

## Subtype WPE-I 59 H 400 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 59 H 400 Premium
Registration number	011-1W0334
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	6.3 kg
Certification Date	05.10.2020
Testing basis	HP KEYMARK certification scheme rules rev. 7

## Model WPE-I 59 H 400 Premium

Model name	WPE-I 59 H 400 Premium
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	3x400V 50Hz
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	failed
Starting and operating test	passed

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	200 %	155 %
Prated	59.64 kW	55.34 kW
SCOP	5.19	4.07
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	52.76 kW	48.96 kW
COP Tj = -7°C	4.26	3.01
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	32.11 kW	29.80 kW
COP Tj = +2°C	5.23	4.11
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	20.64 kW	19.16 kW
COP Tj = +7°C	5.74	4.84
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	16.56 kW	16.33 kW
COP Tj = 12°C	5.58	4.66
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	59.64 kW	55.34 kW
COP Tj = Tbiv	3.93	2.77

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	59.64 kW	55.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.93	2.77
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	23714 kWh	28063 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	204 %	160 %
Prated	59.64 kW	55.34 kW
SCOP	5.29	4.20
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	35.77 kW	33.80 kW
COP Tj = -7°C	5.14	3.85
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	21.97 kW	20.39 kW
COP Tj = +2°C	5.71	4.59
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	16.74 kW	16.35 kW
COP Tj = +7°C	5.86	4.85
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	16.58 kW	16.38 kW
COP Tj = 12°C	5.58	4.88
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	59.64 kW	55.34 kW
COP Tj = Tbiv	3.93	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	59.64 kW	55.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.93	2.77
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	27759 kWh	32491 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	59.64	55.34
COP T <sub>j</sub> = -15°C (if TOL	3.93	2.77
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.90	0.90

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	203 %	157 %
Prated	59.64 kW	55.34 kW
SCOP	5.28	4.13
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	59.64 kW	55.34 kW
COP T <sub>j</sub> = +2°C	3.93	2.77
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	38.34 kW	35.58 kW
COP T <sub>j</sub> = +7°C	5.00	3.69
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	17.04 kW	15.81 kW
COP T <sub>j</sub> = 12°C	5.79	4.85
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>	59.64 kW	55.34 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.93	2.77
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>	59.64 kW	55.34 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.93	2.77
WTOL	65 °C	65 °C
P <sub>off</sub>	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	15055 kWh	17857 kWh