

Subtype WPE-I 05 H(W) 400 Plus

Certificate Holder	STIEBEL ELTRON GmbH & Co KG
Address	Dr. Stiebel Straße 33
ZIP	37603
City	Holzminden
Country	DE
Certification Body	RISE CERT
Subtype title	WPE-I 05 H(W) 400 Plus
Registration number	012-C700163
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R452B
Mass of Refrigerant	0.575 kg
Certification Date	09.02.2023
Testing basis	EN 14511:2018, EN 14825:2018, EN 12102:2017.
Testing laboratory	RISE Research Institutes of Sweden

**Model WPE-I 05 HW 400 Plus**

Model name	WPE-I 05 HW 400 Plus
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, 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	Yes

**Brine/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.56 kW	5.00 kW
El input	1.26 kW	1.80 kW
COP	4.40	2.78

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	42 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	181 %	135 %
Prated	6.03 kW	6.33 kW
SCOP	4.74	3.56
Tbiv	-8 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.58 kW	5.14 kW
COP Tj = -7°C	4.51	3.07
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	5.64 kW	5.23 kW
COP Tj = +2°C	4.74	3.60
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	5.69 kW	5.31 kW
COP Tj = +7°C	4.99	3.94
Cdh Tj = +7 °C	0.990	0.990

Pdh Tj = 12°C	5.75 kW	5.39 kW
COP Tj = 12°C	5.25	4.27
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	5.57 kW	5.12 kW
COP Tj = Tbiv	4.47	3.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.54 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.49 kW	1.33 kW
Annual energy consumption Qhe	2630 kWh	3672 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	42 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	187 %	138 %
Prated	6.26 kW	6.07 kW
SCOP	4.87	3.65
Tbiv	-18 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.65 kW	5.19 kW
COP Tj = -7°C	4.80	3.47
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	5.70 kW	5.29 kW
COP Tj = +2°C	5.02	3.86
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	5.73 kW	5.37 kW
COP Tj = +7°C	5.18	4.17
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	5.74 kW	5.43 kW
COP Tj = 12°C	5.22	4.40
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	5.60 kW	5.11 kW
COP Tj = Tbiv	4.60	3.21

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.54 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.72 kW	1.07 kW
Annual energy consumption Qhe	3170 kWh	4104 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	42 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	183 %	135 %
Prated	6.53 kW	6.00 kW
SCOP	4.78	3.58
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.54 kW	5.00 kW
COP Tj = +2°C	4.39	2.77
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	5.63 kW	5.15 kW
COP Tj = +7°C	4.72	3.34
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	5.71 kW	5.34 kW
COP Tj = 12°C	5.09	4.04
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	5.60 kW	5.14 kW
COP Tj = Tbiv	4.59	3.11
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.54 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W

PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.99 kW	1.00 kW
Annual energy consumption Qhe	1825 kWh	2237 kWh

**Water/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	7.21 kW	6.66 kW
El input	1.27 kW	1.86 kW
COP	5.70	3.57

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	237 %	175 %
Prated	7.85 kW	8.07 kW
SCOP	6.12	4.58
Tbiv	-8 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.26 kW	6.78 kW
COP Tj = -7°C	5.85	3.85
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	7.32 kW	7.02 kW
COP Tj = +2°C	6.14	4.60
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	7.36 kW	7.15 kW
COP Tj = +7°C	6.43	5.12
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	7.37 kW	7.27 kW
COP Tj = 12°C	6.71	5.70
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	7.24 kW	6.83 kW
COP Tj = Tbiv	5.80	3.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.21 kW	6.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.70	3.57

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.64 kW	1.41 kW
Annual energy consumption Qhe	2651 kWh	3641 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	243 %	181 %
Prated	8.14 kW	8.16 kW
SCOP	6.27	4.72
Tbiv	-18 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.34 kW	6.98 kW
COP Tj = -7°C	6.22	4.45
Cdh Tj = -7 °C	0.990	0.996
Pdh Tj = +2°C	7.36 kW	7.13 kW
COP Tj = +2°C	6.46	5.02
Cdh Tj = +2 °C	0.990	0.995
Pdh Tj = +7°C	7.37 kW	7.24 kW
COP Tj = +7°C	6.64	5.52
Cdh Tj = +7 °C	0.990	0.995
Pdh Tj = 12°C	7.37 kW	7.31 kW
COP Tj = 12°C	6.68	5.94
Cdh Tj = +12 °C	0.990	0.994
Pdh Tj = Tbiv	7.29 kW	6.87 kW
COP Tj = Tbiv	5.96	4.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.21 kW	6.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.70	3.57
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.996
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.93 kW	1.50 kW

Annual energy consumption Qhe	3199 kWh	4265 kWh
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**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	238 %	177 %
P <sub>rated</sub>	7.81 kW	7.94 kW
SCOP	6.16	4.62
T <sub>biv</sub>	3 °C	4 °C
TOL	2 °C	2 °C
P <sub>dh Tj = +2°C</sub>	7.21 kW	6.66 kW
COP T <sub>j</sub> = +2°C	5.70	3.57
C <sub>dh Tj = +2 °C</sub>	0.990	1.000
P <sub>dh Tj = +7°C</sub>	7.31 kW	6.93 kW
COP T <sub>j</sub> = +7°C	6.07	4.25
C <sub>dh Tj = +7 °C</sub>	0.990	1.000
P <sub>dh Tj = 12°C</sub>	7.37 kW	7.19 kW
COP T <sub>j</sub> = 12°C	6.53	5.31
C <sub>dh Tj = +12 °C</sub>	0.990	0.990
P <sub>dh Tj = T<sub>biv</sub></sub>	7.25 kW	6.81 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.82	3.91
P <sub>dh Tj = TOL or P<sub>dh Tj = T<sub>designh</sub></sub> if TOL &lt; T<sub>designh</sub></sub>	7.21 kW	6.66 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.70	3.57
C <sub>dh Tj = TOL or P<sub>dh Tj = T<sub>designh</sub></sub> if TOL &lt; T<sub>designh</sub></sub>	0.990	1.000
WTOL	65 °C	65 °C
P <sub>off</sub>	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.60 kW	1.28 kW
Annual energy consumption Qhe	1694 kWh	2299 kWh

**Model WPE-I 05 H 400 Plus**

Model name	WPE-I 05 H 400 Plus
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, 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	Yes

**Brine/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.56 kW	5.00 kW
El input	1.26 kW	1.80 kW
COP	4.40	2.78

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	44 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	181 %	135 %
Prated	6.03 kW	6.33 kW
SCOP	4.74	3.56
Tbiv	-8 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.58 kW	5.14 kW
COP Tj = -7°C	4.51	3.07
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	5.64 kW	5.23 kW
COP Tj = +2°C	4.74	3.60
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	5.69 kW	5.31 kW
COP Tj = +7°C	4.99	3.94
Cdh Tj = +7 °C	0.990	0.990

Pdh Tj = 12°C	5.75 kW	5.39 kW
COP Tj = 12°C	5.25	4.27
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	5.57 kW	5.12 kW
COP Tj = Tbiv	4.47	3.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.54 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.49 kW	1.33 kW
Annual energy consumption Qhe	2630 kWh	3672 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	44 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	187 %	138 %
Prated	6.26 kW	6.07 kW
SCOP	4.87	3.65
Tbiv	-18 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.65 kW	5.19 kW
COP Tj = -7°C	4.80	3.47
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	5.70 kW	5.29 kW
COP Tj = +2°C	5.02	3.86
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	5.73 kW	5.37 kW
COP Tj = +7°C	5.18	4.17
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	5.74 kW	5.43 kW
COP Tj = 12°C	5.22	4.40
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	5.60 kW	5.11 kW
COP Tj = Tbiv	4.60	3.21

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.54 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.72 kW	1.07 kW
Annual energy consumption Qhe	3170 kWh	4104 kWh

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	44 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	183 %	135 %
Prated	6.53 kW	6.00 kW
SCOP	4.78	3.58
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.54 kW	5.00 kW
COP Tj = +2°C	4.39	2.77
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	5.63 kW	5.15 kW
COP Tj = +7°C	4.72	3.34
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	5.71 kW	5.34 kW
COP Tj = 12°C	5.09	4.04
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	5.60 kW	5.14 kW
COP Tj = Tbiv	4.59	3.11
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.54 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W

PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.99 kW	1.00 kW
Annual energy consumption Qhe	1825 kWh	2237 kWh

**Water/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Starting and operating test	passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	7.21 kW	6.66 kW
El input	1.27 kW	1.86 kW
COP	5.70	3.57

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	237 %	175 %
Prated	7.85 kW	8.07 kW
SCOP	6.12	4.58
Tbiv	-8 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.26 kW	6.78 kW
COP Tj = -7°C	5.85	3.85
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	7.32 kW	7.02 kW
COP Tj = +2°C	6.14	4.60
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	7.36 kW	7.15 kW
COP Tj = +7°C	6.43	5.12
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	7.37 kW	7.27 kW
COP Tj = 12°C	6.71	5.70
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	7.24 kW	6.83 kW
COP Tj = Tbiv	5.80	3.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.21 kW	6.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.70	3.57

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.64 kW	1.41 kW
Annual energy consumption Qhe	2651 kWh	3641 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	243 %	181 %
Prated	8.14 kW	8.16 kW
SCOP	6.27	4.72
Tbiv	-18 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.34 kW	6.98 kW
COP Tj = -7°C	6.22	4.45
Cdh Tj = -7 °C	0.990	0.996
Pdh Tj = +2°C	7.36 kW	7.13 kW
COP Tj = +2°C	6.46	5.02
Cdh Tj = +2 °C	0.990	0.995
Pdh Tj = +7°C	7.37 kW	7.24 kW
COP Tj = +7°C	6.64	5.52
Cdh Tj = +7 °C	0.990	0.995
Pdh Tj = 12°C	7.37 kW	7.31 kW
COP Tj = 12°C	6.68	5.94
Cdh Tj = +12 °C	0.990	0.994
Pdh Tj = Tbiv	7.29 kW	6.87 kW
COP Tj = Tbiv	5.96	4.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.21 kW	6.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.70	3.57
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.996
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.93 kW	1.50 kW

Annual energy consumption Qhe	3199 kWh	4265 kWh
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**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	238 %	177 %
Prated	7.81 kW	7.94 kW
SCOP	6.16	4.62
Tbiv	3 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.21 kW	6.66 kW
COP Tj = +2°C	5.70	3.57
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	7.31 kW	6.93 kW
COP Tj = +7°C	6.07	4.25
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	7.37 kW	7.19 kW
COP Tj = 12°C	6.53	5.31
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	7.25 kW	6.81 kW
COP Tj = Tbiv	5.82	3.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.21 kW	6.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.70	3.57
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.60 kW	1.28 kW
Annual energy consumption Qhe	1694 kWh	2299 kWh