

Compact air-air stand-alone units
of horizontal construction

HCompact2 RHA series

Air to air cooling units

HCompact2 IHA series

Reversible air to air heat pumps

TECHNICAL BROCHURE

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HCompact2 HA



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Horizontal package air conditioners



Cooling capacity: 12,5 a 35,9 kW
Heating capacity: 14,2 a 41,0 kW

Compact horizontal
Reduced dimensions
Centrifugal fans

Ducted **aspiration** and **discharge**

DESCRIPTION

The **HCompact2 HA** heat pumps and cooling unit are packages air to air units, of horizontal compact construction, made for operation indoors.

They are equipped with centrifugal fans, air coils, scroll compressor and electronic control with microprocessor, optimized components for the R-410A refrigerant.

Are appropriate for air conditioning applications in medium power in offices, commercial and industrial spaces where the facade aesthetics must be preserved.

All of the units are tested and checked in factory.

SERIES

HCompact2 RHA series

Air to air **cooling units** of horizontal compact construction.

HCompact2 IHA series

Reversible air to air **heat pump** units of horizontal compact construction.

RANGE

HCompact2 HA series:

- 1 cooling circuit, 1 scroll compressor, 6 models:
55 / 65 / 80 / 90 / 120 / 160

OPERATING LIMITS

Inlet air conditions		Cooling	Heating
Indoor coil	Minimum	14 °C WB	10 °C
	Maximum	22 °C WB	27 °C
Outdoor coil	Minimum	12 °C ①	-6 °C WB ②
	Maximum	48 °C	15 °C WB

① With control of the condensation pressure operating up to -10°C.

② When the outdoor temperature is usually below 5°C WB it is recommended installing a support element.

UNIT CONFIGURATION

Casing

- Casing made of galvanised steel metal with polyester paint, colour RAL 7035, dried in oven and thermally isolated.
- Self-supporting frame and fan access panels, cooling circuit and electric panel.

Outdoor circuit

- Centrifugal fan with coupling by pulleys and belts.
- Anti-bird grid, in aspiration.
- Condensates drain pan with asphaltic paint. Independent drain.
- Copper pipe and aluminium fins coil.

Indoor circuit

- Centrifugal fan with coupling by pulleys and belts.
- Reusable air filter.
- Condensate collection pan. Independent drain.
- Copper pipe and aluminium fins coil.

Cooling circuit

- Scroll compressor, assembled over shock absorbers. Thermal protection.
- Thermostatic expansion valve with outdoor pressure external equalisation.
- Four-way valve for cycle inversion and crankcase heater (in heat pump units).
- Anti-acid dehydrator filter.

Protections

- High pressure pressostat.
- Low pressure pressostat.
- Automatic switch in the control circuit.
- Magnetothermic protection switches for the compressor and fan motor power line.
- Main door switch.
- Fan thermal protection.
- Compressor discharge temperature control.

Electric panel

- Complete and fully wired electrical panel.
- Transformer for power supply without neutral.
- Main earth connection.
- Compressor and fan motors contactors.

Electronic control AVANT

This control is basically comprised of a control board, a TCO user terminal, a graphic maintenance terminal pGD1 (optional) and sensors.

TCO user terminal

This terminal allows the configuration of the unit operating mode, the visualization of different temperatures of the installation, the view of alarms codes in the display and the timer programming.



This terminal has an ambient temperature probe by standard and optionally may be replaced by a return air probe connected in the control board.

PGD1 maintenance terminal (opcional)

This terminal incorporates a LCD display and, by texts, facilitates the initial scheduling of the unit, the modification of the operating parameters and the description of the alarms produced.



Main functions:

- Selection of the operating mode: COOLING, HEATING, AUTOMATIC, FAN and DEHUMIDIFICATION.
- Modification of the setpoint.
- Permanent control of the operating parameters.
- View of the values measured by the probes.
- Timing of the compressors
- Defrosting management (in heat pump units).
- Anti-fire safety.
- Control of the outlet temperature.
- Compressor discharge temperature control by probe.
- Compensation of the setpoint in accordance with the outdoor temperature.
- Timer and weekly programming.
- Failure diagnosis and main alarm.
- Counters of the number of starts and operating hours of the unit's components.

Optional functions:

- Control of the auxiliary electrical heaters.
- Detection of clogged filters and management of air flow controller.
- Connection to a centralised technical management system (BMS) for supervision using a BMS card specific for the communication protocols Carel, Modbus, LonWorks®, BACnet™ MSTP, Konnex, Modbus TCP/IP, BACnet™ Ethernet, TCP/IP, SNMP V1-2-3, FTP y HTTP.

OPTIONS

Installation

- Switchable position of discharge and return of the indoor / outdoor circuit. This allows to leave the unit as most convenient in each installation. Please see the possible assembly types.
- Shock absorbers made of rubber.

Outdoor ambient

- INERA® coils (outdoor and indoor) with copper pipes and fins of an aluminium alloy, of high performance and great resistance to the corrosion.
- Coils (outdoor and indoor) with copper pipes and aluminium fins with polyurethane coating.
- Condensation pressure control with damper.

Comfort / heating

- Electrical heaters support. With this option, the air flow controller is included.

Indoor air quality

- Indoor circuit: gravimetric filter G4.
- Indoor circuit: gravimetric filter G4 + creased opacimetric filter F7.

Acoustic

- Compressor acoustic isolation.

Safety

- Differential pressostat for dirty filters.
- Differential pressostat for control of air flow.

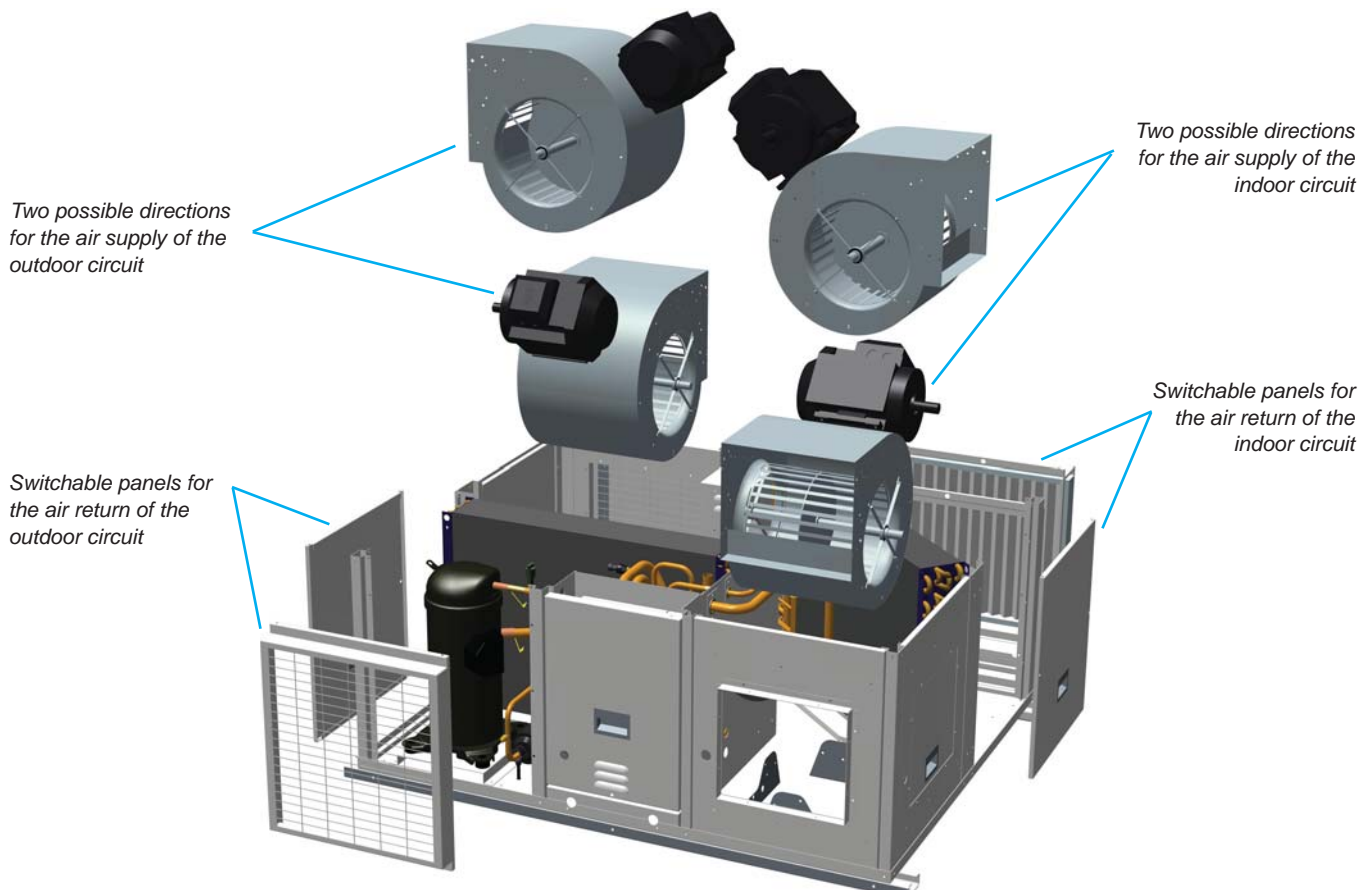
Electric panel

- Power supply with neutral.

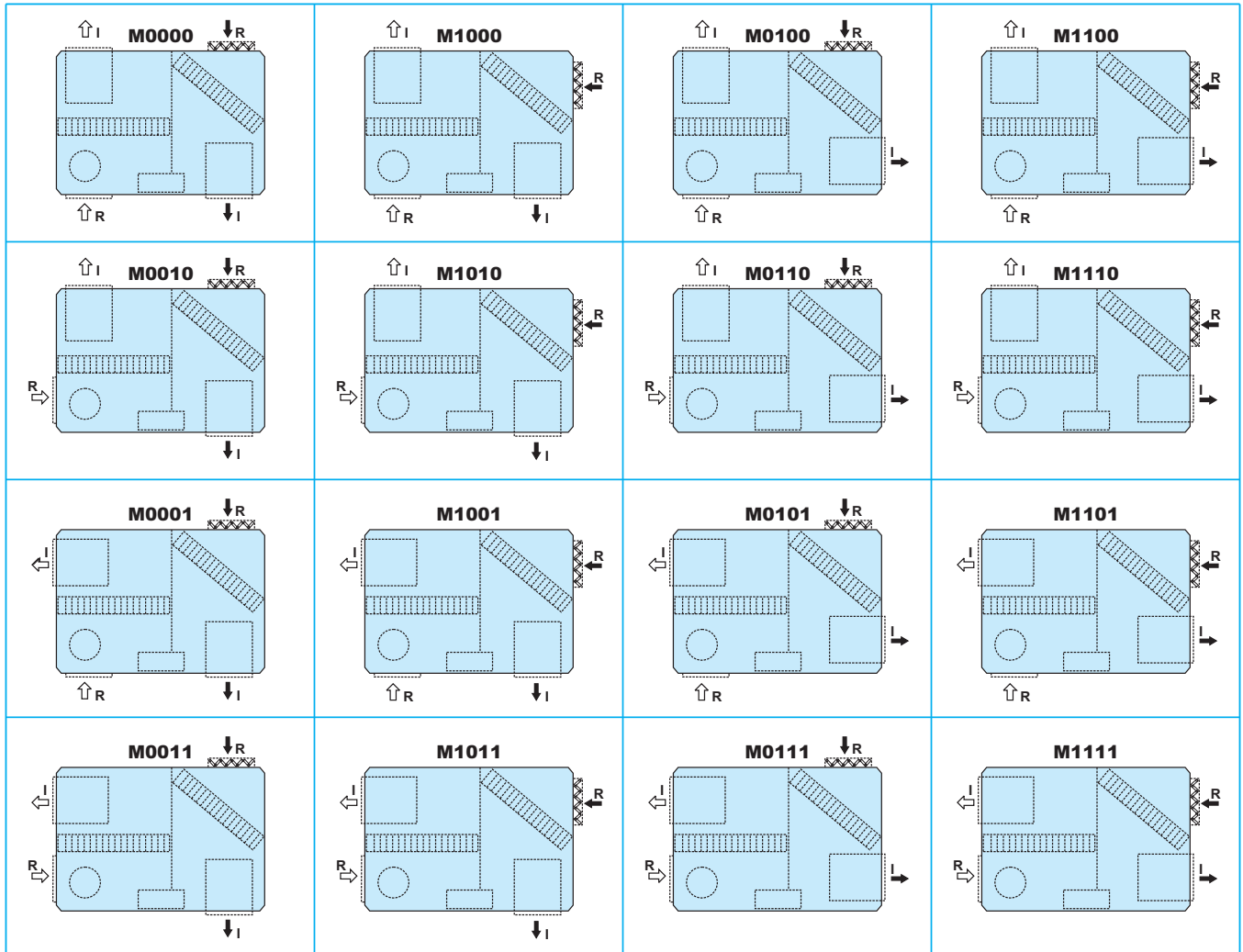
Control / Communication

- Optional for the AVANT electronic control:
 - pGD1 terminal to maintenance of the unit.
 - Temperature probe of the return or ambient air connected to the control board that replaces the ambient probe of the TCO thermostat. This probe performs necessary for the anti-fire safety.
- Connection to a centralised technical management system by using a specific BMS card for some of the communication protocols:
 - RS485 serial cards for network communication with protocols: Carel, Modbus, LonWorks®, BACnet™ MSTP, Konnex.
 - Ethernet pCO Web card for network communication with protocols: Modbus TCP/IP, BACnet™ Ethernet, TCP/IP, SNMP V1-2-3, FTP and HTTP.
- Solutions of supervision: exists 3 different solutions according to the dimensions of the installation: pCO Web (only one unit), PlantWatchPRO3 (up to 30 units), PlantVisorPRO2 (up to 300 units).

16 available combinations for the air circulation



POSSIBLE ASSEMBLY



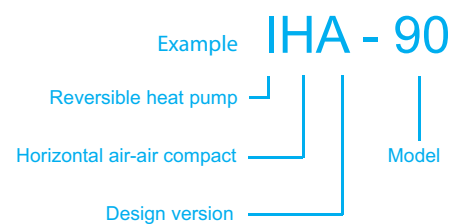
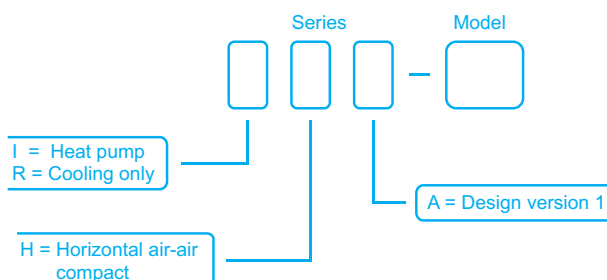
Air circulation

- = Air supply outdoor circuit
- = Air return outdoor circuit
- = Air supply indoor circuit
- = Air return indoor circuit

Denomination

- Mwxyz
- 0 = Standard } Air return indoor circuit
 - 1 = Optional } Air supply indoor circuit
 - 0 = Standard } Air supply outdoor circuit
 - 1 = Optional } Air return outdoor circuit

DENOMINATION





Horizontal package air conditioners

HCompact2 HA

TECHNICAL CHARACTERISTICS (EN-14511-2013)

HCompact2 HA		55	65	80	90	120	160
Cooling capacities	Cooling capacity ① (kW)	12,5	15,3	20,1	21,5	27,1	35,9
	Power input ③ (kW)	5,2	6,6	7,4	8,5	11,0	15,4
	EER performance	2,38	2,30	2,70	2,53	2,47	2,33
Heating capacity	Heating capacity ② (kW)	14,2	16,9	21,1	23,1	30,5	41,0
	Power input ③ (kW)	4,8	5,7	6,4	7,4	9,3	13,3
	COP performance	2,93	2,96	3,29	3,13	3,28	3,10
Outdoor circuit fan	Nominal air flow (m³/h)	4.100	4.600	6.500	7.000	10.000	12.200
	Available static pressure (mm.w.c)	9	9	10	10	12	12
	Type	Centrifugal					
	Number	1					
	Motor output (kW)	1,1	1,5	1,5	2,2	2,2	3,0
	Power input (kW)	0,77	1,01	1,14	1,33	1,37	2,03
	Speed (r.p.m.)	1.125	1.207	828	859	589	630
Indoor circuit fan	Nominal air flow (m³/h)	2.500	3.100	4.000	4.600	6.000	7.000
	Available static pressure (mm.w.c)	5,0	5,0	6,2	6,2	6,2	7,5
	Type	Centrifugal					
	Number	1					
	Motor output (kW)	0,55	1,1	1,1	1,5	1,5	3,0
	Power input (kW)	0,35	0,63	0,67	0,94	1,20	1,94
	Speed (r.p.m.)	1.115	1.340	1.051	1.150	988	1.168
Compressor	Type	Scroll					
	Compressor number	1					
	Circuit number	1					
	Oil type	Copeland 3MAF 32cST, Danfoss POE 160SZ, ICI Emkarate RL 32CF, Mobil EAL Artic 22CC					
	Voulnme of oil (l)	1,6	1,6	1,6	3,0	3,3	3,3
Electrical characteristics	Electrical power supply	400 V / III ph / 50 Hz (±10%)					
	Power supply	3 Wires + Ground					
Maximum absorbed current	Compressor (A)	15,0	19,0	19,0	22,0	29,0	35,0
	Outdoor fan (A)	2,7	3,6	3,6	5,0	5,0	6,9
	Indoor fan (A)	1,6	2,7	2,7	3,6	3,6	6,9
	Control (A)	2,0	2,0	2,0	2,0	2,0	2,0
	Total (A)	21,3	27,3	27,3	32,6	39,6	50,8
Refrigerant	Type	R-410A					
	Global warming potential (GWP) ④	2.088					
	Charge (kg)	2,5	3,0	4,5	4,9	5,0	6,2
	Environment impact (t CO2e)	5,2	6,3	9,4	10,2	10,4	12,9
Dimensions	Length (mm)	1.420	1.420	1.760	1.760	2.300	2.300
	Width (mm)	1.065	1.065	1.414	1.414	1.820	1.820
	Height (mm)	576	576	701	701	824	824
Weight	(kg)	245	253	332	375	472	521
Ø Condensate evacuation		3/4"					

① Cooling capacity calculated in accordance with the EN-14511-2013 standard given for indoor temperature conditions 27°C, 50% RH and 35°C outdoor temperature.

② Heating capacity calculated in accordance with the EN-14511-2013 standard given for indoor temperature conditions 20°C and 6°C WB outdoor temperature.

③ Total power input by compressor and motorised fans under nominal conditions calculated in accordance with the EN-14511-2013.

④ Climatic warming potential of a kilogram of fluorinated greenhouse gas in relation to a kilogram of carbon dioxide over a period of 100 years.

POWER LEVEL AND SOUND PRESSURE LEVEL dB(A)

A) The **sound power level** in the **outdoor fan** to be taken into account for the silencer calculation:

HCompact2 HA	55	65	80	90	120	160
dB(A)	80,5	82,7	74,4	76,3	83,5	83,3

B) The **sound power level** in the **indoor fan** to be taken into account for the silencer calculation:

HCompact2 HA	55	65	80	90	120	160
dB(A)	72,0	77,4	80,4	77,1	79,2	77,1

C) The **sound pressure level** of the **unit**, with the return and outlet connections ducted, measured at a distance of 5 meters, in open field, the directivity at 2 and 1.5 meters from the earth is:

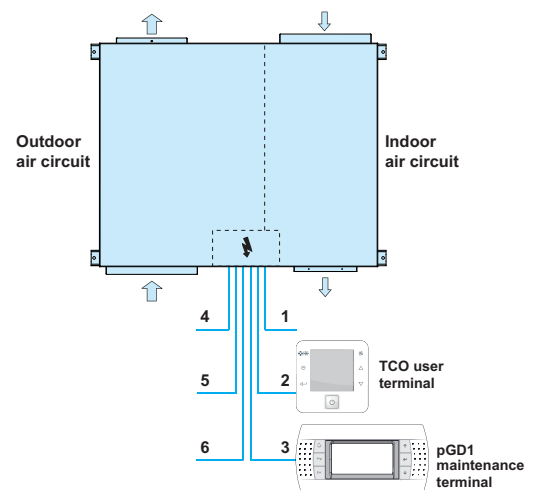
HCompact2 HA	55	65	80	90	120	160
dB(A)	69,3	71,6	69,4	70,8	70,7	71,2

Note: The sound pressure level depends on the installation conditions and, as such, it only indicated as a guide.

ELECTRICAL CONNECTIONS

No.	Description	55	65	80	90	120	160
1	Power supply 400 III ($\pm 10\%$)	3 + GND					
2	TCO user terminal connection ①	2 wires for power supply 230V + 1 shielded cable for communication type AGW20 / 22 (1 braided pair + drainwire + shielding)					
3	pGD1 maintenance terminal connection (opt.)	6-wire standard telephone cable (RJ12 connector)					
4	Remote on / off (optional)	2-wires					
5	Main alarm signal (optional)	2-wires					
6	Electrical heater security thermistor (opcional)	2-wires					

① The same power supply used for powering the control board must also be used for powering the terminal.



ELECTRICAL HEATER (OPTION)

Available capacities

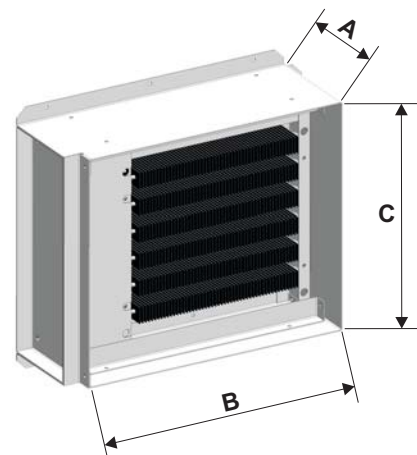
Electric heater assembly in 1 stage. For 2 stages, it is necessary to check if it is possible and the price.

Important: with this option, the air flow controller is included.

HCompact2 HA	Power supply	400 V / III ph / 50 Hz		
	Power output (kW)	6	9	12
55 / 65	Current (A)	8,7	unavailable	
80 / 90	Current (A)	unavailable	13,0	unavailable
120 / 160	Current (A)	unavailable		17,3

Frame for assembly of the electrical heater on fan discharge

50HB/HF	Power output	Dimensions (mm)		
		A	B	C
55 / 65	6 kW	150	432	341
80 / 90	9 kW	262	432	341
120 / 160	12 kW	262	482	443



Note: This frame is designed with side access for maintenance purposes.



Horizontal package air conditioners

HCompact2 HA

COOLING CAPACITY (kW)

Outdoor temperature 35°C

HCompact2 RHA / IHA	Flow (m³/h)	Indoor air temperature																	
		20 °C / 50 % RH			23 °C / 50 % RH			25 °C / 50 % RH			27 °C / 50 % RH			29 °C / 50 % RH			31 °C / 50 % RH		
		Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa
55	2.000	10,6	8,3	4,0	11,3	8,5	4,0	11,9	8,6	4,1	12,4	8,8	4,1	13,0	8,8	4,1	13,4	8,9	4,2
	2.500	11,0	9,2	4,0	11,8	9,4	4,0	12,3	9,6	4,1	12,8	9,7	4,1	13,4	9,8	4,1	13,9	9,9	4,1
	3.000	11,3	10,0	4,0	12,1	10,3	4,1	12,6	10,5	4,1	13,1	10,6	4,1	13,7	10,7	4,1	14,2	10,8	4,1
65	2.480	13,1	10,6	4,9	14,0	10,9	4,9	14,7	11,0	5,0	15,4	11,1	5,0	16,0	11,2	5,0	16,6	11,3	5,1
	3.100	13,6	11,7	4,9	14,5	12,0	5,0	15,2	12,2	5,0	15,9	12,3	5,0	16,5	12,5	5,0	17,2	12,6	5,0
	3.720	14,0	12,7	4,9	14,9	13,1	5,0	15,6	13,3	5,0	16,2	13,5	5,0	16,9	13,6	5,0	17,5	13,8	5,1
80	3.200	17,0	13,8	5,7	18,3	14,2	5,8	19,1	14,3	5,8	20,0	14,5	5,8	20,9	14,7	5,8	21,6	14,7	5,9
	4.000	17,7	15,2	5,8	19,0	15,6	5,8	19,8	15,9	5,8	20,7	16,1	5,8	21,5	16,3	5,9	22,4	16,4	5,9
	4.800	18,2	16,5	5,8	19,5	17,0	6,2	20,3	17,3	5,8	21,1	17,6	5,9	22,0	17,8	5,9	22,9	18,0	5,9
90	3.680	18,2	14,9	6,1	19,6	15,4	6,2	20,7	15,7	6,3	21,7	16,0	6,4	22,8	16,2	6,4	23,9	16,4	6,5
	4.600	18,8	16,4	6,1	20,3	17,1	6,2	21,3	17,5	6,3	22,4	17,8	6,4	23,5	18,1	6,5	24,6	18,4	6,6
	5.520	19,3	17,8	6,2	20,9	18,6	6,2	21,7	19,0	6,4	22,8	19,5	6,4	23,9	19,9	6,5	25,1	20,3	6,6
120	4.800	23,0	18,6	8,5	24,8	19,2	8,6	26,1	19,6	8,7	27,4	19,9	11,8	28,7	20,2	11,8	30,1	20,5	9,1
	6.000	23,7	20,5	8,6	25,6	21,3	8,7	26,9	21,9	8,8	28,3	22,2	8,9	29,6	22,6	11,7	31,1	23,0	9,2
	7.200	24,3	22,2	8,6	26,4	23,2	8,6	27,4	23,7	8,9	28,8	24,3	9,0	30,2	24,8	9,0	31,7	25,3	9,2
160	5.600	30,8	24,0	11,4	33,1	24,8	11,6	34,9	25,3	11,7	36,6	25,7	11,9	38,4	26,1	12,0	40,3	26,5	12,2
	7.000	31,7	26,5	11,5	34,2	27,5	11,7	36,0	28,3	11,8	37,8	28,7	12,0	39,6	29,2	12,1	41,5	29,7	12,3
	8.400	32,5	28,7	11,5	35,2	30,0	11,5	36,6	30,7	11,9	38,5	31,4	9,0	40,4	32,0	9,1	42,3	32,7	12,3

Pft: Total cooling capacity in kW

Pfs: Sensible cooling capacity in kW

Pa: Compressor power input in kW

Correction coefficients per outdoor temperature variation

Outdoor temperature	12°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	48°C
Coefficient K1	1,220	1,209	1,162	1,112	1,057	1,000	0,934	0,878	0,841
Coefficient K2	1,136	1,120	1,092	1,062	1,033	1,000	0,965	0,932	0,911
Coefficient K3	0,587	0,712	0,712	0,802	0,894	1,000	1,114	1,234	1,307

Correction coefficients per relative humidity variation

Relative humidity	40%	50%	60%	70%
Coefficient K4	0,954	1,000	1,047	1,087
Coefficient K5	1,125	1,000	0,875	0,755
Coefficient K6	0,993	1,000	1,003	1,016

PFT = Pft x K1 x K4

PFS = Pfs x K2 x K5

PA = Pa x K3 x K6



Horizontal package air conditioners

HCompact2 HA

HEATING CAPACITY (kW)

Indoor temperature 20°C

HCompact2 IHA	Flow (m³/h)	Outdoor air temperature															
		-10 °C WB		-5 °C WB		-3 °C WB		0 °C WB		3 °C WB		6 °C WB		10 °C WB		15 °C WB	
		Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa
55	2.000	9,2	3,4	10,3	3,6	10,9	3,7	11,8	3,8	12,7	3,9	13,6	4,0	14,8	4,2	16,4	4,4
	2.500	9,2	3,2	10,4	3,4	11,0	3,4	11,9	3,5	12,9	3,6	13,8	3,7	15,1	3,8	16,7	4,0
	3.000	9,2	3,1	10,5	3,2	11,1	3,3	12,1	3,4	13,0	3,4	13,9	3,5	15,3	3,6	17,0	3,8
65	2.480	10,9	3,8	12,2	3,9	12,9	4,0	14,0	4,2	15,0	4,3	16,1	4,4	17,6	4,6	19,7	4,8
	3.100	10,9	3,6	12,3	3,7	13,1	3,8	14,1	3,9	15,2	4,0	16,3	4,1	17,9	4,2	19,8	4,4
	3.720	10,9	3,4	12,4	3,6	13,1	3,6	14,3	3,7	15,4	3,8	16,5	3,9	18,1	4,0	20,1	4,1
80	3.200	13,7	4,5	15,4	4,7	16,3	4,8	17,6	4,9	18,9	5,1	20,3	5,2	22,1	5,4	24,5	5,7
	4.000	13,7	4,2	15,5	4,4	16,5	4,5	17,8	4,6	19,2	4,7	20,5	4,8	22,5	5,0	25,0	5,2
	4.800	13,7	4,1	15,7	4,2	16,6	4,3	18,0	4,4	19,4	4,5	20,8	4,6	22,8	4,7	25,3	4,9
90	3.680	14,9	4,8	16,6	5,0	17,6	5,1	19,0	5,3	20,5	5,5	22,0	5,6	24,3	5,9	27,4	6,3
	4.600	14,9	4,6	16,8	4,8	17,7	4,9	19,2	5,0	20,7	5,2	22,2	5,3	24,6	5,5	27,8	5,9
	5.520	15,0	4,5	16,4	4,6	17,8	4,7	19,2	4,8	20,8	4,9	22,4	5,1	24,8	5,3	28,1	5,6
120	4.800	19,6	6,5	21,9	6,8	23,2	7,0	25,1	7,2	27,0	7,4	29,0	7,7	32,0	8,1	36,0	8,6
	6.000	19,6	6,3	22,1	6,5	23,3	6,6	25,2	6,8	27,2	7,0	29,3	7,2	32,4	7,5	36,6	8,0
	7.200	19,8	6,1	21,5	6,3	23,4	6,4	25,3	6,6	27,4	6,7	29,5	6,9	32,7	7,2	37,0	7,6
160	5.600	26,1	8,9	29,2	9,3	30,9	9,5	33,4	9,8	36,0	10,1	38,7	10,5	42,7	11,0	48,1	11,8
	7.000	26,2	8,6	29,5	8,9	31,1	9,1	33,7	9,3	36,3	9,6	39,1	9,9	43,3	10,3	48,9	10,9
	8.400	26,3	8,3	28,7	8,5	31,2	8,7	33,8	9,0	36,5	9,2	39,4	9,4	43,6	9,8	49,4	10,4

Pc: Total heating capacity in kW

Pa: Compressor power input in kW

Correction coefficients due to indoor temperature variation

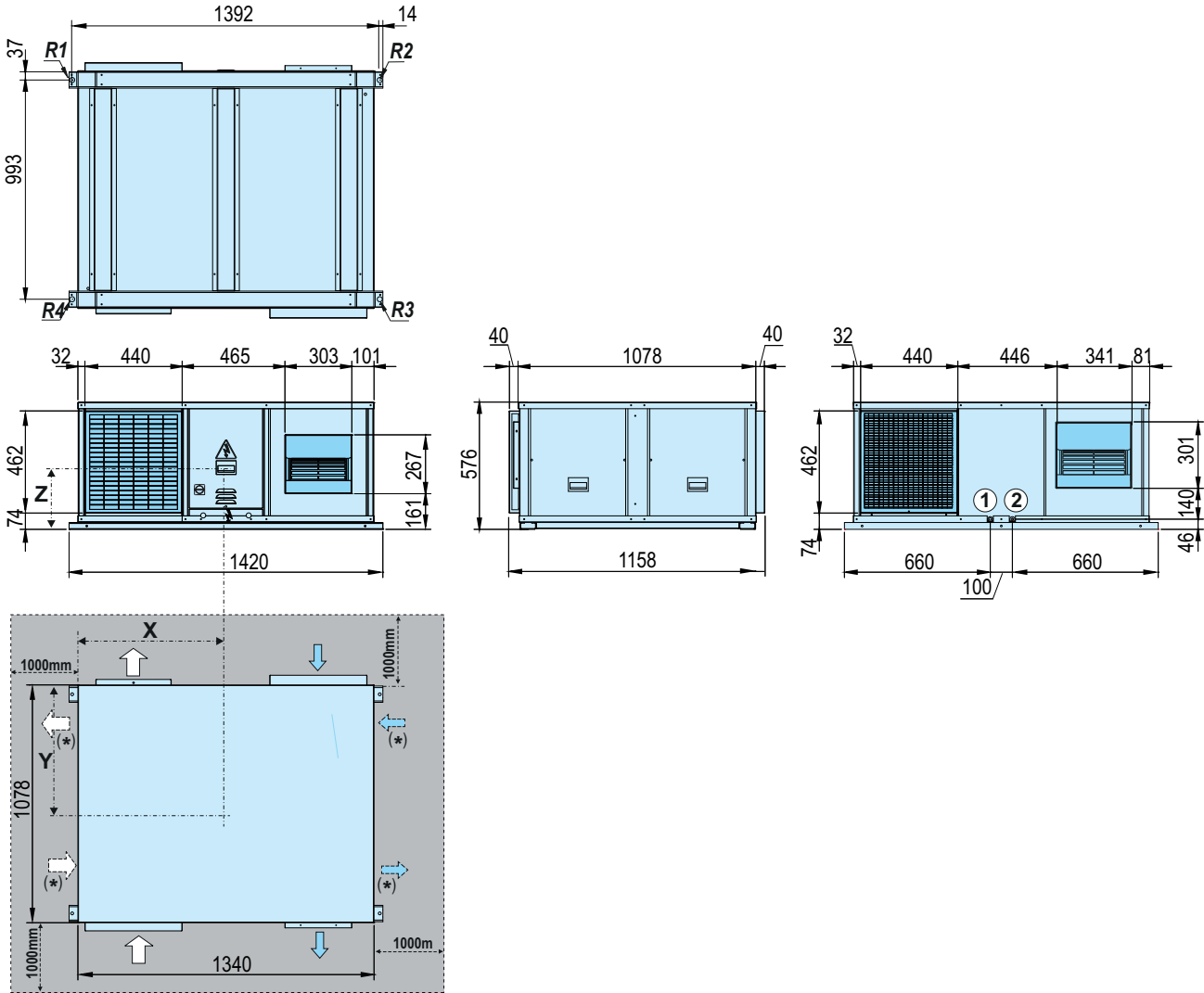
Indoor temperature	17°C	19°C	20°C	21°C	23°C	25°C	27°C
Coefficient K1	1,013	1,005	1,000	0,996	0,998	0,982	0,974
Coefficient K2	0,934	0,979	1,000	1,024	1,071	1,120	1,171

$$PC = Pc \times K1$$

$$PA = Pa \times K2$$

DIMENSIONS SCHEMES

HCompact2 HA - 55 and 65, M0000 assembly (mm)



(*) Both in the indoor air circuit as well as the outdoor circuit, the outlet and return panels can be located in any one of the two positions indicated in the following drawings, since both panels are easy interchangeable, with the goal to leave it finalized as most convenient in each installation.

LEGEND

- Outdoor air circulation
- Indoor air circulation
- Electric panel
- Power supply
- Door switch
- ① Condensate outlet indoor circuit Ø 3/4" female thread
- ② Condensate outlet outdoor circuit Ø 3/4" female thread

Antivibration anchoring: rivet nut M10

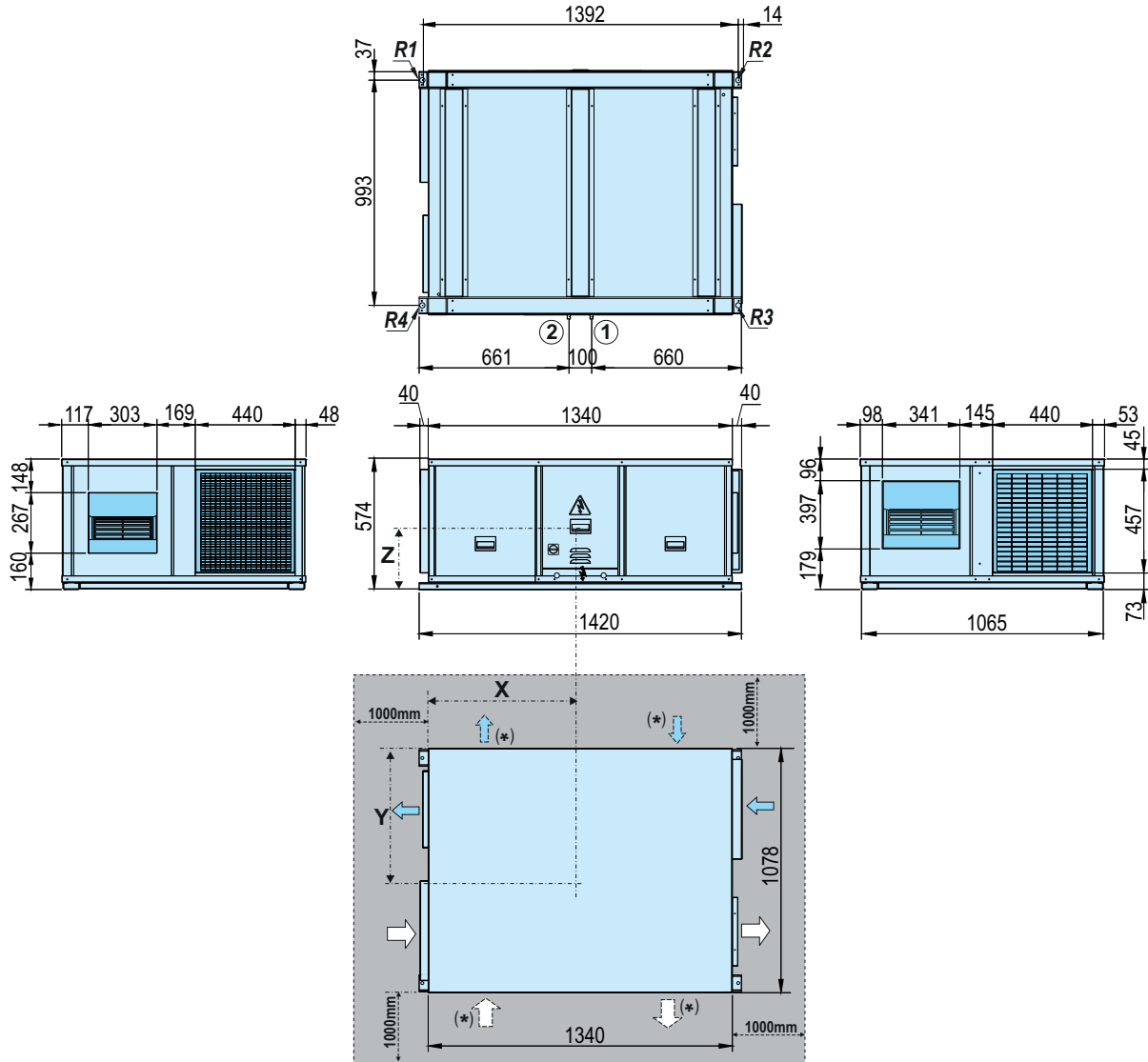
Note 1: supply intake profile: 25 mm

Note 2: the return frame of the indoor circuit, with filters G4+F7 as option, protrudes 50mm more

Clear space to be observed for maintenance operations and unit start-up

HCompact2 HA	Centre of gravity (mm)			Reactions in the supports (kg)				
	X	Y	Z	Weight	R1	R2	R3	R4
55	591	611	266	245	78	58	45	65
65	585	617	268	253	81	59	45	67

HCompact2 HA - 55 and 65, M1111 optional assembly (mm)



(*) Both in the indoor air circuit as well as the outdoor circuit, the outlet and return panels can be located in any one of the two positions indicated in the following drawings, since both panels are easy interchangeable, with the goal to leave it finalized as most convenient in each installation.

LEGEND

- Outdoor air circulation
- Indoor air circulation
- Electric panel
- Power supply
- Door switch
- ① Condensate outlet indoor circuit Ø 3/4" female thread
- ② Condensate outlet outdoor circuit Ø 3/4" female thread

Antivibration anchoring: rivet nut M10

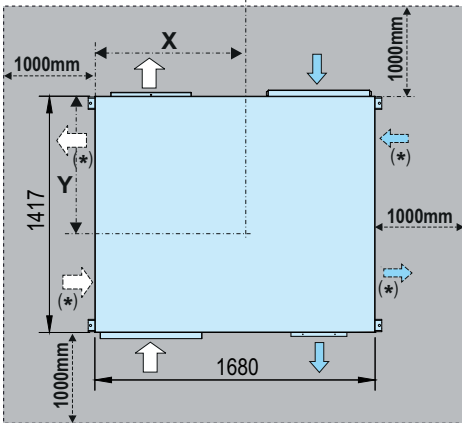
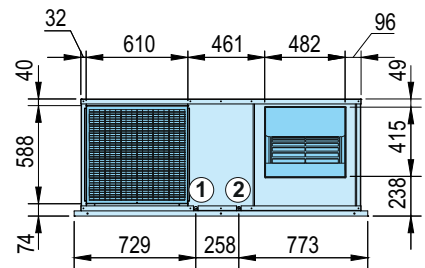
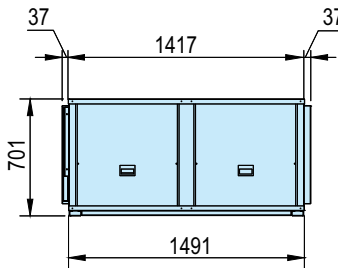
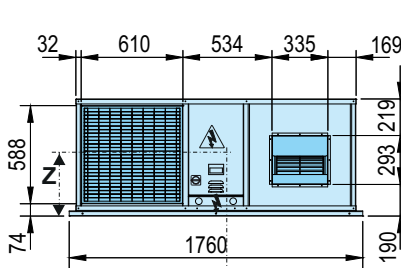
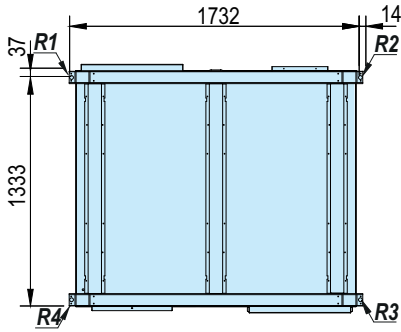
Note 1: supply intake profile: 25 mm

Note 2: the return frame of the indoor circuit, with filters G4+F7 as option, protrudes 50mm more

Clear space to be observed for maintenance operations and unit start-up

HCompact2 HA	Centre of gravity (mm)			Reactions in the supports (kg)				
	X	Y	Z	Weight	R1	R2	R3	R4
55	609	609	266	245	76	59	47	64
65	603	615	268	253	79	61	47	65

HCompact2 HA - 80 and 90, M0000 assembly (mm)



(*) Both in the indoor air circuit as well as the outdoor circuit, the outlet and return panels can be located in any one of the two positions indicated in the following drawings, since both panels are easy interchangeable, with the goal to leave it finalized as most convenient in each installation.

LEGEND

- Outdoor air circulation
- Indoor air circulation
- Electric panel
- Power supply
- Door switch
- ① Condensate outlet indoor circuit Ø 3/4" female thread
- ② Condensate outlet outdoor circuit Ø 3/4" female thread

Antivibration anchoring: rivet nut M10

Note 1: supply intake profile: 25 mm

Note 2: the return frame of the indoor circuit, with filters G4+F7 as option, protrudes 50mm more

Clear space to be observed for maintenance operations and unit start-up

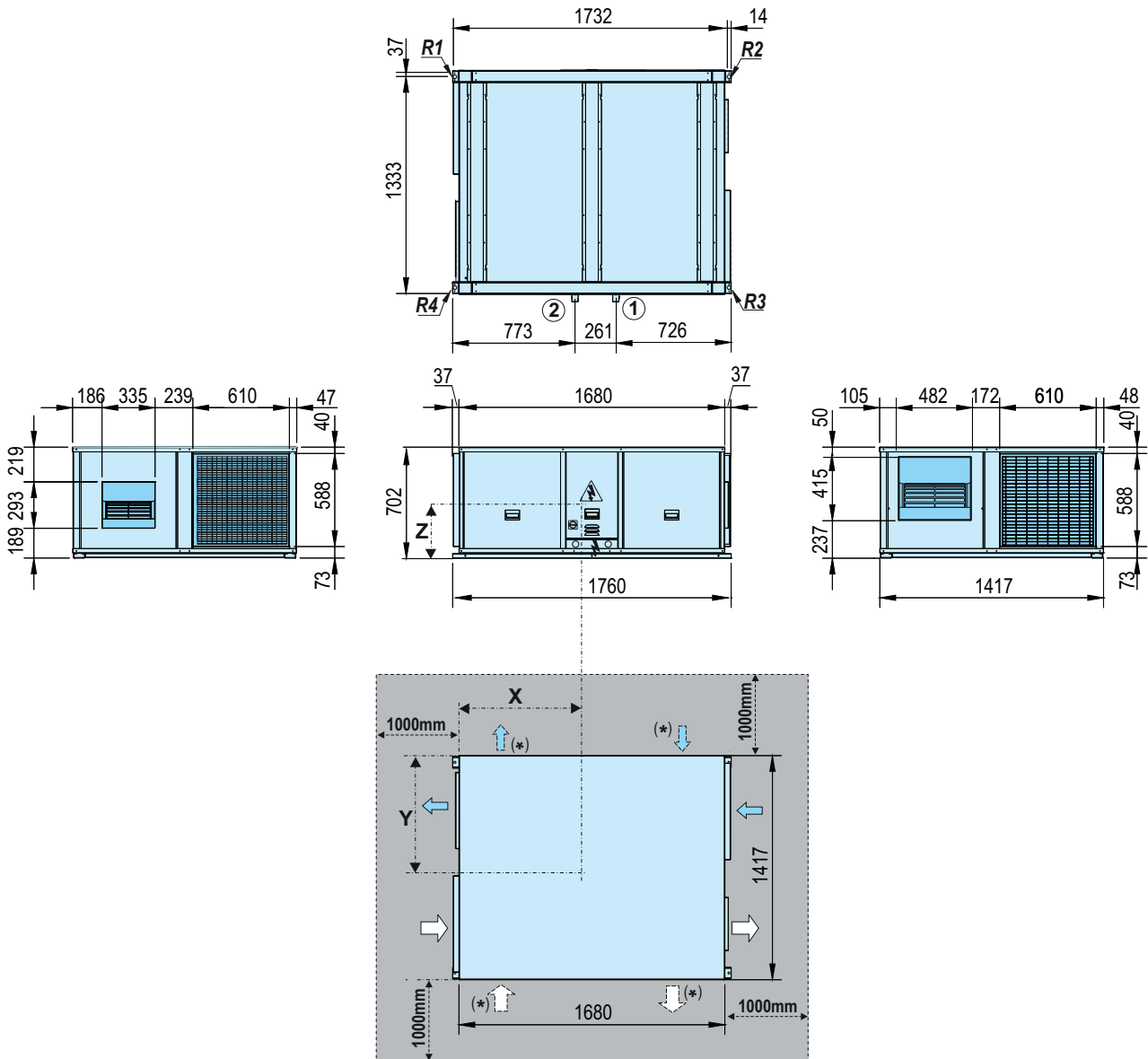
HCompact2 HA	Centre of gravity (mm)			Reactions in the supports (kg)				
	X	Y	Z	Weight	R1	R2	R3	R4
80	755	746	308	332	96	75	70	91
90	764	769	307	375	110	88	77	99



Horizontal package air conditioners

HCompact2 HA

HCompact2 HA - 80 and 90, M1111 optional assembly (mm)



(*) Both in the indoor air circuit as well as the outdoor circuit, the outlet and return panels can be located in any one of the two positions indicated in the following drawings, since both panels are easy interchangeable, with the goal to leave it finalized as most convenient in each installation.

LEGEND

- Outdoor air circulation
- Indoor air circulation
- Electric panel
- Power supply
- Door switch
- ① Condensate outlet indoor circuit Ø 3/4" female thread
- ② Condensate outlet outdoor circuit Ø 3/4" female thread

Antivibration anchoring: rivet nut M10

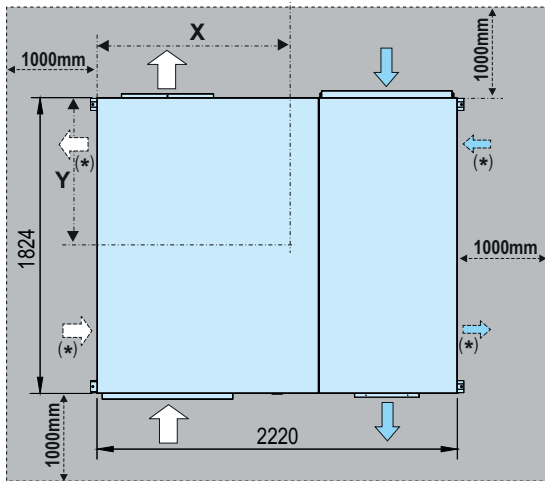
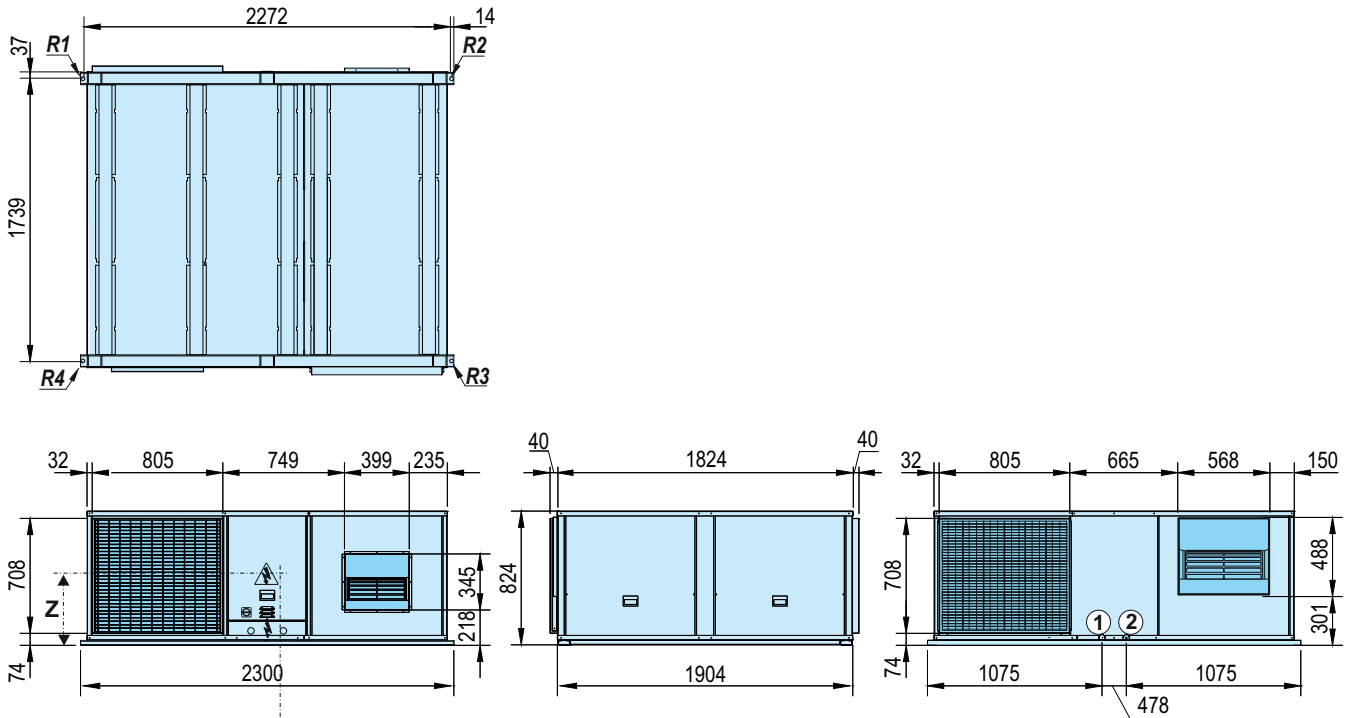
Note 1: supply intake profile: 25 mm

Note 2: the return frame of the indoor circuit, with filters G4+F7 as option, protrudes 50mm more

Clear space to be observed for maintenance operations and unit start-up

HCompact2 HA	Centre of gravity (mm)			Reactions in the supports (kg)				
	X	Y	Z	Weight	R1	R2	R3	R4
80	775	743	308	332	94	76	72	89
90	744	766	307	375	112	86	76	101

HCompact2 HA - 120 and 160, M0000 assembly (mm)



(*) Both in the indoor air circuit as well as the outdoor circuit, the outlet and return panels can be located in any one of the two positions indicated in the following drawings, since both panels are easy interchangeable, with the goal to leave it finalized as most convenient in each installation.

LEGEND

- Outdoor air circulation
- Indoor air circulation
- Electric panel
- Power supply
- Door switch
- ① Condensate outlet indoor circuit Ø 3/4" female thread
- ② Condensate outlet outdoor circuit Ø 3/4" female thread

Antivibration anchoring: rivet nut M10

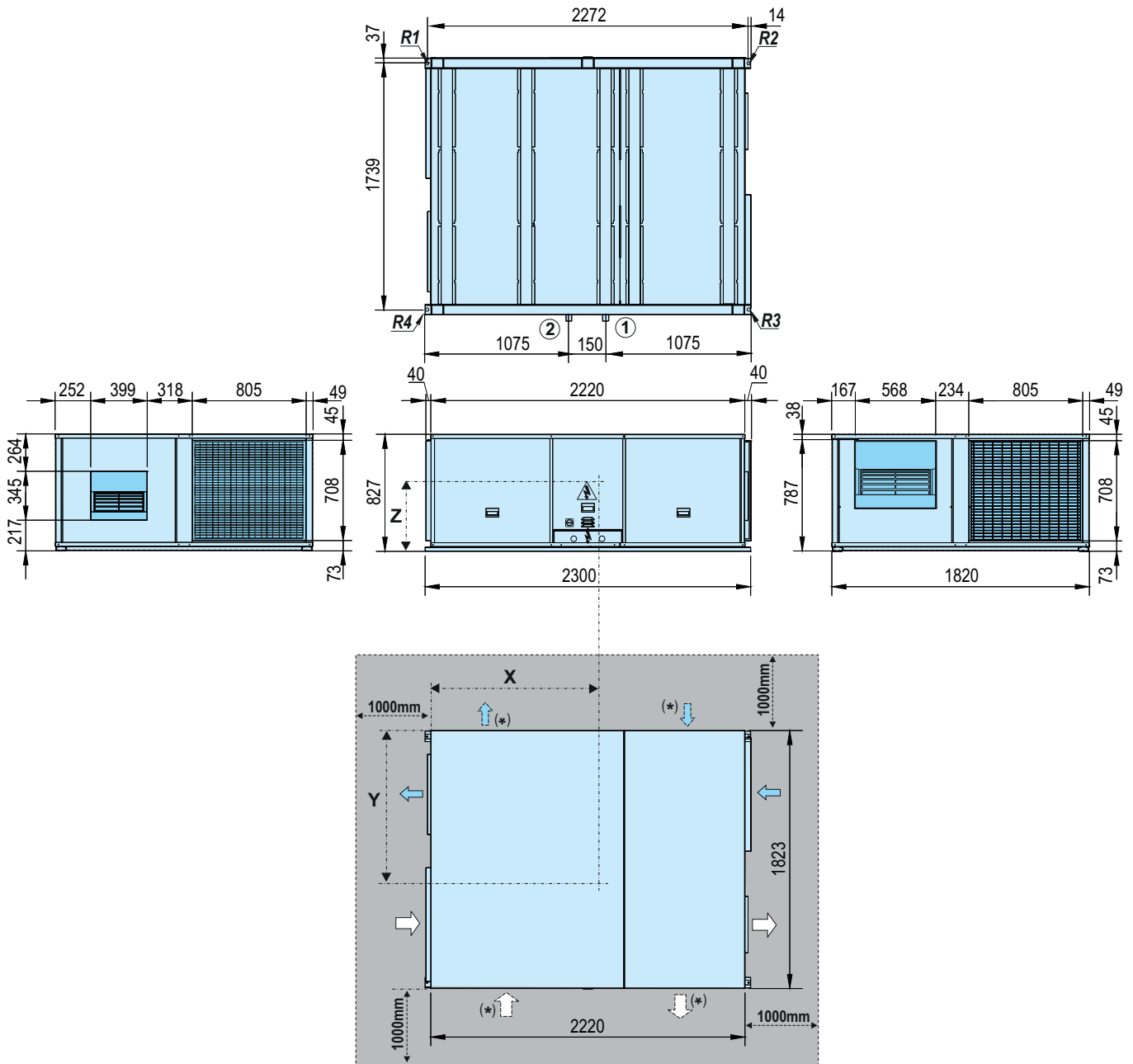
Note 1: supply intake profile: 25 mm

Note 2: the return frame of the indoor circuit, with filters G4+F7 as option, protrudes 50mm more

Clear space to be observed for maintenance operations and unit start-up

HCompact2 HA	Centre of gravity (mm)			Reactions in the supports (kg)				
	X	Y	Z	Weight	R1	R2	R3	R4
120	1.104	917	340	472	125	113	112	122
160	1.096	921	343	521	139	126	122	135

HCompact2 HA - 120 and 160, M1111 optional assembly (mm)



(*) Both in the indoor air circuit as well as the outdoor circuit, the outlet and return panels can be located in any one of the two positions indicated in the following drawings, since both panels are easy interchangeable, with the goal to leave it finalized as most convenient in each installation.

LEGEND

- Outdoor air circulation
- Indoor air circulation
- Electric panel
- Power supply
- Door switch
- ① Condensate outlet indoor circuit \varnothing 3/4" female thread
- ② Condensate outlet outdoor circuit \varnothing 3/4" female thread

Antivibration anchoring: rivet nut M10

Note 1: supply intake profile: 25 mm

Note 2: the return frame of the indoor circuit, with filters G4+F7 as option, protrudes 50mm more

Clear space to be observed for maintenance operations and unit start-up

HCompact2 HA	Centre of gravity (mm)			Reactions in the supports (kg)				
	X	Y	Z	Weight	R1	R2	R3	R4
120	1.106	906	340	472	123	113	113	123
160	1.097	910	343	521	137	124	124	137

OUTDOOR FAN

■ Tables of selection of the supply group

HCompact2 HA - 55				
Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 4.100 m ³ /h				
9	1,1	0,77	1125	OPK0014
10	1,1	0,78	1140	OPK0014
15	1,1	0,86	1211	OPK0013
20	1,5	0,94	1280	OPK0020
30	1,5	1,10	1414	OPK0019

HCompact2 HA - 65				
Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 4.600 m ³ /h				
9	1,5	1,01	1207	OPK0021
10	1,5	1,03	1220	OPK0021
15	1,5	1,11	1285	OPK0020
20	1,5	1,20	1348	OPK0024

HCompact2 HA - 80				
Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 6.500 m ³ /h				
10	1,5	1,14	828	OPK0066
15	2,2	1,28	885	OPK0071
20	2,2	1,42	939	OPK0178
30	2,2	1,73	1042	OPK0177

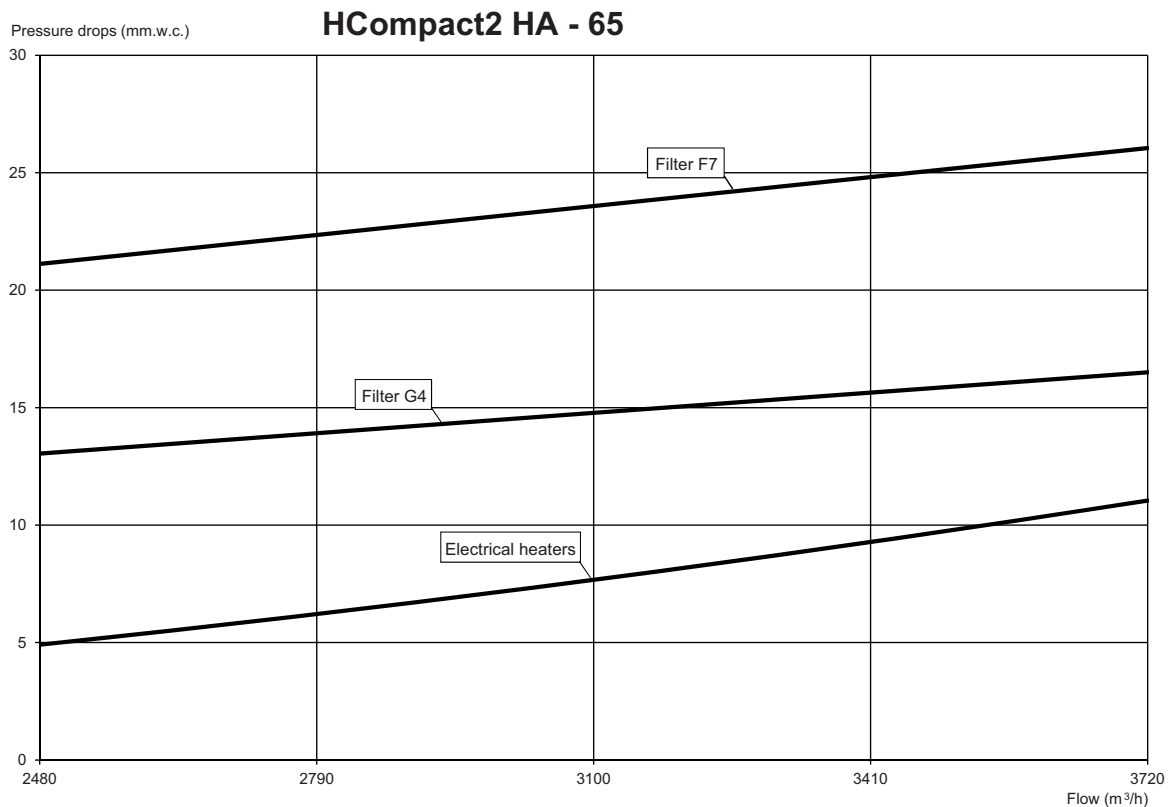
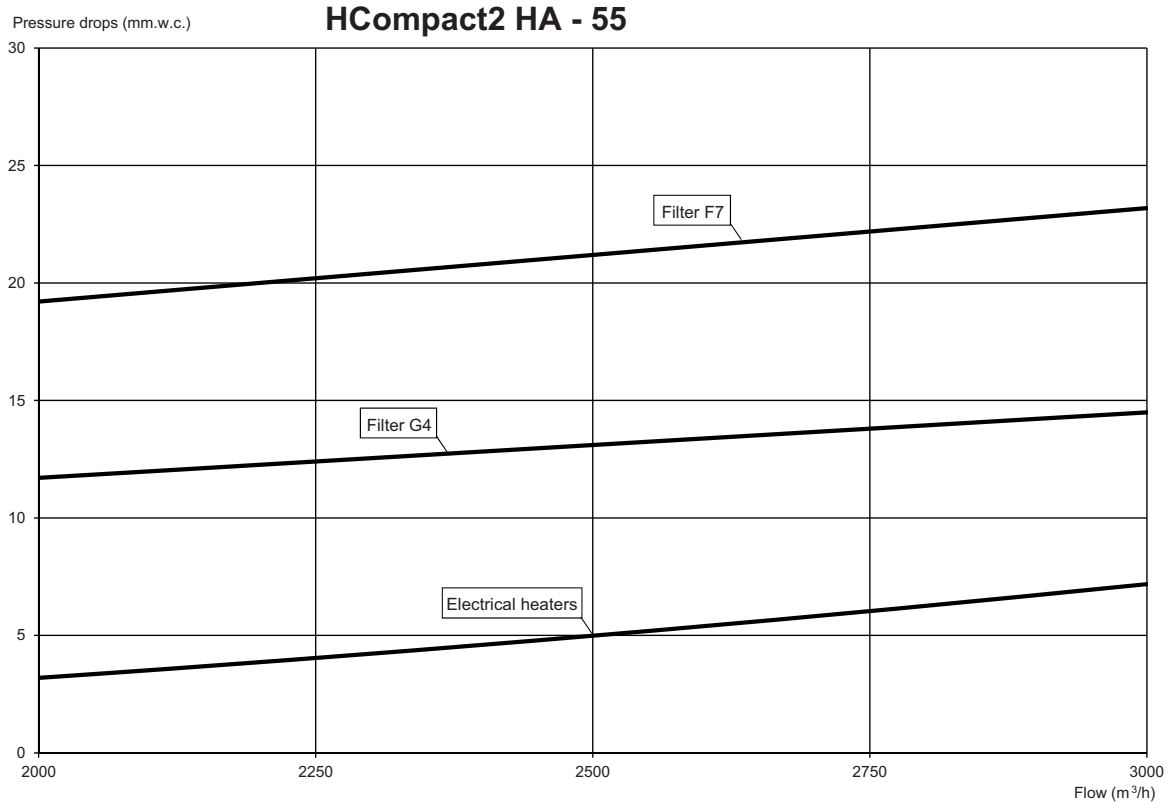
HCompact2 HA - 90				
Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 7.000 m ³ /h				
10	2,2	1,33	859	OPK0071
15	2,2	1,47	912	OPK0071
20	2,2	1,63	965	OPK0070
30	3,0	1,95	1063	OPK0075

HCompact2 HA - 120				
Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 10.000 m ³ /h				
10	2,2	1,30	569	OPK0185
12	2,2	1,37	589	OPK0184
15	2,2	1,48	618	OPK0184
20	2,2	1,67	665	OPK0183
30	3,0	2,06	754	OPK0188

HCompact2 HA - 160				
Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 12.200 m ³ /h				
10	3,0	1,95	613	OPK0190
12	3,0	2,03	630	OPK0190
15	3,0	2,16	656	OPK0190
20	3,0	2,37	697	OPK0189

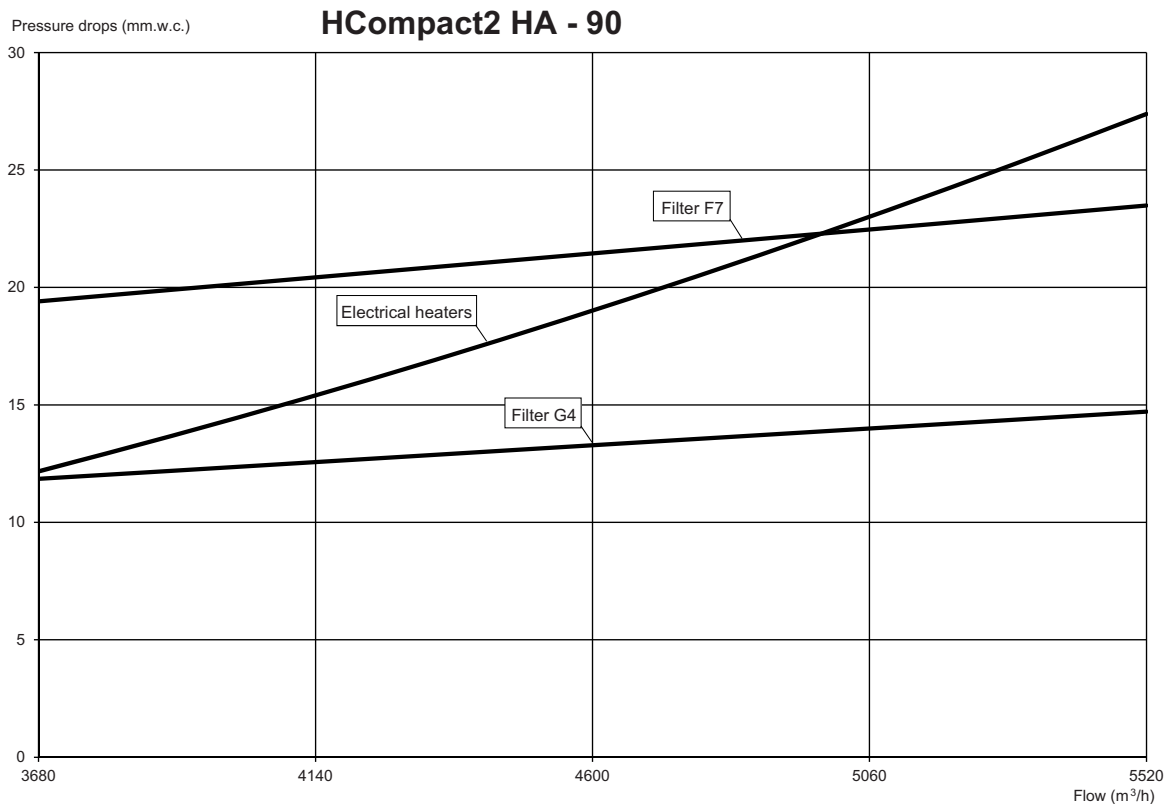
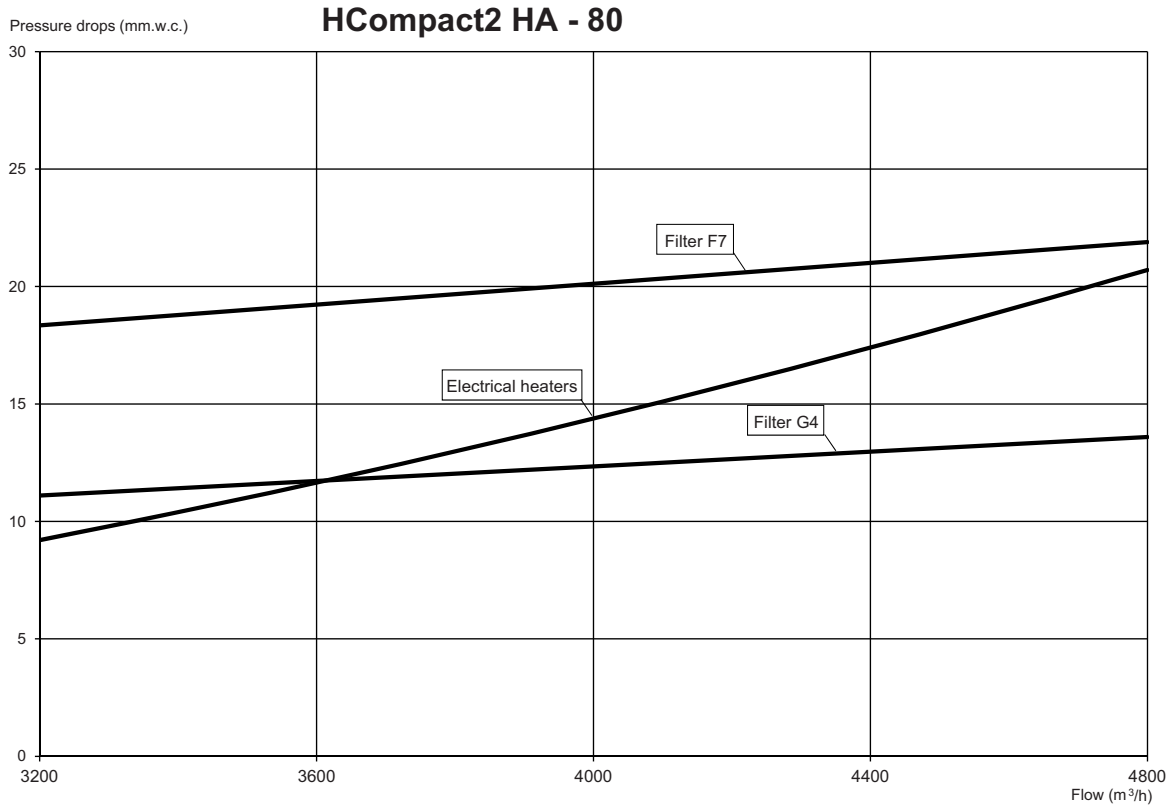


PRESSURE DROP IN THE AVAILABLE OPTIONS FOR THE INDOOR CIRCUIT



Note: The load losses in the filters have been calculated for an average level of fouling.

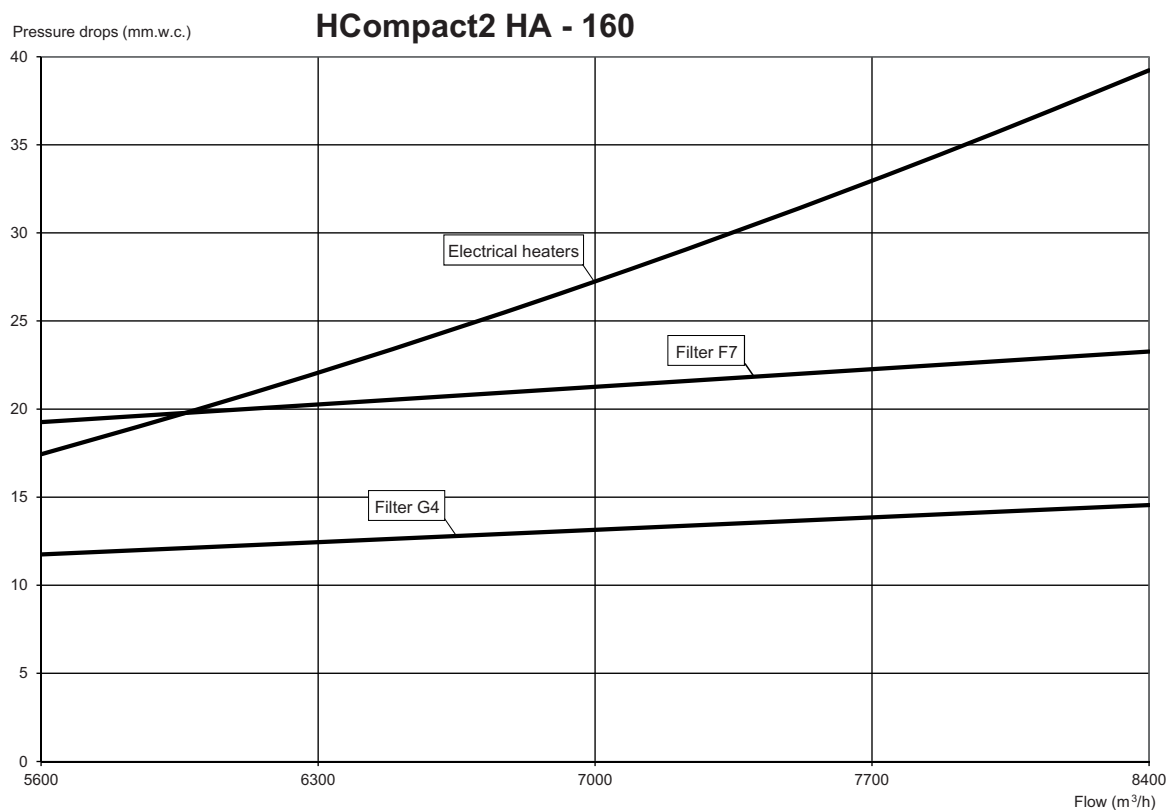
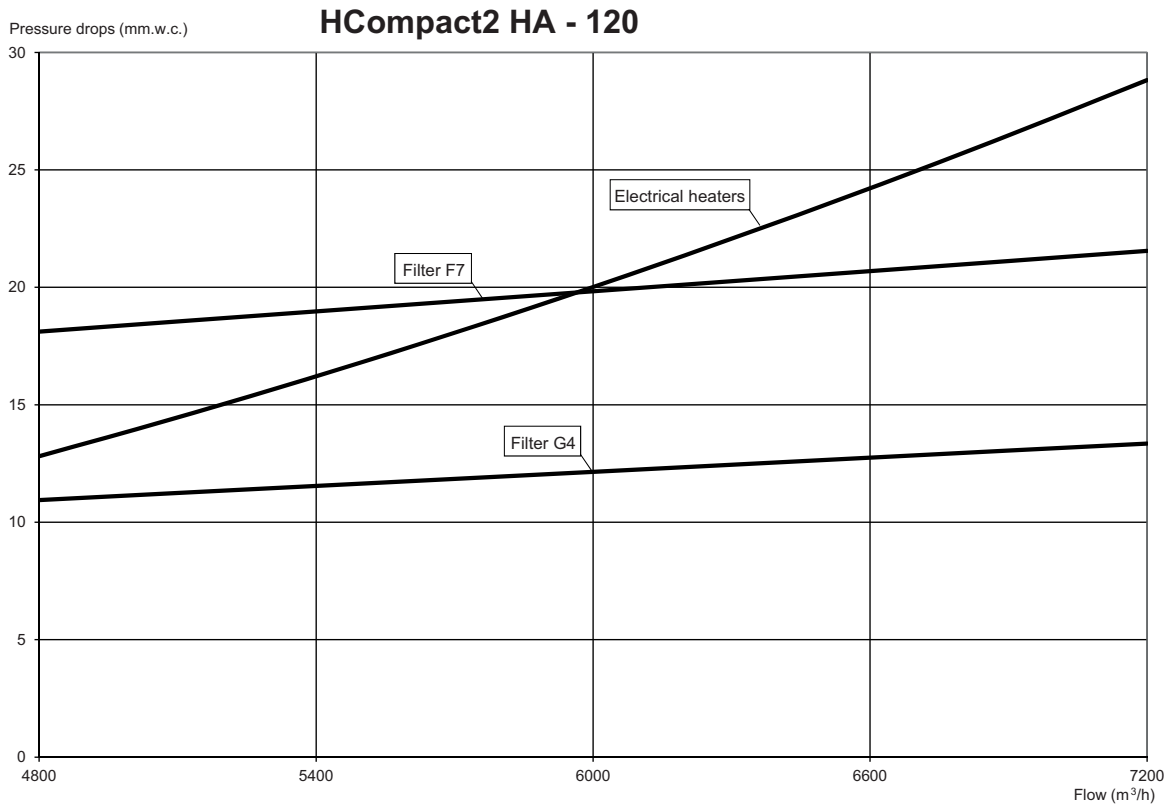
PRESSURE DROP IN THE AVAILABLE OPTIONS FOR THE INDOOR CIRCUIT



Note: The load losses in the filters have been calculated for an average level of fouling.



PRESSURE DROP IN THE AVAILABLE OPTIONS FOR THE INDOOR CIRCUIT



Note: The load losses in the filters have been calculated for an average level of fouling.

INDOOR FAN

■ Tables of selection of the supply group

HCompact2 HA - 55					HCompact2 HA - 65					HCompact2 HA - 80				
Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code	Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code	Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 2.000 m³/h														
5	0,25	0,19	937	OPK0115										
10	0,37	0,24	1056	OPK0118										
15	0,37	0,28	1168	OPK0117										
20	0,55	0,33	1274	OPK0122										
30	0,55	0,43	1469	OPK0278										
40	0,75	0,53	1644	OPK0301										
50	1,10	0,65	1805	OPK0139										
60	1,10	0,76	1953	OPK0141										
Flow: 2.250 m³/h														
5	0,37	0,26	1025	OPK0118										
10	0,55	0,31	1133	OPK0124										
15	0,55	0,36	1236	OPK0123										
20	0,55	0,41	1334	OPK0121										
30	0,75	0,52	1517	OPK0300										
40	1,10	0,63	1685	OPK0138										
50	1,10	0,75	1840	OPK0140										
60	1,10	0,87	1985	OPK0141										
Flow: 2.500 m³/h														
5	0,55	0,35	1115	OPK0124										
10	0,55	0,40	1214	OPK0123										
15	0,75	0,45	1309	OPK0127										
20	0,75	0,51	1400	OPK0126										
30	1,10	0,62	1572	OPK0137										
40	1,10	0,74	1732	OPK0139										
50	1,10	0,87	1881	OPK0140										
60	1,50	1,00	2021	OPK0303										
Flow: 2.750 m³/h														
5	0,75	0,45	1208	OPK0129										
10	0,75	0,50	1298	OPK0127										
15	0,75	0,56	1386	OPK0126										
20	--	--	--	--										
30	1,10	0,74	1632	OPK0138										
40	1,10	0,87	1784	OPK0139										
50	1,50	1,01	1928	OPK0146										
60	1,50	1,15	2063	OPK0302										
Flow: 3.000 m³/h														
5	0,75	0,57	1302	OPK0127										
10	1,10	0,63	1385	OPK0133										
15	--	--	--	--										
20	1,10	0,75	1545	OPK0137										
30	1,10	0,88	1697	OPK0138										
40	1,50	1,02	1842	OPK0145										
50	1,50	1,16	1979	OPK0146										
60	--	--	--	--										
Flow: 2.480 m³/h														
5	0,55	0,34	1109	OPK0124										
10	0,55	0,39	1208	OPK0123										
15	0,75	0,44	1303	OPK0127										
20	0,75	0,50	1395	OPK0126										
30	1,10	0,61	1568	OPK0137										
40	1,10	0,73	1729	OPK0139										
50	1,10	0,86	1878	OPK0140										
60	1,50	0,99	2019	OPK0303										
Flow: 2.790 m³/h														
5	0,75	0,47	1224	OPK0129										
10	0,75	0,52	1313	OPK0127										
15	0,75	0,58	1399	OPK0126										
20	--	--	--	--										
30	1,10	0,76	1643	OPK0138										
40	1,10	0,90	1794	OPK0139										
50	1,50	1,03	1936	OPK0146										
60	1,50	1,17	2070	OPK0302										
Flow: 3.100 m³/h														
5	1,10	0,63	1340	OPK0134										
10	1,10	0,69	1421	OPK0133										
15	1,10	0,75	1500	OPK0136										
20	1,10	0,81	1577	OPK0137										
30	1,50	0,95	1726	OPK0143										
40	1,50	1,09	1867	OPK0145										
50	1,50	1,23	2001	OPK0146										
60	--	--	--	--										
Flow: 3.410 m³/h														
5	1,10	0,82	1459	OPK0133										
10	1,10	0,88	1533	OPK0136										
15	1,50	0,95	1605	OPK0142										
20	1,50	1,02	1676	OPK0144										
30	1,50	1,17	1814	OPK0145										
40	--	--	--	--										
50	--	--	--	--										
60	--	--	--	--										
Flow: 3.720 m³/h														
5	1,50	1,05	1578	OPK0142										
10	1,50	1,12	1646	OPK0144										
15	1,50	1,19	1713	OPK0143										
20	--	--	--	--										
30	--	--	--	--										
40	--	--	--	--										
50	--	--	--	--										
60	--	--	--	--										
Flow: 3.200 m³/h														
6,2	0,55	0,37	882	OPK0003										
10	0,55	0,41	952	OPK0002										
15	0,75	0,48	1040	OPK0009										
20	0,75	0,54	1124	OPK0005										
30	1,10	0,68	1281	OPK0152										
40	1,10	0,83	1425	OPK0011										
50	1,50	0,98	1559	OPK0023										
60	1,50	1,15	1683	OPK0153										
Flow: 3.600 m³/h														
6,2	0,75	0,50	965	OPK0007										
10	0,75	0,55	1028	OPK0009										
15	1,10	0,62	1108	OPK0014										
20	1,10	0,69	1185	OPK0013										
30	1,10	0,84	1331	OPK0012										
40	--	--	--	--										
50	1,50	1,17	1596	OPK0023										
60	2,20	1,34	1716	OPK0155										
Flow: 4.000 m³/h														
6,2	1,10	0,67	1051	OPK0015										
10	1,10	0,72	1108	OPK0014										
15	1,10	0,80	1181	OPK0013										
20	1,10	0,87	1252	OPK0152										
30	1,50	1,04	1388	OPK0019										
40	1,50	1,20	1517	OPK0088										
50	2,20	1,38	1638	OPK0304										
60	2,20	1,57	1754	OPK0279										
Flow: 4.400 m³/h														
6,2	1,10	0,87	1138	OPK0014										
10	1,50	0,93	1190	OPK0021										
15	1,50	1,01	1257	OPK0020										
20	1,50	1,09	1323	OPK0024										
30	2,20	1,26	1450	OPK0028										
40	2,20	1,44	1571	OPK0027										
50	2,20	1,63	1687	OPK0155										
60	2,20	1,83	1797	OPK0279										
Flow: 4.800 m³/h														
6,2	1,50	1,10	1227	OPK0021										
10	1,50	1,17	1275	OPK0020										
15	2,20	1,25	1337	OPK0031										
20	2,20	1,34	1398	OPK0028										
30	2,20	1,53	1516	OPK0032										
40	2,20	1,72	1630	OPK0027										
50	3,00	1,92	1740	OPK0034										
60	3,00	2,13	1845	OPK0172										



Horizontal package air conditioners

HCompact2 HA

INDOOR FAN

■ Tables of selection of the supply group

HCompact2 HA - 95					HCompact2 HA - 120					HCompact2 HA - 160				
Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code	Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code	Available pressure (mm.w.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 3.680 m³/h					Flow: 4.800 m³/h					Flow: 5.600 m³/h				
6,2	0,75	0,51	957	OPK0007	6,2	1,10	0,66	825	OPK0042	7,5	1,50	1,06	969	OPK0047
10	0,75	0,56	1019	OPK0009	10	1,10	0,73	882	OPK0044	10	1,50	1,11	1002	OPK0051
15	1,10	0,63	1098	OPK0015	15	1,10	0,83	954	OPK0040	15	1,50	1,22	1065	OPK0046
20	1,10	0,70	1175	OPK0013	20	1,50	0,93	1025	OPK0051	20	2,20	1,34	1127	OPK0057
30	1,10	0,85	1320	OPK0012	30	1,50	1,15	1157	OPK0050	30	2,20	1,58	1246	OPK0055
40	1,50	1,01	1457	OPK0019	40	2,20	1,38	1279	OPK0055	40	3,00	1,84	1357	OPK0060
50	1,50	1,18	1585	OPK0023	50	2,20	1,62	1391	OPK0054	50	3,00	2,11	1462	OPK0059
60	2,20	1,35	1705	OPK0155	Flow: 5.400 m³/h					Flow: 6.300 m³/h				
Flow: 4.140 m³/h					6,2	1,10	0,90	905	OPK0044	7,5	2,20	1,45	1068	OPK0057
6,2	1,10	0,70	1052	OPK0015	10	1,50	0,98	957	OPK0047	10	2,20	1,51	1097	OPK0057
10	1,10	0,76	1108	OPK0014	15	1,50	1,09	1022	OPK0051	15	2,20	1,64	1154	OPK0056
15	1,10	0,84	1179	OPK0013	20	1,50	1,20	1087	OPK0046	20	2,20	1,76	1210	OPK0056
20	1,10	0,91	1249	OPK0152	30	2,20	1,44	1209	OPK0056	30	3,00	2,03	1318	OPK0060
30	1,50	1,08	1383	OPK0019	40	2,20	1,69	1324	OPK0058	40	3,00	2,31	1422	OPK0059
40	1,50	1,25	1511	OPK0088	50	3,00	1,95	1432	OPK0059	50	--	--	--	--
50	2,20	1,43	1631	OPK0027	Flow: 6.000 m³/h					Flow: 7.000 m³/h				
60	2,20	1,62	1746	OPK0279	6,2	1,50	1,20	988	OPK0051	7,5	3,00	1,94	1168	OPK0162
Flow: 4.600 m³/h					10	2,20	1,29	1034	OPK0305	10	3,00	2,01	1194	OPK0159
6,2	1,50	0,94	1150	OPK0025	15	2,20	1,41	1095	OPK0057	15	3,00	2,14	1246	OPK0159
10	1,50	1,00	1200	OPK0021	20	2,20	1,53	1153	OPK0056	20	3,00	2,28	1297	OPK0060
15	1,50	1,08	1265	OPK0020	30	2,20	1,78	1267	OPK0055	30	4,00	2,57	1397	OPK0166
20	1,50	1,17	1329	OPK0024	40	3,00	2,05	1375	OPK0059	40	--	--	--	--
30	2,20	1,35	1453	OPK0028	50	--	--	--	--	50	--	--	--	--
40	2,20	1,53	1572	OPK0027	Flow: 6.600 m³/h					Flow: 7.700 m³/h				
50	2,20	1,72	1686	OPK0155	6,2	2,20	1,57	1072	OPK0057	7,5	4,00	2,54	1270	OPK0167
60	3,00	1,92	1794	OPK0172	10	2,20	1,66	1115	OPK0057	10	4,00	2,61	1293	OPK0167
Flow: 5.060 m³/h					15	2,20	1,79	1170	OPK0056	15	4,00	2,75	1341	OPK0167
6,2	1,50	1,23	1249	OPK0020	20	3,00	1,92	1224	OPK0159	20	4,00	2,90	1388	OPK0166
10	2,20	1,29	1295	OPK0029	30	3,00	2,19	1329	OPK0060	30	4,00	3,21	1480	OPK0166
15	2,20	1,38	1355	OPK0031	40	3,00	2,47	1431	OPK0059	40	--	--	--	--
20	2,20	1,48	1413	OPK0028	50	--	--	--	--	50	--	--	--	--
30	2,20	1,67	1528	OPK0032	Flow: 7.200 m³/h					Flow: 8.400 m³/h				
40	3,00	1,86	1639	OPK0035	6,2	3,00	2,00	1158	OPK0162	7,5	4,00	3,24	1372	OPK0164
50	3,00	2,07	1746	OPK0034	10	3,00	2,10	1197	OPK0159	10	4,00	3,32	1394	OPK0166
60	3,00	2,28	1849	OPK0172	15	3,00	2,24	1247	OPK0159	15	5,50	3,48	1438	OPK0168
Flow: 5.520 m³/h					20	3,00	2,38	1298	OPK0060	20	--	--	--	--
6,2	2,20	1,57	1349	OPK0031	30	4,00	2,67	1396	OPK0166	30	--	--	--	--
10	2,20	1,64	1392	OPK0028	40	--	--	--	--	40	--	--	--	--
15	2,20	1,74	1447	OPK0028	50	--	--	--	--	50	--	--	--	--
20	3,00	1,84	1501	OPK0089										
30	3,00	2,04	1608	OPK0035										
40	3,00	2,25	1711	OPK0034										
50	3,00	2,47	1812	OPK0172										
60	--	--	--	--										

