

Large range : 5 to 120 kW
Flows : 900 to 14000 m³/h
Numerous accessories
Design integrating perfectly
in public buildings



USE

- Operation in zones **ES** and **S**
Extra silent and silent

Forced air heating for premises requiring a low sound level and a rapid heating capability. Particularly well adapted for large volume premises, the silenterme is the most rational solution for heating reception halls, gymnasiums, theaters, conference rooms, etc...

- Operation in **GV** and **TGV** zone
Large volumes and very large volumes.

These air heaters are used for forced air heating of large industrial premises. Their utilization for heating through a largely dimensioned duct network is possible thanks to high flow/pressure.

RANGE

- Operation in zone **ES** and **S**
Extra silent and silent

5 sizes of units : Series 1 - 2 - 3 - 4 - 5
 Air flow from 1000 to 7.100 m³/h

- Operation in **GV** and **TGV** zone
Large volumes and very large volumes

5 sizes of units : series 1 - 2 - 3 - 4 - 5
 Air flow from 1000 to 14000 m³/h

CHOICE OF SILENTHERME

The choice of a silenterme must be done taking into account operating and structural parameters of the room to be heated :

- Volume, height, surface, shape, type of construction, insulation.
- Room purpose, fresh air admission or not, specific internal

pollution, desired sound level, possible siting zone (obstacles, fresh air intakes).

- Heating purpose : total, per zone, protection (air curtain).
- Respect of regulation concerning :
 - working premises (temperature, pollution)
 - public buildings (temperature, air renewal, fire classification).

CONSTRUCTION

Casing

Electro zinc coated sheet steel, enamelled, dark grey (RAL 7024) colour. All the panels are lined with glasswool protected

against erosion. Access panel to the fan motor assembly and to the battery mounted on hinges.



Silent centrifugal air heater hot water supply

SILENTHERME

Filtration (compulsory option)

- Operation in zone **ES** and **S**

Extra silent and silent

Type G 4 or type F 5.

- Operation in zone **GV** and **TGV**

Large volumes and very large volumes

Type G 1 or type G 4.

Exchange coil

The silentthermes are fitted with high efficiency coils allowing operation with low temperature fluids (heat pumps, condensation boilers). Easily dismantlable without removing the silenttherme. Manufactured in copper tubes and aluminium fins for hot water with a temperature equal to or lower than 120°C and for a working pressure equal to or lower than 8 bars.

Made in copper tubes and aluminium fins for hot water with an inlet temperature equal to or lower than 120 °C and for a working pressure equal to or lower than 8 bars.

Supply piping

Construction : hexagonal sleeves

ACCESSORIES

Numerous connection and mounting accessories.

SELECTION

The selection of a silenttherme is done according to a heating capacity, an air flow and a static pressure (optional for ducts).

This leads to the determination of : the series (1, 2, 3, 4 or 5) and the number of rows (1, 2 or 3) of the heating coil for obtention of the price.

This defines the SILENTHERME designation

Position :

- Vertical units : on the left, facing the unit–
- Horizontal units
- The side positions can be changed on site very quickly

Fan

Centrifugal type, double inlets, dynamically balanced action impeller

Motor

Mounted inside the casing, silent, 1 speed 3 ph. 230/400 V, 50 Hz, equipped with opening thermal protection.

- Operation in zone **ES** and **S**

Extra silent and silent

**Fan motor assembly
Suspended on resilient mounts**

Option : 2 speed motor 1/2 ratio.

Transmission

By trapezoidal belts/pulley(s).

Example :

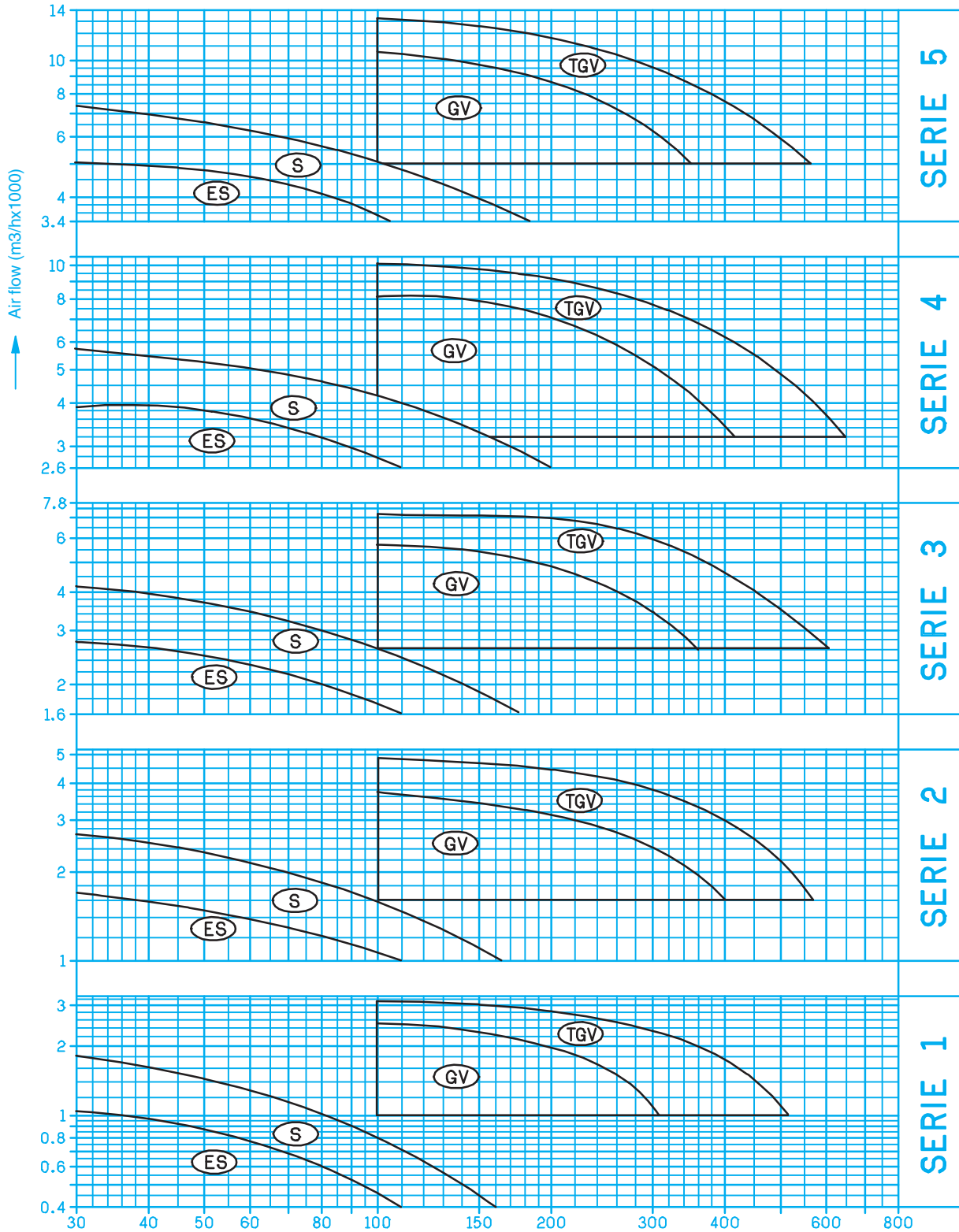
Silentherme N 23

Series 2 _____	_____	Number of rows in heating coil
----------------	-------	--------------------------------------

Each "standard" unit can be fitted with main accessories :

- Air intake box No. 10 - 20 - 30 or 40.
- Air diffuser No. 1 or 2.

PRELIMINARY SELECTION OF THE SERIES ACCORDING TO THE AIR FLOW TO BE HANDLE



→ Static pressure available for ducts and accessories (Pa)

(ES) Extra-silent operation
(S) Silent operation

(GV) "Large volume" operation
(TGV) "Very large volume" operation

SELECTION TABLES - AIR FLOW RATE / HEATING CAPACITY

Temperature + 12 °C at inlet - Pressure 1013 hPa

SILENTHERME	Air flow rate m ³ /h	Range** m	Motor power kW	Sound level* dB(A)	Low pressure fluid						
					45 - 37 °C		90 - 70 °C		105 - 75 °C		
					Heating capacity kW	Air outlet temp. °C	Heating capacity kW	Air outlet temp. °C	Heating capacity kW	Air outlet temp. °C	
Extra-silent operation (ES)											
11	1130				3,2	20	7,5	32	8,3	34	
12	1020	12	0,37	35	4,7	26	11,7	46	12,8	49	
13	930				5,8	31	14,4	58	16,1	63	
21	1680							4,1	19	9,6	29
22	1350	14	0,37	40	6,1	25	14,6	45	16,3	48	
23	1250				7,5	30	18,6	56	20,7	61	
31	2830							6,5	19	15,2	28
32	2480	18	0,55	44	10,2	24	24,5	42	27,2	45	
33	2190				12,2	29	30,4	53	33,9	58	
41	3950							9,0	19	21,4	28
42	3550	20	0,75	45	14,8	24	35,2	42	39,2	45	
43	3250				17,9	28	44,2	52	49,7	57	
51	5100							12,7	19	30,0	30
52	4630	22	0,75	43	20,4	25	49,1	44	55,0	47	
53	4250				24,7	29	61,3	55	67,8	59	
Silent operation (S)											
11	1750				3,9	19	9,2	28	10,1	29	
12	1600	16	0,37	44	6,3	24	15,2	40	16,7	43	
13	1500				8,3	29	20,0	52	22,4	56	
21	2600							4,9	18	11,7	25
22	2250	18	0,55	48	8,3	23	19,6	38	21,9	41	
23	2000				10,5	28	25,7	50	28,4	54	
31	3800							7,4	18	17,4	26
32	3400	22	0,75	49	12,4	23	29,6	38	32,2	40	
33	3000				15,2	27	37,0	49	41,2	53	
41	5600							10,5	18	24,9	25
42	5050	30	1,1	51	18,2	23	43,0	38	47,8	40	
43	4550				22,7	27	55,6	48	61,0	52	
51	7100							14,9	18	35,0	27
52	6550	32	1,1	49	25,2	23	60,0	39	66,7	42	
53	6000				31,8	28	77,6	50	86,1	55	

Shaded power values correspond to commonly used units, well suited to room heating.

* **Sound level** : pressure level at 5 m in a room with average reverberation, 200 m² Sabin.
311 assembly unit - directivity 2.

** for assembly unit 311, residual speed 0.25 ms⁻¹ (equal temperature air blast)

Correction table for other return air temperature

Temperature of air at inlet °C	-15	-10	-7	-5	0	+5	+10	+12	+15	+18	+20
Coefficient correcteur	1,44	1,35	1,31	1,27	1,19	1,11	1,03	1,00	0,95	0,90	0,87

SELECTION TABLES - AIR FLOW RATE / HEATING CAPACITY

Température + 12 °C à l'aspiration - Pression 1013 hPa

SILENTHERME	Air flow rate m ³ /h	Range** m	Motor power kW	Sound level* dB(A)	Low pressure fluid					
					hot water 45 - 37 °C		hot water 90 - 70 °C		hot water 105 - 75 °C	
					P	T	P	T	P	T
Large volumes operation (GV)										
11	2500				4,6	17	10,7	24	11,8	25
12	2300	24	0,75	54	7,8	22	18,2	35	20,2	37
13	2100				10,4	27	24,4	45	27,0	49
21	3800				5,8	17	13,7	22	15,2	23
22	3500	28	1,5	59	10,5	21	24,6	32	27,3	34
23	3100				13,9	25	33,0	43	36,5	46
31	6000				9,0	17	21,5	22	23,8	23
32	5400	36	2,2	62	15,7	21	37,0	32	41,0	34
33	4600				20,0	25	47,4	42	52,5	45
41	8500				12,6	16	29,4	22	32,6	23
42	7600	44	2,2	64	22,5	21	52,8	32	58,5	34
43	6600				28,6	25	68,0	42	75,0	45
51	11000				17,9	17	42,0	23	46,5	24
52	9600	50	3	64	31,1	22	73,0	34	81,0	36
53	8000				38,8	26	91,5	45	101,0	48
Very large volumes operation (TGV)										
11	3300				5,2	17	12,1	22	13,4	23
12	3100	30	1,5	61	9,0	21	21,5	32	23,8	34
13	2800				12,3	25	29,3	42	32,4	45
21	5000				6,5	16	15,2	21	16,8	22
22	4400	35	2,2	64	11,8	20	27,6	30	30,6	32
23	3800				15,7	24	37,4	40	41,4	43
31	7800				10,0	16	23,3	21	25,8	22
32	6600	44	3	68	17,4	20	41,0	30	45,4	32
33	5000				21,1	25	49,5	40	54,8	43
41	10500				13,6	16	32,1	21	35,6	22
42	9000	49	4	70	24,5	20	57,5	30	63,7	32
43	7500				31,0	24	73,5	40	81,4	43
51	14000				19,8	16	46,4	22	51,4	23
52	12400	60	5,5	70	35,1	20	83,5	31	92,4	33
53	10600				45,6	25	108,0	41	119,6	44

Column P : heating power in kW - Column T : air outlet temperature in °C

Shaded power values correspond to commonly used units, well suited to room heating.

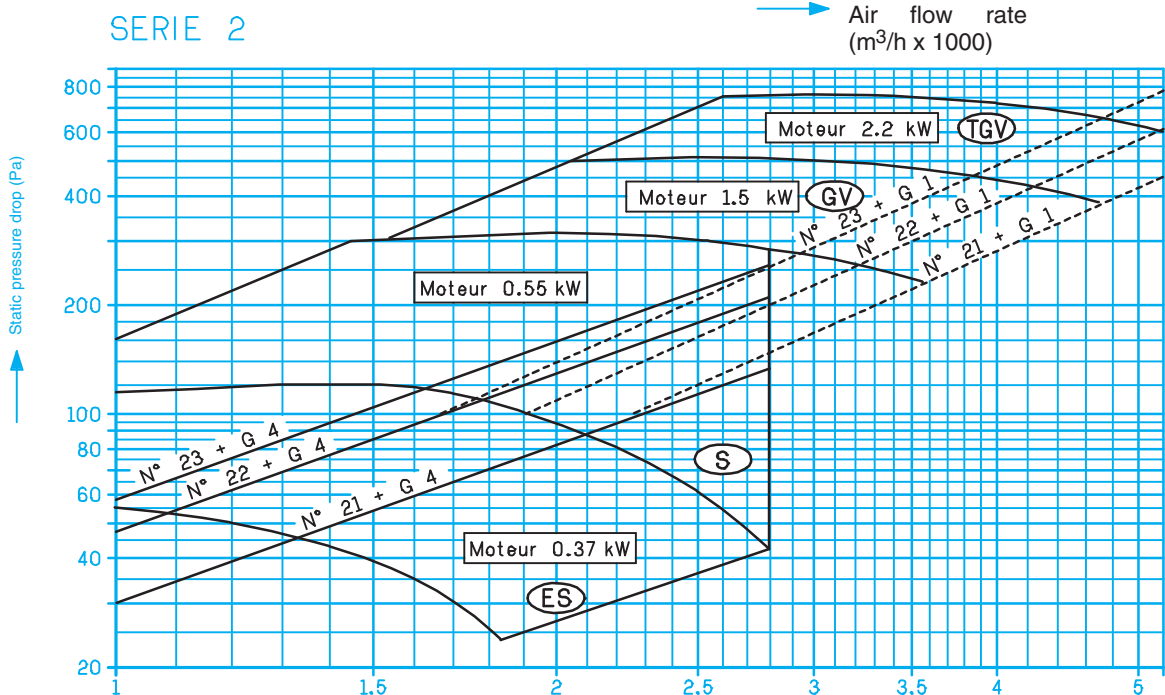
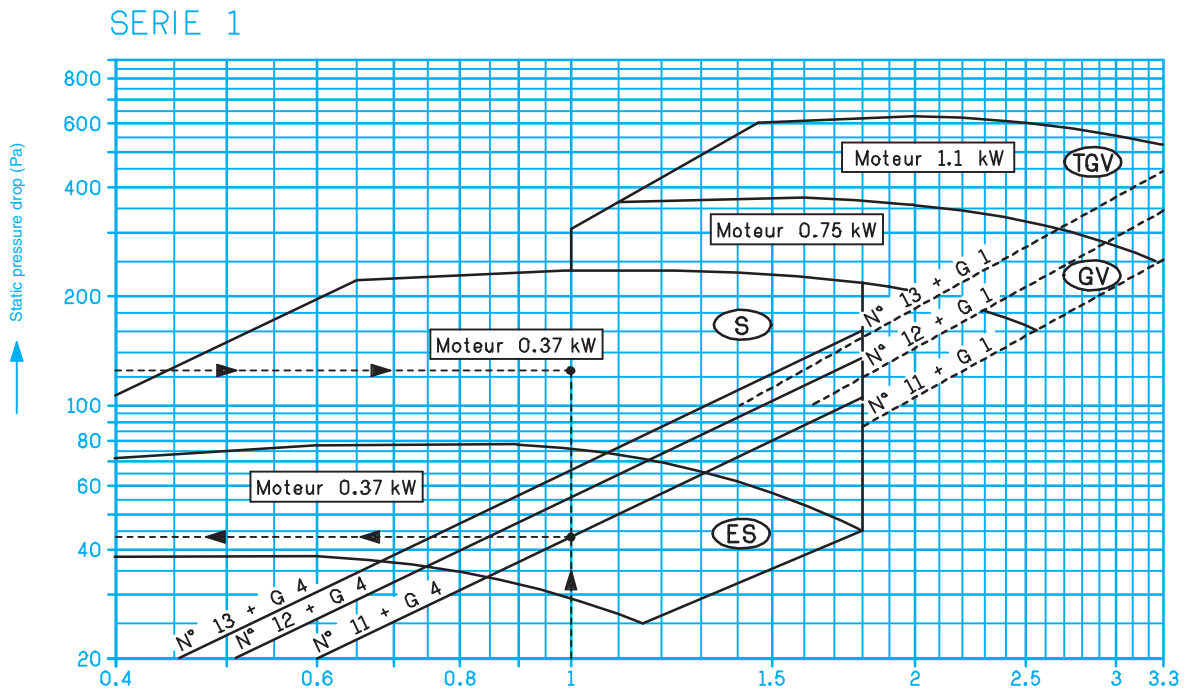
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311 assembly unit - directivity 2.

** for assembly unit 311, residual speed 0.25 ms⁻¹ (equal temperature air blast)

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Temperature of air at inlet °C	-15	-10	-7	-5	0	+5	+10	+12	+15	+18	+20
Coefficient correcteur	1,44	1,35	1,31	1,27	1,19	1,11	1,03	1,00	0,95	0,90	0,87

SELECTION GRAPHS (CASE OF DUCT NETWORKS)



(ES) Extra-silent operation
(S) Silent operation

(GV) "Large volume" operation
(TGV) "Very large volume" operation

Example of sélection

- You wish to use a silenttherme Series 1 N° 11 with an air flow of 1000 m³/h mounted on a duct network whose pressure drop is 80 Pa.

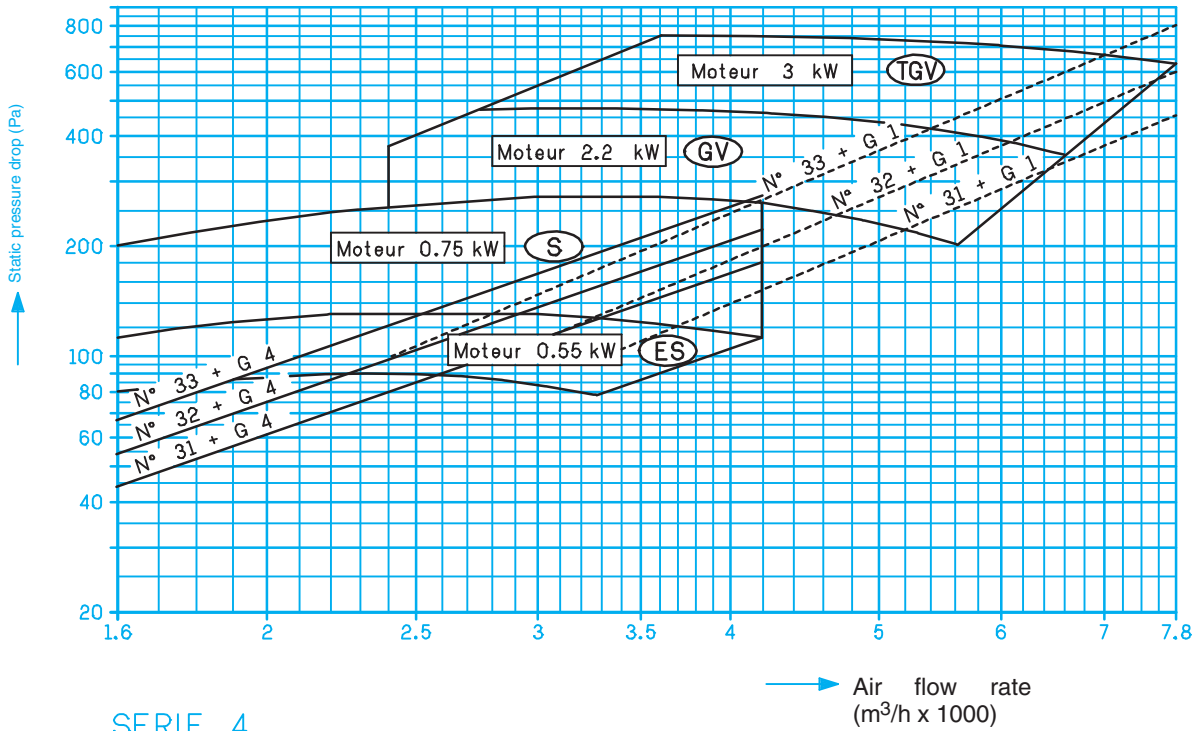
The internal pressure drop of the silenttherme N° 11 is 43 Pa with a G4 standard filter.

The selected model is a **zone S unit, motor 0.37 kW**.

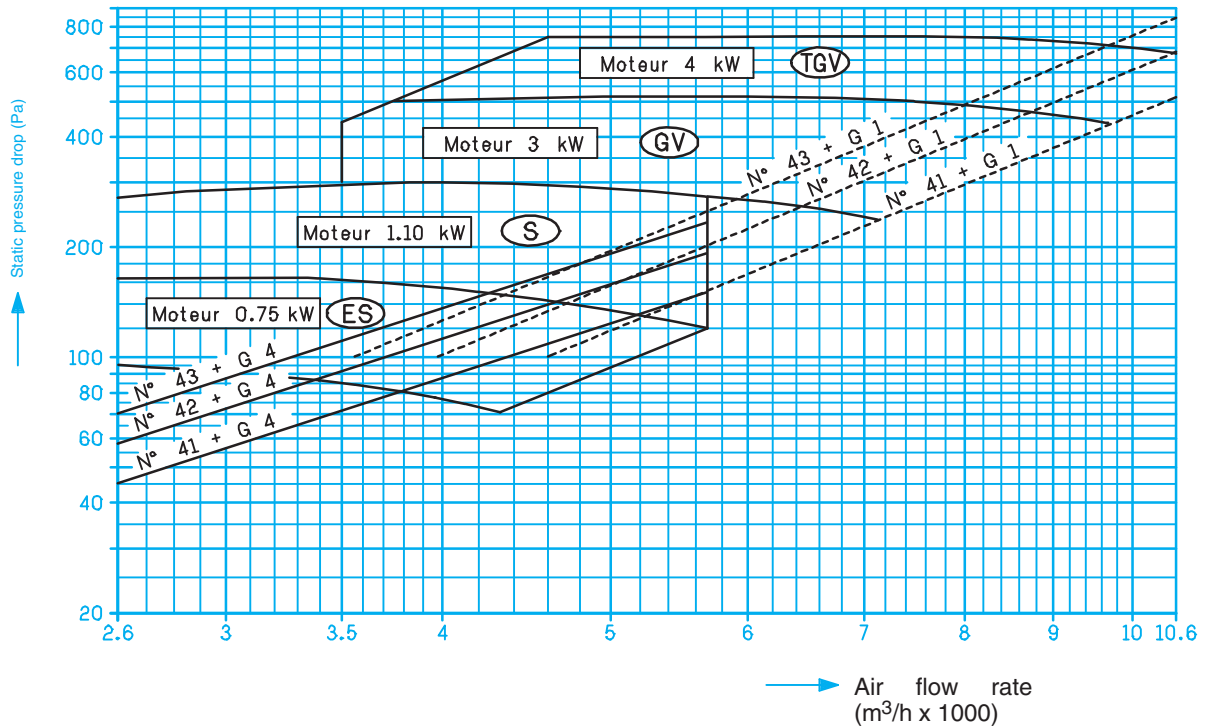
The selection can be optimized by the use of a software for calculation, contact our agency.

SELECTION GRAPHS (CASE OF DUCT NETWORKS)

SERIE 3



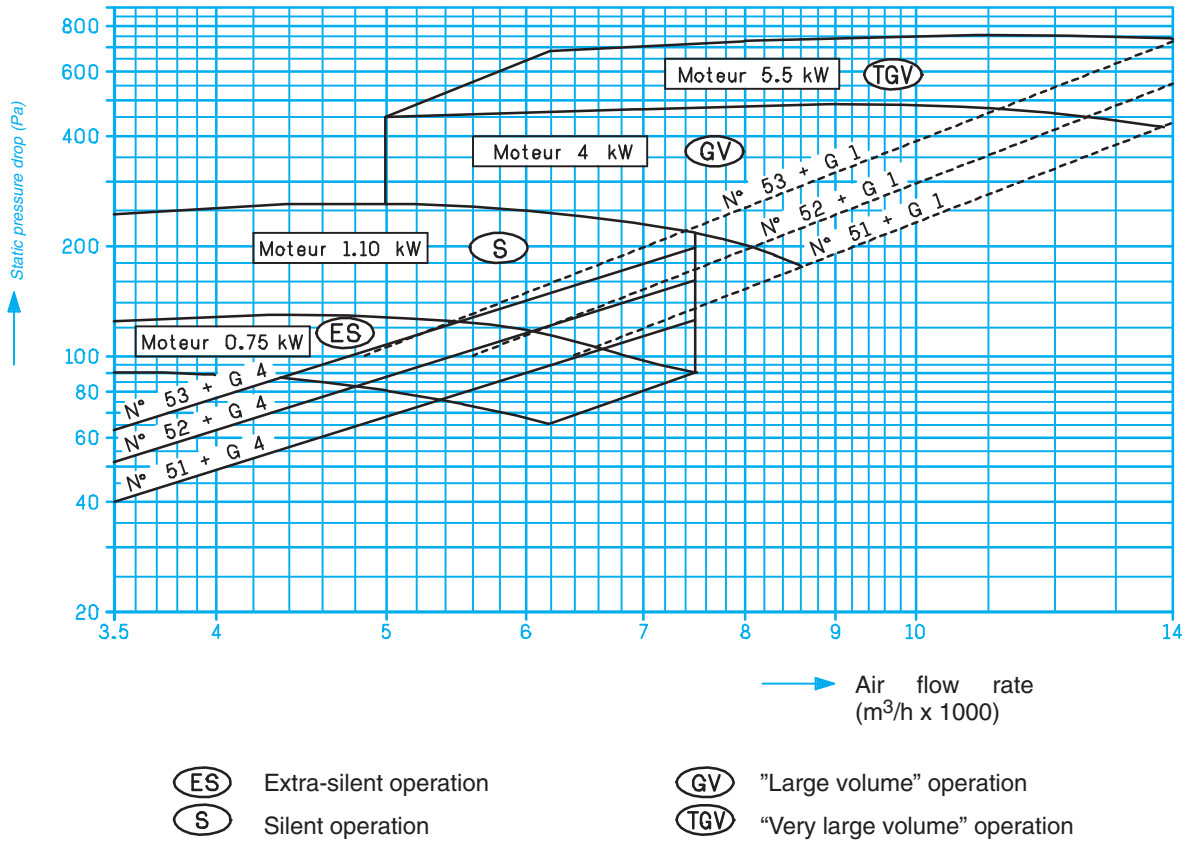
SERIE 4



- (ES) Extra-silent operation
- (GV) "Large volume" operation
- (S) Silent operation
- (TGV) "Very large volume" operation

SELECTION GRAPHS (CASE OF DUCT NETWORKS)

SERIE 5



ELECTRICAL CHARACTERISTICS OF THREE PHASE 400 V - 50 HZ MOTORS

kW	0,37	0,55	0,75	1,10	1,50	2,20	3,00	4,00	5,50
IN in A	1,12	1,65	2	2,5	3,6	5,1	7,2	9,1	11,9

* Indicative values as per motors manufacturers' present catalogue. The protection devices dimensioning is calculated according to the values indicated on the data plate affixed to the unit.

Silent centrifugal air heater hot water supply

Units with transmission without filter cell 1 speed motor

Series	S	ES			S			GV			TGV		
		Mot. kW	Code	•	Mot. kW	Code	•	Mot. kW	Code	•	Mot. kW	Code	•
1	11	0,37	B320021	•	0,37	B320196	•	0,75	B320919	•	1,1	B321087	•
	12		B320048	•		B320218	•		B320927	•		B321095	•
	13		B320056	•		B320226	•		B320935	•		B321109	•
2	21	0,37	B320064	•	0,55	B320234	•	1,5	B320943	•	2,2	B321117	•
	22		B320072	•		B320242	•		B320951	•		B321125	•
	23		B320080	•		B320250	•		B320978	•		B321133	•
3	31	0,55	B320099	•	0,75	B320269	•	2,2	B320986	•	3	B321141	•
	32		B320102	•		B320277	•		B320994	•		B321168	•
	33		B320110	•		B320285	•		B321001	•		B321176	•
4	41	0,75	B320129	•	1,1	B320293	•	3	B321028	•	4	B321184	•
	42		B320137	•		B320307	•		B321036	•		B321192	•
	43		B320145	•		B320315	•		B321044	•		B321206	•
5	51	0,75	B320153	•	1,1	B320323	•	4	B321052	•	5,5	B321214	•
	52		B320161	•		B320331	•		B321060	•		B321222	•
	53		B320188	•		B320358	•		B321079	•		B321230	•

2 speed motor 4/8 poles

Series	S	ES			S			GV			TGV		
		Mot. kW	Code	•	Mot. kW	Code	•	Mot. kW	Code	•	Mot. kW	Code	•
1	11	0,37 0,07	B320366	•	0,37 0,07	B320536	•	0,75 0,12	B321249	•	1,5 0,25	B321419	•
	12		B320374	•		B320544	•		B321257	•		B321427	•
	13		B320382	•		B320552	•		B321265	•		B321435	•
2	21	0,37 0,07	B320390	•	0,37 0,07	B320560	•	1,5 0,25	B321273	•	2,2 0,37	B321443	•
	22		B320404	•		B320579	•		B321281	•		B321451	•
	23		B320412	•		B320587	•		B321303	•		B321478	•
3	31	0,75 0,12	B320420	•	0,75 0,12	B320595	•	2,2 0,37	B321311	•	4 0,75	B321486	•
	32		B320439	•		B320609	•		B321338	•		B321494	•
	33		B320447	•		B320617	•		B321346	•		B321508	•
4	41	0,75 0,12	B320455	•	1,5 0,25	B320625	•	4 0,75	B321354	•	4 0,75	B321516	•
	42		B320463	•		B320633	•		B321362	•		B321524	•
	43		B320471	•		B320641	•		B321370	•		B321532	•
5	51	0,75 0,12	B320498	•	1,5 0,25	B320668	•	4 0,75	B321389	•	5,5 1,1	B321540	•
	52		B320501	•		B320676	•		B321397	•		B321559	•
	53		B320528	•		B320684	•		B321400	•		B321567	•

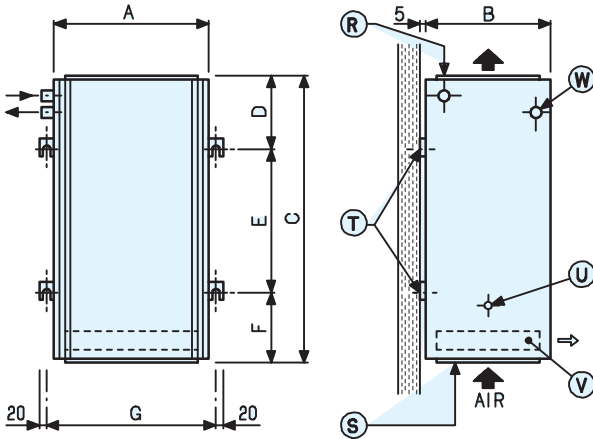
ES : Extra-Silent - S : Silent - GV : Large volume - TGV : Very large volume

Main accessories

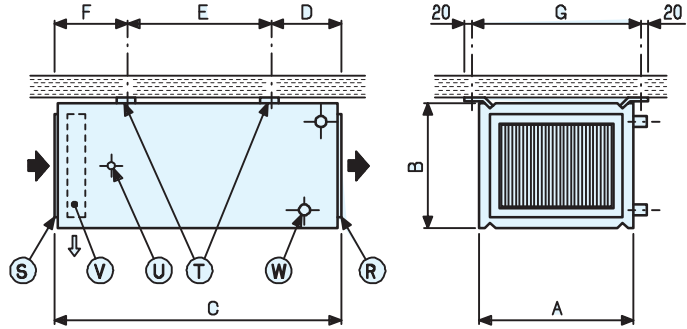
Series	Code	Filter cells			Air intake boxes				Diffusers	
		G1	G4	F5	10	20	30	40	1	2
1	B347868	B347914	B347965	2904311	2904316	2904321	2904326	2904331	2838860	
	•	•	•	•	•	•	•	•	•	
2	B347876	B347922	B347973	2904312	2904317	2904322	2904327	2904332	2838861	
	•	•	•	•	•	•	•	•	•	
3	B347884	B347930	B347981	2904313	2904318	2904323	2904328	2904333	2838862	
	•	•	•	•	•	•	•	•	•	
4	B347892	B347949	B348007	2904314	2904319	2904324	2904329	2904334	2838863	
	•	•	•	•	•	•	•	•	•	
5	B347906	B347957	B348015	2904315	2904320	2904325	2904330	2904335	2838864	
	•	•	•	•	•	•	•	•	•	

DIMENSIONS - SERIES 1 TO 5

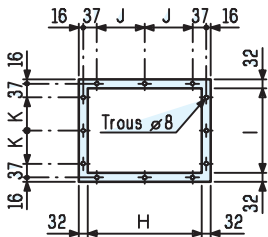
Standard vertical fitting No. 300



Standard vertical fitting No. 500



Recommended drilling layout (inlet or outlet duct)



- (R) Outlet flange
- (S) Inlet flange
- (T) Attachment : 4 M14 rods
- (U) Cable hole (power supply cable)
- (V) Filter EU 4 or EU 5 : extracted in direction shown by arrow
- (W) Supply pipes : position when delivered according to drawing above. Possibility of changing on site. Alternatively, cable hole and grommet for electric units.

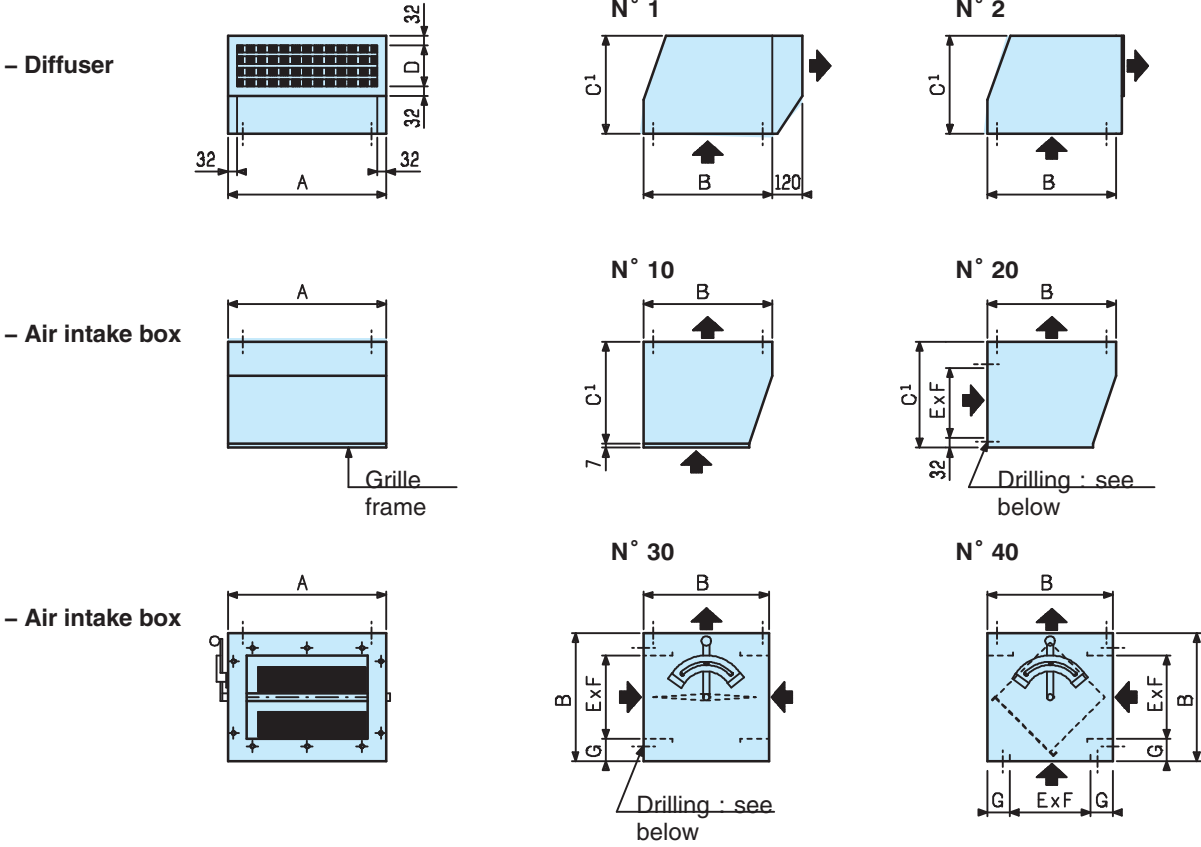
Series	A	B	C	D	E	F	G	H	I	J	K
1	660	470	1180	305	580	295	696	542	352	250	155
2	660	525	1180	305	580	295	696	542	407	250	182,5
3	750	610	1300	305	700	295	786	632	492	295	225
4	845	700	1440	305	840	295	881	727	582	342,5	270
5	970	830	1640	305	1040	295	1006	852	712	405	335

Approximate weights of units in kg

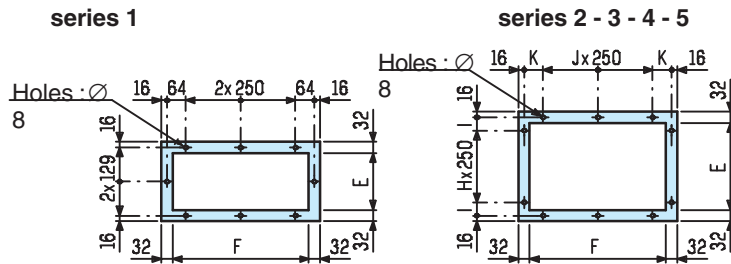
Units	Series N°	1			2			3			4			5		
		11	12	13	21	22	23	31	32	33	41	42	43	51	52	53
Standard model N° 300 or 400		63	64	65	67	68	70	84	86	88	102	105	108	146	150	154
Accessories :																
Box N° 10			10,5			11,5			15			18,5			24	
Box N° 20			9,5			10,5			14			16,5			22	
Box N° 30			24			27			35			45			64	
Box N° 40			25			28			38			48			68	
Difuser N° 1			18,5			23			30			36,5			47,5	

DIMENSIONS

Main accessories



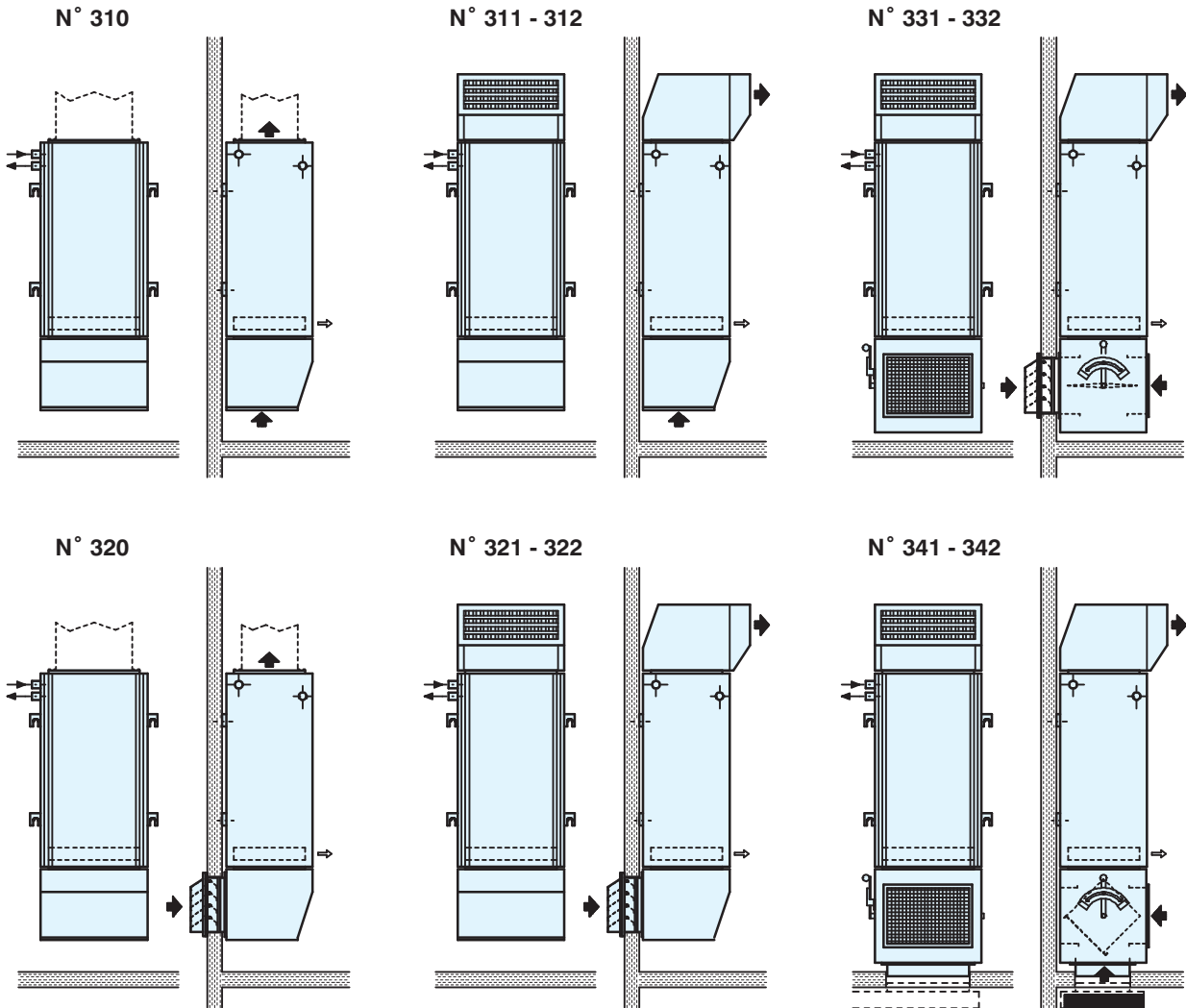
Recommended inlet duct drilling for air intake boxes 20, 30 and 40



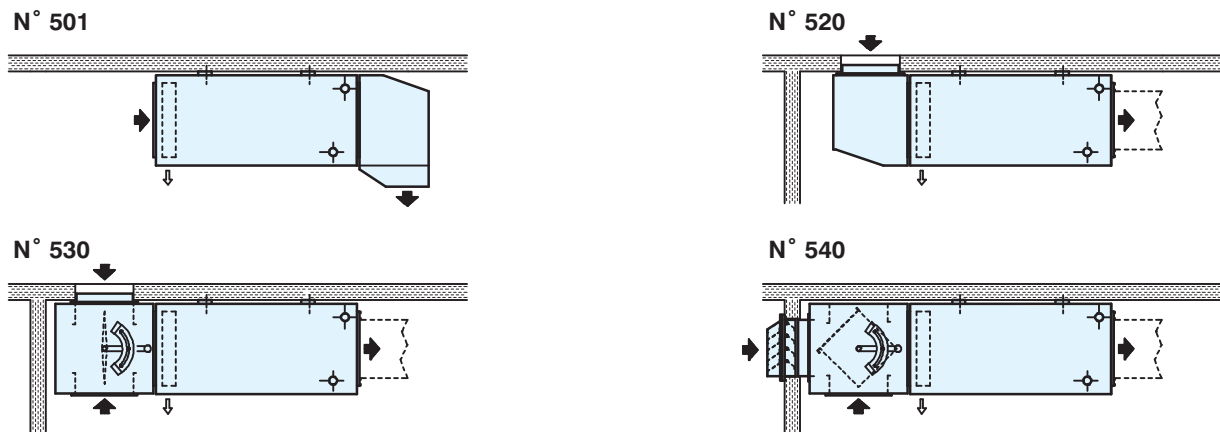
Series	A	B	C1	D	E	F	G	H	I	J	K
1	660	470	360	129	226	596	122				
2	660	525	400	169	281	596	122	1	31,5	2	64
3	750	610	480	249	366	686	122	1	74	2	109
4	845	700	520	289	456	781	122	1	119	2	156,5
5	970	830	600	369	536	906	147	2	34	3	94

EXAMPLES OF MOUNTING

Vertical mounting with accessories



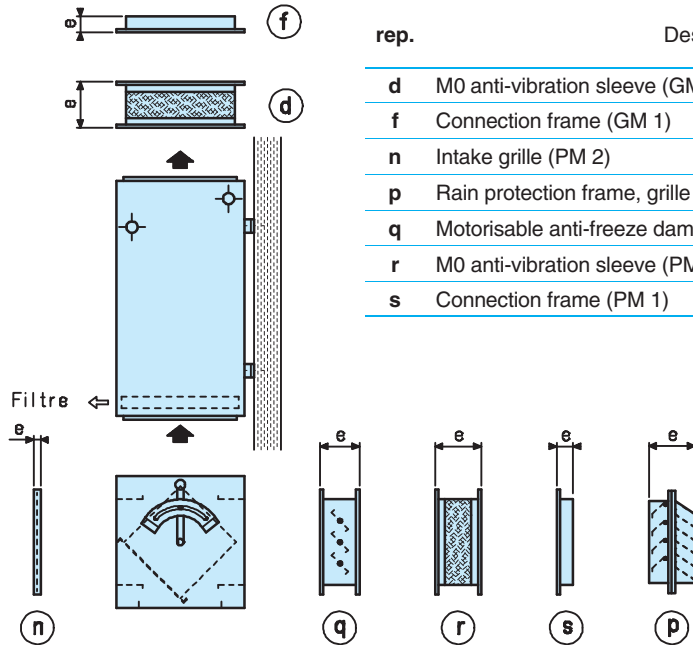
Horizontal mounting with accessories



Reminder : mounting 331 : standard unit N° 300 - air intake box N° 30 - Diffuser N° 1

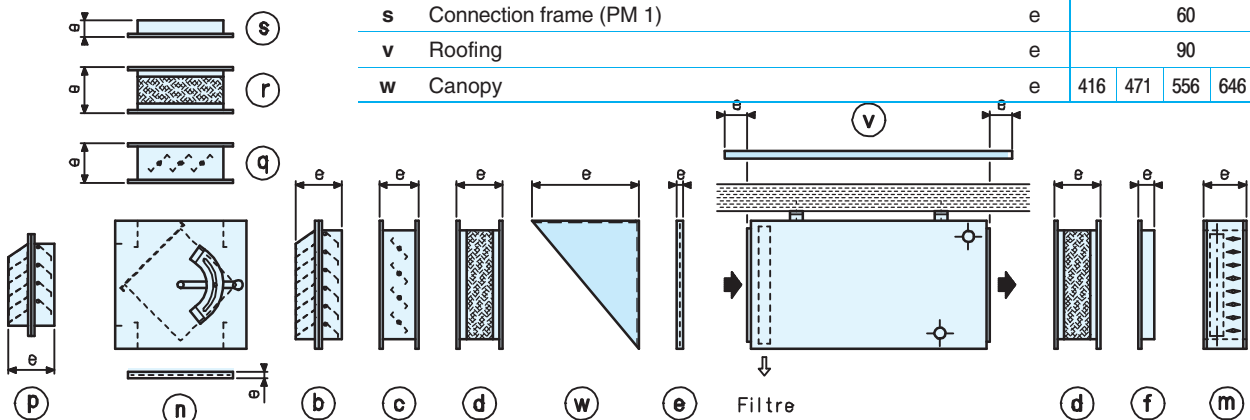
SECONDARY ACCESSORIES FOR SILENTHERME INSTALLATION

■ For vertical units



rep.	Description	cote	Series					
			1	2	3	4	5	
d	M0 anti-vibration sleeve (GM 3)	e		140				
f	Connection frame (GM 1)	e		60				
n	Intake grille (PM 2)	e		7				
p	Rain protection frame, grille with automatic shutters (PM 4)	e		125 (75 + 50)				
q	Motorisable anti-freeze damper (PM 5)	e		175				
r	M0 anti-vibration sleeve (PM 3)	e		140				
s	Connection frame (PM 1)	e		60				

■ For horizontal units







rep.	Description	cote	Series					
			1	2	3	4	5	
b	Rain protection frame, grille with automatic shutters (GM 4)	e		125 (75 + 50)				
c	Motorisable antifreeze damper (GM 5)	e		175				
d	M0 anti-vibration sleeve (GM 3)	e		140				
e	Intake grille (GM 2)	e		7				
f	Connection frame (GM 1)	e		60				
m	Frame with vertical and horizontal orientable flaps (GM 9)	e		121				
n	Intake grille (PM 2)	e		7				
p	Rain protection frame, grille with automatic shutters (PM 4)	e		125 (75 + 50)				
q	Motorisable anti-freeze damper (PM 5)	e		175				
r	M0 anti-vibration sleeve (PM 3)	e		140				
s	Connection frame (PM 1)	e		60				
v	Roofing	e		90				
w	Canopy	e	416	471	556	646	776	

SECONDARY ACCESSORIES FOR MOUNTING

Ref.	Fonction		Series 1	Series 2	Series 3	Series 4	Series 5
b	Rain protection frame and grille with automatic shutters (GM4)	<i>code</i>	2901938	2901939	2901943	2901944	2901945
		•	•	•	•	•	•
c	Motorisable anti-freeze damper (GM5)	<i>code</i>	2823065	2823066	2823067	2823068	2823069
		•	•	•	•	•	•
d	M0 anti-vibration sleeve (GM3)	<i>code</i>	2206296	2206297	2206298	2206299	2206300
		•	•	•	•	•	•
e	Intake grille (GM2)	<i>code</i>	2823218	2823219	2823220	2823221	2823222
		•	•	•	•	•	•
f	Connection frame (GM1)	<i>code</i>	2710663	2710664	2710665	2710666	2710667
		•	•	•	•	•	•
m	Frame with orientable vertical and horizontal flaps (GM9)	<i>code</i>	2825475	2825476	2825477	2825478	2825479
		•	•	•	•	•	•
n	Intake grille (PM2)	<i>code</i>	2823213	2823214	2823215	2823216	2823217
		•	•	•	•	•	•
p	Rain protection frame with automatic shutters (PM4)	<i>code</i>	2901936	2901937	2901940	2901941	2901942
		•	•	•	•	•	•
q	Motorisable anti-freeze damper (PM5)	<i>code</i>	2823060	2823061	2823062	2823063	2823064
		•	•	•	•	•	•
r	M0 anti-vibration sleeve (PM3)	<i>code</i>	2205666	2205667	2205668	2205669	2205670
		•	•	•	•	•	•
s	Connection frame (PM1)	<i>code</i>	2740026	2740027	2740028	2740029	2740030
		•	•	•	•	•	•
v	Roofing for external mounting (hot water)	<i>code</i>	2735198	2735198	2735199	2735200	2735201
		•	•	•	•	•	•
w	Hood with grille	<i>code</i>	2735094	2735095	2735096	2735097	2735098
		•	•	•	•	•	•
x	Polyethylene insulation with aluminium film	<i>code</i>	Consult us				
		•					

ELECTRICAL ACCESSORIES

Description		Code			
<p>■ Lockable proximity switch with remote position – Complies with EC standards</p> 	1 speed - 3 poles - 20 A	0596142	●		
	2 speeds - 6 poles - 20 A	0596147	●		
not fitted					
<p>■ Start / stop magnetothermal circuit breaker IP 55 sealed box magnetic trigger with alarm output</p> 	Three phase 400 V from 0,12 to 2,2 kW	B265527	●		
<p>■ Two speed control box DAHLANDER coupling 4 / 8 poles</p> 	Motor 0,37 / 0,08 kW	2734699	●		
	Motor 0,75 / 0,12 kW	2734701	●		
	Motor 1,5 / 0,25 kW	2734703	●		
	Motor 2,2 / 0,37 kW	2734669	●		
	Motor 4 / 0,75 kW	2734671	●		
	Motor 5,5 / 1,1 kW	2734675	●		
<p>■ Speed variator (frequency converter) Manual control or 0 / 10 V signal</p> 	4 pole motor max. output	Input / output voltage	Mechanical protection		●
	0,18 à 0,55	three phase 400 V	IP 20	0817060	●
	0,75			0817061	●
	1,5			0817063	●
	2,2		0817064	●	
	3 à 4		0817066	●	
	4		IP 54	0817042	●
	5,5		IP 54	0817043	●
Potentiometer for manual remote control			0816149	●	