

## Subtype WPL 09 I(K)CS classic

Certificate Holder	STIEBEL ELTRON GmbH & Co KG
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Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	WPL 09 I(K)CS classic
Registration number	011-1W0223
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	2.2 kg
Certification Date	04.09.2019
Testing basis	HP KEYMARK certification scheme rules rev. no. 5

## Model WPL 09 IKCS classic

Model name	WPL 09 IKCS classic
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 14511-4 | Heating

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

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	175 %	128 %
Prated	4.70 kW	4.50 kW
SCOP	4.46	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.17 kW	3.94 kW
COP Tj = -7°C	3.09	2.22
Pdh Tj = +2°C	2.86 kW	2.54 kW
COP Tj = +2°C	4.29	3.10
Pdh Tj = +7°C	2.08 kW	2.04 kW
COP Tj = +7°C	6.24	4.53
Pdh Tj = 12°C	2.02 kW	1.97 kW
COP Tj = 12°C	8.31	6.44
Pdh Tj = Tbiv	4.17 kW	3.94 kW
COP Tj = Tbiv	3.09	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.06 kW	2.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.71	1.94

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	56 W	56 W
PTO	21 W	21 W
PSB	56 W	56 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.64 kW	1.54 kW
Annual energy consumption Qhe	2187 kWh	2837 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	150 %	116 %
Prated	6.80 kW	6.70 kW
SCOP	3.83	2.98
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.11 kW	4.05 kW
COP Tj = -7°C	3.37	2.57
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.01 kW	2.60 kW
COP Tj = +2°C	5.17	3.55
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.09 kW	2.07 kW
COP Tj = +7°C	7.26	5.31
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.02 kW	1.99 kW
COP Tj = 12°C	8.96	7.11
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.11 kW	4.05 kW
COP Tj = Tbiv	3.37	2.57
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.35 kW	6.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	1.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	56 W	56 W
PTO	21 W	21 W
PSB	56 W	56 W

PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.80 kW	6.70 kW
Annual energy consumption Q <sub>he</sub>	4382 kWh	5547 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	4.11	4.05
COP T <sub>j</sub> = -15°C (if TOL	3.37	2.57
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	198 %	136 %
Prated	2.62 kW	2.40 kW
SCOP	5.01	3.47
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.62 kW	2.37 kW
COP T <sub>j</sub> = +2°C	3.76	2.28
C <sub>dh</sub> T <sub>j</sub> = +2 °C		
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.07 kW	1.84 kW
COP T <sub>j</sub> = +7°C	5.19	3.35
C <sub>dh</sub> T <sub>j</sub> = +7 °C		
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.00 kW	1.94 kW
COP T <sub>j</sub> = 12°C	7.92	5.39
C <sub>dh</sub> T <sub>j</sub> = +12 °C		
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.62 kW	2.37 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.76	2.28
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>	2.62 kW	2.37 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.76	2.28
C <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>	0.900	0.900
WTOL	60 °C	60 °C
P <sub>off</sub>	56 W	56 W
PTO	21 W	21 W
PSB	56 W	56 W
PCK	26 W	26 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>	698 kWh	923 kWh

## Model WPL 09 ICS classic

Model name	WPL 09 ICS classic
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 14511-4 | Heating

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

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	130 %
Prated	4.80 kW	4.50 kW
SCOP	4.53	3.32
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.22 kW	3.98 kW
COP Tj = -7°C	3.22	2.27
Pdh Tj = +2°C	2.88 kW	2.55 kW
COP Tj = +2°C	4.33	3.16
Pdh Tj = +7°C	2.08 kW	2.04 kW
COP Tj = +7°C	6.28	4.53
Pdh Tj = 12°C	2.02 kW	1.97 kW
COP Tj = 12°C	8.35	6.44
Pdh Tj = Tbiv	4.22 kW	3.98 kW
COP Tj = Tbiv	3.22	2.27
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.11 kW	3.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.85

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	56 W	56 W
PTO	21 W	21 W
PSB	56 W	56 W
PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.69 kW	0.71 kW
Annual energy consumption Qhe	2187 kWh	2804 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	155 %	119 %
Prated	6.90 kW	6.80 kW
SCOP	3.94	3.04
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.16 kW	4.10 kW
COP Tj = -7°C	3.48	2.63
Cdh Tj = -7 °C		
Pdh Tj = +2°C	3.03 kW	2.62 kW
COP Tj = +2°C	5.34	3.64
Cdh Tj = +2 °C		
Pdh Tj = +7°C	2.09 kW	2.07 kW
COP Tj = +7°C	7.26	5.31
Cdh Tj = +7 °C		
Pdh Tj = 12°C	2.02 kW	1.99 kW
COP Tj = 12°C	8.96	7.11
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	4.16 kW	4.10 kW
COP Tj = Tbiv	3.48	2.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.00 kW	3.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.00	2.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	56 W	56 W
PTO	21 W	21 W
PSB	56 W	56 W

PCK	26 W	26 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.90 kW	6.80 kW
Annual energy consumption Q <sub>he</sub>	4321 kWh	5515 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL		
COP T <sub>j</sub> = -15°C (if TOL		
C <sub>dh</sub> T <sub>j</sub> = -15 °C		

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	198 %	136 %
Prated	2.64 kW	2.40 kW
SCOP	5.03	3.48
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.64 kW	2.39 kW
COP T <sub>j</sub> = +2°C	3.83	2.33
C <sub>dh</sub> T <sub>j</sub> = +2 °C		
P <sub>dh</sub> T <sub>j</sub> = +7°C	2.07 kW	1.84 kW
COP T <sub>j</sub> = +7°C	5.19	3.35
C <sub>dh</sub> T <sub>j</sub> = +7 °C		
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.00 kW	1.94 kW
COP T <sub>j</sub> = 12°C	7.92	5.39
C <sub>dh</sub> T <sub>j</sub> = +12 °C		
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	2.64 kW	2.39 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.83	2.33
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>	2.64 kW	2.39 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.83	2.33
C <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>	0.900	0.900
WTOL	60 °C	60 °C
P <sub>off</sub>	56 W	56 W
PTO	21 W	21 W
PSB	56 W	56 W
PCK	26 W	26 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>	70 kWh	921 kWh