

Air Systems

ROOMTOP

ROOFTOP

LARGE SPLIT

Common Specifications



Copper-copper coil:

Available as an option, copper-copper coils are often used for refinery/chemical sites or salt-laden air where it is difficult to service the unit.



Anti-corrosion blue protected fins:

Available as option, blue coated fins (conform to 1000 hrs salt spray fog ASTM B117 standard) will extend the life of your A/C in aggressive area. An economical alternative to copper-copper coils.



Cabinet:

Build to be use in harsh conditions, heavy gauge galvanised steel cabinet will provide years of dependable operation. Automatic line painting process degrease, phosphate, passivate, clean with demineralised water and powder paint backed on oven at 220°C casing panels. An exceptionally durable finish RAL9002 guaranteed by 800 hours fog spray protection process in accordance with DIN 50 021.



Quality and ELT:

Design, built and tested under ISO9001 quality system certification, we are constantly listening to customer comments. For this reason, our End of Line Test ELT strives to be as close as possible to the commissioning you carry out on site.



Features and benefits Thermostat DPC-1

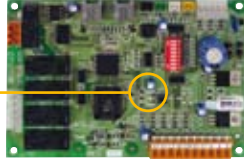
- Day (normal), night (economy) and unoccupied (stand by).
- Lockout code on screen gives direct diagnostics.
- ON/OFF or programmable from dip switch setting.
- Day or night programmable state avoids wide internal temperature variation.
- 3 preset and 3 programmable profiles.
- Select the control sensor you want to use (integrated in the thermostat, return air in duct or room sensor).
- Turbo, normal or economy logic from dip switch setting.
- Temperature override.
- From -3°C to +3°C sensor offset.
- Average temperature with room or duct sensors.

Codes	Meaning
11	Circuit 1, Discharge temperature too high or probe short circuit
12	Circuit 1, High pressure switch, outdoor fan overload or compressor motor protection module

91	Selected sensor not valid
92	Indoor sensor not calibrated
93	Communication alarm
94	Pin alarm

Control System

Led Diagnostic Code



LOCKOUT	
Flashes	Meaning
1	Discharge temperature surpassed or probe short circuited
2	High pressure switch
3	Low pressure switch
4	Indoor or outdoor fan thermal switch
5	Repeated start-ups in cool, or suction temperature of <-25°C
6	Liquid temperature of <-30°C

INCIDENT		
Type	Flashes	Incident
1	1	Discharge probe open or > 150°C
1	2	Liquid probe open or short circuited
1	3	Outdoor probe open or short circuited
1	4	Indoor probe open or short circuited
1	5	Outdoor temperature too low

YKlon√3

The YKlon is a controller regulating all components and accessories. It will pro actively manage cool and heat stages to maintain a stable room temperature.

Additionally, the benefits are:

- Redundancy on cool and heat stages (if one step is locked out, the PCB starts another one automatically).
- Random start between units to minimise electrical tariff.
- All stages will start in sequence to reduce peak inrush.
- Reduces nuisance calls by using 3 times "you are out" on all safeties before a hard lockout occurs.
- Automatic restart after power failure.
- Compressors run time priority.
- Alarm output relay and led diagnostic code.
- No parameters to check before starting.
- Lockout and incident level of protection.
- Use a standard 2-stage thermostat but get 98% of YKlon features.
- Last 10 lockouts stored in a non-volatile memory.
- 4 heating stages on hot water heating.

YKphone485

The YKphone485 is a complete communication pack that YORK can offer in order to provide a local network between units. Without any specific communication protocol knowledge, you can download the software and have a direct access to the units, change thermostat parameters, reset lockout, etc.... For more detail, see the following pages or contact you local agency.

YKtool

Features and benefits YKtool

- Cooling and defrost test.
- Reverse cycle, gas, hot water and electrical heating test.
- Give access to input and output of the YKlon.
- Give access to accessories status and read the probe values.

Thermostats with integrated sensors

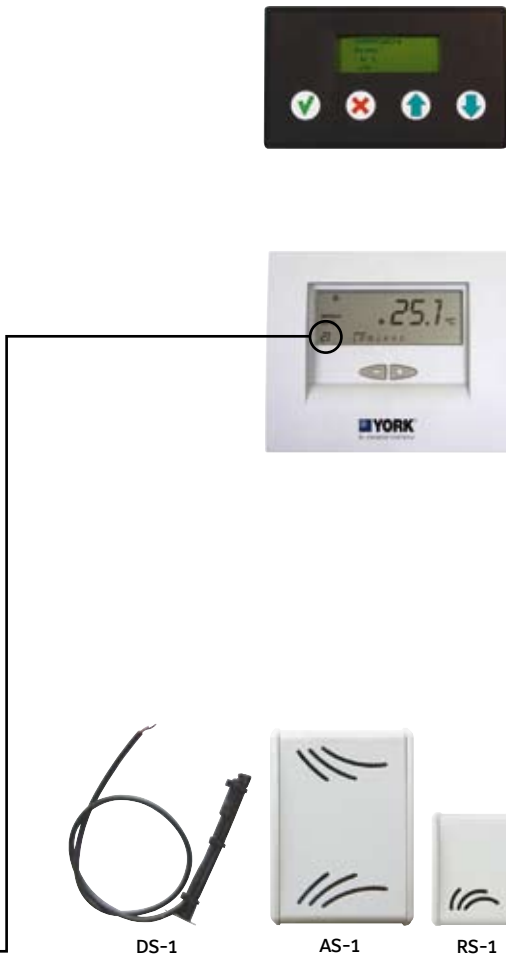
Thermostat models	DPC-1	DPC-1R
Code	603786044	603786045
Roomtop	RTC and RTH	X
Rooftop	All models	X (1)
Split system	SOC and SOH	X
	SCOC and SCOH	X

Main features	
Strategy	Turbo, normal or economy
Auto restart after power failure	●
Number of cool stages	2
Number of heat stages	2
Auxiliary Heat	●
Automatic Heat/Cool change over	●
Continuous or auto indoor fan	●
Manual setback (Day/Night key)	Day, night and unoccupied
Override possibility	●
Compressor anti short cycle	●
°C Range cooling / heating	10 to 32°C / 9 to 32°C
Programmable, 7-day	●
Lockout codes	●
Outdoor air temperature	●
Sensor selection	●

X : Delivered as standard with the unit. X (1) : Standard but has to be ordered separately.
 O : Optional. ● : Function available.

Duct sensor	Ambiance sensor	Room sensor
DS-1	AS-1 *	RS-1
603786047	603786049	603786042

* To be fitted with DPC-1 version 2.0 or superior



YKphone485

Do it yourself!

Main Screen

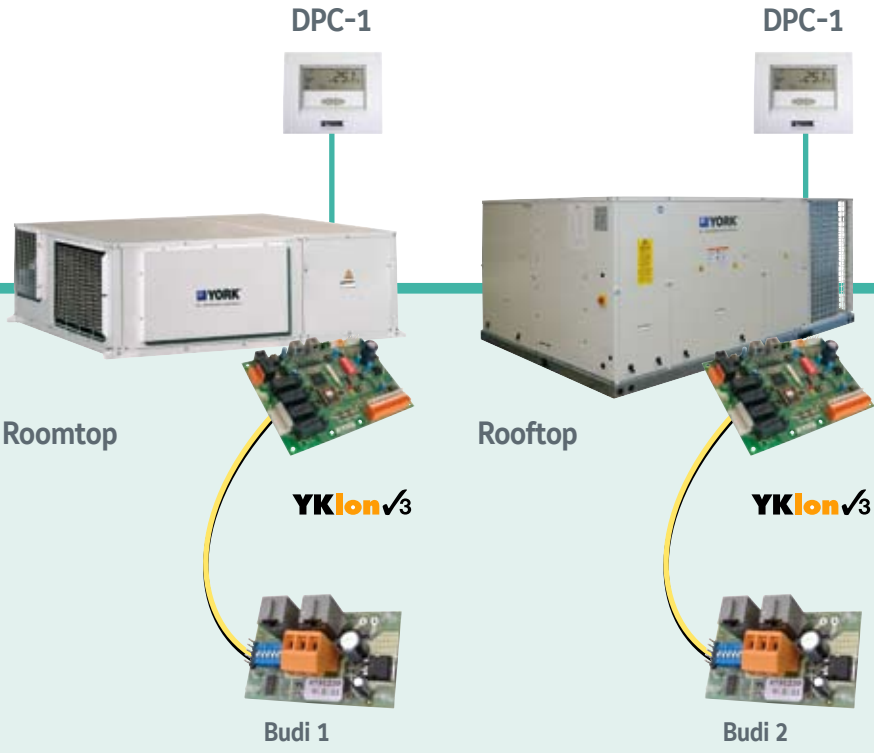


l. max. 1,5m.

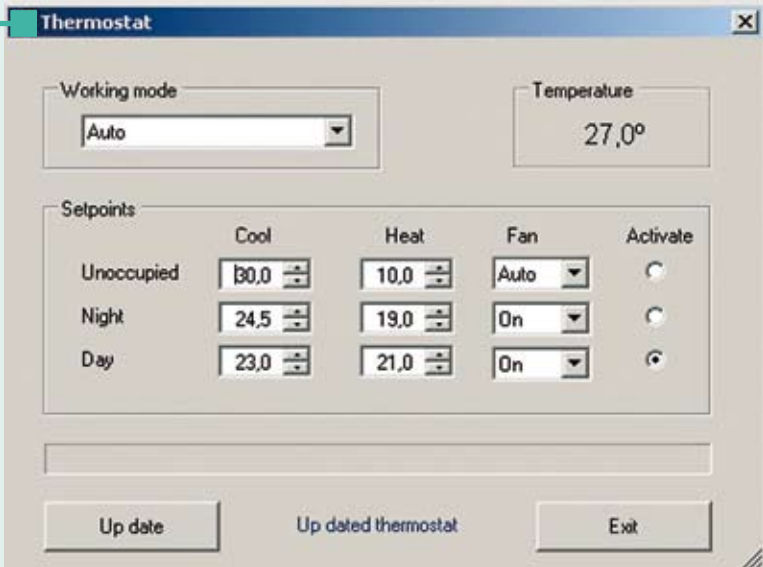


YKphone485

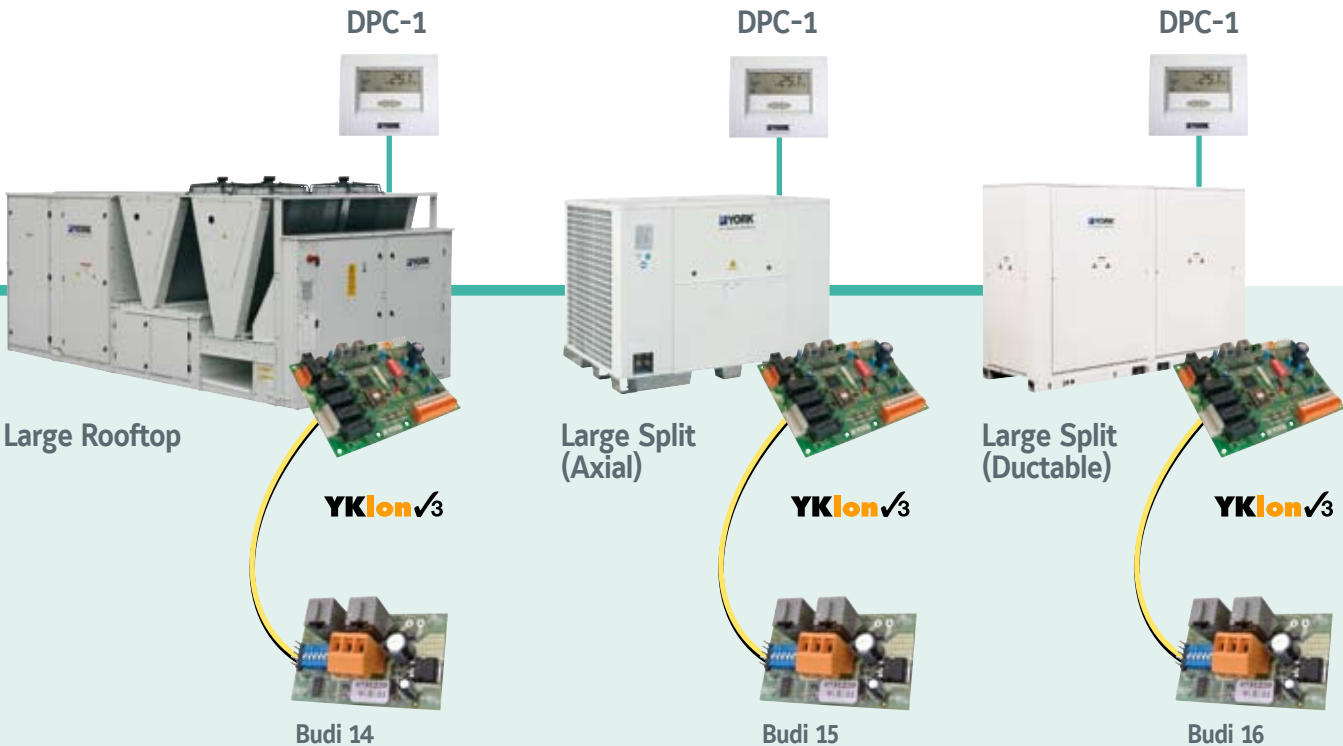
*l. max. 1000m.
BELDEN or equivalent
com cable*



Thermostat Setting



- YKPhone485 is a simple monitoring tool to be used with a maximum of 16 units equipped with YKlon ✓3 board or superior
- It have been developed for internal or external maintenance team in supermarket, factory, etc...
- Consult all main parameters as Inputs, Outputs, Temperatures & Accessories
- Consult & modify thermostat DPC-1 setting (communication)
- Reset the unit



Roomtop

RTC-RTH - L

A complete range from 7 kW up to 30 kW

R410A



YKlon√3



Features

- YKlon √3 board
- Scroll Compressors
- High COP and EER
- 1/4 turn on electrical panel
- Expansion valves for models 20, 25 and 30
- High external static pressure on evaporator and condenser
- Thermostat and indoor air filter included

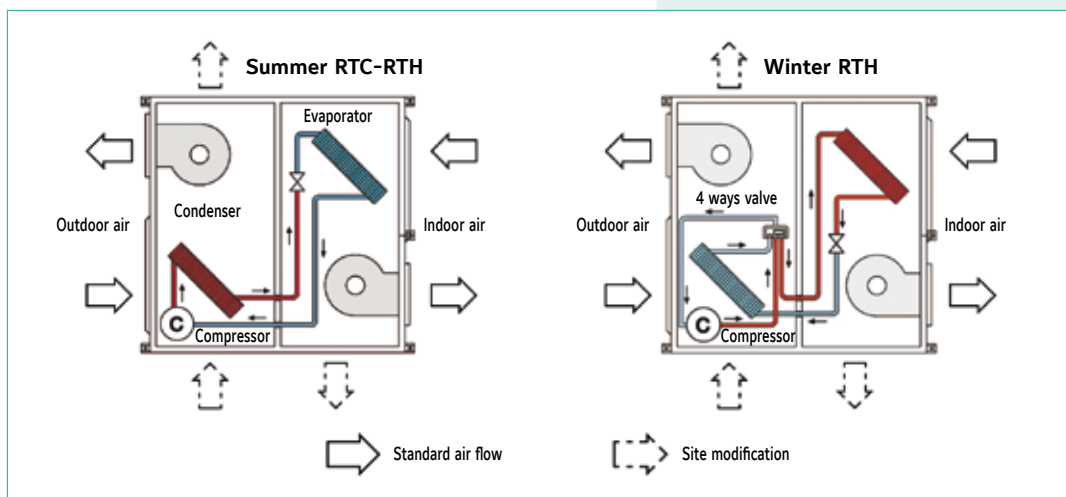
RTC 10 L

Nomenclature

L = version

Capacity range:
10 = 10 kW

Product category:
RTC = Cooling only Roomtop
RTH = Reverse cycle Roomtop



Roomtop



Technical features

Cooling only models		RTC 07 L	RTC 10 L	RTC 15 L	RTC 20 L	RTC 25 L	RTC 30 L	
Cooling capacities	kW	7.60	9.90	14.60	19.90	22.20	27.00	
Power input in cooling	kW	3.00	3.95	5.50	8.60	10.00	12.00	
In duct outdoor side sound power level	dB(A)	71	71	72	74	77	81	
In duct indoor side sound power level	dB(A)	70	71	71	73	75	75	
Reverse cycle models		RTH 07 L	RTH 10 L	RTH 15 L	RTH 20 L	RTH 25 L	RTH 30 L	
Cooling capacities	kW	7.40	9.30	14.10	19.90	22.20	26.80	
Power input in cooling	kW	3.00	3.88	5.40	8.32	10.04	11.63	
Heating capacities	kW	7.40	11.70	13.80	17.80	20.80	25.40	
Power input in heating	kW	2.76	3.64	4.84	7.15	7.89	9.67	
In duct outdoor side sound power level	dB(A)	71	72	74	74	81	81	
In duct indoor side sound power level	dB(A)	70	72	73	73	81	81	
Common characteristics								
Power supply		230V/1/50Hz		400V/3 + N/ 50Hz				
Nominal current RTC / RTH	A	14.3 / 16	9.5 / 9.7	11.6 / 11.5	19 / 19	21 / 21	23 / 23	
Starting current	A	82	48	64	95	111	118	
Main switch (1)	A	25	16	20	25	25	32	
Main cable (1)	Nbr.xmm ²	3 x 4	5 x 2.5	5 x 4	5 x 4	5 x 4	5 x 6	
Cable to standard thermostat (2)	Nbr.xmm ²	10 x 0.22						
Evaporator fan at nominal airflow	Airflow	m ³ /h	1 490	2 015	3 580	4 100	5 060	5 300
	Standard ESP	Pa	25	37	50	50	62	62
Condenser fan at nominal airflow	Airflow	m ³ /h	2 420	3 520	3 890	4 810	5 640	7 450
	Standard ESP	Pa	50	50	50	50	50	50
Nett dimensions	Height	mm	480	557	557	585	650	650
	Length	mm	1 102	1 155	1 312	1 575	1 750	1 770
	Depth	mm	1 102	1 155	1 312	1 575	1 656	2 056
Nett weight	RTC	kg	172	180	235	305	358	420*
Nett weight	RTH	kg	178	190	243	317	379	434*

(1) For information only. These should be checked for compliance with local regulations depending also on installation and cable type

* Preliminary data

(2) Shield type cable only

All the data are at EUROVENT conditions with 230V/1/50Hz or 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

Compatibility table / Codes

Cooling only models	RTC 07 L	RTC 10 L	RTC 15 L	RTC 20 L	RTC 25 L	RTC 30 L
	661240701	661241003	661241503	661242003	661242503	661243003
Reverse cycle models	RTH 07 L	RTH 10 L	RTH 15 L	RTH 20 L	RTH 25 L	RTH 30 L
	662040701	662041003	662041503	662042003	662042503	662043003

Thermostat			DPC-1					
Delivered as standard with the unit								
Accessories or options	Remarks	Code	RTC 07 L	RTC 10 L	RTC 15 L	RTC 20 L	RTC 25 L	RTC 30 L
			RTH 07 L	RTH 10 L	RTH 15 L	RTH 20 L	RTH 25 L	RTH 30 L
Electrical Heaters * (in duct)	5 kW / 1ph.	611765561	•					
	5 kW / 3ph.	611765573	•	•				
	10 kW / 3ph.	611765533	•	•				
	5 kW / 3ph.	611765653			•	•	•	•
	10 kW / 3ph.	611765583			•	•	•	•
	15 kW / 3ph.	611765513			•	•	•	•
Low ambient regulation	613111533	O	•	•	•			
	613113087 *	O				•	•	•
Copper-copper coils unit		O	•	•	•	•	•	•
Anti-corrosion blue fin coil		O	•	•	•	•	•	•

A=Accessory (supplied loose).

O=Option (factory fitted).

Q/A=If you want this item factory fitted, precise it in the order form.

* Not protected against external conditions.

Rooftop

DIC-BIH-DIG

A complete range from 24 kW up to 90 kW

R407C



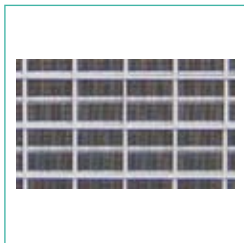
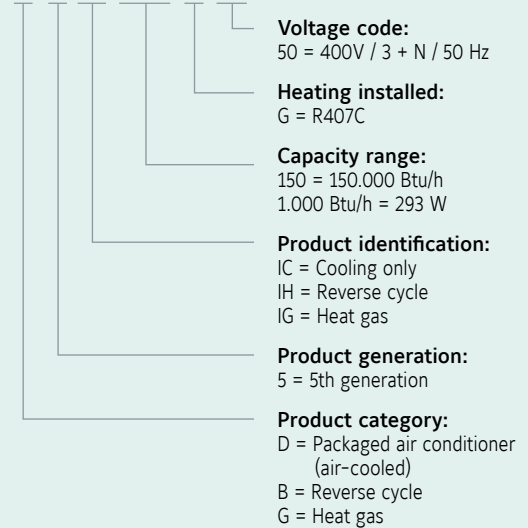
YKlon√3



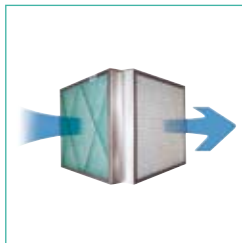
Features

- YKlon√3 board
- Duct work configuration side or down flow
- Cooling, reverse cycle, gas and electric heating
- Compact and with proven reliability
- Wide range of accessories
- Suitable for use in harsh climates
- New indoor motor power input

D 5 IC 150 G 50 Nomenclature



Coil guard



Removable media filter



1/4 turn lock



Scroll compressor models 150 to 300

Rooftop



Technical features

Cooling only models		D51C 090G	D51C 120G	D51C 150G	D51C 180G	D51C 240G	D51C 300G	
Net cooling capacities (1)	kW	25.30	32.00	40.20	46.60	61.50	88.00	
Power input (2)	kW	10.40	12.80	17.10	18.10	23.50	38.00	
Reverse cycle models		B51H 090G	B51H 120G	B51H 150G	B51H 180G	B51H 240G	B51H 300G	
Net cooling capacities (1)	kW	23.20	31.00	37.00	46.50	58.30	86.60	
Power input in cooling (2)	kW	9.79	12.80	15.00	17.20	23.70	38.70	
Heating capacities	kW	24.30	32.30	37.7	50.60	70.00	80.00	
Power input in heating	kW	8.21	10.40	14.7	18.20	24.10	33.30	
Cooling only + Gas heating		D51G 090G	D51G 120G	D51G 150G	D51G 180G	D51G 240G	D51G 300G	
Net cooling capacities (1)	kW	25.30	32.00	40.20	46.60	61.50	88.00	
Cooling power input (2)	kW	10.40	12.80	17.10	18.10	23.50	38.00	
Standard Heating capacities (3)	kW	47.5 + 1.5	57 + 2.2	57 + 4	76 + 4	76 + 5.5	76 + 9.2	
Natural gas 2ND-H, G20	m ³ /h	5.4	6.5	6.5	8.6	8.6	8.6	
High Heating capacities (3)	kW	-	-	-	90 + 4 (*)	90 + 5.5	90 + 9.2	
Natural gas 2ND-H, G20	m ³ /h	-	-	-	9.75	9.75	9.75	
Power supply		400V/3 + N/ 50Hz						
Main switch (4)	A	32	32	50	50	63	80	
Main cable (4)	Nbr. x mm ²	5 x 4	5 x 6	5 x 10	5 x 10	5 x 16	5 x 25	
Cable to thermostat (6)	Nbr. x mm ²	10 x 0,22						
Number of circuits / Compressor type		2 x reciprocating			2 x scroll			
Technical characteristics for D51C and D51G								
Ambient outdoor side sound power level	dB(A)	87	87	88	90	90	91	
Ambient outdoor side sound pressure level at 5 m	dB(A)	59	59	61	68	68	69	
In duct indoor side sound power level	dB(A)	81	83	84	82	85	87	
Nominal / Starting current	A	19.9 / 76	24.3 / 83	32 / 99	36 / 127	46 / 127	73 / 198	
Evaporator fan at nominal airflow (5)	Airflow	m ³ /h	5 100	6 800	8 640	10 000	13 700	17 000
	Standard ESP	Pa	330	413	183	405	315	116
	ESP with HSD	Pa	Consult us	>450	>450	>450	>450	392
	Power input	kW	2.2	3	4	4	5.5	9.2
	Drive		Pulley-belts (6-turn adjustable pulley)					
Nett dimensions	Height	mm	855	1 007	1 210	1 235	1 337	1 337
	Length	mm	2 552	2 552	2 552	3 180	3 460	3 460
	Depth	mm	1 800	1 800	1 800	2 337	2 337	2 337
Nett weight DIC / DIG	kg	437 / 472	472 / 537	590 / 642	860 / 970	957 / 1 066	1 238 / 1 353	
Technical characteristics for B51H								
Ambient outdoor side sound power level	dB(A)	83	83	83	91	91	92	
Ambient outdoor side sound pressure level at 5 m	dB(A)	60	60	61	68	69	70	
In duct indoor side sound power level	dB(A)	79	79	79	84	87	88	
Nominal / Starting current	A	19.9 / 76	24.3 / 83	32 / 101	38 / 99	46 / 127	73 / 198	
Evaporator fan at nominal airflow	Airflow	m ³ /h	5 100	6 800	8 640	10 000	13 700	17 000
	Standard ESP	Pa	275	300	135	382	295	116
	ESP with HSD	Pa	Consult us	>450	410	450	429	392
	Power input	kW	2.2	3	4	4	5.5	9.2
	Drive		Pulley-belts (6 turn adjustable pulley)					
Nett dimensions	Height	mm	855	1 210	1 210	1 235	1 337	1 337
	Length	mm	2 552	2 552	2 552	3 180	3 460	3 460
	Depth	mm	1 800	1 800	1 800	2 337	2 337	2 337
Nett weight BIH	kg	477	637	743	953	1 043	1 279	

(1) Add evaporator fan motor input to get Gross capacity

(2) including evaporator fan motor

(3) net heating capacity + indoor fan power input

(4) For information only. They should be checked to comply local norms and regulations depending also on installation and conductor type

(5) ESP = External static pressure HSD = High speed drive

(6) Shield type cable only

(*) : Indoor air flow should be set at least at 10.000 m³/h

All data are at Eurovent conditions

Codes

Cooling only models	D51C 090 G50	D51C 120 G50	D51C 150 G50	D51C 180 G50	D51C 240 G50	D51C 300 G50
	661750903	661751203	661751503	661751803	661752403	661753003
Reverse cycle models	B51H 090 G50	B51H 120 G50	B51H 150 G50	B51H 180 G50	B51H 240 G50	B51H 300 G50
	661940903	661941203	661941503	661941903	661942503	661943003
Cooling only + gas models	D51G 090 G16550	D51G 120 G20050	D51G 150 G20050	D51G 180 G32050	D51G 240 G32050	D51G 300 G32050
	661760903	661761203	661761503	661761803	661762403	661763003
Thermostat (To be ordered separately)	DPC-1					

Accessories or options

Accessories or options

		Code	Option/Accessory
Thermostat DPC-1		603786044	A
Dry bulb triple input economizer or motorized air damper with rain hood		613991582	O
		613991889	
		613993082	
Enthalpy probes *		613990081	O
Indoor air quality sensor *		606819964	O
Power Exhaust *		613994582	A
		613995081	
		613996085	
Barometric relief damper and rain hood		613990485	A
		613990486	
Fresh air or barometric damper and rain hood (2)		613990483	A
Fresh air damper and rain hood (2)		613990484	
High speed drive		611991281	O
		611991581	
		611991881	
		611992482	
		611993082	
Low ambient control		613190150	O
		613118300	
Copper-copper coil		-	O
Anti-corrosion blue fin coil		-	O
Side duct flanges		613991480	A
		613991481	
Fixed roof curb **		613991881	A
		613991884	
		613991885	
Adjustable roof curb **		613992080	A
		613992081	
		613992082	
Filter dirty switch		613990084	O
Smoke detector (for multiple units, consult YORK office)		613995381	O
Fire detection thermostat		613903002	O
Hot water coil with control		611083551	O
		611083151	
		611083251	
Electric heaters	16 kW	611761582	O
	25 kW	611762282	
	37 kW	611763382	
	12 kW	611761583	
	25 kW	611762283	
	37 kW	611763383	
	50 kW	611764483	
Propane conversion Kit		611801780	A
High heat gas conversion kit		611803080	A
Washable air Filter (1)		611300980	A
		611301281	
		611301580	
		611301880	
		611302480	
		611303080	

O = Option (factory fitted)

A = Accessory (supplied loose)

O/A = If you want this item factory fitted, precise it in the order form

● = Available

* It is mandatory to order the economizer with this item

** Delivered in kit form

(1) Removable media filter standard with version 5

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

Accessories or options

Triple input economizer:

This system utilizes 3 probes: Return Air, Outdoor Air and Supply Air. The Outdoor Air damper and the Return Air dampers are mechanically interconnected in order to provide the same airflow at the coil inlet, with a single damper motor. The PCB compares sensor values and modulates the dampers providing maximum efficiency of the economiser system (free cooling) and comfort (Supply Air > 12°C). Combined with the air quality sensor, your payback will be ensured within few months. The rain hood is painted to match the basic unit and aluminium mesh pre-filter prevents water penetration.



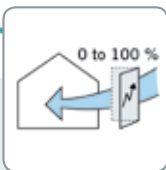
Indoor air quality:

This sensor measures concentrations of pollutant gases, such as tobacco smoke, human body odours, kitchen odours, carbon monoxide, etc... It automatically overrides the economizer when pollutant levels rise above preset limits. A shorting plug will set the algorithm to acceptable, good or very good air quality. This VOC sensor (Volatile Organic Compounds) sends an ON/OFF signal to the control PCB. The YKlon will then adjust the fresh air damper, optimising indoor air quality and minimising the energy consumption.



Motorised outdoor air damper:

Equipped with the same dampers as the economizer, the Return Air probe is not used. Outdoor air damper opens to pre-set position whenever the indoor fan is operating (selected from the thermostat, the indoor fan can be activated with the compressor or to operate continuously) and will drive fully closed when the indoor fan shuts down. The rain hood is painted to match the basic unit and aluminium mesh pre-filter prevents water penetration.



Power Exhaust:

Used to mechanically relieve internal air pressure from the Return Air section and ensure efficient fresh air introduction on units equipped with triple input economiser or motorised air damper. The power exhaust fan motor works when enough Outdoor Air is blowing into the room and if Outdoor Air temperature is acceptable ($12^{\circ}\text{C} < t^{\circ} < 30^{\circ}\text{C}$).



Enthalpy sensors:

To control the economizer in humid areas, or when indoor air humidity needs to remain dry, you should select enthalpy regulation. Enthalpy sensors will be used with the triple input economizer.



High speed drive:

Available for models 180, 240 and 300, the high speed drive will increase the supply fan performance for applications with a greater air flow and/or static pressure. Please consult technical guide for more information..



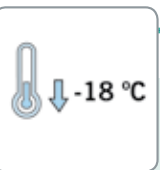
Fresh air damper and rain hood:

The most cost effective method with a complete rain hood and a fixed damper that can be adjusted to provide approximately 10, 15 or 25% of fresh air.



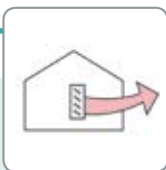
Low ambient control:

All our rooftops are designed to work in cooling mode down to 7°C ambient temperatures. Although this working range suits most applications, the units can operate correctly down to -18°C with optional low ambient control.



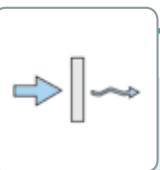
Barometric relief damper:

This accessory can be used to relieve internal air pressure on units equipped with triple input economiser or motorised air damper but no power exhaust. When the rooftop is working in free cooling or introducing fresh air, the damper opens to relieve over pressure from the return air section. This accessory is comprised of a rain hood, a protective grille and a fully assembled damper



Filter dirty switch:

Ensures that clean air is being supplied, advises when maintenance is required to prevent excessive depression and ensures water integrity of the AHU. These are the main advantages of filter dirty switch. Connected with the DPC-1 thermostat, the filter icon will appear on the thermostat screen when a filter change is required.

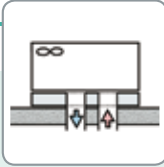


Rooftop



Fixed roof curbs:

Ideal for down-flow applications, it is a great help for installation allowing duct connections, electrical connection and weatherproofing between the roof curb and the roof of the building. Shipped in kit form, it also gives sufficient height for condensate trap operation.



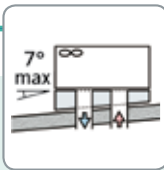
Smoke detector:

The smoke detector is protecting the AHU but must not be used to ensure a full building protection against smoke danger. If smoke is detected the AHU is shutdown (lockout). A manual reset is necessary.



Adjustable roof curbs:

With the same benefits as the fixed roof curb, it allows the rooftop to be levelled on a roof with up to 7° slope (4%).



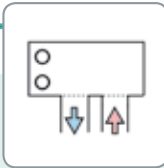
Fire detection thermostat:

This fire detection thermostat is protecting the AHU but must not be used to ensure a full building protection against fire danger. The standard AHU is protected as standard with a Supply Air probe that shuts the unit down (lockout) when temperature exceeds 80°C. The electro-mechanical fire detection thermostat is used to fulfil specific local requirement. A manual reset is necessary.



Side duct flanges:

Fitted as standard on units 90, 120 and 150, this accessory is composed of easy to install sheet metal panels to allow ductwork connections on the side of the AHU for horizontal return air and/or supply air.



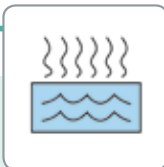
Kit conversion propane:

This kit comprises replacement burner, pilot injectors and all necessary instructions for converting the natural gas burner to propane gas. The nominal pressure of the propane gas should be 37 mbar.



Hot water coil with control:

The hot water coil and its control are always fitted, wired and factory tested. Located in the supply air section, side or bottom duct connection is possible without any modification. Complete with an anti-frost thermostat, the PCB will activate the modulated valve (24V supply, 0 – 10V modulating signal) in order to get the best comfort. A jumper will allow using hot water coil as 1st heating stage.



High heat gas:

This kit comprises replacement burner injectors and all necessary instructions to provide high heat capacity for gas rooftop



Electrical heaters:

Available on cooling only and Reverse cycle units, the electric heater is protected with two overheats per element. When the overheat operates, there is a lock out of the faulty electric heater stage and the PCB starts automatically another heat stage.



Washable air filter:

The Galvanised sheet metal frame permits cleaning of the synthetic fibre filter but also allows easily replacement of the media. Delivered with G4 class media in accordance with European standard EN-779 and F1 fire class in accordance with DIN53438, this is a good solution for a heavy maintenance site.



Large Rooftop

DIC-BIH-DIG

A complete range from 120 kW up to 155 kW

R407C



YKlon√3



Features

- YKlon √3 board
- Duct work configuration side or down flow
- Cooling, reverse cycle, gas and electric heating
- Compact unit
- Wide range of accessories
- Suitable for use in harsh climates

D 5 IC 360 G 50 Nomenclature

Voltage code:

50 = 400V / 3 + N / 50 Hz

Heating installed:

G = R407C

Capacity range:

360 = 360.000 Btu/h

1.000 Btu/h = 293 W

Product identification:

IC = Cooling only

IH = Reverse cycle

IG = Heat gas

Product generation:

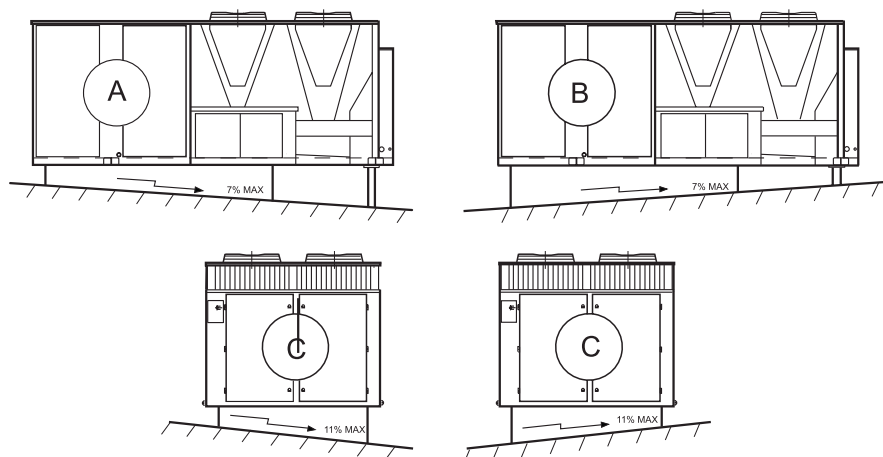
5 = 5th generation

Product category:

D = Packaged air conditioner (air-cooled)

B = Reverse cycle

G = Heat gas



Large Rooftop



Technical features

Models		D4IC 360 G	D4IC 480 G	B4IH 360 G	B4IH 480 G	D4IG 360 G	D4IG 480 G	
Gross cooling capacities (1)	kW	119.1	155.6	115.1	151.0	119.1	155.6	
Power input in cooling (2)	kW	31.4	37.2	32.0	44.5	31.4	37.2	
Heating capacities	kW	-	-	127.1	163.3	-	-	
Power input in heating	kW	-	-	41.9	56.7	-	-	
Cooling capacities (3)	kW	111.6	144.6	107.6	140.0	111.6	144.6	
Power input in cooling (3)	kW	42.4	52.2	43.0	59.5	42.4	52.2	
Heating capacities (3)	kW	-	-	127.1	163.3	-	-	
Power input in heating (3)	kW	-	-	41.9	56.7	-	-	
Gas heating capacities (3)	kW					117 + 9.2	117 + 11	
Natural gas 2ND-H, G20	m ³ /h					12.8	12.8	
Power supply		400V/3 + N/ 50Hz						
Nominal / Starting current	A	89 / 167	109 / 250	83 / 169	109 / 250	89 / 167	109 / 250	
Main switch	A	125	160	125	160	125	160	
Main cable	Nbr x mm ²	5 x 50	5 x 70	5 x 50	5 x 70	5 x 50	5 x 70	
Cable to thermostat DPC	Nbr x mm ²	10 x 0,22 shield cable only						
Number of circuits		3	3	3	3	3	3	
Evaporator fan at nominal airflow	Airflow	m ³ /h	21 000	25 000	21 000	25 000	21 000	25 000
	Standard ESP	Pa	250	250	250	250	250	250
	ESP with HSD	Pa	400 (Side duct connections) - 450 (Down duct connections)					
	Power input	kW	9.2	11	9.2	11	9.2	11
	Power input HSD	kW	11	15	11	15	11	15
Drive		Pulley - Belt (6 turns adjustable)						
Nett dimensions	Height	mm	1.815					
	Length	mm	4.580					
	Depth	mm	2.200					
Nett weight	kg	2 010	2 295	2 060	2 350	2 125	2 410	

(1) : without heat from evaporator fan motor (2) : without evaporator fan motor (3) : All the data are at EUROVENT conditions with 230V/1/50Hz or 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

Compatibility table / Codes

Cooling only models	D4IC 360 G	661723623	D4IC 480 G	661724823
	B4IH 360 G	661923623	B4IH 480 G	661924823
Cooling and gas heating models	D4IG 360 G	661763603	D4IG 480 G	661764803
	Thermostat (To be ordered separately)	DPC-1		

Accessories or options

Models		D4IC 360 G	D4IC 480 G	B4IH 360 G	B4IH 480 G	D4IG 360 G	D4IG 480 G
Thermostat DPC-1	603780044 A	•	•	•	•	•	•
Dry bulb triple input economizer or motorized air damper with rain hood	613993601 O	•	•	•	•	•	•
Enthalpy probe *	613990081 O	•	•	•	•	•	•
Indoor air quality sensor *	606819964 O/A	•	•	•	•	•	•
Power exhaust *	613994880 O/A	•	•	•	•	•	•
Barometric relief damper + rain hood	613990471 O/A	•	•	•	•	•	•
Fresh air damper and rain hood (1)	613990488 O	•	•	•	•	•	•
High pressure drive 360	611993680 O	•	•	•	•	•	•
High pressure drive 480	611994880 O	•	•	•	•	•	•
Low ambient control 360 and 480	613113680 O	•	•	•	•	•	•
Hot water coil with control	611083651 O	•	•	•	•	•	•
Electric heater 37 kW (2 stages)	611763384 O	•	•	•	•	•	•
Electric heater 50 kW (2 stages)	611764484 O	•	•	•	•	•	•
Electric heater 60 kW (2 stages)	611765581 O	•	•	•	•	•	•
Washable air filter set G4 (EU4)	611303680 O	•	•	•	•	•	•
Dirty filter switch	613990084 O	•	•	•	•	•	•
Smoke detector	613995381 O	•	•	•	•	•	•
Fire detection thermostat	613903002 O	•	•	•	•	•	•
Fixed roof curb **	613991980 A	•	•	•	•	•	•
Adjustable roof curb **	A 613992084 A	•	•	•	•	•	•
	B 613992085 A	•	•	•	•	•	•
	C 613992086 A	•	•	•	•	•	•

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

* It is mandatory to order the economizer with this item. ** Delivered in kit form. (1) Fresh air damper can not be installed if economizer or motorized damper is fitted



Large Rooftop details

Cabinet features:

- Build to last, all cabinet with heavy gauge galvanized steel and powder paint backed on oven.
- Copper-copper coils or anti-corrosion blue protected fins delivered upon request.
- Side or bottom duct connections to be realized on site. No need to order specific models or roofcurb accessories.
- Excellent water-tightness even with high internal negative pressure.
- External slopes to remove rain water.
- Only 4 solid points to crane.

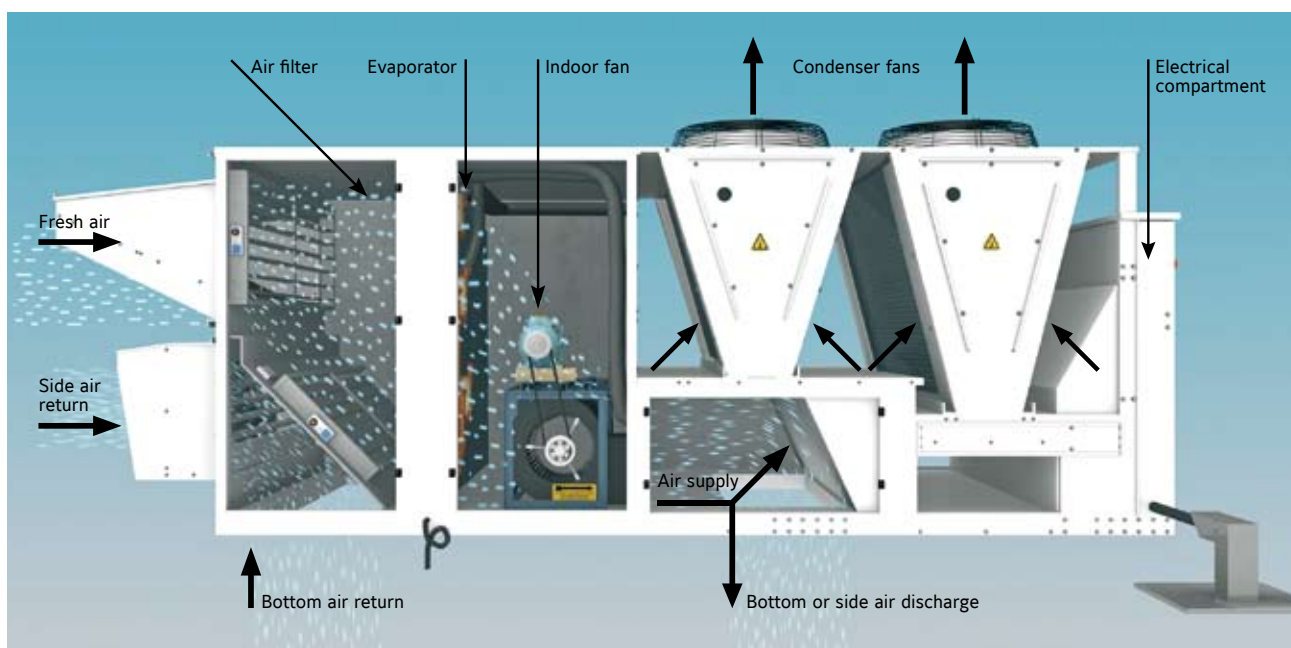
Maintenance and service access:

- Anti vibration bush reduces vibrations
- V Coils ensure Good access to main components
- No direct sun or snow accumulation on the coil



Outdoor fan:

- Galvanised sheet metal frame filters easy to dismount.
- Solid rain hood air filter mesh to avoid rain penetration.
- Smooth start indoor fan motor as standard.
- Adjustable motor pulley to get required airflow on site.



Large Rooftop details



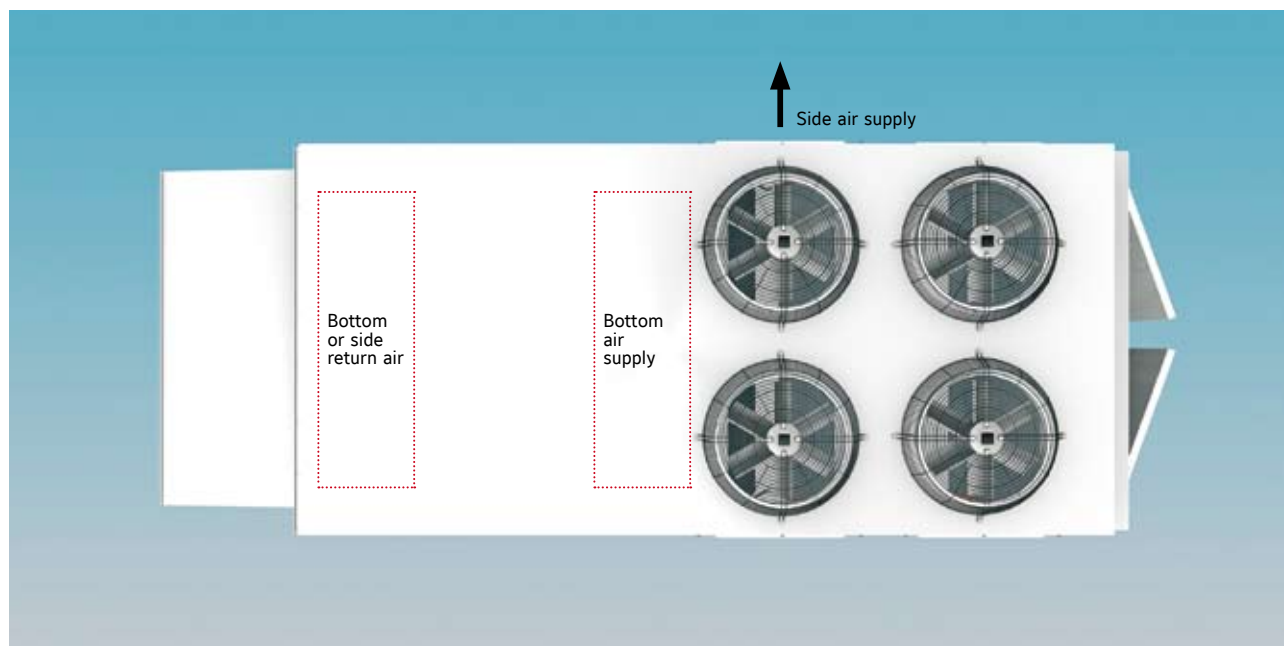
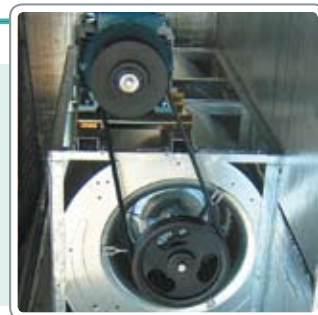
Electrical compartment:

- YKlon V3 regulation and control.
- Vertical hermetic scroll compressor, with compressor module and crankcase heater.
- The compressors with 3 independent circuits are located in a closed compartment, equipped with acoustical insulation in all internal surfaces.
- 3-Phase relay for detection of incorrect phase sequence especially important as we are using scroll compressors. Also protect the rooftops against total and partial phase loss with a regenerated voltage up to 85% of the nominal voltage (phase to phase).
- Main power switch, numbered wires in the cable trucking and motor protection.



Indoor fan:

- Easy direct access to all components thanks to doors equipped with hinges and ¼ turn lock.
- Inspection window for sight glass.
- Internal drain pan slope to remove drain water.



Large Split (Axial)

SOC-SOH - K

A complete range from 20 kW up to 85 kW

R407C



YKlon√3

Features

- YKlon √3 board
- Low ambient control as standard
- Scroll compressors
- Digital thermostat included
- LED fault diagnosis with remote alarm
- "Quick connect" accessories
- Two levels of safety: Lockout & incident
- Adjustable parameters with dip switches
- New packing allows stacking of stock units (76 to 120 models only)
- Improved condenser coil protection (76 to 120 models only)

SOH 150 K

Nomenclature

K = version

Capacity range:

150 = 150,000 Btu/h
(1,000 Btu/h = 293 W)

Product category:

SOC = Cooling only outdoor unit with axial fan
SOH = Reverse cycle outdoor unit with axial fan
SICH = Ductable indoor unit



SOC-SOH 076-090



SOC-SOH 120-180



SOC-SOH 240



SOC-SOH 300

Large Split (Axial)



Technical features

INDOOR UNITS									
Cooling only and Reverse cycle	SICH	76	90	120	150	180	240	300	
OUTDOOR UNITS									
Cooling only models	SOC	76	90	120	150	180	240	300	
Cooling capacities	kW	22.00	29.00	33.40	41.80	53.00	68.00	85.00	
Power input in cooling	kW	7.89	12.20	14.00	17.00	19.40	28.00	33.00	
Refrigerant charge on site for 7 m piping length	kg	6.6	7.8	11.2	6.7 x 2	8.7 x 2	10 x 2	16 x 2	
Reverse cycle models	SOH	76	90	120	150	180	240	300	
Cooling capacities	kW	22.00	29.00	33.40	38.50	54.00	68.00	83.00	
Power input in cooling	kW	7.91	11.00	13.80	16.00	20.80	28.00	32.60	
Heating capacities	kW	23.00	30.00	34.00	43.00	55.50	67.80	89.00	
Power input in heating	kW	6.30	8.65	12.10	15.00	19.40	22.30	30.50	
Refrigerant charge on site for 7 m piping length	kg	8.9	11.4	12.4	9 x 2	10 x 2	13 x 2	15 x 2	
Ambient outdoor side sound power level SOC / SOH	dB(A)	73 / 75	80 / 74	77 / 79	86 / 86	86 / 83	82 / 82	86 / 86	
Ambient outdoor side sound pressure level at 5 m SOC / SOH	dB(A)	51 / 52	57 / 57	55 / 57	63 / 63	64 / 61	60 / 60	62	
In duct indoor side sound power level	dB(A)	70	84	84	85	89	77	86	
Power supply		400V/3 + N/ 50Hz							
Nominal / Starting current	A	17/ 99	23/ 134	28/ 167	31/ 2 x 99	44/ 2 x 134	56/ 2 x 167	61/ 2 x 189	
Main switch (1)	A	25	32	40	50	63	80	80	
Main cable to the outdoor unit (1)	Nbr x mm ²	5 x 4	5 x 6	5 x 10	5 x 10	5 x 16	5 x 25	5 x 25	
Interconnecting cable (1)	Nbr x mm ²	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 2,5	
Cable to standard thermostat (2)	Nbr x mm ²	10 x 0,22							
Insulated refrigerant piping	Suction	1 1/8"	1 1/8"	1 1/8"	2 x 1 1/8"	2 x 1 1/8"	2 x 1 3/8"	2 x 1 3/8"	
	Liquid	1/2"	5/8"	5/8"	2 x 1/2"	2 x 5/8"	2 x 7/8"	2 x 7/8"	
Evaporator fan SICH at nominal airflow (3)	Airflow	m ³ /h	4 530	8 500	8 300	10 700	13 600	16 500	19 500
	Standard ESP	Pa	62	62	75	75	80	80	80
	ESP with HSD	Pa	-	138	150	-	-	-	-
	ESP with HSDM	Pa	165	-	-	112	164	156	187
Nett dimensions outdoor	Height	mm	1 028	1 180	1 180	1 180	1 230	1 180	1 782
	Length	mm	1 245	1 245	1 245	1 245	1 245	1 983	2 454
	Depth	mm	885	885	1 632	1 632	1 632	1 635	1 976
Nett dimensions indoor	Height	mm	590	663	663	663	762	838	838
	Length	mm	1 357	1 738	1 738	2 038	2 239	2 639	2 639
	Depth	mm	725	725	725	725	777	857	857
Nett weight	SOC	kg	234	234	318	415	430	575	925
	SOH	kg	258	268	336	450	495	610	940
	SICH	kg	120	165	165	195	240	310	310

(1) For information only. These should be checked for compliance with local regulations depending also on installation and conductor type.

(2) Shield type cable only.

(3) ESP = External static pressure HSD = High speed drive HSDM = High speed drive and motor

All the data are at EUROVENT conditions with 230V/1/50Hz or 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

Accessories or options

Compatibility table / Codes

INDOOR UNITS							
Cooling only & reverse cycle	SICH 076 B	SICH 090 B	SICH 120 B	SICH 150 B	SICH 180 B	SICH 240 C	SIH 300 B
	662562564	662564064	6625640	662564564	662566064	662568004	662561004
OUTDOOR UNITS							
Cooling only models	SOC 076 K	SOC 090 K	SOC 120 K	SOC 150 K	SOC 180 K	SOC 240 K	SOC 300 L
	661502333	661503133	661504133	661504733	661506333	661508333	662501064
Reverse cycle models	SOH 076 K	SOH 090 K	SOH 120 K	SOH 150 K	SOH 180 K	SOH 240 K	SOH 300 L
	662512633	662513133	662514133	662514633	662516133	662518133	662511034
Thermostat							
Delivered with the unit	DPC-1						
Accessories or options for outdoor units							
	076	090	120	150	180	240	300
Low speed condenser motor	613119011	•	•				
	613111201	O		•	•		
	613112401					•	
Copper-copper coil	O	•	•	•	•	•	•
Anti-corrosion blue fin coil	O	•	•	•	•	•	•
Accessories or options for indoor units							
	076	090	120	150	180	240	300
Electrical Heaters (Inside the unit)	10 kW 611763544	•					
	15 kW 611763644	•					
	10 kW 611761554		•	•			
	20 kW 611761644		•	•			
	15 kW 611761734	O/A			•		
	30 kW 611761834				•		
	15 kW 611762024					•	
	30 kW 611763024					•	
	30 kW 611763025 (1)	O					•
	40 kW 611764525 (1)						
Electrical Heaters (in duct)	10 kW 613761013	•					
	15 kW 613761513	•					
	20 kW 613762013	A	•	•	•	•	•
	30 kW 613763013		•	•	•	•	•
Hot water coil only	611082510	•					
	611083010	O	•	•			
	611084510				•		
Vertical discharge Kit	669482038				•		
	669488002	O				•	
	669481002						•
High speed drive	603761161	•				•	
	603761163		•	•			
	603761162	O			•	•	
	611991081						•
High speed drive and motor	603761165	•					
	603761166				•		
	603761167	O				•	
	603761168					•	
	611991080						•
Copper-copper coil	O	•	•	•	•	•	•
Anti-corrosion blue fin coil	O	•	•	•	•	•	•

O = Option (factory fitted)

A = Accessory (supplied loose)

O/A = If you want this item factory fitted, precise it in the order form

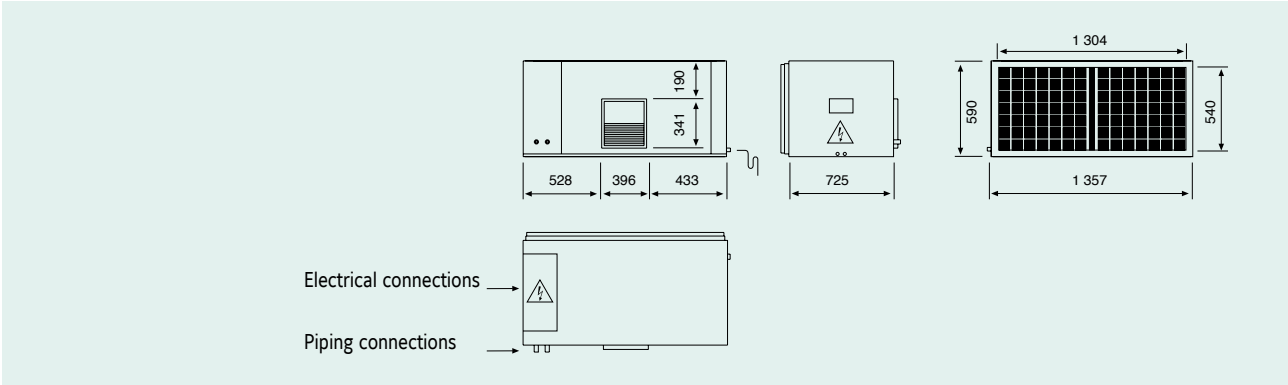
• = Available

(1) Factory fitted, for horizontal airflow only.

Dimensions indoor units SICH 070 to 300

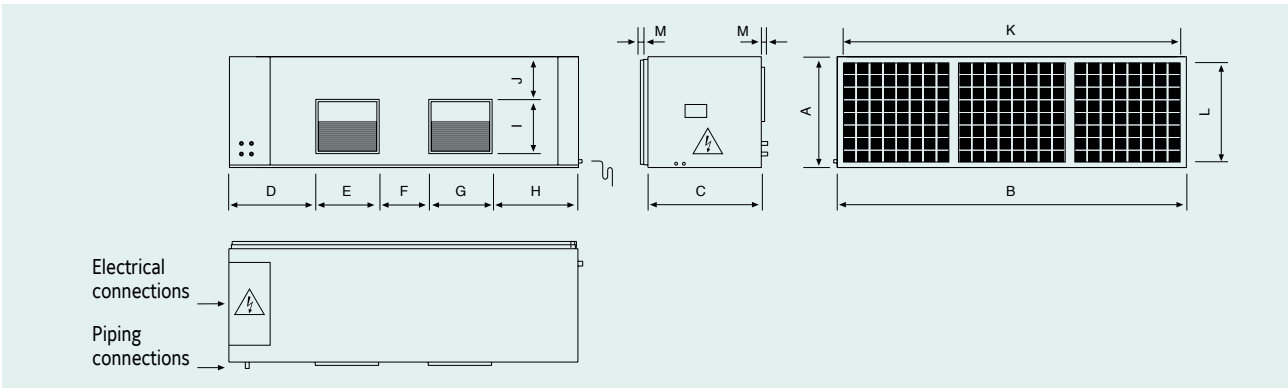


SICH 70-76



All dimensions in mm. Drawings not a scale.

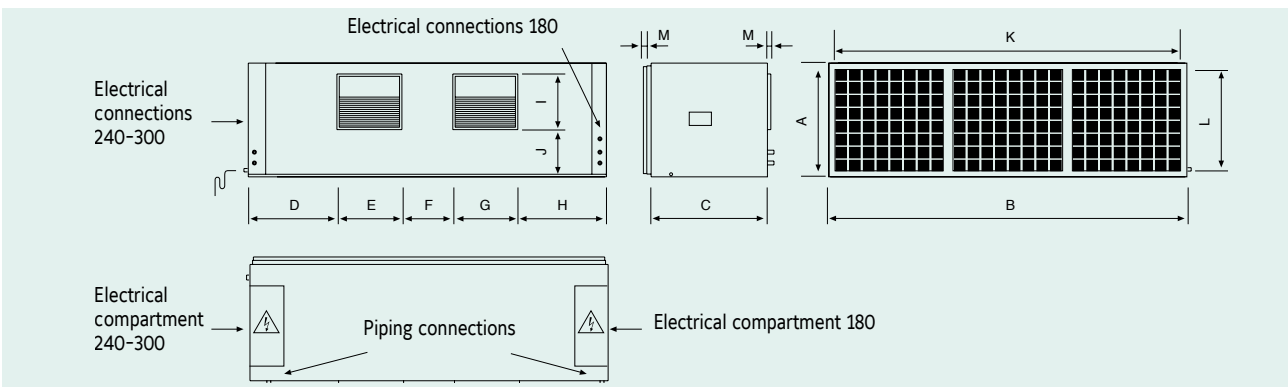
SICH 90-120-150



All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L	M
SICH 90	663	1 738	725	470	311	321	311	325	341	263	1 685	613	25
SICH 120	663	1 738	725	470	311	321	311	325	341	263	1 685	613	25
SICH 150	663	2 038	725	510	396	321	396	415	341	263	1 985	613	25

SICH 180-240-300

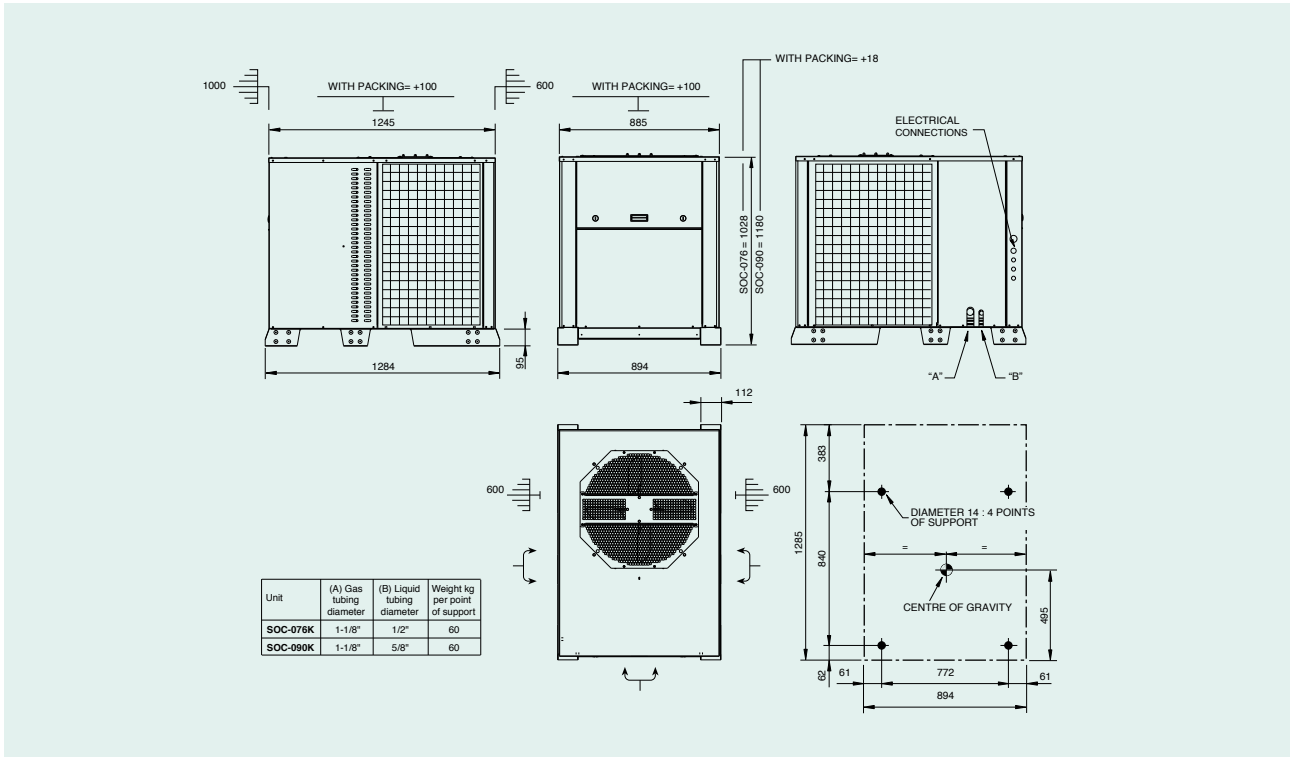


All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L	M
SICH 180	762	2 239	777	563	396	321	396	563	341	341	2 186	709	25
SICH 240	838	2 639	857	653	479	375	479	653	410	348	2 589	788	25
SIH 300	838	2 639	857	653	479	375	479	653	410	348	2 589	788	25

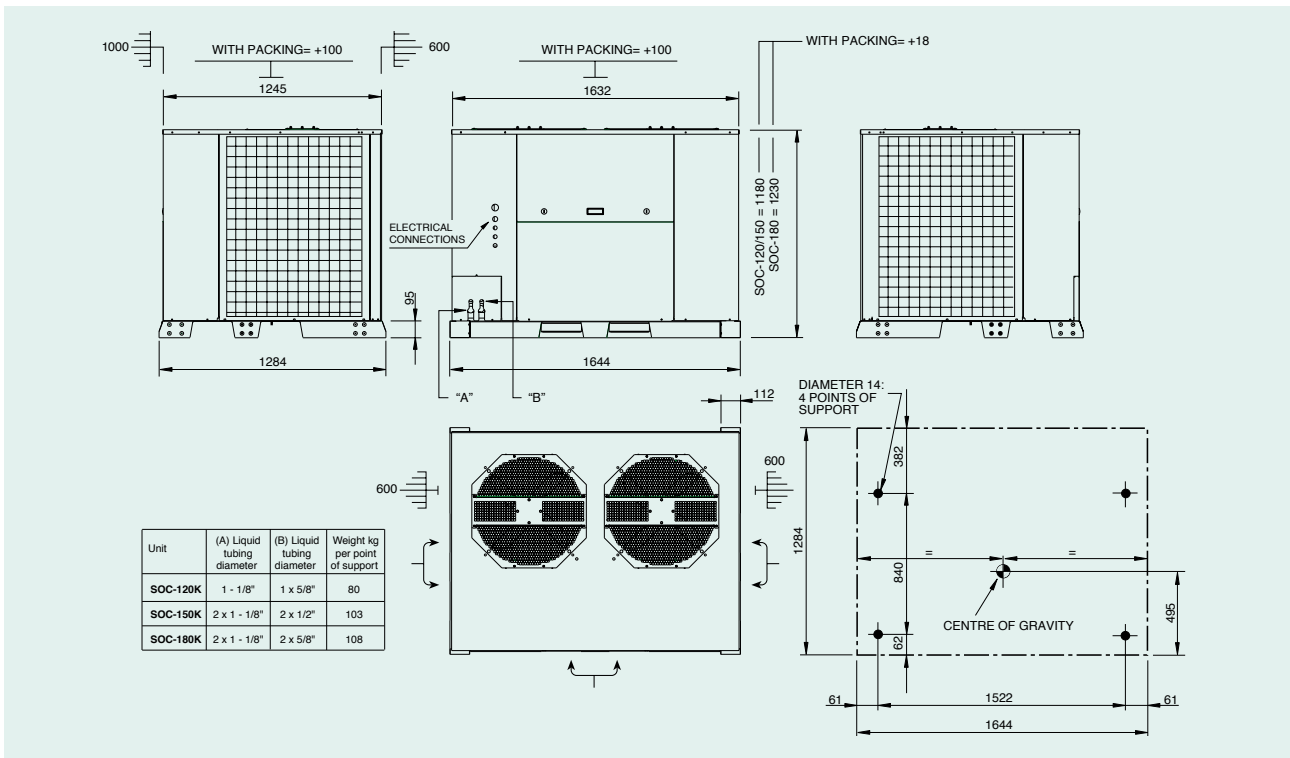
Dimensions and space requirements for outdoor units

SOC-SOH 76-90 K



All dimensions in mm. Drawings not a scale.

SOC-SOH 120-150-180 K

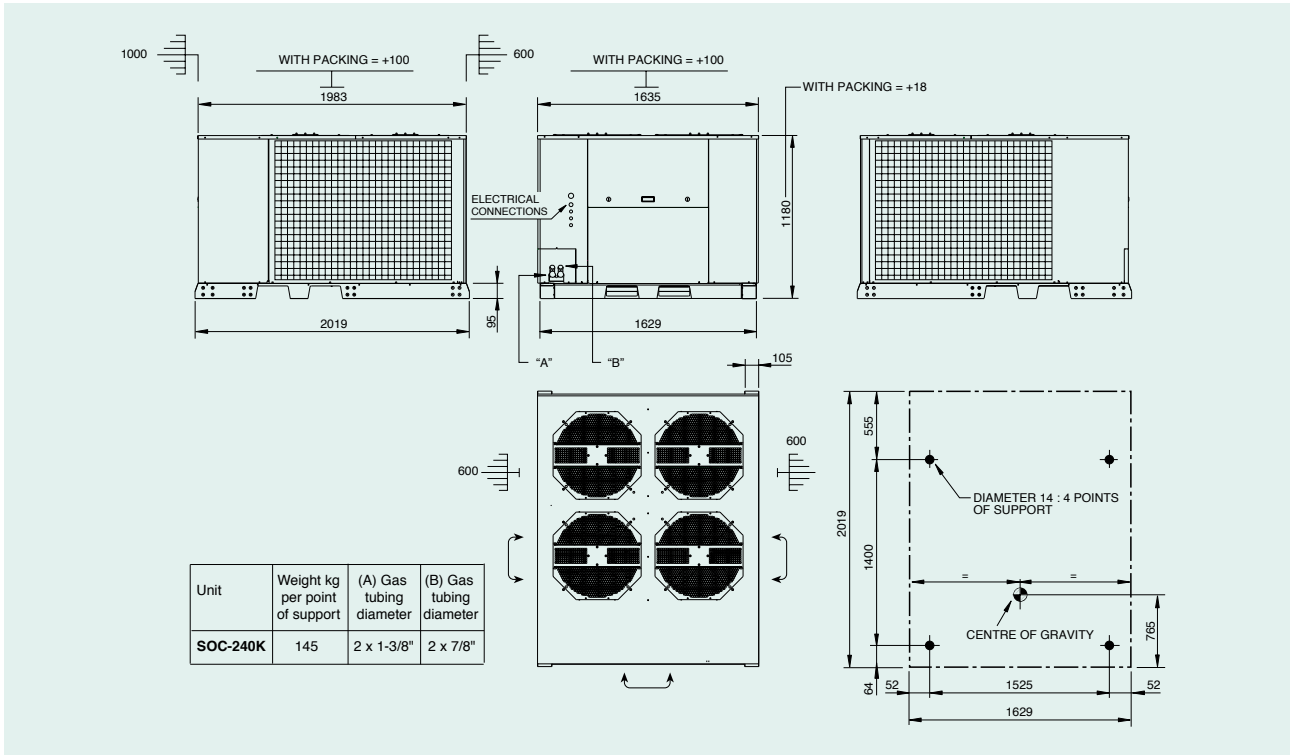


All dimensions in mm. Drawings not a scale.

Large Split SOC-SOH 076-300

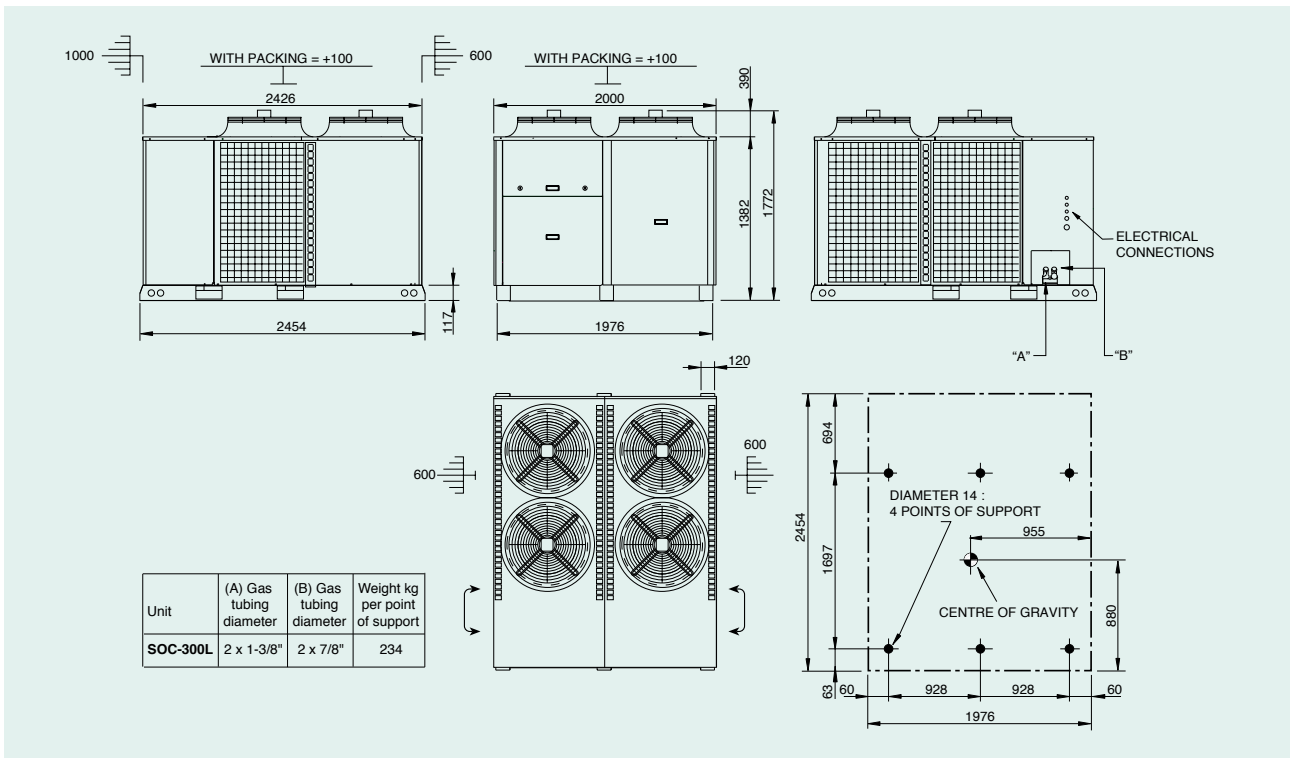


SOC-SOH 240 K



All dimensions in mm. Drawings not a scale.

SOC-SOH 300 L



All dimensions in mm. Drawings not a scale.

Large Split (Ductable)

SCOC-SCOH - K

A complete range from 18 kW up to 90 kW



YKlon√3



Features

- YKlon ✓3 board
- Low ambient control as standard
- Scroll Compressors
- Digital thermostat included
- LED fault diagnosis with remote alarm
- "Quick connect" accessories
- Two levels of safety: Lockout & incident
- Adjustable parameters with dip switches
- New packing allows stacking on stock of the units (76 to 120 models only)
- Improve condenser coil protection (76 to 120 models only)

SCOH 120 K

Nomenclature

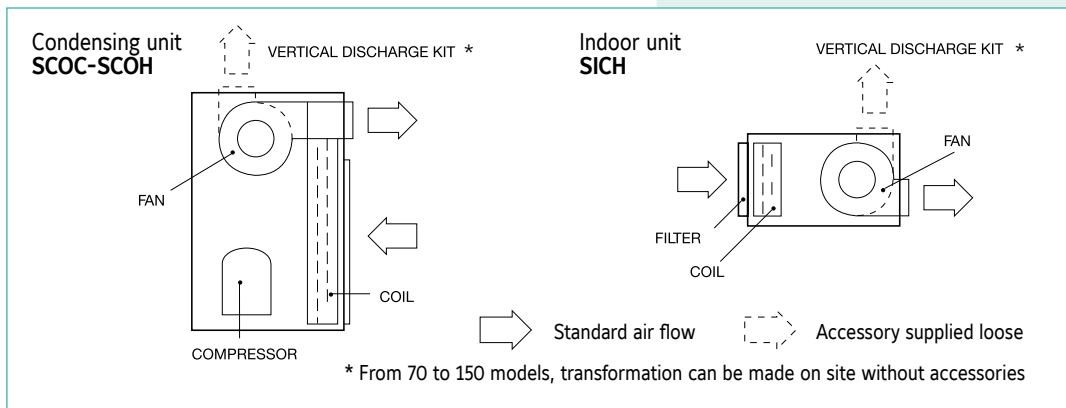
K = version

Capacity range:

120 = 120.000 Btu/h
(1.000 Btu/h = 293 W)

Product category:

SCOC = Cooling only condensing unit with axial fan
SCOH = Reverse cycle condensing unit with axial fan
SICH = Ductable indoor unit



Large Split (Ductable)



Technical features

INDOOR UNITS										
Cooling only and Reverse cycle	SICH	70	76	90	120	150	180	240	300	
CONDENSING UNITS										
Cooling only models	SCOC	---	76	90	---	150	180	---	---	
Cooling capacity	kW		21,00	29,00		40,00	54,00			
Power input in cooling	kW		9,01	13,20		19,10	27,00			
Refrigerant charge on site for 7m piping length	Kg		8,7	13,8		9,4 x 2	9 x 2			
Reverse cycle models	SCOH	70	76	90	120	150	180	240	300	
Cooling capacities	kW	18,60	21,00	30,00	33,30	39,50	54,00	69,00	86,00	
Power input in cooling	kW	6,40	8,80	11,70	13,90	18,90	26,40	31,30	35,00	
Heating capacities	kW	18,60	22,30	33,50	34,40	44,00	56,00	69,00	88,00	
Power input in heating	kW	6,00	5,50	12,80	12,10	15,80	26,40	31,30	32,60	
Refrigerant charge on site for 7m piping length	Kg	8,4	8,7	13,8	13	9,4 x 2	9 x 2	13 x 2	16 x 2	
In duct condensing side sound power level SCOC / SCOH	dB(A)	- / 71	79 / 74	79 / 77	- / 91	78 / 78	80 / 80	- / 80	- / 80	
In duct indoor side sound power level	dB(A)	81/ 70	81/ 70	81/ 77	84	85	86	86	86	
Power supply		400V/3 + N/ 50Hz								
Nominal / Starting current	A	17 / 99	20 / 123	24 / 134	29 / 167	37 / 2 x 99	49 / 2 x 134	59 / 2 x 167	76 / 2 x 189	
Main switch (1)	A	20	25	32	40	50	63	80	100	
Main cable to the condensing unit (1)	Nbr x mm ²	5 x 4	5 x 4	5 x 6	5 x 10	5 x 10	5 x 16	5 x 25	5 x 35	
Interconnecting cable (1)	Nbr x mm ²	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 1,5	4 x 2,5	
Cable to standard thermostat (1) (2)	Nbr x mm ²	10 x 0,22								
Insulated refrigerant piping	Suction	1 1/8"	1 1/8"	1 1/8"	1 1/8"	2 x 1 1/8"	2 x 1 1/8"	2 x 1 3/8"	2 x 1 3/8"	
	Liquid	1/2"	1/2"	5/8"	5/8"	2 x 1/2"	2 x 5/8"	2 x 7/8"	2 x 7/8"	
Evaporator fan SICH at nominal airflow (3)	Airflow	m ³ /h	4 530	4 530	8 500	8 300	10 700	13 600	16 500	19 500
	Standard ESP	Pa	62	62	62	75	75	80	80	80
	ESP With HSD	Pa	-	-	138	150	-	-	-	-
	ESP With HSDM	Pa	165	165	-	-	112	164	156	187
Condenser fan at nominal airflow	Airflow	m ³ /h	6 300	6 300	11 520	11 520	12 600	18 000	23 400	23 400
	Standard ESP	Pa	50	50	50	50	50	50	50	50
Nett dimensions condensing units	Height	mm	1 392	1 392	1 526	1 526	1 592	1 641	1 794	1 794
	Length	mm	1 360	1 360	1 738	1 738	2 040	2 239	2 639	2 639
	Depth	mm	728	728	725	725	728	777	857	857
Nett dimensions indoor	Height	mm	590	590	663	663	663	762	838	838
	Length	mm	1 357	1 357	1 738	1 738	2 038	2 239	2 639	2 639
	Depth	mm	725	725	725	725	725	777	857	857
Nett weight	SCOC	kg	-	315	370	-	555	645	-	-
	SCOH	kg	305	325	375	385	560	650	720	750
	SICH	kg	120	120	165	165	195	240	310	310

(1) For information only. These should be checked for compliance with local regulations depending also on installation and conductor type.

(2) Shield type cable will have a better insulation against electromagnetic interference. It is recommended for sensitive sites and for communications.

(3) ESP = External static pressure HSD = High speed drive HSDM = High speed drive and motor

All the data are at EUROVENT conditions with 230V/1/50Hz or 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

Accessories or options

Compatibility table / Codes

INDOOR UNITS									
Cooling only & Reverse cycle	SICH 070 B	SICH 076 B	SICH 090 B	SICH 120 B	SICH 150 B	SICH 180 B	SICH 240 C	SIH 300 B	
		662562564	662562564	662564064	662564064	662564564	662566064	662568004	662561004
CONDENSING UNITS									
Cooling only models	-	SCOC 076 K	SCOC 090 K	-	SCOC 150 K	SCOC 180 K	-	-	
	-	661502623	661503123	-	661504623	661506123	-	-	
Reverse cycle models	SCOH 070 K	SCOH 076 K	SCOH 090 K	SCOH 120 K	SCOH 150 K	SCOH 180 K	SCOH 240 K	SCOH 300 K	
	662512123	662512623	662513123	662514123	662514623	662516123	662518123	662511023	
Thermostat									
Delivered with the unit	DPC-1								
Accessories or options for condensing units									
		070	076	090	120	150	180	240	300
Low ambient regulation *	613112581	•	•						
	613114081			•	•				
	613114581	O				•			
	613116082						•		
	613111081							•	•
Copper-copper coil	O	•	•	•	•	•	•	•	•
Anti-corrosion blue fin coil	O	•	•	•	•	•	•	•	•
Vertical discharge kit	612822105		•						
	612823105		•	•	•				
	612824605	O				•			
	612826105						•		
	612828105							•	•
Accessories or options for indoor units									
		070	076	090	120	150	180	240	300
Electrical Heaters (inside the unit)	10 kW 611763544	•	•						
	15 kW 611763644	•	•						
	10 kW 611761554			•	•				
	20 kW 611761644			•	•				
	15 kW 611761734	O/A				•			
	30 kW 611761834					•			
	15 kW 611762024						•		
	30 kW 611763024						•		
	30 kW 611763025 (1)	O						•	
	40 kW 611764525 (1)								•
Electrical Heaters (in duct)	10 kW 613761043	•	•						
	15 kW 613761543	•	•						
	20 kW 613762043	A		•	•	•	•	•	•
	30 kW 613763043			•	•	•	•	•	•
Hot water coil only	611082510	•	•						
	611083010	O		•	•				
	611084510					•			
Vertical discharge Kit	669482038						•		
	669488002	O						•	
	669481002								•
High speed drive	603761161	•	•				•		
	603761163	O		•	•				
	603761162					•		•	
	611991081								•
High speed drive and motor	603761165	•	•						
	603761166	O				•			
	603761167						•		
	603761168							•	
	611991080								•
Copper-copper coil	O	•	•	•	•	•	•	•	•
Anti-corrosion blue fin coil	O	•	•	•	•	•	•	•	•

O = Option (factory fitted).

A = Accessory (supplied loose).

O/A = If you want this item factory fitted, precise it in the order form.

• = Available

(1) Factory fitted, for horizontal airflow only.

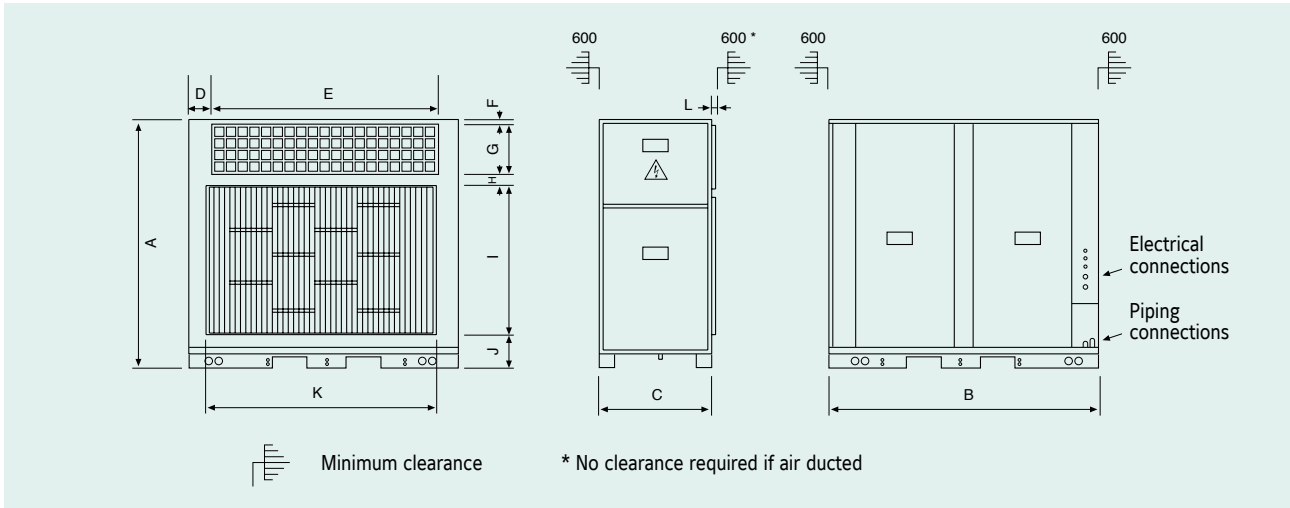
* Not protected against external condition.

Dimensions and space requirements for condensing units



For indoor units specifications refer to page 149

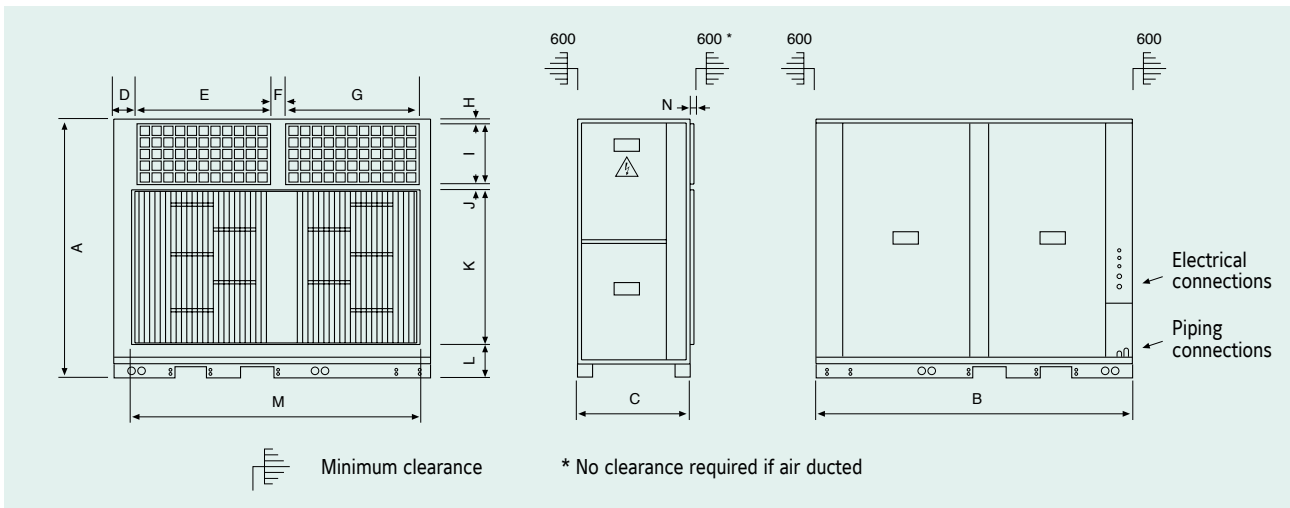
SCOC-SCOH 70-76-90-120



All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L
SCOH 70	1 392	1 360	728	147	1 069	30	268	37	919	138	1 100	24
SCOC (H) 76	1 392	1 360	728	147	1 069	30	268	37	919	138	1 100	24
SCOC (H) 90	1 526	1 738	725	148	1 444	30	324	37	996	139	1 485	24
SCOH 120	1 526	1 738	725	148	1 444	30	324	37	996	139	1 485	24

SCOC-SCOH 150-180-240-300



All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N
SCOC (H) 150	1 592	2 040	728	150	861	101	861	30	389	37	997	139	1 860	24
SCOC (H) 180	1 641	2 239	777	148	962	101	962	30	389	37	1 047	138	2 060	24
SCOH 240	1 794	2 639	857	148	1 162	101	1 162	30	389	37	1 200	138	2 460	24
SCOH 300	1 794	2 639	857	148	1 162	101	1 162	30	389	37	1 200	138	2 460	24

