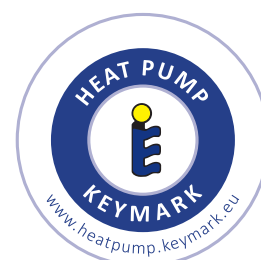
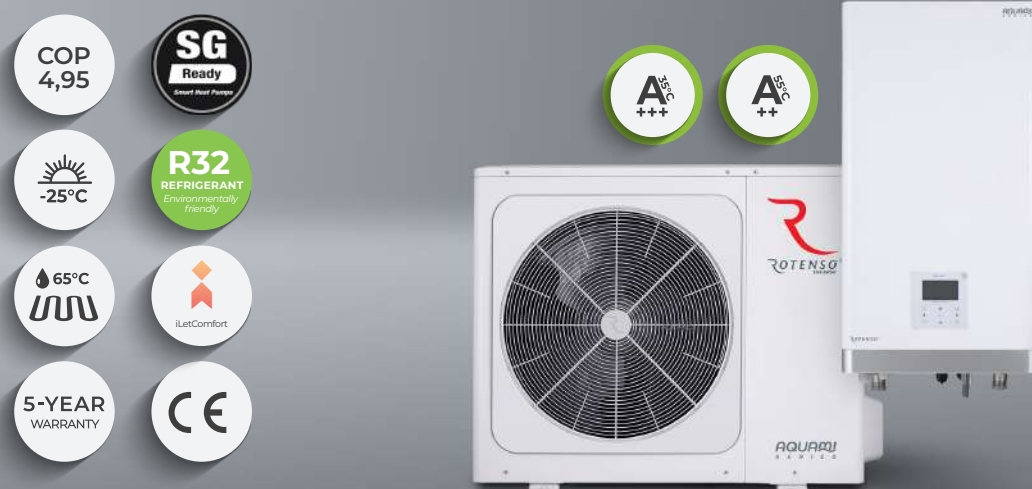




































# Aquami Split heat pump

AQS120X3o<sup>[R14]</sup> / AQS160X13i<sup>[R14]</sup>



## Device features

							
Environmentally friendly refrigerant R32	Efficient heating	Energy efficiency class at 35°C A+++	Energy efficiency class at 55°C A++	Maximum COP 4,95	Operating range down to -25°C	Supply water temperature of 65°C	Integrated USB port for updates
							
Energy meter	Smart Grid functionality	Twin rotary compressor	Integrated electric heater	Outdoor unit drip tray heater	Compressor crankcase heater	Indoor unit drip tray	Easy installation and maintenance
							
Compact indoor split unit housing	Maximum installation length up to 30m	Silent mode	Built-in Wi-Fi module	Daily operation schedule	Configurable weekly schedules	Vacation mode	Menu in English
							
Multilanguage menu	Integrated temperature sensor	Weather operating modes (climate curve)	2 heating control zones	Dedicated application	Disinfection	DHW circulation pump operation schedules	Maximum leaving water temperature of 60°C (in DHW mode)
							
Prepared to create a cascade system	Modbus Protocol						

# Specification indoor unit

Model			AQS160X131 R14	
EAN Code			5905567602139	
Operation modes			Heating and cooling	
Leaving water temperature	Surface cooling	°C	5-25	
	Surface heating	°C	25-65	
	DHW (tank)	°C	30-60	
Power supply		V-Hz, Ø	220-240-50, 1f / 380-420-50, 3f	
Rated input		W	9095	
Operating current		A	13,5	
Sound power level		dB(A)	43	
Electric heater	Power supply	V-Hz, Ø	220-240-50, 1f / 380-420-50, 3f	
	Number of heating stages / Power	pcs. / kW	3 / 9 (3+3+3)	
	Maximum running current	A	13,3	
Net dimensions		(W×D×H) mm	420 × 270 × 790	
Gross dimensions		(W×D×H) mm	525 × 360 × 1050	
Net weight / Gross weight		kg	39 / 45	
Water circuit	Water connections		inch	R1" external
	Pressure relief valve		MPa	0,3
	Condensate drain		mm	Ø25
	Expansion tank	Total volume / Actual volume	l	8 / 4,8
		Maximum pressure / Initial pressure	MPa	0,3 / 0,1
	PHE / plate heat exchanger	Type	PHE / plate heat exchanger	
		Minimum flow	l/min	10
	Water pump head		m	9
	Water pump type		DC inverter	
Refrigerant circuit		Liquid / Gas	mm	Ø9,52 / Ø15,9
Minimal wire pcs and dimension of cords*		pcs × mm²	5 × 2,5	
Control cables: indoor unit to outdoor unit		pcs × mm²	2 × 0.75 (shielded cable)	

# Specification outdoor unit

Model			AQS120X3e R14	
EAN Code			5905567602085	
Power supply			380-420-50, 3f	
Heating (A7/W35)	Capacity	kW	12,10	
	Rated input	kW	2,44	
	COP		4,95	
Heating (A7/W45)	Capacity	kW	12,30	
	Rated input	kW	3,24	
	COP		3,80	
Heating (A7/W55)	Capacity	kW	12,00	
	Rated input	kW	3,87	
	COP		3,10	
Cooling (A35/W18)	Capacity	kW	12,00	
	Rated input	kW	3,00	
	EER		4,00	
Cooling (A35/W7)	Capacity	kW	11,60	
	Rated input	kW	4,22	
	EER		2,75	
Seasonal energy efficiency LWT 35°C	SCOP <sup>(1)</sup>		4,81	
	Rated heat output	kW	12	
	Seasonal energy efficiency ratio (η <sub>S</sub> )	%	189,4	
	Annual energy consumption	kWh	5152	
	Seasonal space heating energy efficiency class <sup>(1)</sup>		A+++	
Seasonal energy efficiency LWT 55°C	SCOP <sup>(1)</sup>		3,45	
	Rated heat output	kW	11,6	
	Seasonal energy efficiency ratio (η <sub>S</sub> )	%	135,1	
	Annual energy consumption	kWh	6927	
	Seasonal space heating energy efficiency class <sup>(1)</sup>		A++	
SEER	LWT at 7°C		4,86	
	LWT at 8°C		7,04	
Minimum rated current of the overcurrent circuit breaker with breaker type		A	B16	
Compressor	Type		Twin rotary inverter compressor DC	
Fan	Type		Brushless DC motor / BLDC	
	Quantity		1	
Refrigerant	Type/ GWP		R32 / 675	
	Charged (<15m)	kg	1,84	
		TCO <sub>2</sub> eq	1,24	
Pipe connections	Liquid / Gas		Ø9,52 (3/8") / Ø15,9 (5/8")	
	Minimum installation length		2	
	Maximum installation length		30	
	Additional amount of refrigerant for over 15 linear meters		g/m	
Maximum height difference	Outdoor unit above the indoor unit		20	
	Outdoor unit below the indoor unit		20	
Minimal wire pcs and dimension of cords*		pcs × mm²	5 × 2,5	
Control cables: indoor unit to outdoor unit		pcs × mm²	2 × 0,75 (shielded cable)	
Bracket spacing		(W×D)	656×456	
Sound pressure level		dB(A)	50	
Sound power level		dB(A)	64	
Net dimensions	(W×D×H)	mm	1118×523×865	
Gross dimensions	(W×D×H)	mm	1180×560×890	
Net weight/Gross weight		kg	112/125,5	
Operating outdoor temperature	Cooling		°C	
	Heating		°C	
	DHW		°C	

1. Seasonal energy efficiency class measured under average climate conditions.

Notes:

DHW – Domestic hot water

LWT – Leaving water temperature

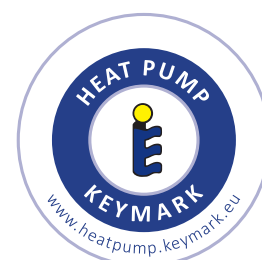
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.

The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than IΔn: 30mA

\*The above values apply to supply cables with a maximum length of 20m. If this value is exceeded, an electrical designer should be consulted.

# Aquami All in Split heat pump

AQS120X3o<sup>[R14]</sup> / AQS160T240X13i<sup>[R14]</sup>



## Device features

Environmentally friendly refrigerant R32	Efficient heating	Energy efficiency class at 35°C A+++	Energy efficiency class at 55°C A++	Maximum COP 4,95	Operating range down to -25°C	Supply water temperature of 65°C	Integrated USB port for updates
Energy meter	Smart Grid functionality	Twin rotary compressor	Integrated electric heater	Outdoor unit drip tray heater	Compressor crankcase heater	Indoor unit drip tray	Easy installation and maintenance
Compact indoor split unit housing	Maximum installation length up to 30m	Silent mode	Built-in Wi-Fi module	Daily operation schedule	Configurable weekly schedules	Vacation mode	Menu in English
Multilanguage menu	Integrated temperature sensor	Weather operating modes (climate curve)	2 heating control zones	Dedicated application	Disinfection	DHW circulation pump operation schedules	Maximum leaving water temperature of 60°C (in DHW mode)
Integrated DHW tank	Tank of stainless steel	Built-in switching valve					

Notes: DHW – Domestic hot water, LWT – Leaving water temperature  
The sound pressure level is measured 1m in front of the unit and (1+H)/2m (where H is the height of the unit) above the floor in semi-anechoic room. During on-site operation sound pressure levels can be higher as a result of ambient noise. Sound pressure level and sound power level reflect the maximum value tested under three conditions specified respectively in notes A7W35, ΔT=5; A7W45, ΔT=5; A7W55 ΔT=8; relative humidity 85%. The figures specified above refer to the following standards: EN14511; EN14825; EN50564; EN12102; (EU) Np. 811/2013; (EU) No. 813/2013; Journal of Laws 2014 / C 207/02: 2014.

Rotenso reserves the right to make changes to its products without prior notice.

# Specification indoor unit

Model				AQ5160T240X13i R14		
EAN code				5905567602160		
Operation modes				Heating and cooling		
Leaving water temperature	Surface cooling		°C	5-25		
	Surface heating		°C	25-65		
	DHW (tank)		°C	30-60		
Power supply			V-Hz, Ø	220-240-50, 1f / 380-420-50, 3f		
Rated input / Operating current			W / A	9095 / 13,5		
Sound power level			dB(A)	42		
Electric heater	Power supply		V-Hz, Ø	220-240-50, 1f / 380-420-50, 3f		
	Number of heating stages / Power		pcs. / kW	3 / 9 (3+3+3)		
	Maximum operating current		A	13,3		
Net dimensions		(W×D×H)	mm	600×600×1943		
Gross dimensions		(W×D×H)	mm	653×653×2160		
Net weight / Gross weight			kg	158/173		
Water circuit	Water connections		inch	R1" external		
	Pressure relief valve		MPa	0,3		
	Condensate drain		mm	Ø25		
	Expansion tank	Total volume / Actual volume		l	8 / 4,8	
		Maximum pressure / Initial pressure		MPa	0,3 / 0,1	
	PHE / plate heat exchanger	Type		PHE / plate heat exchanger		
		Minimum flow		l/min	10	
	Water pump head		m	9		
	Water pump head			DC		
	DHW tank	Tank material		Stainless steel 316L		
		Housing material/colour		Polyurethane foam, steel / white		
		Tank capacity		l	240	
		Maximum water temperature (disinfection mode)		°C	70	
		Insulation thickness		mm	45	
		Maximum pressure		bar	10	
Refrigerant circuit	Liquid / Gas		mm	Ø9,52 (3/8") / Ø15,9 (5/8")		
Minimal wire pcs and dimension of cords*			pcs × mm²	5 × 2,5		
Control cables: indoor unit to outdoor unit			pcs × mm²	2 × 0,75 (shielded cable)		

# Specification outdoor unit

Model			AQ5120X3o R14	
EAN Code			5905567602085	
Power supply			380-420-50, 3f	
Heating (A7/W35)	Capacity	kW	12,10	
	Rated input	kW	2,44	
	COP		4,95	
Heating (A7/W45)	Capacity	kW	12,30	
	Rated input	kW	3,24	
	COP		3,80	
Heating (A7/W55)	Capacity	kW	12,00	
	Rated input	kW	3,87	
	COP		3,10	
Cooling (A35/W18)	Capacity	kW	12,00	
	Rated input	kW	3,00	
	EER		4,00	
Cooling (A35/W7)	Capacity	kW	11,60	
	Rated input	kW	4,22	
	EER		2,75	
Seasonal energy efficiency LWT 35°C	SCOP <sup>(1)</sup>		4,81	
	Rated heat output	kW	12	
	Seasonal energy efficiency ratio (η <sub>S</sub> )	%	189,4	
	Annual energy consumption	kWh	5152	
	Seasonal space heating energy efficiency class <sup>(1)</sup>		A+++	
Seasonal energy efficiency LWT 55°C	SCOP <sup>(1)</sup>		3,45	
	Rated heat output	kW	11,6	
	Seasonal energy efficiency ratio (η <sub>S</sub> )	%	135,1	
	Annual energy consumption	kWh	6927	
	Seasonal space heating energy efficiency class <sup>(1)</sup>		A++	
SEER	LWT at 7°C		4,86	
	LWT at 8°C		7,04	
Minimum rated current of the overcurrent circuit breaker with breaker type		A	B16	
Compressor	Type		Twin rotary inverter compressor DC	
Fan	Type		Brushless DC motor / BLDC	
	Quantity		1	
Refrigerant	Type/ GWP		R32 / 675	
	Charged (<15m)	kg	1,84	
		TCO <sub>2eq</sub>	1,24	
Pipe connections	Liquid / Gas	mm	Φ9,52 (3/8") / Φ15,9 (5/8")	
	Minimum installation length	m	2	
	Maximum installation length	m	30	
	Additional amount of refrigerant for over 15 linear meters	g/m	38	
Maximum height difference	Outdoor unit above the indoor unit	m	20	
	Outdoor unit below the indoor unit	m	20	
Minimal wire pcs and dimension of cords*		pcs × mm <sup>2</sup>	5 × 2,5	
Control cables: indoor unit to outdoor unit		pcs × mm <sup>2</sup>	2 × 0,75 (shielded cable)	
Bracket spacing		(W×D)	656×456	
Sound pressure level		dB(A)	50	
Sound power level			64	
Net dimensions (W×D×H)		mm	1118×523×865	
Gross dimensions (W×D×H)		mm	1180×560×890	
Net weight/Gross weight		kg	112/125,5	
Operating outdoor temperature	Cooling	°C	-5-43	
	Heating	°C	-25-35	
	DHW	°C	-25-43	

1. Seasonal energy efficiency class measured under average climate conditions

The residual current circuit breaker used to protect the electrical circuit of the appliance shall be selected in view of the electrical regulations in force, assuming that the rated residual current is not greater than I<sub>Δn</sub>: 30mA

\*The above values apply to supply cables with a maximum length of 20mb. If this value is exceeded, an electrical designer should be consulted.