

Subtype WPL-A 09/12 HK 400 Plus

Certificate Holder	STIEBEL ELTRON GmbH & Co KG
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City	Holzminden
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	WPL-A 09/12 HK 400 Plus
Registration number	011-1W0440
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	5.5 kg
Certification Date	14.10.2021
Testing basis	HP KEYMARK certification scheme rules rev. 8

Model WPL-A 09 HK 400 Plus

Model name	WPL-A 09 HK 400 Plus
Application	Heating (medium temp)
Units	Outdoor
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

Outdoor Air/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 outdoor	55 dB(A)	55 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	159 %	125 %
Prated	10.29 kW	11.45 kW
SCOP	4.04	3.21
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.10 kW	10.13 kW
COP Tj = -7°C	3.11	2.56
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.30 kW	7.75 kW
COP Tj = +2°C	3.93	3.31
Cdh Tj = +2 °C	0.990	0.900
Pdh Tj = +7°C	8.92 kW	8.38 kW
COP Tj = +7°C	5.04	4.14
Cdh Tj = +7 °C	0.980	0.900
Pdh Tj = 12°C	9.10 kW	9.05 kW
COP Tj = 12°C	5.53	4.74
Cdh Tj = +12 °C	0.980	0.900
Pdh Tj = Tbiv	9.10 kW	10.13 kW
COP Tj = Tbiv	3.11	2.56

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	9.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.94	2.26
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.77 kW	2.05 kW
Annual energy consumption Qhe	5265 kWh	7377 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	133 %	112 %
Prated	14.53 kW	15.94 kW
SCOP	3.40	2.88
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.80 kW	9.65 kW
COP Tj = -7°C	3.27	2.82
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.19 kW	7.58 kW
COP Tj = +2°C	4.08	3.55
Cdh Tj = +2 °C	0.980	0.900
Pdh Tj = +7°C	9.02 kW	8.57 kW
COP Tj = +7°C	5.21	4.46
Cdh Tj = +7 °C	0.980	0.900
Pdh Tj = 12°C	9.10 kW	9.06 kW
COP Tj = 12°C	5.53	4.88
Cdh Tj = +12 °C	0.980	0.900
Pdh Tj = Tbiv	8.80 kW	9.65 kW
COP Tj = Tbiv	3.27	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.38 kW	7.53 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.54	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	14.53 kW	15.94 kW
Annual energy consumption Qhe	10540 kWh	13625 kWh
Pdh Tj = -15°C (if TOL		
COP Tj = -15°C (if TOL		
Cdh Tj = -15 °C		

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	187 %	128 %
Prated	7.90 kW	8.14 kW
SCOP	4.76	3.28
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.90 kW	8.14 kW
COP Tj = +2°C	3.75	2.78
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.76 kW	8.04 kW
COP Tj = +7°C	4.77	3.40
Cdh Tj = +7 °C	0.990	0.900
Pdh Tj = 12°C	9.09 kW	9.03 kW
COP Tj = 12°C	5.41	4.48
Cdh Tj = +12 °C	0.980	0.900
Pdh Tj = Tbiv	7.90 kW	8.14 kW
COP Tj = Tbiv	3.75	2.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.90 kW	8.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.75	2.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	2218 kWh	3314 kWh

Model WPL-A 12 HK 400 Plus

Model name	WPL-A 12 HK 400 Plus
Application	Heating (medium temp)
Units	Outdoor
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

Outdoor Air/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 outdoor	55 dB(A)	55 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	159 %	130 %
Prated	12.80 kW	13.42 kW
SCOP	4.05	3.32
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.30 kW	11.87 kW
COP Tj = -7°C	2.84	2.43
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.24 kW	7.67 kW
COP Tj = +2°C	4.01	3.42
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.94 kW	8.41 kW
COP Tj = +7°C	5.08	4.19
Cdh Tj = +7 °C	0.980	0.900
Pdh Tj = 12°C	9.10 kW	9.05 kW
COP Tj = 12°C	5.55	4.76
Cdh Tj = +12 °C	0.980	0.900
Pdh Tj = Tbiv	11.32 kW	11.87 kW
COP Tj = Tbiv	2.84	2.43

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.58 kW	11.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.83	2.16
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.22 kW	2.32 kW
Annual energy consumption Qhe	6537 kWh	8358 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	133 %	115 %
Prated	18.44 kW	19.19 kW
SCOP	3.39	2.94
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.16 kW	11.61 kW
COP Tj = -7°C	3.15	2.69
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.13 kW	7.49 kW
COP Tj = +2°C	4.16	3.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	9.05 kW	8.61 kW
COP Tj = +7°C	5.25	4.53
Cdh Tj = +7 °C	0.980	0.900
Pdh Tj = 12°C	9.10 kW	9.06 kW
COP Tj = 12°C	5.55	4.91
Cdh Tj = +12 °C	0.980	0.900
Pdh Tj = Tbiv	11.16 kW	11.61 kW
COP Tj = Tbiv	3.15	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.29 kW	9.65 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.47	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	18.44 kW	19.19 kW
Annual energy consumption Q _{he}	13397 kWh	16099 kWh
P _{dh} T _j = -15°C (if TOL		
COP T _j = -15°C (if TOL		
C _{dh} T _j = -15 °C		

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	188 %	128 %
Prated	8.10 kW	8.14 kW
SCOP	4.77	3.28
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	8.10 kW	8.14 kW
COP T _j = +2°C	3.74	2.78
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	8.76 kW	8.04 kW
COP T _j = +7°C	4.77	3.40
C _{dh} T _j = +7 °C	0.990	0.900
P _{dh} T _j = 12°C	9.09 kW	9.03 kW
COP T _j = 12°C	5.41	4.48
C _{dh} T _j = +12 °C	0.980	0.900
P _{dh} T _j = T _{biv}	8.10 kW	8.41 kW
COP T _j = T _{biv}	3.74	2.78
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.10 kW	8.14 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.74	2.78
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}		
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	2271 kWh	3314 kWh