SysAqua

20 / 25 / 30 / 35 / 40 / 45 / 50 / 65 / 75 / 90 / 105 / 125
140 / 150 / 170 / 190 / 210

Air Cooled Water Chillers and Heat Pumps

R410A

19.5 ➔ 217.6kW

19.3 ➔ 208.8kW

CE

ENERGY LABELLING MANUEL — English

MANUEL D'ETIQUETAGE ENERGETIQUE — Français

ENERGIEEFFIZIENZKENNZEICHUNGHANDBUCH — Deutsch

MANUALE DI ETICHETTATURA ENERGETICA — Italiano

MANUAL DE ETIQUETADO ENERGETICO — Español

Model(s):	SYSAQUAH 20
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	19 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	13.4 kW
T_j=+2 °C	Pdh	15.7 kW
T_j=+7 °C	Pdh	12.2 kW
T_j=+12 °C	Pdh	15.6 kW
T_j= bivalent temperature	Pdh	14.3 kW
T_j=-15 °C	Pdh	11.3 kW
Bivalent temperature	T_{biv}	-4.0 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.208 kW
Standby mode	P_{SB}	0.068 kW
Crankcase heater mode	P_{CK}	0.068kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	75 dB

Seasonal space heating energy efficiency	η_s	132 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.60
T_j=+2 °C	COPd	3.17
T_j=+7 °C	COPd	4.66
T_j=+12 °C	COPd	4.73
T_j= bivalent temperature	COPd	2.97
T_j=-15 °C	COPd	1.95
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		9 000 m^3/h
Annual energy consumption	Q_{HE}	11 594 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 25
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	23 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	16.24 kW
T_j=+2 °C	Pdh	19.09 kW
T_j=+7 °C	Pdh	14.92 kW
T_j=+12 °C	Pdh	17.07 kW
T_j= bivalent temperature	Pdh	17.40 kW
T_j=-15 °C	Pdh	13.17 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.292 kW
Standby mode	P_{SB}	0.068 kW
Crankcase heater mode	P_{CK}	0.068 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	75 dB

Seasonal space heating energy efficiency	η_s	128 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.58
T_j=+2 °C	COPd	3.27
T_j=+7 °C	COPd	4.85
T_j=+12 °C	COPd	5.79
T_j= bivalent temperature	COPd	2.93
T_j=-15 °C	COPd	1.97
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		13 000 m^3/h
Annual energy consumption	Q_{HE}	13 817 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

Model(s):	SYSAQUAH 30
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	27 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	17.80 kW
T_j=+2 °C	Pdh	23.70 kW
T_j=+7 °C	Pdh	17.01 kW
T_j=+12 °C	Pdh	19.16 kW
T_j= bivalent temperature	Pdh	20.09 kW
T_j=-15 °C	Pdh	12.56 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.268 kW
Standby mode	P_{SB}	0.110 kW
Crankcase heater mode	P_{CK}	0.110 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	75 dB

Seasonal space heating energy efficiency	η_s	128 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.49
T_j=+2 °C	COPd	3.22
T_j=+7 °C	COPd	5.28
T_j=+12 °C	COPd	6.08
T_j= bivalent temperature	COPd	2.86
T_j=-15 °C	COPd	1.84
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		13 000 m^3/h
Annual energy consumption	Q_{HE}	16 988 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 35
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	35 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	22.43 kW
T_j=+2 °C	Pdh	27.70 kW
T_j=+7 °C	Pdh	23.04 kW
T_j=+12 °C	Pdh	25.95 kW
T_j= bivalent temperature	Pdh	25.70 kW
T_j=-15 °C	Pdh	21.53 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.351 kW
Standby mode	P_{SB}	0.110 kW
Crankcase heater mode	P_{CK}	0.110 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	-/76 dB

Seasonal space heating energy efficiency	η_s	132 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.72
T_j=+2 °C	COPd	3.27
T_j=+7 °C	COPd	5.22
T_j=+12 °C	COPd	6.02
T_j= bivalent temperature	COPd	3.00
T_j=-15 °C	COPd	2.24
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		16 000 m^3/h
Annual energy consumption	Q_{HE}	21 391 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

Model(s):	SYSAQUAH 40
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	37 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	27.52 kW
T_j=+2 °C	Pdh	30.92 kW
T_j=+7 °C	Pdh	25.08 kW
T_j=+12 °C	Pdh	28.38 kW
T_j= bivalent temperature	Pdh	28.84 kW
T_j=-15 °C	Pdh	24.49 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.394 kW
Standby mode	P_{SB}	0.110 kW
Crankcase heater mode	P_{CK}	0.110 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	76 dB

Seasonal space heating energy efficiency	η_s	133 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.79
T_j=+2 °C	COPd	3.28
T_j=+7 °C	COPd	5.16
T_j=+12 °C	COPd	6.12
T_j= bivalent temperature	COPd	3.03
T_j=-15 °C	COPd	2.34
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		16 000 m^3/h
Annual energy consumption	Q_{HE}	22 364 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 45
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	42 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	30.30 kW
T_j=+2 °C	Pdh	35.62 kW
T_j=+7 °C	Pdh	28.96 kW
T_j=+12 °C	Pdh	32.76 kW
T_j= bivalent temperature	Pdh	32.37 kW
T_j=-15 °C	Pdh	25.58 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.400 kW
Standby mode	P_{SB}	0.144 kW
Crankcase heater mode	P_{CK}	0.144 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	80 dB

Seasonal space heating energy efficiency	η_s	126 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.57
T_j=+2 °C	COPd	3.21
T_j=+7 °C	COPd	4.87
T_j=+12 °C	COPd	5.69
T_j= bivalent temperature	COPd	2.89
T_j=-15 °C	COPd	1.99
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		22 500 m^3/h
Annual energy consumption	Q_{HE}	26 717 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

Model(s):	SYSAQUAH 55
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	50 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	35.14 kW
T_j=+2 °C	Pdh	41.24kW
T_j=+7 °C	Pdh	29.06 kW
T_j=+12 °C	Pdh	32.86 kW
T_j= bivalent temperature	Pdh	37.51 kW
T_j=-15 °C	Pdh	29.72 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.508 kW
Standby mode	P_{SB}	0.144 kW
Crankcase heater mode	P_{CK}	0.144 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	80 dB

Seasonal space heating energy efficiency	η_s	128 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.61
T_j=+2 °C	COPd	3.26
T_j=+7 °C	COPd	4.78
T_j=+12 °C	COPd	5.57
T_j= bivalent temperature	COPd	2.94
T_j=-15 °C	COPd	2.04
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		22 500 m^3/h
Annual energy consumption	Q_{HE}	31 399 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 65
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	57 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	44.48 kW
T_j=+2 °C	Pdh	52.32 kW
T_j=+7 °C	Pdh	34.02 kW
T_j=+12 °C	Pdh	38.22 kW
T_j= bivalent temperature	Pdh	47.53 kW
T_j=-15 °C	Pdh	41.86 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.467 kW
Standby mode	P_{SB}	0.144 kW
Crankcase heater mode	P_{CK}	0.144 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	80 dB

Seasonal space heating energy efficiency	η_s	134 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.71
T_j=+2 °C	COPd	3.36
T_j=+7 °C	COPd	5.05
T_j=+12 °C	COPd	5.82
T_j= bivalent temperature	COPd	3.04
T_j=-15 °C	COPd	2.13
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		30 000 m^3/h
Annual energy consumption	Q_{HE}	36 045 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

Model(s):	SYSAQUAH 75
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	72 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	49.41 kW
T_j=+2 °C	Pdh	58.04 kW
T_j=+7 °C	Pdh	43.14 kW
T_j=+12 °C	Pdh	48.94 kW
T_j= bivalent temperature	Pdh	52.76 kW
T_j=-15 °C	Pdh	41.74 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.581 kW
Standby mode	P_{SB}	0.144 kW
Crankcase heater mode	P_{CK}	0.144 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	80 dB

Seasonal space heating energy efficiency	η_s	133 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.74
T_j=+2 °C	COPd	3.36
T_j=+7 °C	COPd	5.07
T_j=+12 °C	COPd	5.83
T_j= bivalent temperature	COPd	3.05
T_j=-15 °C	COPd	2.19
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		30 000 m^3/h
Annual energy consumption	Q_{HE}	42 358 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 90
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	85 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	61.96 kW
T_j=+2 °C	Pdh	71.54 kW
T_j=+7 °C	Pdh	50.54 kW
T_j=+12 °C	Pdh	57.34 kW
T_j= bivalent temperature	Pdh	65.69 kW
T_j=-15 °C	Pdh	53.45 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.498 kW
Standby mode	P_{SB}	0.160kW
Crankcase heater mode	P_{CK}	0.160 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	83 dB

Seasonal space heating energy efficiency	η_s	128 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.69
T_j=+2 °C	COPd	3.23
T_j=+7 °C	COPd	4.63
T_j=+12 °C	COPd	5.39
T_j= bivalent temperature	COPd	2.96
T_j=-15 °C	COPd	2.51
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		42 000 m^3/h
Annual energy consumption	Q_{HE}	53 665 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

Model(s):	SYSAQUAH 105
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	98 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	71.59 kW
T_j=+2 °C	Pdh	82.12 kW
T_j=+7 °C	Pdh	50.64 kW
T_j=+12 °C	Pdh	57.44 kW
T_j= bivalent temperature	Pdh	75.69 kW
T_j=-15 °C	Pdh	62.22 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.617 kW
Standby mode	P_{SB}	0.173 kW
Crankcase heater mode	P_{CK}	0.173 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	83 dB

Seasonal space heating energy efficiency	η_s	129 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.73
T_j=+2 °C	COPd	3.27
T_j=+7 °C	COPd	4.60
T_j=+12 °C	COPd	5.35
T_j= bivalent temperature	COPd	3.00
T_j=-15 °C	COPd	2.56
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		42 000 m^3/h
Annual energy consumption	Q_{HE}	60 991 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 125
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	118 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	84.09 kW
T_j=+2 °C	Pdh	96.78 kW
T_j=+7 °C	Pdh	50.82 kW
T_j=+12 °C	Pdh	57.62 kW
T_j= bivalent temperature	Pdh	89.02 kW
T_j=-15 °C	Pdh	72.81 kW
Bivalent temperature	T_{biv}	-3.5 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	0.789 kW
Standby mode	P_{SB}	0.173 kW
Crankcase heater mode	P_{CK}	0.173 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	83 dB

Seasonal space heating energy efficiency	η_s	131 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.76
T_j=+2 °C	COPd	3.33
T_j=+7 °C	COPd	4.54
T_j=+12 °C	COPd	5.28
T_j= bivalent temperature	COPd	3.05
T_j=-15 °C	COPd	2.26
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		42 000 m^3/h
Annual energy consumption	Q_{HE}	72 485 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

Model(s):	SYSAQUAH 140
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	138 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	94.10 kW
T_j=+2 °C	Pdh	126.50 kW
T_j=+7 °C	Pdh	49.82 kW
T_j=+12 °C	Pdh	39.22 kW
T_j= bivalent temperature	Pdh	104.90 kW
T_j=-15 °C	Pdh	65.20 kW
Bivalent temperature	T_{biv}	-4.0 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	2.193 kW
Standby mode	P_{SB}	0.173 kW
Crankcase heater mode	P_{CK}	0.240 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	85.4 dB

Seasonal space heating energy efficiency	η_s	130 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.52
T_j=+2 °C	COPd	3.53
T_j=+7 °C	COPd	4.29
T_j=+12 °C	COPd	4.69
T_j= bivalent temperature	COPd	2.78
T_j=-15 °C	COPd	1.62
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		56 000 m^3/h
Annual energy consumption	Q_{HE}	72 485 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 150
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	145 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	101.57 kW
T_j=+2 °C	Pdh	136.37 kW
T_j=+7 °C	Pdh	49.77 kW
T_j=+12 °C	Pdh	42.27 kW
T_j= bivalent temperature	Pdh	113.17 kW
T_j=-15 °C	Pdh	70.64 kW
Bivalent temperature	T_{biv}	-4.0 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	2.298 kW
Standby mode	P_{SB}	0.173 kW
Crankcase heater mode	P_{CK}	0.240 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	85.4 dB

Seasonal space heating energy efficiency	η_s	132 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.52
T_j=+2 °C	COPd	3.53
T_j=+7 °C	COPd	4.54
T_j=+12 °C	COPd	4.69
T_j= bivalent temperature	COPd	2.77
T_j=-15 °C	COPd	1.62
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		56 000 m^3/h
Annual energy consumption	Q_{HE}	88 576 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 170
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	165 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	114.37 kW
T_j=+2 °C	Pdh	153.03 kW
T_j=+7 °C	Pdh	64.53 kW
T_j=+12 °C	Pdh	48.05 kW
T_j= bivalent temperature	Pdh	127.25 kW
T_j=-15 °C	Pdh	80.00 kW
Bivalent temperature	T_{biv}	-4.0 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	2.117 kW
Standby mode	P_{SB}	0.173 kW
Crankcase heater mode	P_{CK}	0.240 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	87.0 dB

Seasonal space heating energy efficiency	η_s	129 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.51
T_j=+2 °C	COPd	3.05
T_j=+7 °C	COPd	4.30
T_j=+12 °C	COPd	4.74
T_j= bivalent temperature	COPd	2.76
T_j=-15 °C	COPd	1.63
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		71 000 m^3/h
Annual energy consumption	Q_{HE}	102 557 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 190
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	185 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	126.99 kW
T_j=+2 °C	Pdh	170.55 kW
T_j=+7 °C	Pdh	64.35 kW
T_j=+12 °C	Pdh	56.75 kW
T_j= bivalent temperature	Pdh	141.51 kW
T_j=-15 °C	Pdh	88.27 kW
Bivalent temperature	T_{biv}	-4.0 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	2.945 kW
Standby mode	P_{SB}	0.173 kW
Crankcase heater mode	P_{CK}	0.240 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	88.1 dB

Seasonal space heating energy efficiency	η_s	129 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.48
T_j=+2 °C	COPd	3.48
T_j=+7 °C	COPd	4.34
T_j=+12 °C	COPd	4.62
T_j= bivalent temperature	COPd	2.74
T_j=-15 °C	COPd	1.60
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		86 000 m^3/h
Annual energy consumption	Q_{HE}	115 459 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

English

Model(s):	SYSAQUAH 210
Air-to-water heat pump:	yes
Water-to-water heat pump:	no
Brine-to-water heat pump:	no
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps, parameters shall be declared for low-temperature application.

Parameters shall be declared for average, colder and warmer climate conditions.

Rated heat output (*)	Prated	195 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	Pdh	141.73 kW
T_j=+2 °C	Pdh	188.33 kW
T_j=+7 °C	Pdh	78.73 kW
T_j=+12 °C	Pdh	56.73 kW
T_j= bivalent temperature	Pdh	157.26 kW
T_j=-15 °C	Pdh	100.31 kW
Bivalent temperature	T_{biv}	-4.0 °C
Cycling interval capacity for heating	Pcych	kW
Degradation co-efficient (**)	Cdh	0.9
Power consumption in modes other than active mode		
Off mode	P_{OFF}	kW
Thermostat-off mode	P_{TO}	3.076 kW
Standby mode	P_{SB}	0.173 kW
Crankcase heater mode	P_{CK}	0.240 kW
Other items		
Capacity control	Staged	
Sound power level, indoors/ outdoors	L_{WA}	88.1 dB

Seasonal space heating energy efficiency	η_s	126 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j		
T_j=-7 °C	COPd	2.45
T_j=+2 °C	COPd	3.43
T_j=+7 °C	COPd	4.16
T_j=+12 °C	COPd	4.63
T_j= bivalent temperature	COPd	2.69
T_j=-15 °C	COPd	1.58
operation limit temperature	TOL	-20 °C
Cycling interval efficiency	COPcyc	
Heating water operating limit temperature	WTOL	55 °C
Supplementary heater		
Rated heat output	Psup	kW
Type of energy input		
Rated air flow rate, outdoors		83 000 m^3/h
Annual energy consumption	Q_{HE}	123 968 kWh

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T_j).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

Contact details:

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE

As part of our ongoing product improvement programme, our products are subject to change without prior notice. Non contractual photos.

Systemair AC SAS
Route de Verneuil
27570 Tillières-sur-Avre
FRANCE
✆ : +33 (0)2 32 60 61 00
🖷 : +33 (0)2 32 32 55 13

J38356GB

ELM AQA 01-S-4GB
Part number : **J38356GB**
Supersedes : **ELM AQA 01-S-3GB**