

# ACTIVA Rooftop

ARC-ARG-ARH-ARD

A complete range from 48 kW up to 84 kW

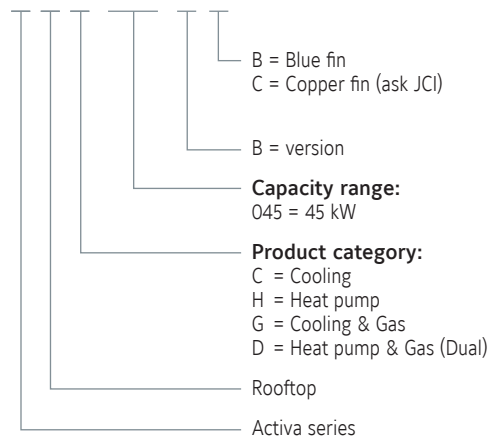


**YKN2open**

## Features

- High efficiency EER and COP
- Low noise level
- All configurations: Cooling only, Cooling + gas, Heating, Heating + Gas
- BMS communication as standard (N2Open protocol)
- 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 B B Nomenclature





# ACTIVA Rooftop

## ARC-ARG-ARH-ARD 045 to 090 BB

### Technical features

Cooling only models		ARC 045 BB	ARC 060 BB	ARC 075 BB	ARC 090 BB	
Net cooling capacities	kW	48	62	75	83	
Power input	kW	15.0	20.9	26.0	30.0	
SEER		3.03	3,00	3.01	3.01	
η <sub>s,c</sub>		118.1	116.9	117.1	117.2	
Working range (full load / partial load) *	°C	7°C ~ 46°C / -10°C ~ 52°C				
Heat pump models		ARH 045 BB	ARH 060 BB	ARH 075 BB	ARH 090 BB	
Net cooling capacities	kW	48	62	72	84	
Power input in cooling	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	
SCOP		3.19	3.10	3.05	3.15	
η <sub>s,h</sub>		124.6	121.0	119.1	123.0	
Working range (full load / partial load) *	°C	-10°C ~ 46°C / -10°C ~ 52°C				
Cooling only + Gas heating models		ARG 045 BB	ARG 060 BB	ARG 075 BB	ARG 090 BB	
Net cooling capacities	kW	48	62	75	83	
Cooling power input	kW	15.0	20.9	26.0	30.0	
Standard Heating capacities (1)	kW	76.0	76.0	76.0	76.0	
Natural gas 2ND-H, G20	m <sup>3</sup> /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	m <sup>3</sup> /h	9.80	9.80	9.80	9.80	
Working range (full load / partial load) **	°C	-15°C ~ 46°C / -15°C ~ 52°C				
Heat pump + Gas heating models		ARD 045 BB	ARD 060 BB	ARD 075 BB	ARD 090 BB	
Net cooling capacities	kW	48	62	72	84	
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	m <sup>3</sup> /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	m <sup>3</sup> /h	9.80	9.80	9.80	9.80	
Working range (full load / partial load) **	°C	-15°C ~ 46°C / -15°C ~ 52°C				
Common characteristics						
Power supply		400V/3 + N/ 50Hz				
Main switch	A	50	63	80	80	
Main cable	Nbr. x mm <sup>2</sup>	5 x 10	5 x 16	5 x 25	5 x 25	
Cable to thermostat	Nbr. x mm <sup>2</sup>	10 x 0.22				
Number of circuits / Compressor type		1 (tandem) / 2 x scroll		2 (tandem) / 4 x scroll		
Evaporator fan at nominal airflow	Airflow	m <sup>3</sup> /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	3 750	3 750
	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 BB	ARC 060 BB	ARC 075 BB	ARC 090 BB
	S661752149	S661752165	S661752175	S661752195
Heat pump models	ARH 045 BB	ARH 060 BB	ARH 075 BB	ARH 090 BB
	S661752147	S661752167	S661752177	S661752197
Cooling only + Gas heating models	ARG 045 BB	ARG 060 BB	ARG 075 BB	ARG 090 BB
	S661752146	S661752166	S661752176	S661752196
Heat pump + Gas heating models	ARD 045 BB	ARD 060 BB	ARD 075 BB	ARD 090 BB
	S661752148	S661752168	S661752178	S661752198
Thermostat	DPC-1			
to be ordered separately				



Manufacturer reserves the rights to change specifications without prior notice.

# Activa rooftop details & features



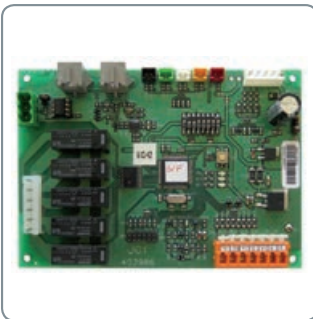
## Condenser fan

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.



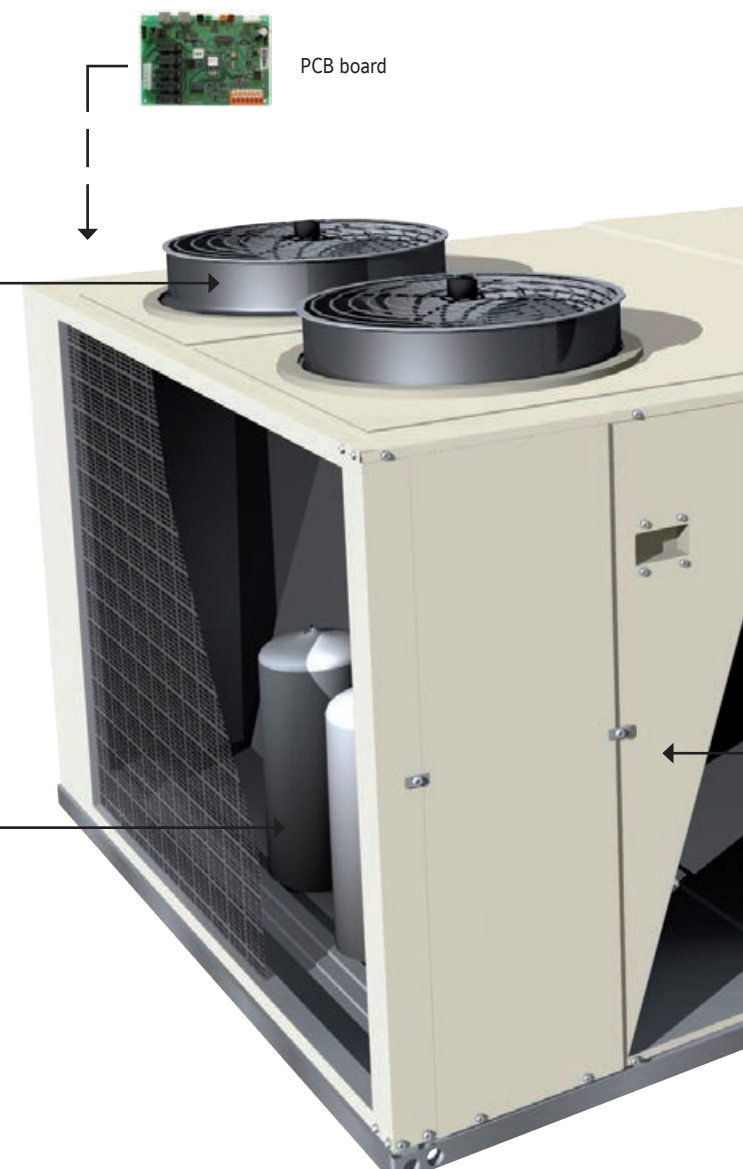
## PCB board

The YKN2Open 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 (only N2Open protocol).



## Return fan

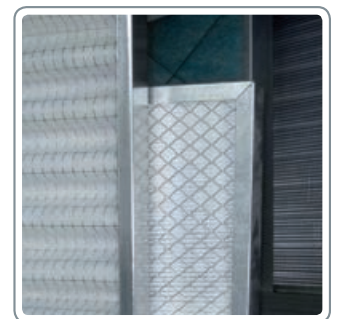
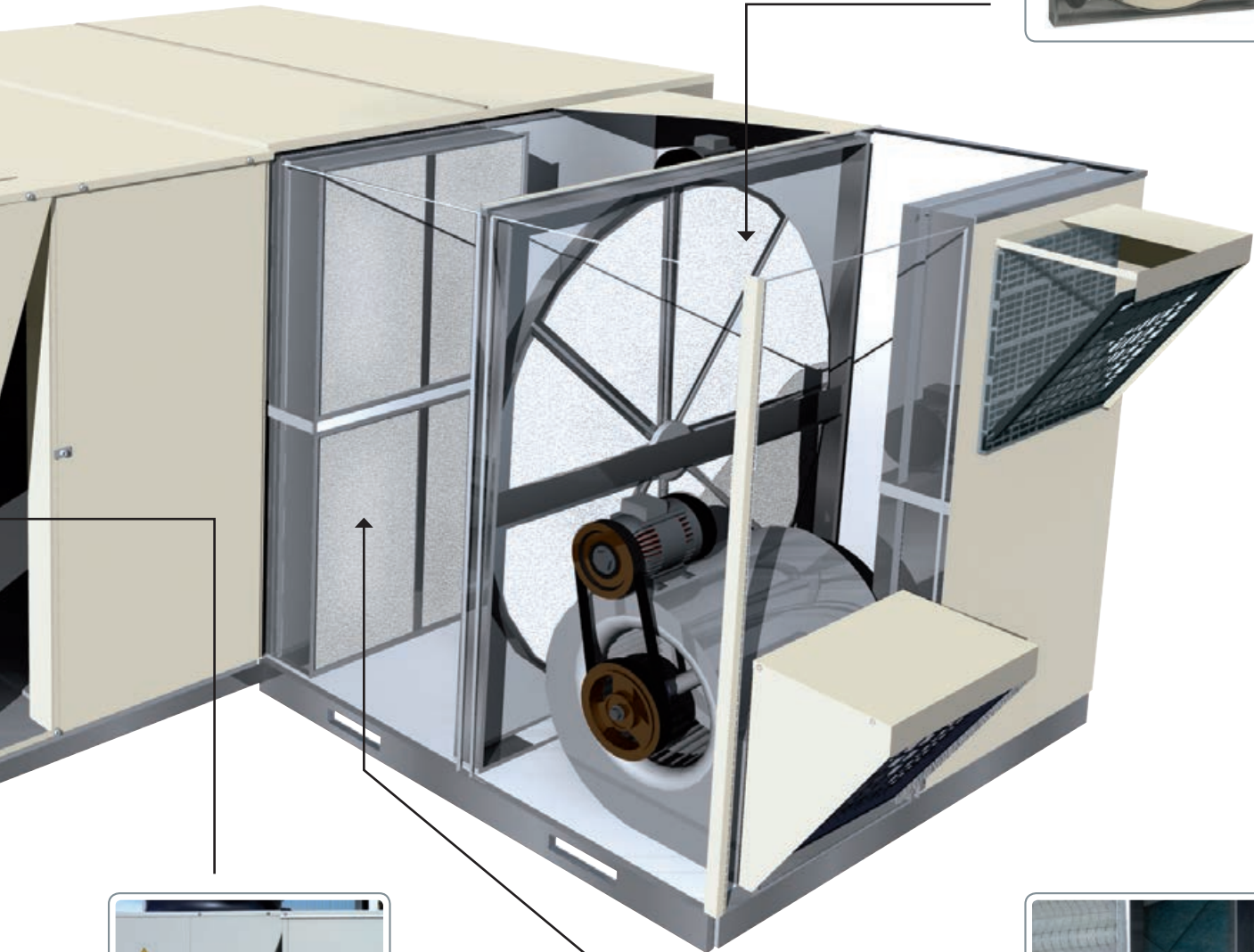
Located in a special roof curb underneath the rooftop, it works simultaneously with the indoor fan in order to balance the amount of air supplied to and removed from the space. It is the best suited for systems with high return path static pressures. Also, incorporates EC technology and a differential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



PCB board

### 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
YNK2Open Gateway BACnet / IP - JCI Metasys N2	S606791244	A	A	A	A	A	A	A	A
YNK2Open Gateway Modbus TCP / IP - JCI Metasys N2	S606791245	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 pressure drive	4 kW	S611990401	O			O			
	5.5 kW	S611990601		O			O		
	7.5 kW (IE3)	S611990701			O			O	
	7.5 kW (IE3)	S611990702				O			O
	11 kW (IE3)	S611990903				O			O
Soft start indoor fan	5.5 kW	S606744690	O	O	O	O	O	O	O
	11.5 kW	S606744691			O	O		O	O
Premium Kit (LAK included) *	S613118302	O	O			O	O		
	S613118304			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
	25 kW	S611762284	O	O	O	O	O	O	O
	37 kW	S611763385	O	O	O	O	O	O	O
	50 kW	S611764485	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
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	
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 includes: 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
YNK2Open Gateway BACnet / IP - JCI Metasys N2	S606791244	A	A	A	A	A	A	A	A
YNK2Open Gateway Modbus TCP / IP - JCI Metasys N2	S606791245	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 pressure drive	4 kW	S611990401	O			O			
	5.5 kW	S611990601		O			O		
	7.5 kW (IE3)	S611990701			O			O	
	7.5 kW (IE3)	S611990702				O			O
	11 kW (IE3)	S611990903				O			O
Soft start indoor fan	5.5 kW	S606744690	O	O	O	O	O	O	O
	11.5 kW	S606744691			O	O		O	O
Premium Kit (LAK included) *	S613118302	O	O			O	O		
	S613118304			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								
Electric heaters	12 kW	S611761584							
	25 kW	S611762284							
	37 kW	S611763385							
	50 kW	S611764485							
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
	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

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