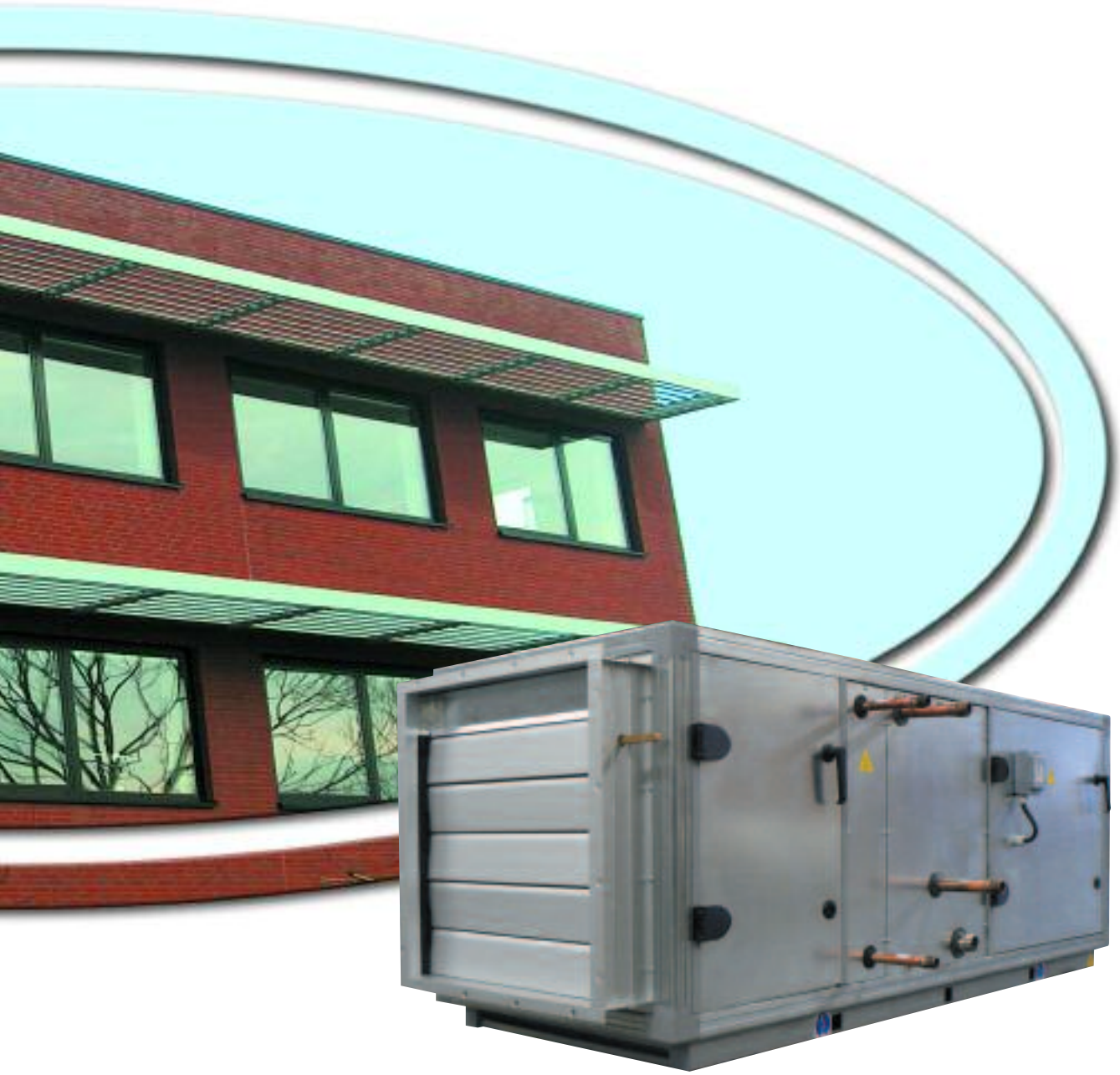
Carrier

Airostar

39SQ

AIR HANDLING UNIT
0.4 - 4.7 m³/s



The new standard

Fresh air, always and everywhere

Standard fresh air

Everybody really wants it ... fresh air. Always and everywhere. Now Carrier has developed a concept, that offers renowned Carrier quality in a standard product line, but still with a choice and with fast delivery times.

Standard

Buildings can be grouped into a number of categories. Within these categories these buildings have many common characteristics. An average size classroom has a surface of approximately 70 m^2 and a volume of around 200 m^3. The same is true for offfices. A standard office has a surface of approximately 10 m^2 with a volume of around 30 m^3. It seems obvious that we should also be able to use certain ***standards*** for air treatment.

Quick

In addition to economical advantages standardisation also has logistical advantages of course.
Not only can transport be optimised, but the increased standardisation means we can also offer ***very short delivery times***. For the 39SQ Airostar we have a delivery time of two weeks from approval.

Economical

Everybody knows that standardisation results in ***cost savings***. Therefore Carrier now introduces the 39SQ Airostar, a range of standardised air handling units. With six sizes in different configurations the 39SQ Airostar from Carrier covers a range up to 4.7 m^3/s (approx. 17500 m^3/h) . As a customer you benefit twice when you acquire a standard 39SQ Airostar air handling unit. The first advantage is the availability of a product range with six different sizes that offers you the possibility to match the air flow rate to your individual requirements. The second advantage is the possibility to connect the 39SQ to a 30RA Aquasnap unit. This gives you the peace-of-mind of optimal system operation, as you would expect it from Carrier.

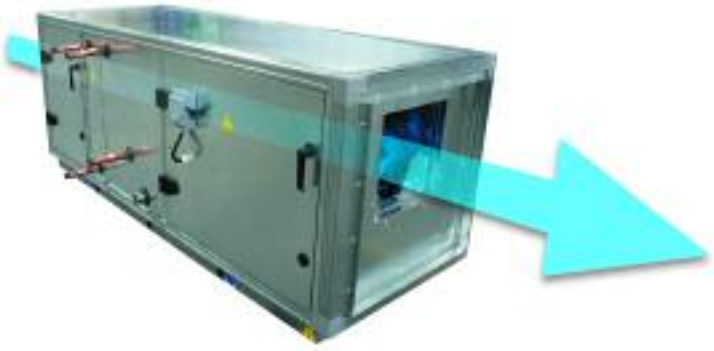
TWO WEEKS DELIVERY TIME

More choice as standard

Within the range you have the ***choice*** of six sizes and six configurations with various options.
The basic choice includes six sizes in two versions: 'filtering and heating' and 'filtering, heating and cooling'. You can also add a frost protection coil or a section with an extra filter after the fan to further enhance the air quality. The air flow can always be matched to your required operating point.
Furthermore you have the choice between indoor and outdoor unit installation, and you can choose from a wide range of ***options***.

Airostar offers various choices

AIR FLOW DIRECTION FROM RIGHT TO <u>LEFT</u>



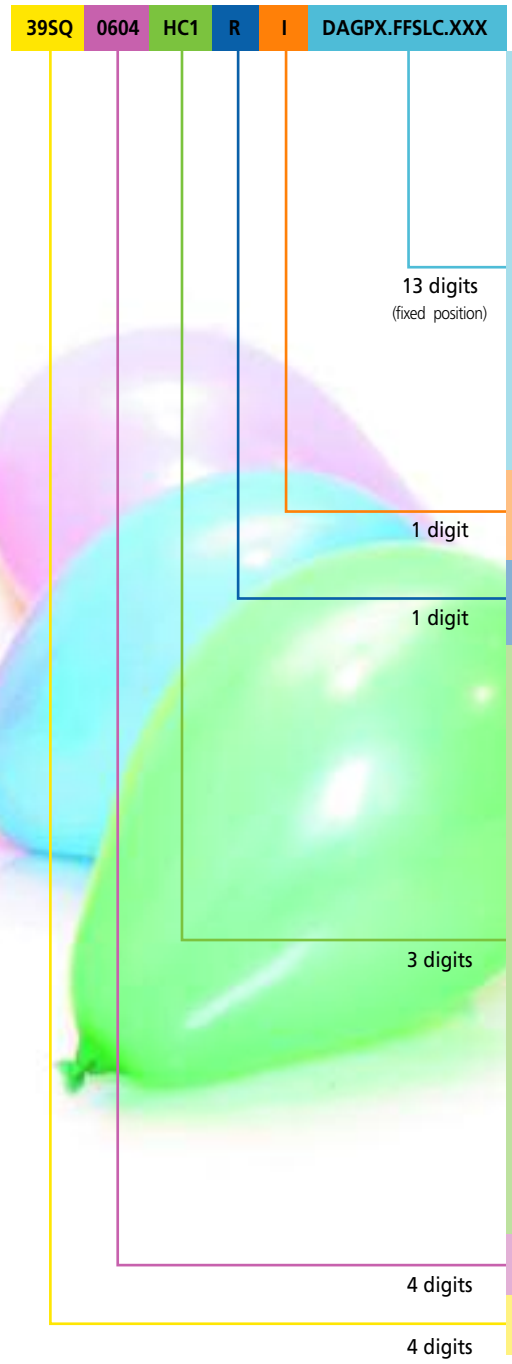
AIR FLOW DIRECTION FROM LEFT TO <u>RIGHT</u>

Familiar Carrier quality

With Carrier you not only buy an air handling unit, but also over 100 years of experience in air conditioning and air treatment.
When choosing the standard range cost was not the only consideration, but also maintenance and ease-of-use. For example, the completely smooth internal surfaces of the 39SQ Airostar help to facilitate easy cleaning. You also benefit from state-of-the-art technology.
Research and development are important activities within Carrier. We have 45 production centres with 14 R & D units. This means that you can count on the quality you have come to expect from Carrier.

CHOICE	EXAMPLE	PART NUMBER 39SQ
1) Choose type based on air flow rate	Air flow 4 m³/s	39SQ **0808**
2) Choose the configuration	Heating version H01	39SQ 0808 **H01**
3) Choose the air flow direction	From left to RIGHT	39SQ 0808 H01 **R**
4) Choose indoor or outdoor location	Indoor location	39SQ 0808 H01 R**I**
5) Choose option(s)	Damper, light and switch	39SQ 0808 H01 RI **D**XXXX.XXX**L**X.XXX

Codification



	Description	Function
D	Inlet damper	Inlet section
A	Damper actuator	Inlet section
G	Differential pressure gauge	Filter section 1
P	Differential pressure switch	Filter section 1
F	Flanges	Pre-heater
F	Flanges	Heating coil
F	Flanges	Cooling coil
S	Plastic siphon trap	Cooling coil
L	Light and switch	Fan
C	Access screen	Fan
L	Light and switch	Inspection section
G	Differential pressure gauge	Filter section 2
P	Differential pressure switch	Filter section 2
I	Indoor location	
O	Outdoor location	
L	Air flow direction, right to LEFT	
R	Air flow direction, left to RIGHT	
HO1	Heating coil version 1	Inlet section, bag filter, heating coil, fan
HO2	Heating coil version 2	Inlet section, pre-heater, combination filter, heating coil, fan
HO3	Heating coil version 3	Inlet section, bag filter, heating coil, fan, diffuser, end filter
HC1	Cooling coil version 1	Inlet section, bag filter, heating coil, cooling coil, fan
HC2	Cooling coil version 2	Inlet section, pre-heater, combination filter, cooling coil, inspection port, heating coil, fan
HC3	Cooling coil version 3	Inlet section, bag filter, heating coil, cooling coil, fan, diffuser, end filter
0604	Size (module width x module height)	
39SQ	Casing type	

Technical data

Function	HO1	HC1	HO2	HC2	HO3	HC3
Casing	- Casing is made up of posts and removable panels and a 62 mm high support - Double-skin panels, 60 mm thick, Sendzimir coating on both sides, galvanised layer, mineral wool insulation, 77 kg/m³ - Thermal classes, T3 and TB3, leak tightness class L2 (M) according to prEN 1886 - Doors (inspection hatches for units 0402, 0404, 0604)					
Option	- Air direction from left to right or from right to left - Outdoor installation, external 50 µm coating (RAL 7042) and equipped with a Protan PVC roof membrane					
Inlet connection	- Inlet opening equipped with flanged connections					
Option	- Anodised aluminium damper suitable for actuator operation - Added actuator - For outside installations the opening is eqipped with a weatherproof cowl					
Frost coil (HO2, HC2)			- Capacity from -5°C to 5°C - Water entering/leaving at 80°C/60°C - Slide-out Cu/Al element - Threaded connection			
Option (HO2, HC2)			- Flanged connections supplied loose			
(Pre-) Filter	- Slide-in bag filters F7 L = 380 mm - Slide-in profiles 316L stainless steel - Floor with stainless steel drip pan - Double-skin door/hatch 60 mm		- Slide-in cassettes G4 (50 mm) - Slide-in bag filters F7 L = 380 mm - Slide-in profiles 316L stainless steel - Floor with stainless steel drip pan - Double-skin door 60 mm thick		- Slide-in bag filters F5 L = 380 mm - Slide-in profiles 316L stainless steel - Floor with stainless steel drip pan - Double-skin door 60 mm thick	
Option	- Differential pressure gauge - Differential pressure switch		- Differential pressure gauge - Differential pressure switch (over both filters)		- Differential pressure gauge - Differential pressure switch	
Cooling coil (HC1, HC2, HC3)	- Capacity from 28°C/50% to 16°C - Water entering/leaving at 7°C/12°C - Cu/Al element, threaded connection - Clean run-off drain pan 316L stainless steel with tap 1¼" wire connection, according to prEN 13053 - Plastic droplet eliminator					
Option (HC1, HC2, HC3)	- Plastic siphon trap supplied loose - Flanged connections supplied loose					
Inspection (HC2)	- Double-skin door/hatch 60 mm					
Option (HC2)	- Lighting, including switch					
Heating coil	- Capacity from -10°C to 25°C - Water entering/leaving at 80°C/60°C - Slide-out Cu/Al element - Threaded connection - Including frost protection thermostat		- Capacity from 5°C to 25°C - Water entering/leaving at 80°C/60°C - Slide-out Cu/Al element - Threaded connection		- Capacity from -10°C to 25°C - Water entering/leaving at 80°C/60°C - Slide-out Cu/Al element - Threaded connection - Including frost protection thermostat	
Option	- Flanged connections supplied loose					
Motor	- Fixed-speed motors equipped with thermal contacts, 3 x 230/400 V or 3 x 400/690 V, 50 Hz, version B3 - Speed is 50 r/s or 25 r/s, motors are suitable for speed control with frequency converters - Balanced to class N, protection class IP55, insulation class F, maximum ambient temperature 40°C - Motors are wired to an external isolator					
Fan	- Dual-inlet centrifugal fans, balanced G = 6.3 - Fans with backward curved blades (except 39SQ 0402) - Fan and motor on spring-mounted frame, vibration dampers (springs), and flexible connection to discharge opening - Drive pulleys with V-belt, designed for L(h) = 25000 h - Designed for an external pressure of 300 Pa (except 39SQ 0808 HC3, 250 Pa) - Double-skin door/hatch 60 mm					
Option	- Lighting, including switch - Access screen for door					
Diffuser (HO3, HC3)					- Equipped with air diffuser screen	
End filter (HO3, HC3)					- Slide-in bag filters F7 L = 380 mm - Slide-in profiles 316L stainless steel - Double-skin door/hatch 60 mm	
Option (HO3, HC3)					- Differential pressure gauge - Differential pressure switch	

Standard Option

choice in standard version | **6 sizes** | **6 configurations** | **easy to select** | **air flows 0,4 - 4,7 m³/s** | **heating capacity 0 - 200 kW**

Heating

Type	Casing dimensions (outside) Width mm	Height mm	Inlet duct connection size Width mm	Height mm	HO1 Q_{max} m^3/s	P_{motor} kW	$P_{external}$ Pa	$P_{heating}$ kW	$P_{cooling}$ kW	L mm	HO2 Q_{max} m^3/s	P_{motor} kW	$P_{external}$ Pa	$P_{heating}$ kW	$P_{cooling}$ kW	L mm	HO3 Q_{max} m^3/s	P_{motor} kW	$P_{external}$ Pa	$P_{heating}$ kW	$P_{cooling}$ kW	L mm
0402	738	560	600	360	0.583	2.2	300	24.5	-	1298	0.583	2.2	300	7.0/14.0	-	1538	0.583	2.2	300	24.5	-	2018
0404	738	800	600	600	1.166	2.2	300	49.0	-	1458	1.166	2.2	300	14.0/28.0	-	1698	1.166	2.2	300	49.0	-	2258
0604	1058	800	920	600	1.750	4.0	300	73.5	-	1538	1.750	4.0	300	21.0/42.0	-	1778	1.750	4.0	300	73.5	-	2338
0606	1058	1120	920	920	2.625	5.5	300	110	-	1698	2.625	5.5	300	31.5/63.0	-	1938	2.625	5.5	300	110	-	2658
0806	1378	1120	1240	920	3.500	7.5	300	147	-	1778	3.500	7.5	300	42.0/84.0	-	2018	3.500	7.5	300	147	-	2738
0808	1378	1440	1240	1240	4.666	7.5	300	196	-	1938	4.666	7.5	300	56.0/112.0	-	2178	4.666	7.5	300	196	-	3058

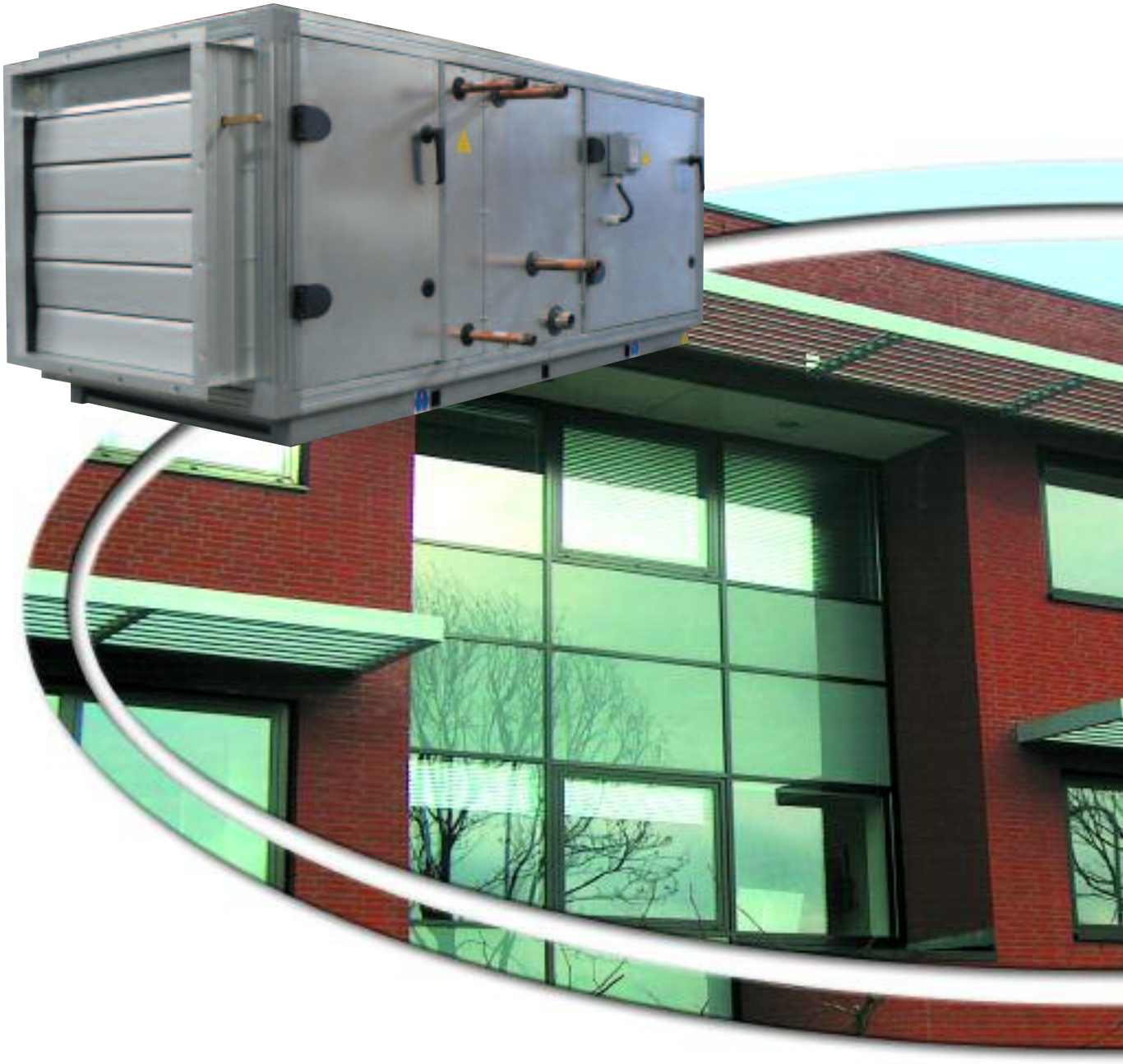
Casing height, including 62-mm base frame
Casing length (L) outside

Heating and cooling

Type	Casing dimensions (outside) Width mm	Height mm	Inlet duct connection size Width mm	Height mm	HC1 Q_{max} m^3/s	P_{motor} kW	$P_{external}$ Pa	$P_{heating}$ kW	$P_{cooling}$ kW	L mm	HC2 Q_{max} m^3/s	P_{motor} kW	$P_{external}$ Pa	$P_{heating}$ kW	$P_{cooling}$ kW	L mm	HC3 Q_{max} m^3/s	P_{motor} kW	$P_{external}$ Pa	$P_{heating}$ kW	$P_{cooling}$ kW	L mm
0402	738	560	600	360	0.546	2.2	300	22.9	9.8	1778	0.546	2.2	300	6.6/13.1	9.8	2338	0.546	2.2	300	22.9	9.8	2498
0404	738	800	600	600	1.001	2.2	300	42.0	18.0	1938	1.001	2.2	300	12.0/24.0	18.0	2498	1.001	2.2	300	42.0	18.0	2738
0604	1058	800	920	600	1.721	4.0	300	72.3	31.0	2018	1.721	4.0	300	20.7/41.3	31.0	2578	1.721	4.0	300	72.3	31.0	2818
0606	1058	1120	920	920	2.604	5.5	300	109	46.9	2178	2.604	5.5	300	31.2/62.5	46.9	2898	2.604	5.5	300	109	46.9	3138
0806	1378	1120	1240	920	3.215	7.5	300	135	57.9	2258	3.215	7.5	300	38.6/77.2	57.9	2978	3.215	7.5	300	135	57.9	3218
0808	1378	1440	1240	1240	4.390	7.5	300	185	79.0	2418	4.390	7.5	300	52.7/105	79.0	3138	4.390	7.5	250	185	79.0	3538

Casing height, including 62-mm base frame
Casing length (L) outside

Airostar



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ISO 9001 : 2000

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