

ACTIVA Rooftop

ARC-ARG-ARH-ARD

A complete range from 17 kW up to 40 kW

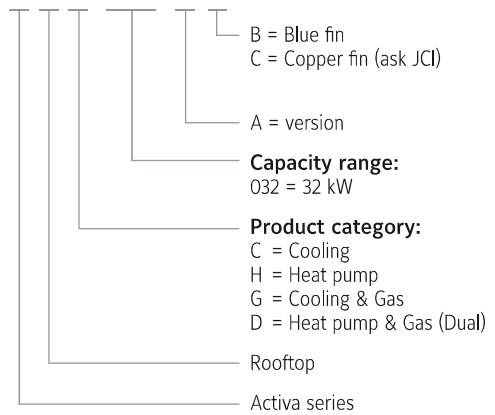


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Features

- High efficiency EER and COP
- Low noise level
- EC supply fan
- All configurations: Cooling only, Cooling + gas, Heating, Heating + Gas
- BMS connection as standard
- Compact design
- Energy recovery (enthalpy wheel)
- External HP & LP access
- Filters G4, F6 & F7 available

A R C 032 A B Nomenclature



ACTIVA Rooftop

ARC-ARG-ARH-ARD 017 to 040 AB



Technical features

Cooling only models		ARC 017 AB	ARC 022 AB	ARC 032 AB	ARC 040 AB	
Net cooling capacities	kW	18.2	23.2	31	39.9	
Power input	kW	5.5	7.4	9.9	14.2	
EER		3.42	3.31	3.23	2.9	
Working range (full load / partial load)	°C	7°C ~ 46°C / -10°C ~ 52°C				
Heat pump models		ARH 017 AB	ARH 022 AB	ARH 032 AB	ARH 040 AB	
Net cooling capacities	kW	18.2	22.2	31	39.9	
Power input in cooling	kW	5.5	7.4	9.9	14.2	
EER		3.42	3.15	3.23	2.9	
Heating capacities (1)	kW	16.5	22.1	30.9	39.0	
Power input in heating	kW	5.4	6.9	9.8	13.5	
COP		3.2	3.36	3.23	3.0	
Working range (full load / partial load)	°C	-10°C ~ 46°C / -10°C ~ 52°C				
Cooling only + Gas heating models		ARG 017 AB	ARG 022 AB	ARG 032 AB	ARG 040 AB	
Net cooling capacities	kW	18.2	23.2	31	39.9	
Cooling power input	kW	5.5	7.4	9.9	14.2	
Standard Heating capacities (1) NET	kW	23	23	41	41	
Natural gas 2ND-H, G20	m³/h	2.5	2.5	4.5	4.5	
Working range (full load / partial load)	°C	-20°C ~ 46°C / -20°C ~ 52°C				
Heat pump + Gas heating models		ARD 017 AB	ARD 022 AB	ARD 032 AB	ARD 040 AB	
Net cooling capacities	kW	18.2	22.2	31	39.9	
Power input in cooling	kW	5.5	7.4	9.9	14.2	
Heating capacities (1)	kW	18.1	22.1	30.9	39.0	
Power input in heating	kW	5.7	6.9	9.8	13.5	
Standard Heating capacities (1) NET	kW	23	23	41	41	
Natural gas 2ND-H, G20	m³/h	2.5	2.5	4.5	4.5	
Working range (full load / partial load)	°C	-20°C ~ 46°C / -20°C ~ 52°C				
Common characteristics						
Power supply	400V/3 + N/ 50Hz					
Main switch	A	20	25	40	50	
Main cable	Nbr. x mm²	5 x 4	5 x 6	5 x 10	5 x 16	
Number to thermostat	Nbr. x mm²	10 x 0.22				
Number of circuits / Compressor type	1 / 1 x Scroll			1 (Tandem) / 2 x Scroll		
Evaporator fan	Airflow	m³/h	3400	4300	5700	7400
	ASP	Pa	600	600	600	600
Nett dimensions	Height	mm	1 420	1 420	1 420	1 420
	Length	mm	1 866	1 866	2 135	2 135
	Depth	mm	1 540	1 540	1 850	1 850
Nett weight	ARC / ARG	kg	420 / 462	440 / 482	581 / 642	585 / 646
Nett weight	ARH / ARD	kg	425 / 467	445 / 487	587 / 648	591 / 652

All the data are at EUROVENT conditions with 400V/3+N/50Hz.

Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C - Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB

(1) Add indoor fan motor consumption to know total heating capacity.

Codes

Cooling only models	ARC 017 AB	ARC 022 AB	ARC 032 AB	ARC 040 AB
	S661752110	S661752120	S661752130	S661752150
Heat pump models	ARH 017 AB	ARH 022 AB	ARH 032 AB	ARH 040 AB
	S661752113	S661752123	S661752133	S661752153
Cooling only + Gas heating models	ARG 017 AB	ARG 022 AB	ARG 032 AB	ARG 040 AB
	S661752111	S661752121	S661752131	S661752151
Heat pump + Gas heating models	ARD 017 AB	ARD 022 AB	ARD 032 AB	ARD 040 AB
	S661752112	S661752122	S661752132	S661752152
Thermostat				
to be ordered separately	DPC-1			

Activa rooftop details & features



High Efficiency

High efficiency compressor and fans managed by a smart control allows the unit to achieve and maintain the level of comfort required in the most efficient way, reducing therefore the energy bill.



Low Noise

Ultra quiet fans and optimized airflow reduces the noise level increasing the comfort. Compressors are mounted on shock absorbers and anti-vibration springs are available to avoid vibration transmissions into de building.



Easy Installation and Maintenance

The high level of usability of the control, the internal solutions adopted (like direct driven fans with variable speed) and the easy access to components simplify and reduce the need of external interventions. Full information on commissioning and maintenance plan are provided to help to ensure unit keeps running always in optimal conditions.



Compact Design

The refrigerant circuit layout has been redesigned and high efficiency exchangers been used to reduce the footprint and improve the transport and handling. Transition roofcurbs are available to fit in existing installations.

Accessories & options

Accessories & options

	Code	Cooling only				Heat pump				Cooling + gas heating				Heat pump + gas heating			
		017	022	032	040	017	022	032	040	017	022	032	040	017	022	032	040
Thermostat DPC-1	S603786044	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Dry bulb triple input economizer or motorized air damper with rain hood	S611752301	O	O			O	O			O	O			O	O		
	S611752311			O	O			O	O			O	O			O	O
Enthalpy probes	S613990081	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Indoor air quality sensor	S606819964	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A
Power Exhaust	S611752302	A	A			A	A			A	A			A	A		
	S611752312			A	A			A	A			A	A			A	A
Barometric relief damper and rain hood	S611752472	A	A			A	A			A	A			A	A		
	S611752473			A	A			A	A			A	A			A	A
Fresh air damper and rain hood (2)	S611752303	A	A			A	A			A	A			A	A		
	S611752313			A	A			A	A			A	A			A	A
Low ambient kit	S611752381	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Roofcurb adapter (3)	S611752886	A	A			A	A			A	A			A	A		
	S611752887			A	A			A	A			A	A			A	A
Fixed roof curb	S611752881	A	A			A	A			A	A			A	A		
	S611752882			A	A			A	A			A	A			A	A
Adjustable roof curb	S611752883	A	A			A	A			A	A			A	A		
	S611752884			A	A			A	A			A	A			A	A
Dirty filter switch	S613990085	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Smoke detector	S613995382	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Fire detection thermostat	S613903003	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Hot water coil	S611752351	O	O			O	O										
	S611752352			O	O			O	O								
Electric heaters	16 kW	S611752516	O	O			O	O									
	16 kW	S611752616			O	O			O	O							
	25 kW	S611752525	O	O			O	O									
	25 kW	S611752625			O	O			O	O							
	37 kW	S611752537			O	O			O	O							
Propane conversion Kit	S611752780									A	A	A	A	A	A	A	
Filter kit F6	S611752401	O	O			O	O			O	O			O	O		
	S611752402			O	O			O	O			O	O			O	O
Filter kit F7	S611752411	O	O			O	O			O	O			O	O		
	S611752412			O	O			O	O			O	O			O	O
Grill condenser coil protection	S611752451	O	O			O	O			O	O			O	O		
	S611752452			O	O			O	O			O	O			O	O
Antivibration mounting kit	S611752461	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Energy recovery *	S611752501	A	A			A	A			A	A			A	A		
	S611752511			A	A			A	A			A	A			A	A
Filter kit F6 for energy recovery *	S611755506	O	O			O	O			O	O			O	O		
	S611755516			O	O			O	O			O	O			O	O
Filter kit F7 for energy recovery *	S611752507	O	O			O	O			O	O			O	O		
	S611752517			O	O			O	O			O	O			O	O
Alarm relay board	S606791243	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A
Copper-copper coil	Contact us	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

O=Option (factory fitted). A=Accessory (supplied loose). O/A=If you want this item factory fitted, precise it in the order form.

(1) Energy recovery accessory include: economizer, rain hood, indoor air quality sensor and G4 filters.

(2) Fresh air damper can not be installed if economizer or motorized damper is fitted.

(3) Transition roofcurbs to fit in D_IC/D_IG/B_IG existing installations (090-150 kbtu/h).

* Ask JCI for availability

ACTIVA Rooftop

ARC-ARG-ARH-ARD

A complete range from 45.1 kW up to 84 kW



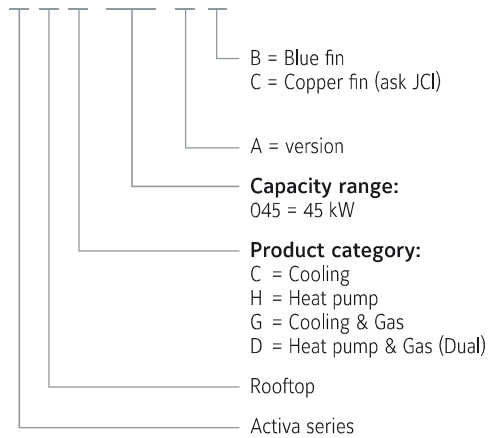
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Features

- High efficiency EER and COP
- Low noise level
- All configurations: Cooling only, Cooling + gas, Heating, Heating + Gas
- BMS communication as standard
- Energy recovery (enthalpy wheel)
- EC Return fan
- External HP & LP access
- Filters G4, F6 & F7 available
- Tandem configuration (up to 52°C outdoor temperature)

A R C 045 A B Nomenclature



ACTIVA Rooftop

ARC-ARG-ARH-ARD 045 to 090 AB



Technical features

Cooling only models		ARC 045 AB	ARC 060 AB	ARC 075 AB	ARC 090 AB	
Net cooling capacities	kW	45.1	61.0	71.5	84.0	
Power input	kW	16.0	23.0	30.0	36.0	
EER		2.96	2.91	2.67	2.60	
Working range (full load / partial load) *	°C	7°C ~ 46°C / -10°C ~ 52°C				
Heat pump models		ARH 045 AB	ARH 060 AB	ARH 075 AB	ARH 090 AB	
Net cooling capacities	kW	47.6	61.9	71.4	83.4	
Power input in cooling	kW	17.0	20.0	28.0	36.0	
EER		3.00	3.06	2.67	2.60	
Heating capacities (1)	kW	45.2	58.0	71.7	86.5	
Power input in heating	kW	16.0	19.0	27.0	33.0	
COP		2.80	2.96	2.81	2.60	
Working range (full load / partial load) *	°C	-10°C ~ 46°C / -10°C ~ 52°C				
Cooling only + Gas heating models		ARG 045 AB	ARG 060 AB	ARG 075 AB	ARG 090 AB	
Net cooling capacities	kW	45.1	61.0	71.5	84.0	
Cooling power input	kW	16.0	23.0	30.0	36.0	
Standard Heating capacities (1)	kW	76.0	76.0	76.0	76.0	
Natural gas 2ND-H, G20	m³/h	8.60	8.60	8.60	8.60	
High Heating capacities (1)	kW	90.0	90.0	90.0	90.0	
Natural gas 2ND-H, G20	m³/h	9.80	9.80	9.80	9.80	
Working range (full load / partial load) **	°C	-20°C ~ 46°C / -20°C ~ 52°C				
Heat pump + Gas heating models		ARD 045 AB	ARD 060 AB	ARD 075 AB	ARD 090 AB	
Net cooling capacities	kW	47.6	61.9	71.4	83.4	
Cooling power input	kW	17.0	20.0	28.0	36.0	
Heating capacities (1)	kW	45.2	58.0	71.7	86.5	
Power input in heating	kW	16.0	19.0	27.0	33.0	
Standard Heating capacities (1)	kW	76.0	76.0	76.0	76.0	
Natural gas 2ND-H, G20	m³/h	8.60	8.60	8.60	8.60	
High Heating capacities (1)	kW	90.0	90.0	90.0	90.0	
Natural gas 2ND-H, G20	m³/h	9.80	9.80	9.80	9.80	
Working range (full load / partial load) **	°C	-20°C ~ 46°C / -20°C ~ 52°C				
Common characteristics						
Power supply	400V/3 + N/ 50Hz					
Main switch	A	50	63	80	80	
Main cable	Nbr. x mm²	5 x 10	5 x 16	5 x 25	5 x 25	
Cable to thermostat	Nbr. x mm²	10 x 0,22				
Number of circuits / Compressor type	1 (tandem) / 2 x scroll					
Evaporator fan at nominal airflow	Airflow	m³/h	8 500	11 500	13 500	16 000
	Power input	kW	3	4	5,5	7,5
Nett dimensions	Height	mm	1 316	1 316	1 367	1 367
	Length	mm	3 180	3 180	3 495	3 495
	Depth	mm	2 337	2 337	2 337	2 337
Nett weight ARC / ARG	kg	900 / 1 010	945 / 1 055	1 118 / 1 228	1 142 / 1 252	
Nett weight ARH / ARD	kg	930 / 1 040	985 / 1 095	1 145 / 1 255	1 220 / 1 330	

All the data are at EUROVENT conditions with 400V/3+N/50Hz.

Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C - Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB

(1) Add indoor fan motor consumption to know total heating capacity.

* With Premium kit (full load / partial load): -10°C ~ 50°C / -10°C ~ 52°C

** With Premium kit (full load / partial load): -20°C ~ 50°C / -20°C ~ 52°C

Codes

Cooling only models	ARC 045 AB	ARC 060 AB	ARC 075 AB	ARC 090 AB
	S661752140	S661752160	S661752170	S661752190
Heat pump models	ARH 045 AB	ARH 060 AB	ARH 075 AB	ARH 090 AB
	S661752143	S661752163	S661752173	S661752193
Cooling only + Gas heating models	ARG 045 AB	ARG 060 AB	ARG 075 AB	ARG 090 AB
	S661752141	S661752161	S661752171	S661752191
Heat pump + Gas heating models	ARD 045 AB	ARD 060 AB	ARD 075 AB	ARD 090 AB
	S661752142	S661752162	S661752172	S661752192
Thermostat	to be ordered separately			
	DPC-1			



Manufacturer reserves the rights to change specifications without prior notice.

Activa rooftop details & features



Condenser fan

New condenser fans with high technology blades and outdoor bell that reduce the turbulences in the air and therefore increase the efficiency and improve the noise level performance.



Tandem scroll compressors

Tandem compressors configuration allows the unit to operate at partial load (only with one compressor) with higher efficiency and increases the working range up to +52°C ambient temperature.



PCB board

The new control board keeps same features and benefits as YKlon V3 and adds new logical to control the tandem circuit, the new options (heat recovery, return fan) and the possibility to communicate with BMS system as standard.



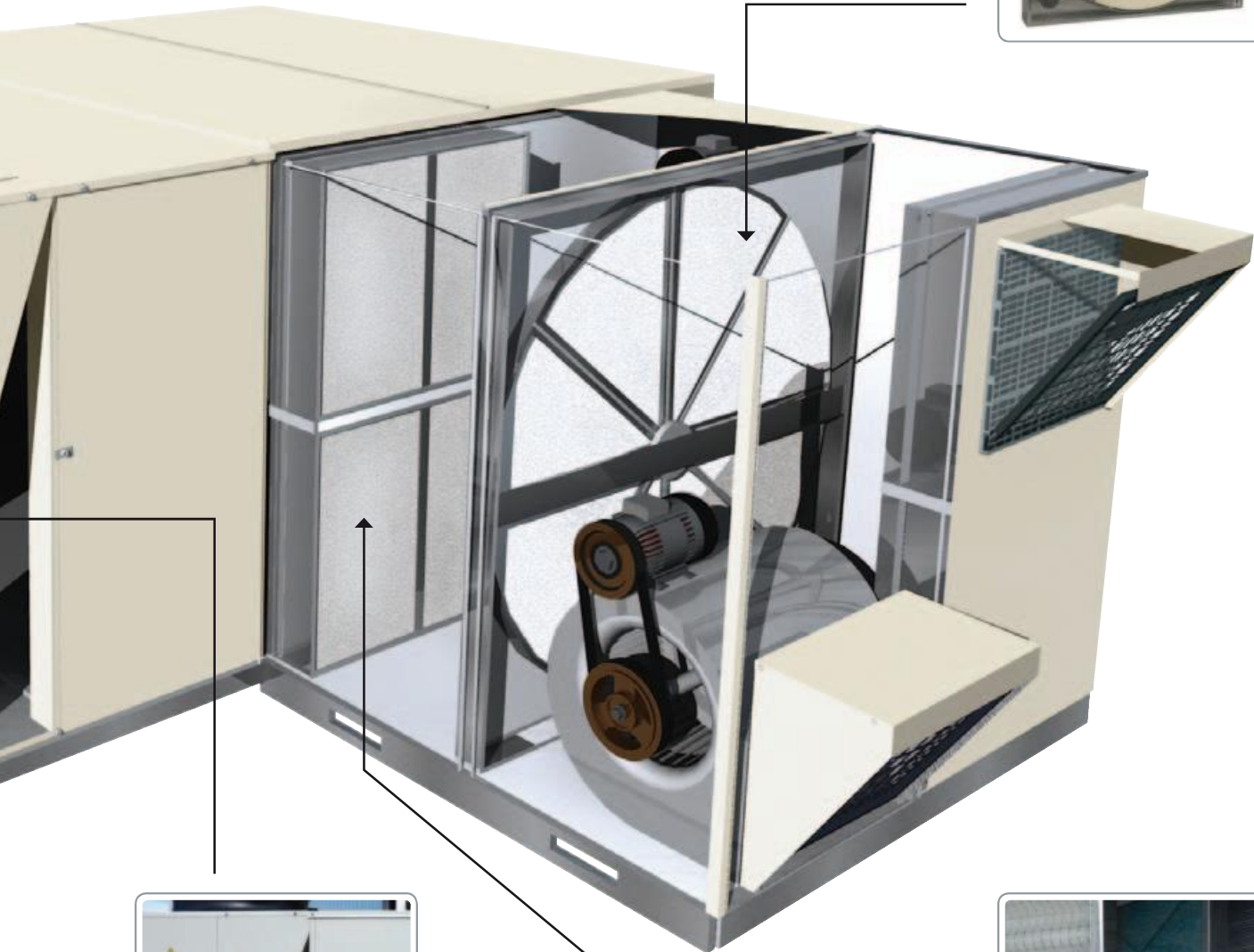
Return fan

Located in a special roof curb underneath the rooftop, it works simultaneously with the indoor fan in order to balance the amount of air supplied to and removed from the space. It is the best suited for systems with high return path static pressures. Also, incorporates EC technology and a differential pressure gauge to easy set up and maintain automatically the working point in the installation.



Energy recovery system

It is the preferred solution to solve two conflicting requirements: reduce running costs (increase efficiency) while maintaining the indoor air quality at high levels (through ventilation). An enthalpy rotary wheel retains the energy from the exhaust air and transmits it to the fresh air stream that is being supplied in the conditioned space. The material used is manufactured with the latest technology to increase the energy transmission in both sensible and latent heat. The wheel is split into 6 portions that can be easily removed for cleaning.



V-Coils

Made in blue fin (or in copper for harsh conditions under special request), increases the heat exchange surface for a given rooftop footprint. The floor pan is sloped for easy condensates drainage.



Filter options

Washable air filters: G4 class filter (gravimetric efficiency above 90%) and M1 fire class, it comes with galvanized sheet metal frame that allows easy cleaning and replacement. Delivered as standard.

Filter kit F6: for Average Opacimetric efficiency (em) $60\% \leq em \leq 80\%$
Filter kit F7: for Average Opacimetric efficiency (em) $80\% \leq em \leq 90\%$

As per EN 779

Accessories & options

Accessories & options

	Code	Cooling only				Heat pump			
		45	60	75	90	45	60	75	90
Thermostat DPC-1	S603786044	A	A	A	A	A	A	A	A
Dry bulb triple input economizer or motorized air damper with rain hood	S661752301	O	O			O	O		
	S661752311			O	O			O	O
Enthalpy probes	S613990081	O	O	O	O	O	O	O	O
Indoor air quality sensor	S606819964	A	A	A	A	A	A	A	A
Power Exhaust	S661752302	A	A			A	A		
	S661752322			A	A			A	A
Barometric relief damper and rain hood	S613990472	A	A			A	A		
	S613990473			A	A			A	A
Fresh air damper and rain hood (2)	S661752303	A	A			A	A		
	S661752323			A	A			A	A
High speed drive	4 kW S611990401	O				O			
	5.5 kW S611990601		O				O		
	7.5 kW S611990701			O				O	
	9.2 kW S611990901				O				O
	11 kW S611990902				O				O
Soft start indoor fan	5.5 kW S606744690	O	O	O	O	O	O	O	O
	11.5 kW S606744691	O	O	O	O	O	O	O	O
Premium Kit (LAK included) *	S613118302	O				O			
	S613118303		O	O	O		O	O	O
Side duct flanges	S613991482	A	A			A	A		
	S613991483			A	A			A	A
Fixed roof curb	S613991884	A	A			A	A		
	S613991885			A	A			A	A
Adjustable roof curb	S613992081	A	A			A	A		
	S613992082			A	A			A	A
Dirty filter switch	S613990085	O	O	O	O	O	O	O	O
Smoke detector	S613995382	O	O	O	O	O	O	O	O
Fire detection thermostat	S613903003	O	O	O	O	O	O	O	O
Hot water coil	S611083351	O	O	O	O	O	O	O	O
Electric heaters	12 kW S611761584	O	O	O	O	O	O	O	O
	25 kW S611762284	O	O	O	O	O	O	O	O
	37 kW S611763385	O	O	O	O	O	O	O	O
	50 kW S611764485	O	O	O	O	O	O	O	O
Propane conversion Kit	S611801780	A	A	A	A	A	A	A	
High heat gas conversion kit	S611803080	O	O	O	O	O	O	O	O
	S611300401	O	O			O	O		
Filter kit F6	S611300701			O				O	
	S611300901				O				O
	S611300402	O	O			O	O		
Filter kit F7	S611300702			O				O	
	S611300902				O				O
	S661752304	O				O			
Grill condenser coil protection	S661752324		O				O		
	S661752314			O	O			O	O
Antivibration mounting kit	S613990411	A	A	A	A	A	A	A	
Return fan bottom duct	S613993042	A	A			A	A		
	S613993072			A	A			A	A
Energy recovery	Q6000 (1) S611994511	A	A			A	A		
	Q3000 (1) S611994512	A	A			A	A		
	Q9000 (1) S611997511			A	A			A	A
	Q4500 (1) S611997512			A	A			A	A
Filter kit F6 for energy recovery	S611994506	O	O			O	O		
	S611997506			O	O			O	O
Filter kit F7 for energy recovery	S611994507	O	O			O	O		
	S611997507			O	O			O	O
Alarm relay board	S606791243	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A
Copper-copper coil	Contact us	O	O	O	O	O	O	O	O

O=Option (factory fitted). A=Accessory (supplied loose). O/A=If you want this item factory fitted, precise it in the order form.

(1) = Energy recovery accessory include: economizer, rain hood, indoor air quality sensor and G4 filters.

(2) Fresh air damper can not be installed if economizer or motorized damper is fitted.

* Features: increased efficiency by 0.15, extended max outdoor temperature up to +50°C at full load, Low ambient kit.



Accessories & options

	Code	Cooling + gas heating				Heat pump + gas heating			
		45	60	75	90	45	60	75	90
Thermostat DPC-1	S603786044	A	A	A	A	A	A	A	A
Dry bulb triple input economizer or motorized air damper with rain hood	S661752301	O	O			O	O		
	S661752311			O	O			O	O
Enthalpy probes	S613990081	O	O	O	O	O	O	O	O
Indoor air quality sensor	S606819964	A	A	A	A	A	A	A	A
Power Exhaust	S661752302	A	A			A	A		
	S661752322			A	A			A	A
Barometric relief damper and rain hood	S613990472	A	A			A	A		
	S613990473			A	A			A	A
Fresh air damper and rain hood (2)	S661752303	A	A			A	A		
	S661752323			A	A			A	A
High speed drive	4 kW S611990401	O				O			
	5.5 kW S611990601		O				O		
	7.5 kW S611990701			O				O	
	9.2 kW S611990901				O				O
	11 kW S611990902				O				O
Soft start indoor fan	5.5 kW S606744690	O	O	O	O	O	O	O	O
	11.5 kW S606744691	O	O	O	O	O	O	O	O
Premium Kit (LAK included) *	S613118302	O				O			
	S613118303		O	O	O		O	O	O
Side duct flanges	S613991482	A	A			A	A		
	S613991483			A	A			A	A
Fixed roof curb	S613991884	A	A			A	A		
	S613991885			A	A			A	A
Adjustable roof curb	S613992081	A	A			A	A		
	S613992082			A	A			A	A
Dirty filter switch	S613990085	O	O	O	O	O	O	O	O
Smoke detector	S613995382	O	O	O	O	O	O	O	O
Fire detection thermostat	S613903003	O	O	O	O	O	O	O	O
Hot water coil	S611083351								
	12 kW S611761584								
	25 kW S611762284								
	37 kW S611763385								
50 kW S611764485									
Propane conversion Kit	S611801780	A	A	A	A	A	A	A	A
High heat gas conversion kit	S611803080	O	O	O	O	O	O	O	O
	S611300401	O	O			O	O		
Filter kit F6	S611300701			O				O	
	S611300901				O				O
Filter kit F7	S611300402	O	O			O	O		
	S611300702			O				O	
	S611300902				O				O
Grill condenser coil protection	S661752304	O				O			
	S661752324		O				O		
	S661752314			O	O			O	O
Antivibration mounting kit	S613990411	A	A	A	A	A	A	A	A
Return fan bottom duct	S613993042	A	A			A	A		
	S613993072			A	A			A	A
Energy recovery	Q6000 (1) S611994511	A	A			A	A		
	Q3000 (1) S611994512	A	A			A	A		
	Q9000 (1) S611997511			A	A			A	A
	Q4500 (1) S611997512			A	A			A	A
Filter kit F6 for energy recovery	S611994506	O	O			O	O		
	S611997506			O	O			O	O
Filter kit F7 for energy recovery	S611994507	O	O			O	O		
	S611997507			O	O			O	O
Alarm relay board	S606791243	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A
Copper-copper coil	Contact us	O	O	O	O	O	O	O	O

O=Option (factory fitted). A=Accessory (supplied loose). O/A=If you want this item factory fitted, precise it in the order form.

(1) = Energy recovery accessory include: economizer, rain hood, indoor air quality sensor and G4 filters.

(2) Fresh air damper can not be installed if economizer or motorized damper is fitted

* Features: increased efficiency by 0.15, extended max outdoor temperature up to +50°C at full load, Low ambient kit.