

USL

External Louvre



- External louvre for air intake and exhaust to prevent rain, snow, leaf and animal ingress
- Very effective rainwater (97% / Eurovent) and snow (75 ...95%) penetration prevention due to labyrinth construction
- Detachable front grille and electrically heated rear grille
- Melted snow and water drip tray with pipe connection
- Heating capacity of 2260 W/m² with an operating voltage of 230 VAC

- Thermal fuse for prevention of blade overheating
- Melted snow and water collection via a drip tray including a pipe connection
- Aluminium design

Product model options and Accessories

- Modular construction available for large sizes
- Models available with front grille made of polyester-painted or anodised aluminium
- Model available without heating element

MATERIAL AND FINISHING

PART	MATERIAL	FINISHING	NOTE
Front grille	Aluminium	Polyester-painted, anodised	Special colours available
Rear grille	Aluminium		
Frame	Aluminium		
Installation frame	Aluminium		Modular installation, dimensions >2000 mm
Drip tray	Galvanised steel		

The switch casing containing the thermal switch and thermal fuse is located on the upper part of the rear grille. The drip tray under the rear grille is fitted with a drain connection. The bevel angles of the frame have been welded so that the joints are almost invisible. The blades are fastened to the frame with screws.



grille, which melts the snow (C). The melted water flows down the rear blades to the drip tray, from which it is led to the drain.

A thermal switch controls the surface temperature of the blades. The switching temperature is +40 °C.

A thermal fuse prevents overheating. The switching temperature is +86 °C.

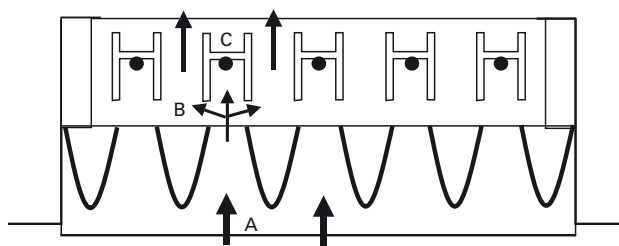
The heating capacity of rear grille heating elements is 2260 W/m².

The operating voltage is 230 VAC.

Function

Snow or water entering with the airflow is directed into the tapering slots of the front grille (A), increasing the air velocity.

The airflow deviates into the space between the front and rear grille (B). The snowflakes hit the heated rear



QUICK SELECTION

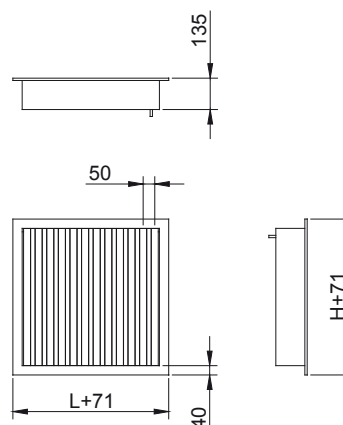
WxH [mm]	q(1m/s)		q(2m/s)	
	[l/s]	[m ³ /h]	[l/s]	[m ³ /h]
400x400	160	576	240	864
400x600	240	864	360	1296
600x400	240	864	360	1296
600x600	360	1296	540	1944
600x1200	720	2592	1080	3888
800x800	640	2304	960	3456
1000x1000	1000	3600	1500	5400

DIMENSIONS

L	H
400,+50,...,1000	400,+50,...,1000

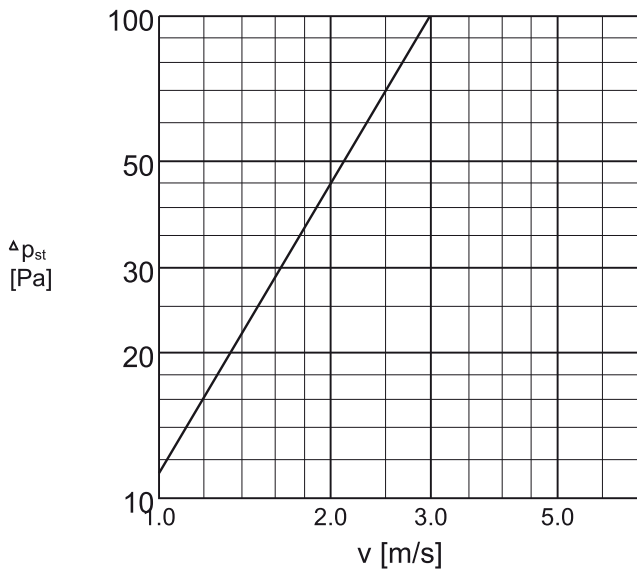
With a modular grille, the depth of the grille is 165 mm.

The front vertical blades are 50 mm wide, with nominal opening of about 40%.

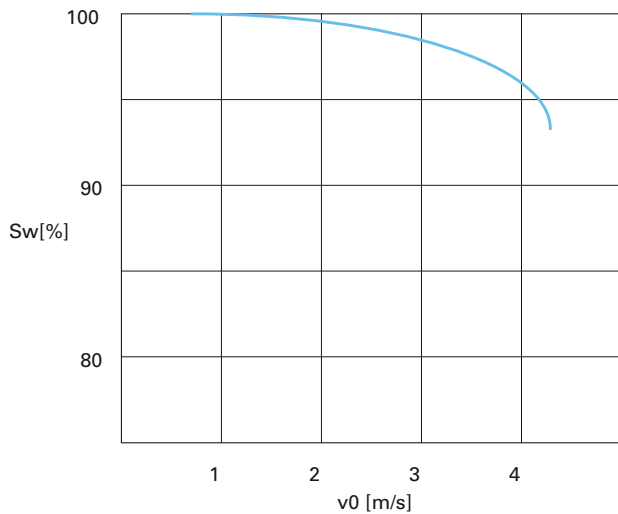


Pressure drop and sound data

USL-1000x1000

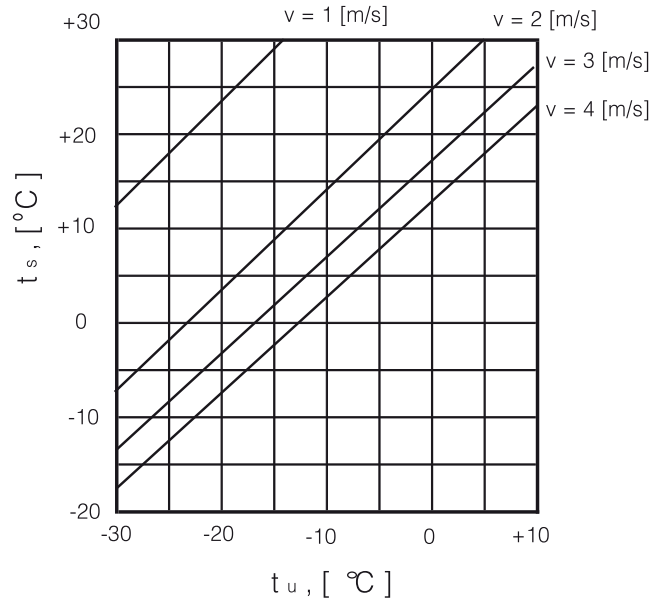


Water penetration



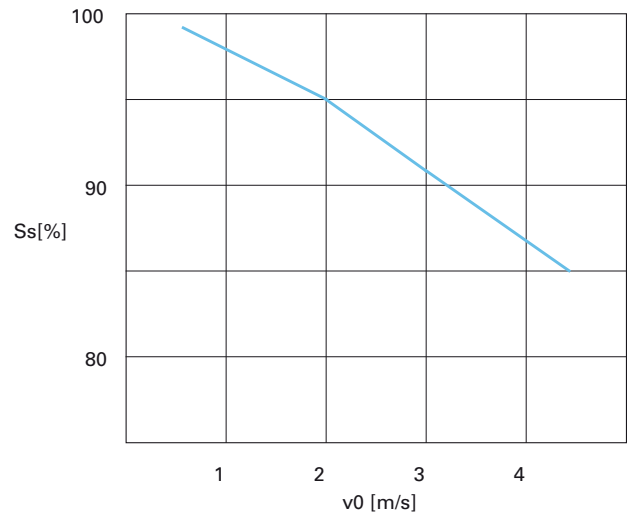
Supply voltage of 230 VAC / 50 Hz
 Heating capacity: max. 2260 W/m²
 Thermal switch, switching temperature: +40 °C
 Thermal fuse, switching temperature: +86 °C
 Multi-pole connector
 Enclosure class IP 34
 Power supply cable, 3 x 1.5 S cold resistant, Cenelec type A05BB-F3G 1.5 (e.g., Nokia VSKB-A 3 x 1.5 S)
 The main fuse size is 10 A. Modules of large louvres

Surface temperature



To ensure reliability of the USL grille it is recommended that the heating elements be operated, one day each month, outside of heating season. It is recommended that heating element regulation is based on outside air temperature and snow / rain detection.

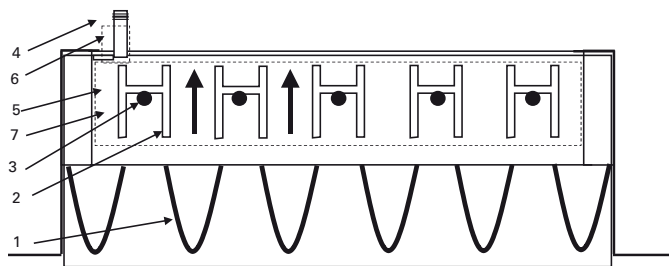
Snow penetration



have separate fuses. Heating of the drain pipe is performed with a self-regulating heating cable.

The front grille is suitable for use as a cover, in a modular installation. When the assembly contains both standard and cover grilles, the location of the free area of the wall opening shall be specified in the order.

Installation



CODE	DESCRIPTION
1	Front grille
2	Rear grille
3	Electric heating element
4	Drain connection
5	Drip tray
6	Electrical connection plug
7	Electrical connection cover

Fasten the grille in place by screwing the frame into a wall opening, the screw holes in the flanges being site-drilled.

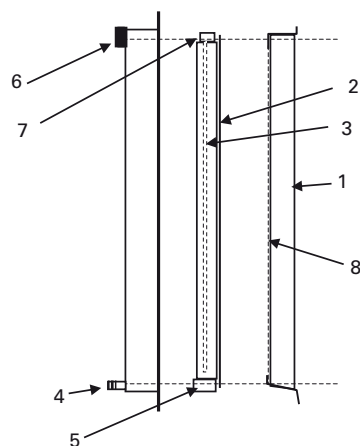
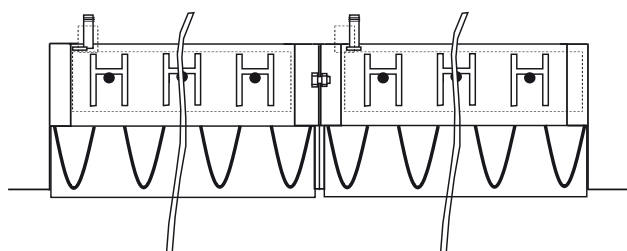
The dimensions of the grille are given as the nominal dimensions of the opening. Because of the connections, there should be an installation space of at least 100 mm behind the grille.

In a modular installation, the frames of adjacent modules are bolted together, before installation of the grille sections. When the width or height exceeds 2000 mm, the grille shall be installed with a supporting installation frame.

Connect the drip tray drain to the drain pipework. The drip tray connection is delivered loose.

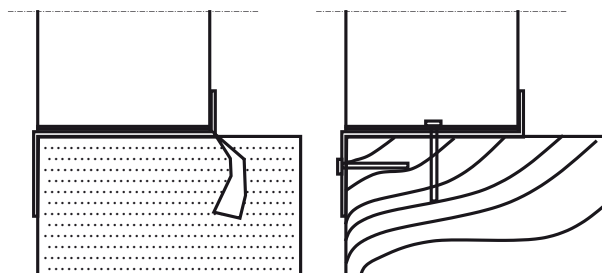
Electrical connections shall be made with a multi-pole connection plug, delivered loose.

When necessary, the grille is cleaned with a soft brush.



CODE	DESCRIPTION
1	Front grille
2	Rear grille
3	Electric heating element
4	Drain tap
5	Drip tray
6	Electrical connection plug
7	Electrical connection cover
8	Option: cover plate for artificial louvre

USL wall fastening



Suggested specifications

The external louvre shall have a snow prevention capacity of at least 70%, and 90% for rainwater (EUROVENT 2/5).

The external louvre shall be suitable for high airflow rates.

The rear grille shall be equipped with electric heating elements providing a heating capacity of 2260 W/m² with an operating voltage of 230 VAC.

The outdoor louvre shall be equipped with a switch casing (IP 34) containing a multi-pole connector, thermal switch and safety thermostat to protect against overheating.

The external louvre shall be supplied with an installation frame.

The drip tray shall be provided with drain tap connection.

For large (over 1000 x 1000 mm) openings, the grille shall be supplied in modular form. Each module shall have an independent power supply, temperature control and drain connection.

Product code

USL/S-W-H

S = Model

A Standard

B Louvre without heating elements

W = Width

400,+50,...,10000

H = Height

400,+50,...,10000

Specifics and accessories

FI = Finishing

NA No finishing

PN Painted

AN Anodised

AM Anodised aluminium (spec. colour)

CO = Colour

G Grey

X Special colour

Code example

USL/A-400-400, FI=NA,ZT=N