

Subtype HA 7-8.2 OS 230V with Hydraulic Station and 250l cylinder

Certificate Holder	Saunier Duval Brand Group
Address	SDECCI SAS - 17 rue de la Petite Baratte
ZIP	44300
City	Nantes
Country	FR
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	HA 7-8.2 OS 230V with Hydraulic Station and 250l cylinder
Registration number	011-1W0972
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.5 kg
Certification Date	11.02.2025
Testing basis	HP KEYMARK certification scheme rules rev. 14

**Model HA 7-8.2 OS 230V B2 + HA 7-8.2 WSB + FEW 250/2 B**

Model name	HA 7-8.2 OS 230V B2 + HA 7-8.2 WSB + FEW 250/2 B
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
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 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	137 %
COP	3.32
Heating up time	01:20 h:min
Standby power input	34.4 W
Reference hot water temperature	53.7 °C
Mixed water at 40°C	341 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	128 %
COP	3.19
Heating up time	01:11 h:min
Standby power input	53.4 W
Reference hot water temperature	53 °C
Mixed water at 40°C	248 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	167 %
COP	4.18
Heating up time	01:27 h:min
Standby power input	31.5 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	362 l

**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 14511-2   Heating		
Heat output	Low temperature	Medium temperature
5.07 kW	6.45 kW	
EI input	1.01 kW	2.16 kW
COP	5.00	2.98
EN 12102-1   Average Climate		
Sound power level indoor	Low temperature	Medium temperature
42 dB(A)	42 dB(A)	
Sound power level outdoor	48 dB(A)	48 dB(A)
EN 14825   Average Climate		
ηs	Low temperature	Medium temperature
199 %	140 %	
Prated	6.61 kW	5.67 kW
SCOP	5.06	3.57
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.85 kW	5.01 kW
COP Tj = -7°C	3.20	2.27
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	3.34 kW	2.91 kW
COP Tj = +2°C	5.22	3.52
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	3.14 kW	2.97 kW
COP Tj = +7°C	6.31	4.68
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.71 kW	3.57 kW
COP Tj = 12°C	8.36	6.42
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.85 kW	5.01 kW
COP Tj = Tbiv	3.20	2.27
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.78 kW	4.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.83 kW	0.94 kW
Annual energy consumption Qhe	2698 kWh	3279 kWh
<b>EN 12102-1   Colder Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)
<b>EN 14825   Colder Climate</b>		
	Low temperature	Medium temperature
ηs	173 %	121 %
Prated	6.88 kW	5.69 kW
SCOP	4.41	3.10
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.51 kW	3.69 kW
COP Tj = -7°C	3.76	2.66
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	2.82 kW	2.58 kW
COP Tj = +2°C	5.57	3.97
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.24 kW	3.06 kW
COP Tj = +7°C	6.78	5.32
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.69 kW	3.60 kW
COP Tj = 12°C	8.06	6.73
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.61 kW	4.64 kW
COP Tj = Tbiv	2.61	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.12 kW	4.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.40	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.88 kW	5.69 kW
Annual energy consumption Qhe	3845 kWh	4529 kWh
Pdh Tj = -15°C (if TOL)	5.61	4.64

COP Tj = -15°C (if TOL	2.61	2.02
Cdh Tj = -15 °C	1.00	1.00

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	247 %	171 %
Prated	6.80 kW	6.79 kW
SCOP	6.24	4.35
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.80 kW	6.79 kW
COP Tj = +2°C	3.42	2.37
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	4.68 kW	4.82 kW
COP Tj = +7°C	5.94	3.84
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.66 kW	3.49 kW
COP Tj = 12°C	7.87	5.72
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	6.80 kW	6.79 kW
COP Tj = Tbiv	3.42	2.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.80 kW	6.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.42	2.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 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	1456 kWh	2086 kWh

**Model HA 7-8.2 OS 230V B2 + HA 7-8.2 WS + FEW 250/2 B**

Model name	HA 7-8.2 OS 230V B2 + HA 7-8.2 WS + FEW 250/2 B
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
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 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	137 %
COP	3.32
Heating up time	01:20 h:min
Standby power input	34.4 W
Reference hot water temperature	53.7 °C
Mixed water at 40°C	341 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	128 %
COP	3.19
Heating up time	01:11 h:min
Standby power input	53.4 W
Reference hot water temperature	53 °C
Mixed water at 40°C	248 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	167 %
COP	4.18
Heating up time	01:27 h:min
Standby power input	31.5 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	362 l

**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 14511-2   Heating		
Heat output	Low temperature 5.07 kW	Medium temperature 6.45 kW
El input	1.01 kW	2.16 kW
COP	5.00	2.98
EN 12102-1   Average Climate		
Sound power level indoor	Low temperature 42 dB(A)	Medium temperature 42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)
EN 14825   Average Climate		
$\eta_s$	Low temperature 199 %	Medium temperature 140 %
Prated	6.61 kW	5.67 kW
SCOP	5.06	3.57
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.85 kW	5.01 kW
COP Tj = -7°C	3.20	2.27
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	3.34 kW	2.91 kW
COP Tj = +2°C	5.22	3.52
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	3.14 kW	2.97 kW
COP Tj = +7°C	6.31	4.68
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.71 kW	3.57 kW
COP Tj = 12°C	8.36	6.42
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.85 kW	5.01 kW
COP Tj = Tbiv	3.20	2.27
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.78 kW	4.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.83 kW	0.94 kW
Annual energy consumption Qhe	2698 kWh	3279 kWh
<b>EN 12102-1   Colder Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)
<b>EN 14825   Colder Climate</b>		
	Low temperature	Medium temperature
ηs	173 %	121 %
Prated	6.88 kW	5.69 kW
SCOP	4.41	3.10
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.51 kW	3.69 kW
COP Tj = -7°C	3.76	2.66
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	2.82 kW	2.58 kW
COP Tj = +2°C	5.57	3.97
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.24 kW	3.06 kW
COP Tj = +7°C	6.78	5.32
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.69 kW	3.60 kW
COP Tj = 12°C	8.06	6.73
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.61 kW	4.64 kW
COP Tj = Tbiv	2.61	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.12 kW	4.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.40	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.88 kW	5.69 kW
Annual energy consumption Qhe	3845 kWh	4529 kWh
Pdh Tj = -15°C (if TOL)	5.61	4.64

COP Tj = -15°C (if TOL	2.61	2.02
Cdh Tj = -15 °C	1.00	1.00

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	247 %	171 %
Prated	6.80 kW	6.79 kW
SCOP	6.24	4.35
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.80 kW	6.79 kW
COP Tj = +2°C	3.42	2.37
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	4.68 kW	4.82 kW
COP Tj = +7°C	5.94	3.84
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.66 kW	3.49 kW
COP Tj = 12°C	7.87	5.72
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	6.80 kW	6.79 kW
COP Tj = Tbiv	3.42	2.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.80 kW	6.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.42	2.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 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	1456 kWh	2086 kWh

**Model HA 8-8.2 OS 230V B3 + HA 8-8.2 WSB + FEW 250/2 B**

Model name	HA 8-8.2 OS 230V B3 + HA 8-8.2 WSB + FEW 250/2 B
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

**General data**

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

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency ηDHW	137 %
COP	3.32
Heating up time	01:20 h:min
Standby power input	34.4 W
Reference hot water temperature	53.7 °C
Mixed water at 40°C	341 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency ηDHW	128 %
COP	3.19
Heating up time	01:11 h:min
Standby power input	53.4 W
Reference hot water temperature	53 °C
Mixed water at 40°C	248 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency ηDHW	167 %
COP	4.18
Heating up time	01:27 h:min
Standby power input	31.5 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	362 l

**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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.07 kW	6.45 kW
El input	1.01 kW	2.16 kW
COP	5.00	2.98

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.40 kW	1.87 kW
Cooling capacity	4.26	7.29
EER	3.04	3.90

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	203 %	142 %
P <sub>rated</sub>	6.61 kW	5.67 kW
SCOP	5.15	3.63
T <sub>biv</sub>	-7 °C	-7 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7 °C	5.85 kW	5.01 kW
COP T <sub>j</sub> = -7 °C	3.20	2.27
Cd <sub>h</sub> T <sub>j</sub> = -7 °C	1.00	1.00
P <sub>dh</sub> T <sub>j</sub> = +2 °C	3.34 kW	2.91 kW
COP T <sub>j</sub> = +2 °C	5.22	3.52
Cd <sub>h</sub> T <sub>j</sub> = +2 °C	1.00	1.00
P <sub>dh</sub> T <sub>j</sub> = +7 °C	3.14 kW	2.97 kW
COP T <sub>j</sub> = +7 °C	6.31	4.68
Cd <sub>h</sub> T <sub>j</sub> = +7 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = 12 °C	3.71 kW	3.57 kW
COP T <sub>j</sub> = 12 °C	8.36	6.42
Cd <sub>h</sub> T <sub>j</sub> = +12 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.85 kW	5.01 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.20	2.27
P <sub>dh</sub> T <sub>j</sub> = T <sub>OL</sub> or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	5.78 kW	4.72 kW
COP T <sub>j</sub> = T <sub>OL</sub> or COP T <sub>j</sub> = T <sub>designh</sub> if T <sub>OL</sub> < T <sub>designh</sub>	2.86	1.90

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.83 kW	0.94 kW
Annual energy consumption Qhe	2649 kWh	3230 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	175 %	122 %
Prated	6.88 kW	5.69 kW
SCOP	4.44	3.12
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.51 kW	3.69 kW
COP Tj = -7°C	3.76	2.66
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	2.82 kW	2.58 kW
COP Tj = +2°C	5.57	3.97
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.24 kW	3.06 kW
COP Tj = +7°C	6.78	5.32
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.69 kW	3.60 kW
COP Tj = 12°C	8.06	6.73
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.61 kW	4.64 kW
COP Tj = Tbiv	2.61	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.12 kW	4.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.40	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W

PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.88 kW	5.69 kW
Annual energy consumption Qhe	3816 kWh	4499 kWh
Pdh Tj = -15°C (if TOL)	5.61	4.64
COP Tj = -15°C (if TOL)	2.61	2.02
Cdh Tj = -15 °C	1.00	1.00

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	257 %	176 %
Prated	6.80 kW	6.79 kW
SCOP	6.51	4.47
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.80 kW	6.79 kW
COP Tj = +2°C	3.42	2.37
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	4.68 kW	4.82 kW
COP Tj = +7°C	5.94	3.84
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.66 kW	3.49 kW
COP Tj = 12°C	7.87	5.72
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	6.80 kW	6.79 kW
COP Tj = Tbiv	3.42	2.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.80 kW	6.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.42	2.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 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	1397 kWh	2028 kWh
EN 14825   Cooling		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	6.09 kW	6.63 kW
Pdc Tj = 35°C	5.05	7.02
EER Tj = 35°C	6.09 kW	6.63 kW
Cdc Tj = 35 °C	2.96	4.05
Pdc Tj = 30°C	1.000	1.000
EER Tj = 30°C	4.52 kW	4.93 kW
Cdc Tj = 30 °C	4.17	6.00
Pdc Tj = 25°C	1.000	1.000
EER Tj = 25°C	2.98 kW	3.95 kW
Cdc Tj = 25 °C	5.72	8.20
Pdc Tj = 20°C	0.991	0.990
EER Tj = 20°C	3.27 kW	4.03 kW
Cdc Tj = 20 °C	7.26	9.64
Poff	0.990	0.989
PTO	0 W	13 W
PSB	0 W	5 W
PCK	13 W	13 W
Annual energy consumption Qce	723 kWh	567 kWh

**Model HA 8-8.2 OS 230V B3 + HA 8-8.2 WS + FEW 250/2 B**

Model name	HA 8-8.2 OS 230V B3 + HA 8-8.2 WS + FEW 250/2 B
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

**General data**

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

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	XL
Efficiency ηDHW	137 %
COP	3.32
Heating up time	01:20 h:min
Standby power input	34.4 W
Reference hot water temperature	53.7 °C
Mixed water at 40°C	341 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency ηDHW	128 %
COP	3.19
Heating up time	01:11 h:min
Standby power input	53.4 W
Reference hot water temperature	53 °C
Mixed water at 40°C	248 l

**EN 16147 | Warmer Climate**

Declared load profile	XL
Efficiency ηDHW	167 %
COP	4.18
Heating up time	01:27 h:min
Standby power input	31.5 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	362 l

**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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	5.07 kW	6.45 kW
El input	1.01 kW	2.16 kW
COP	5.00	2.98
<b>EN 14511-2   Cooling</b>		
	+7°C/+12°C	+18°C/+23°C
El input	1.40 kW	1.87 kW
Cooling capacity	4.26	7.29
EER	3.04	3.90
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
ηs	203 %	142 %
Prated	6.61 kW	5.67 kW
SCOP	5.15	3.63
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.85 kW	5.01 kW
COP Tj = -7°C	3.20	2.27
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	3.34 kW	2.91 kW
COP Tj = +2°C	5.22	3.52
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	3.14 kW	2.97 kW
COP Tj = +7°C	6.31	4.68
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.71 kW	3.57 kW
COP Tj = 12°C	8.36	6.42
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.85 kW	5.01 kW
COP Tj = Tbiv	3.20	2.27
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.78 kW	4.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.90

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.83 kW	0.94 kW
Annual energy consumption Qhe	2649 kWh	3230 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	175 %	122 %
Prated	6.88 kW	5.69 kW
SCOP	4.44	3.12
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	4.51 kW	3.69 kW
COP Tj = -7°C	3.76	2.66
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	2.82 kW	2.58 kW
COP Tj = +2°C	5.57	3.97
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.24 kW	3.06 kW
COP Tj = +7°C	6.78	5.32
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	3.69 kW	3.60 kW
COP Tj = 12°C	8.06	6.73
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.61 kW	4.64 kW
COP Tj = Tbiv	2.61	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.12 kW	4.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.40	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W

PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.88 kW	5.69 kW
Annual energy consumption Qhe	3816 kWh	4499 kWh
Pdh Tj = -15°C (if TOL)	5.61	4.64
COP Tj = -15°C (if TOL)	2.61	2.02
Cdh Tj = -15 °C	1.00	1.00

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	48 dB(A)	48 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
$\eta_s$	257 %	176 %
Prated	6.80 kW	6.79 kW
SCOP	6.51	4.47
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.80 kW	6.79 kW
COP Tj = +2°C	3.42	2.37
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	4.68 kW	4.82 kW
COP Tj = +7°C	5.94	3.84
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.66 kW	3.49 kW
COP Tj = 12°C	7.87	5.72
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	6.80 kW	6.79 kW
COP Tj = Tbiv	3.42	2.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.80 kW	6.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.42	2.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	5 W	5 W
PSB	13 W	13 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	1397 kWh	2028 kWh
EN 14825   Cooling		
Pdesignc	+7°C/+12°C	+18°C/+23°C
SEER	6.09 kW	6.63 kW
Pdc Tj = 35°C	5.05	7.02
EER Tj = 35°C	6.09 kW	6.63 kW
Cdc Tj = 35 °C	2.96	4.05
Pdc Tj = 30°C	1.000	1.000
EER Tj = 30°C	4.52 kW	4.93 kW
Cdc Tj = 30 °C	4.17	6.00
Pdc Tj = 25°C	1.000	1.000
EER Tj = 25°C	2.98 kW	3.95 kW
Cdc Tj = 25 °C	5.72	8.20
Pdc Tj = 20°C	0.991	0.990
EER Tj = 20°C	3.27 kW	4.03 kW
Cdc Tj = 20 °C	7.26	9.64
Poff	0.990	0.989
PTO	0 W	13 W
PSB	0 W	5 W
PCK	13 W	13 W
Annual energy consumption Qce	723 kWh	567 kWh