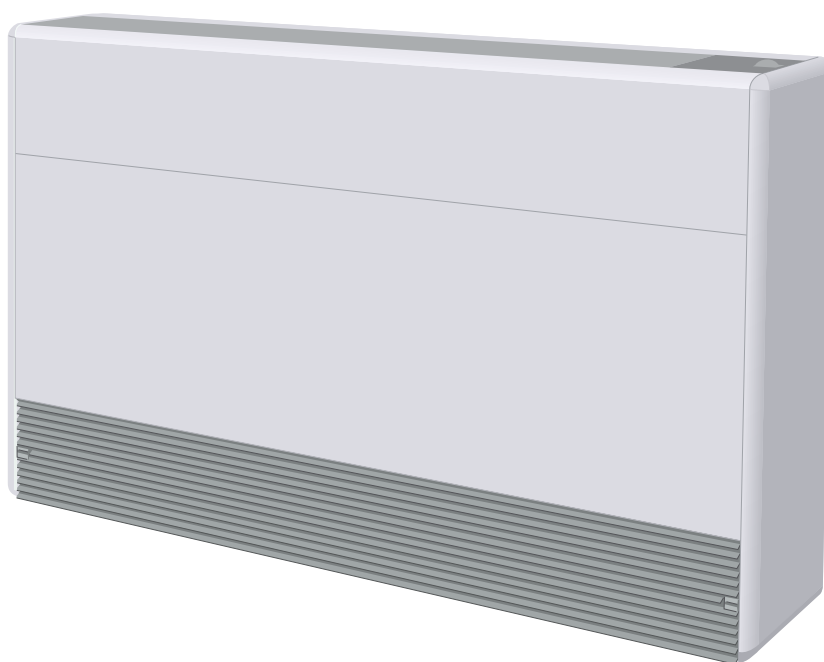


AOV

SINGLE-PACKAGE WATER COOLED CONSOLE UNITS (R 407 C)



AOV 15 S	1.90 kW
AOV 25 S	3.87 kW
AOV 55	4.63 kW

CE MARKING

This product marked **CE** conforms to the essential requirements of the Directives :

- Low voltage no. 73/23 EEC, modified 93/68 EEC.
- Electromagnetic Compatibility no. 89/336 EEC, modified 92/31 and 93/68 EEC.



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APPLIANCES FILLED WITH R 407 C

R 407 C

- Fluid R 407 C, as opposed to R22, is not a pure fluid but a blend composed of:
 - 23% R 32 + 25% R 125 + 52% R 134 A.
- The compressors approved for operation with this fluid are filled beforehand with polyalcohol oil.
Contrary to mineral oil, it is very hygroscopic: it absorbs the humidity of the ambient air very quickly. This can modify its lubricant properties and lead in time to the destruction of the compressor.

MAINTENANCE INSTRUCTIONS

- 1 - Never add oil to the appliance; the compressor is filled with polyalcohol oil, a special oil which cannot tolerate the presence of other oils.
- 2 - The instruments used for:
 - filling,
 - pressure measurements,
 - emptying under vacuum,
 - recovering the fluid,must be compatible and only used for the R 407 C fluid.
- 3 - The weight of the refrigerant contained in the storage bottle must be checked constantly. Do not use it from the moment the remaining weight is less than 10% of the total weight.
- 4 - In the case of a new charge:
 - do not use the charging cylinder,
 - use a balance and a dip pipe type R 407 C cylinder,
 - charge the weight of R 407 C as per the value indicated on the unit's identification plate (for "split systems", refer to the installation instructions as the charge must consider the length of the connecting lines),
 - IMPORTANT: see paragraph 3.
- 5 - The charge **must** be undertaken in liquid phase.
- 6 - In case of leakage, do not complete the charge: recover the remaining refrigerant for recycling and perform a total charge.
Recovery, recycling or the destruction of the fluid must be done in compliance with the laws in force in the country concerned.
- 7 - If the refrigerant circuit is opened, you must:
 - avoid the entry of air into the circuit as much as possible,
 - replace the filter drier.
 - perform the "vacuum operation" at a minimum level of **0.3 mbar (static)**.

1 - DESCRIPTION

1.1 - FUNCTIONS

- Cooling.
- Ventilation with filtration.
- Dehumidification.
- Supplementary heating (accessory).

1.2 - DESIGN

- Operation in conventional direct expansion refrigerant cycle.
- Single packaged unit to be mounted vertically on the floor.

1.3 - UTILISATION

- Air conditioning by independent and centralised systems for the comfort of people in buildings.

1.4 - TYPES

- With pressure valve using town water.

1.5 - ADVANTAGES

- Very compact size, reduced overall dimensions.
- Allows the air conditioning of areas where air cooled condensers cannot be used owing to the distance from outside walls or listed buildings.
- Very low sound levels.
- Low water consumption high efficiency condenser pressure valve fitted as standard.
- 3 fan speed.
- Operational safety (accessible manually reset HP pressure switch).
- Very simple installation.
- Simple electrical connection.
- No refrigerant connection.
- Ø 20/27 brass water couplings (flexible delivered as accessories and recommended to avoid transmission of vibrations).
- Vertical or horizontal air flow.

2 - PERFORMANCES

Model			AOV 15 S	AOV 25 S	AOV 55
Cooling capacity	(HS)	kW	1.90	3.87	4.63
Input power	(HS)	kW	0.55	1.10	1.75
Indoor air flow	(HS)	m³/h	400	450	630
		m³/s	0.111	0.125	0.175
Water average flow rate		m³/h	0.110	0.180	0.290
		l/s	0.031	0.05	0.081
Additional heating capacity (electric heating in accessory)		1 500 W	●	---	---
		2 000 W	---	●	●
		3 000 W	---	---	●
Power supply	(V/ph/Hz)	230/1/50	●	●	●
		400/3N/50	---	---	---

NOMINAL OPERATING CONDITIONS

INDOOR (at return air inlet):

- dry bulb temperature : 27°C
- wet bulb temperature : 19°C

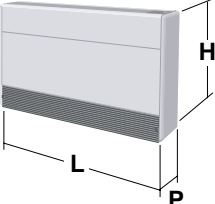
COOLING WATER

• Town water:

- inlet water temperature : 18°C
- condensing temperature : 42°C

**Consult us
for any special conditions widely
diverging from nominal conditions.**

3 - PHYSICAL CHARACTERISTICS

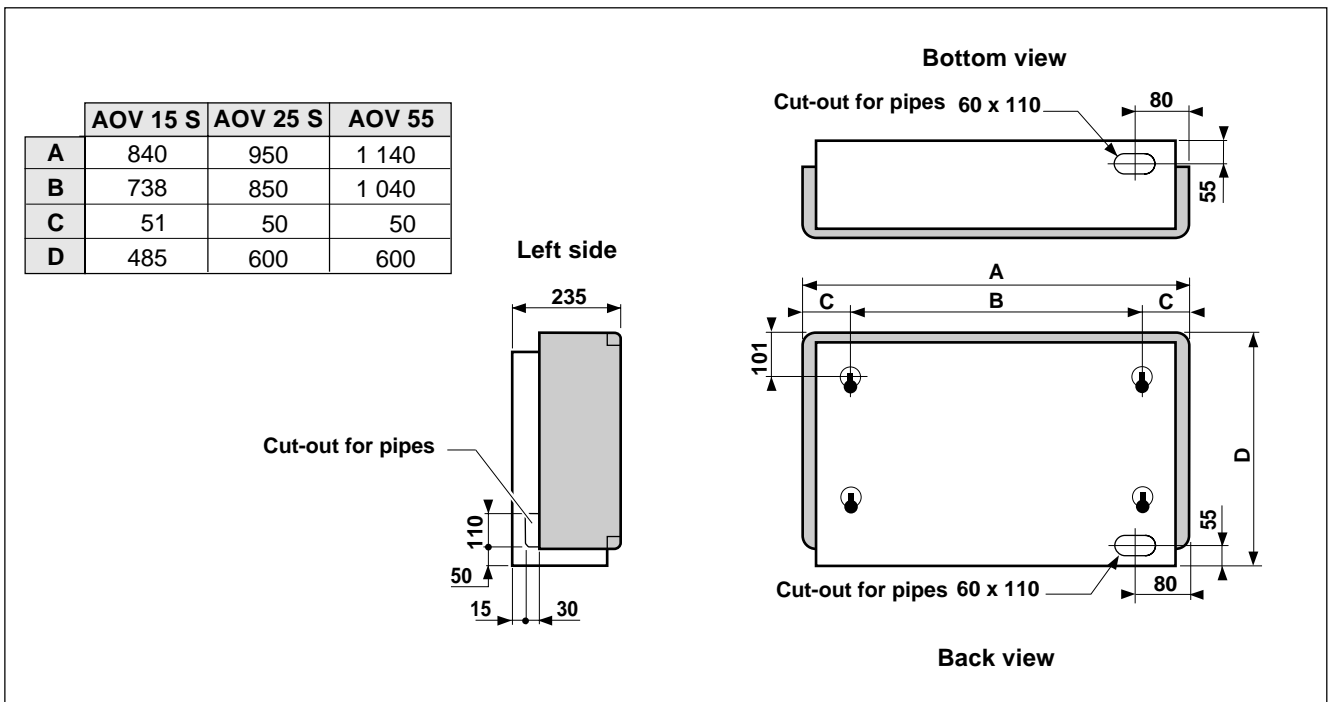
Model				AOV 15 S	AOV 25 S	AOV 55
	Overall dimensions	L	mm	840	950	1 140
		H	mm	485	600	600
		P	mm	235	235	235
		Weight	kg	39	60	75
	Overall packed dimensions	L	mm	900	1 010	1 200
		H	mm	535	650	650
		P	mm	295	295	295
		Weight	kg	43	65	80

FINISH

- Cabinet in skin plate, sheet metal, with thermal and sound internal insulation.

OPERATIONAL RECOMMENDATIONS

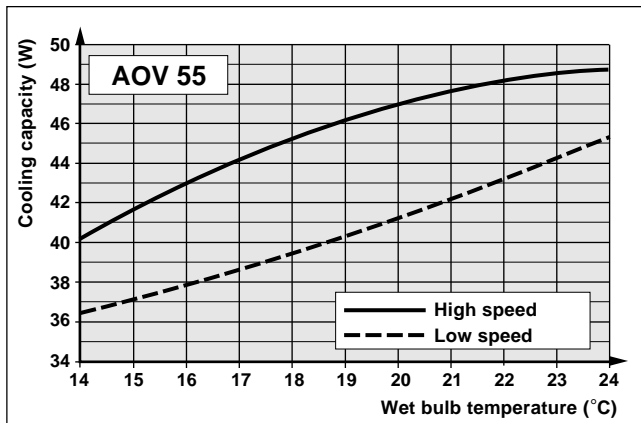
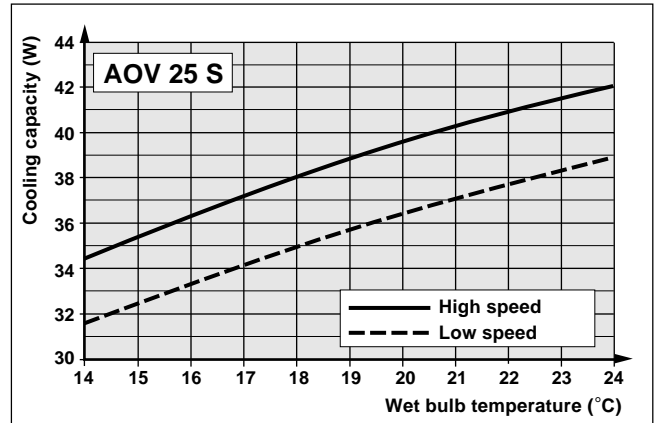
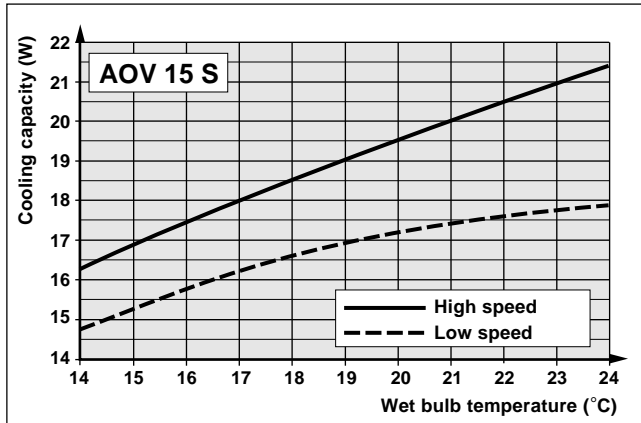
- The unit must be vertically positioned.
- It must always lay on a support (either floor or on brackets).
- In order to secure the unit, it can be fixed to the wall by means of 2 screws (provided).
- 4 rubber pads are provided in order to insulate the floor from vibrations. In this case unit is raised by 5 mm.



4 - TECHNICAL CHARACTERISTICS

Model			AOV 15 S	AOV 25 S	AOV 55	
Copper/aluminium evaporator with condensate drain pan; High performance, louvered type			●	●	●	
Expansion		Restrictor	●	●	---	
		Capillary	---	---	●	
Counter flow coaxial type condenser			●	●	●	
Cooling water average flow rate		m³/h	0.110	0.180	0.290	
Size of water connection	Water inlet (male)	mm	20/27	20/27	20/27	
	Water outlet (male)	mm	20/27	20/27	20/27	
R 407 C refrigerant	Charge	g	300	350	480	
Centrifugal fan direct drive type			●	●	●	
3-speed electric motor with internal thermal protection			●	●	●	
Power supply	V/ph/Hz	230/1/50	●	●	●	
Input current high speed		A	0.25	0.25	0.3	
Input power high speed		kW	0.050	0.053	0.063	
Air flow rate	High speed	m³/h	400	450	630	
		m³/s	0.111	0.125	0.175	
	Medium speed	m³/h	300	400	545	
		m³/s	0.083	0.111	0.151	
	Low speed	m³/h	210	330	460	
		m³/s	0.058	0.092	0.128	
Hermetic compressor with thermal protection, sound insulation cover			●	●	●	
Power supply	V/ph/Hz	230/1/50	●	●	●	
Maximum current	V/ph/Hz	230/1/50	A	3.35	6.75	13.5
Air filter: polyurethane, washable. EUROVENT classification 4/5			EU1	EU1	EU1	
Supply grille (can be set horizontal or vertical)			●	●	●	
Control and regulation						
On/Off switch, speed and mode selection			●	●	●	
Air return thermostat adjustable from +18° C to +30° C			●	●	●	
Cooling stage			1	1	1	
Heating stage			1	1	1	
Main power supply						
Supply voltage	V/ph/Hz	230/1/50	●	●	●	
Max. input power in heating						
with 1,5 kW electric heating	230/1/50	kW	1.550	---	---	
with 2 kW electric heating	230/1/50	kW	---	2.053	2.063	
with 3 kW electric heating	230/1/50	kW	---	---	3.063	
Maximum input current in cooling	230/1/50	A	3.6	7	13.8	
Maximum input current in heating						
with 1,5 kW electric heating	230/1/50	A	7	---	---	
with 2 kW electric heating	230/1/50	A	---	9.35	9.4	
with 3 kW electric heating	230/1/50	A	---	---	13.9	
Input current at nominal cooling conditions	230/1/50	A	2.7	5.2	10.2	
Power cable length		m	1.5	1.5	1.5	

5 - COOLING PERFORMANCES



6 - ACOUSTIC

6.1 - SOUND LEVELS

Model		LW (dB A)			LP (dB A)		
		HS	MS	LS	HS	MS	LS
	AOV 15 S	55	51	47	42	38	34
	AOV 25 S	56	55	53	43	42	40
	AOV 55	62	57	56	49	44	43

HS : High speed
MS : Medium speed
LS : Low speed

LW : Sound power level.

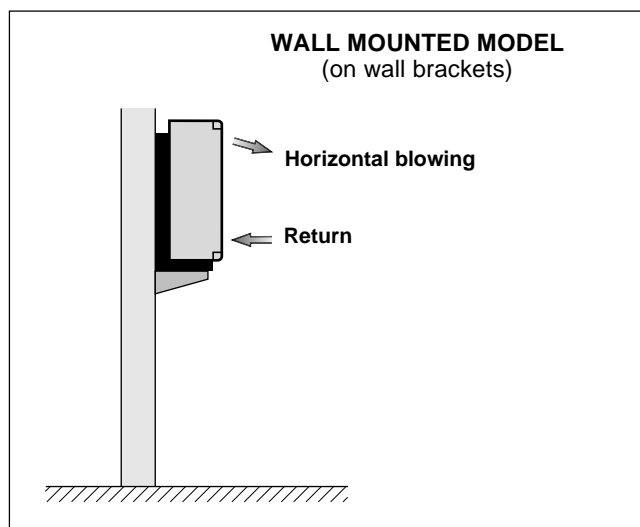
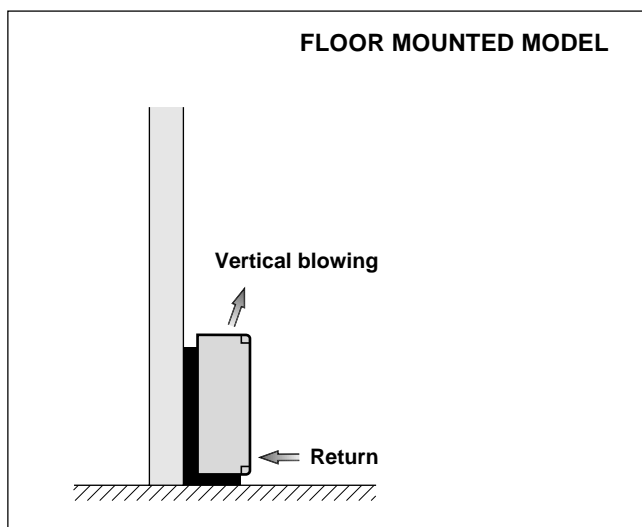
LP : Sound-pressure level.

(Given as an indication only. Recalculate it according to installation conditions).

6.2 - MEASURING CONDITIONS

- Unit fitted on the floor, against a wall.
- Average premises, reverberation time 0.5 s.
- Distance 2.50 m.

7 - EXAMPLES OF INSTALLATIONS



8 - ACCESSORIES

Model			AOV 15 S	AOV 25 S	AOV 55
Automatic remote control			●	●	●
Manual remote control			●	●	●
Remote sensor for automatic control			●	●	●
Remote sensor in a box for automatic control			●	●	●
Auxiliary electric heating	1 500 W	230/1/50	●	---	---
	2 000 W	230/1/50	---	●	●
	3 000 W	230/1/50	---	---	●
		400/3N/50	---	---	---
Side way grille			●	●	●
Wall brackets			●	●	●
Flexible water pipes, length 0.5 m or 1m			●	●	●



Due to our policy of continuous development, our products are liable to modification without notice.

Technibel

R.D. 28 Reyrieux BP 131 01601 Trévoux CEDEX France
Tel. 33 4 74 00 92 92 - Fax 33 4 74 00 42 00
R.C.S. Bourg-en-Bresse B 759 200 728