak product	n/a

## Brine/Water

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	216 %	169 %
Prated	12.03 kW	11.99 kW
SCOP	5.59	4.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.61 kW	10.59 kW
COP Tj = -7°C	4.81	3.55
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	6.45 kW	6.44 kW
COP Tj = +2°C	5.72	4.49
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	4.14 kW	4.13 kW
COP Tj = +7°C	6.12	4.99
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.30 kW	2.21 kW
COP Tj = 12°C	6.29	5.25
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.03 kW	11.99 kW
COP Tj = Tbiv	4.53	3.29



Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.03 kW	11.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	3.29
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4445 kWh	5607 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	224 %	174 %
Prated	12.03 kW	11.99 kW
SCOP	5.80	4.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.26 kW	7.24 kW
COP Tj = -7°C	5.69	4.31
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	4.41 kW	4.40 kW
COP Tj = +2°C	6.16	4.91
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	2.82 kW	2.82 kW
COP Tj = +7°C	6.19	5.16
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.23 kW
COP Tj = 12°C	6.12	5.40
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.03 kW	11.99 kW
COP Tj = Tbiv	4.53	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.03 kW	11.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	3.29
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	5108 kWh	6485 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	214 %	168 %
Prated	12.03 kW	11.99 kW
SCOP	5.55	4.39
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	12.03 kW	11.99 kW
COP T <sub>j</sub> = +2°C	4.53	3.29
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	7.71 kW	7.69 kW
COP T <sub>j</sub> = +7°C	5.51	4.12
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.41 kW	3.41 kW
COP T <sub>j</sub> = 12°C	6.14	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	12.03 kW	11.99 kW
COP T <sub>j</sub> = T <sub>biv</sub>	4.53	3.29
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	12.03 kW	11.99 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.53	3.29
WTOL	75 °C	75 °C
P <sub>off</sub>	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	2896 kWh	3650 kWh

## Model WPE-I 15 H(W) 230 GB Premium

Model name	WPE-I 15 H(W) 230 GB Premium
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	n/a
Off-peak product	n/a

## Brine/Water

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	210 %	168 %
Prated	14.46 kW	13.77 kW
SCOP	5.44	4.39
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.77 kW	12.16 kW
COP Tj = -7°C	4.46	3.40
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.76 kW	7.40 kW
COP Tj = +2°C	5.51	4.44
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	4.98 kW	4.75 kW
COP Tj = +7°C	6.13	5.03
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.22 kW
COP Tj = 12°C	6.18	5.31
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	14.46 kW	13.77 kW
COP Tj = Tbiv	4.30	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.46 kW	13.77 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	3.26
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5489 kWh	6476 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	218 %	174 %
Prated	14.46 kW	13.77 kW
SCOP	5.66	4.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.73 kW	8.32 kW
COP Tj = -7°C	5.32	4.24
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.30 kW	5.05 kW
COP Tj = +2°C	6.15	4.94
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.40 kW	3.24 kW
COP Tj = +7°C	6.27	5.24
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.23 kW
COP Tj = 12°C	6.12	5.44
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	14.46 kW	13.77 kW
COP Tj = Tbiv	4.30	3.26
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.46 kW	13.77 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	3.26
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	6298 kWh	7451 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	208 %	167 %
Prated	14.46 kW	13.77 kW
SCOP	5.41	4.37
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	14.46 kW	13.77 kW
COP T <sub>j</sub> = +2°C	4.30	3.26
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	9.27 kW	8.83 kW
COP T <sub>j</sub> = +7°C	5.13	3.99
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.11 kW	3.92 kW
COP T <sub>j</sub> = 12°C	6.17	5.16
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	14.46 kW	13.77 kW
COP T <sub>j</sub> = T <sub>biv</sub>	4.30	3.26
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	14.46 kW	13.77 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	4.30	3.26
WTOL	75 °C	75 °C
P <sub>off</sub>	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	3573 kWh	4211 kWh