

ultra[®]*Silence*
by Helios



The new ELS-dimension

Mono tube ventilation system to DIN 18017-3 with single units for toilet, bathroom and apartment kitchens.

Overview of types
Technical specifications



so refreshing

The new ELS-dimension

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Universal.

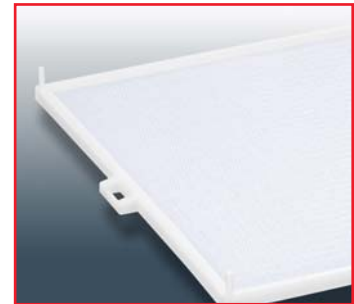
Whether without or with fire protection (outside of K90-installation shaft): From now on you only need one flush mounted casing type at a time. ELS-GU and/or -GUBA is applicable for one and two room ventilation with connection left, right or at the bottom as well as for toilet connection via the rinsing tube. The spigot is lateral on top, to the left or to the right or to the back turnable by 90° into any position. Casing quick selection page 3
Flush mounted casing page 4, 5
Surface mounted casing page 5



Quiet.

26 dB(A) for trickle ventilation $\dot{V} = 35 \text{ m}^3/\text{h}$ and 35 dB(A) for general ventilation $\dot{V} = 60 \text{ m}^3/\text{h}$. This makes ultraSilence® ELS of Helios to the most quiet mono tube fans in relation to the air volume performance. More than 20 different ventilating fan applications – whether with motion sensor, humidity control etc. can be used effortlessly in the same surface or flush mounted casing. Fan unit 60 m³/h – for bathroom **or** toilet page 6
Fan unit 100 m³/h – for bathroom **and** toilet or kitchen page 7

* (with ELS-GU at AL = 10 m² to DIN 18017 Pt. 3)



Unique + clever.

Helios offers filter change display and long-term filter for long cleaning intervals as standard. Effortless filter change. Just as the extreme practical, tool less “click” assembly. Helios offers the smart ELS-VA solution for lightning fast installation of the casing in covered funnels and plasterboards. The accessory program covers these and further assembly hits for which much time can be saved with the installation: accessories for flush mounted casing; filter and switch page 8

Strong.

260 Pa at 60 m³/h.

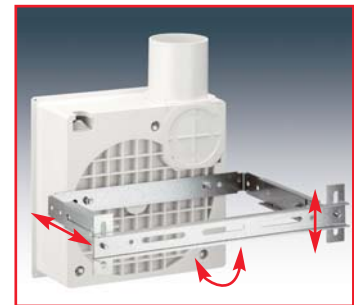
Thus ultraSilence® ELS achieves the highest pressure capacity of all times. This permits the smallest pipe cross sections with the main riser, reduces investment costs and increases the usable living space. Power statements, wiring diagrams page 9
Determination of diameters of main ducts page 10, 11



The new flush mounted casing ELS-GU in comparison with the previous

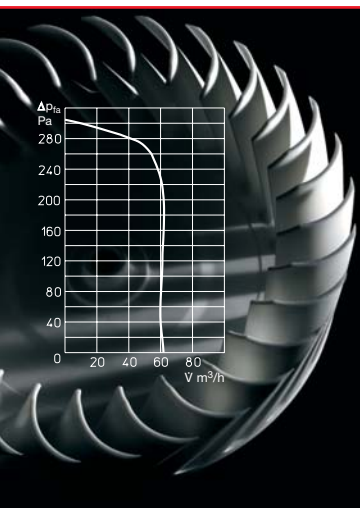
Flat.

Absolute record: ELS-GU, the depth of universal flush mounted casing is only 89 mm. Now the installation space can be really narrow. The new ELS generation solves every place problem and is mounted in no time. ultraSilence® dimensions page 12
Type comparison previous vs. new ELS-program page 13








Simply super.

The positioning of the ELS-casing is very easy. On the back side of the casing embedded turn-locked slots take up the mounting bracket which is vertically adjustable as well as in high and depth. Alternatively there are two predetermined breaking points for firm screw connection with elements provided by customer. The installation never was more convenient! page 14














ultraSilence® casing quick selection

Installation FM/SM	Fire protection	One room ventilation of bathroom or toilet and/or apartment kitchens			Two room ventilation of bathroom and toilet	
		Discharge lateral. To the top (way of delivery), turnable to the left or right	Discharge to the back, turnable by 90° into any position		Discharge lateral. To the top (way of delivery), turnable to the left or right	Discharge to the back, turnable by 90° into any position
 Flush mounted	By fire damper.	ELS-GU Ref. No. 8111	ELS-GU Ref. No. 8111 ELS-ARS ¹⁾ Ref. No. 8185		ELS-GU Ref. No. 8111 ELS-ZS ¹⁾ Ref. No. 8186	ELS-GU Ref. No. 8111 ELS-ARS ¹⁾ Ref. No. 8185 ELS-ZS ¹⁾ Ref. No. 8186
	 for positioning outside of K 90 ventilation shaft	ELS-GUBA* Ref. No. 8114	ELS-GUBA* Ref. No. 8114 ELS-ARS ¹⁾ Ref. No. 8185	* Also suitable for kitchens.	ELS-GUBA Ref. No. 8114 ELS-ZS ¹⁾ Ref. No. 8186	ELS-GUBA Ref. No. 8114 ELS-ARS ¹⁾ Ref. No. 8185 ELS-ZS ¹⁾ Ref. No. 8186
	 Casing installation in K 90 ventilation shaft	ELS-GUB* Ref. No. 8112	ELS-GUBR* Ref. No. 8113	* Also suitable for kitchens.	ELS-GUBZL (left) Ref. No. 8115 ELS-GUBZR (right) Ref. No. 8117 (casing pos. spigot for 2. room)	ELS-GUBRZL (left) Ref. No. 8116 ELS-GUBRZR (right) Ref. No. 8118 (casing pos. spigot for 2. room)
 Surface mounted	By fire damper.		ELS-GAP Ref. No. 8127			
			ELS-GAPB* Ref. No. 8128	* Also suitable for kitchens.		

¹⁾ Accessory set ELS-ARS for discharge to the back, -ZS and/or -ZAS for two room ventilation. For details see page 8.

Combination overview of ultraSilence® ELS-units

ELS- fan units		ELS- casings													
		ELS-V 60 No. 8131	ELS-VN 60 No. 8137	ELS-VNC 60 Nr. 8143	ELS-VP 60 No. 8149	ELS-VF 60 Nr. 8161	ELS-V 60/35 No. 8133	ELS-VN 60/35 Nr. 8139	ELS-VF 60/35 No. 8163	ELS-V 100 No. 8132	ELS-VN 100 No. 8138	ELS-VNC 100 No. 8144	ELS-VP 100 No. 8150	ELS-VN 100/60 No. 8141	ELS-V 100/60/35 No. 8136
 One or two room ventilation	ELS-GU No. 8111														
	 ELS-GUBA No. 8114														
	 ELS-GUB No. 8112														
	 ELS-GUBR No. 8113														
 One room ventilation	 ELS-GUBZL No. 8115														
	 ELS-GUBZR No. 8117														
	 ELS-GUBRZL No. 8116														
	 ELS-GUBRZR No. 8118														
 	ELS-GAP No. 8127														
	 ELS-GAPB No. 8128														

■ Flush mounted casing for one or two room ventilation, without fire protection

ELS-GU

Ref. No. 8111



Description

Flush mounted casing without fire protection, with airtight backdraught shutter. Spigot lateral, to the top (way of delivery), turnable to the left or right. Rearrangeable by means of an accessory set (-ARS, ref. no. 8185) for discharge to the back in any position. Quick plug connector for electrical connection removable. Made from flame retardant polymer, fire class B 2. Reinsertable cover plate. Spigot diameter 80 mm.

Application

For ventilation of bathroom or toilet, by means of accessory set also for two room ventilation of bathroom and toilet. Flush mounted installation in wall, ceiling or funnels. Connection of 1 or 2 units to one single main riser up to 20 floors possible. Fire protection can be established by the use of fire damper.

ELS-GUBA

Ref. No. 8114



Flush mounted casing with fire protection shutter K 90, casing made from flame retardant polymer fire class B 2, metal discharge spigot with automatic backdraught shutter and shut-off with release of fusible link. Discharge spigot lateral to the top (way of delivery), turnable to the left or right. Rearrangeable by means of an accessory set (-ARS, ref. no. 8185) for discharge to the back in any position. Reinsertable cover plate. Spigot diameter 80 mm.

For ventilation of kitchens*, bathroom or toilet. By means of accessory set (-ZS, ref. no. 8186) also for two room ventilation of bathroom and toilet. Flush mounted installation in ceiling or wall, as well as outside of K 90-funnels. Connection of 1 or 2 units to one single main riser up to 20 floors possible.

■ Flush mounted casing for one room ventilation, with fire protection encasement

ELS-GUB

Ref. No. 8112



Flush mounted casing with fire protection encasement K 90. Metal discharge spigot with automatic backdraught shutter and shut-off with release of fusible link. Discharge spigot lateral to the top (way of delivery), turnable to the left or right. Quick plug connector for electrical connection removable. Reinsertable cover plate. Spigot diameter 80 mm.

Flush mounted installation in wall, ceiling and K 90 qualified funnel. Connection of 1 or 2 units to one single main riser up to 20 floors possible.

ELS-GUBR

Ref. No. 8113



As ELS-GUB, however **discharge spigot to the back, turnable by 90° into any position.** For the shortest connection to the main line.

As ELS-GUB.

Discharge lateral, to the top, left or right	Discharge to the back by means of accessory	One room ventilation	Two room ventilation by means of accessory
●	ELS-ARS Ref. No. 8185	●	ELS-ZS ¹⁾ Ref. No. 8186
●	ELS-ARS Ref. No. 8185	●	ELS-ZS ¹⁾ Ref. No. 8186
●	—	●	—
—	●	●	—

* For apartment kitchens use of fan unit with 100 m³/h recommended.

¹⁾ Consisting of discharge unit for second room and spigot for second room (left, right or to the bottom applicable).

Flush mounted casing for two room ventilation, with fire protection encasement

ELS-GUBZL
Ref. No. 8115



Description

Flush mounted casing **with fire protection encasement K 90 and spigot for second room on the left.** Discharge spigot for main room lateral, to the top (way of delivery), turnable to the left or right. Metal discharge spigot with automatic backdraught shutter and shut-off with release of fusible link. Quick plug connector for electrical connection removable. Reinsertable cover plate. Spigot diameter 80 mm.

Application

Two room ventilation of bathroom and toilet. Installation in wall, ceiling and K 90 qualified funnels. Connection of 1 or 2 units to one single main riser up to 20 floors possible. Fan unit with 100 m³/h recommended.

ELS-GUBZR
Ref. No. 8117



As ELS-GUBZL, however spigot for second room **on the right.**

As ELS-GUBZL. Fan unit with 100 m³/h recommended.

ELS-GUBZL
Ref. No. 8116



As ELS-GUBZL, however **discharge spigot to the back and turnable by 90° into any position.**

Two room ventilation of bathroom **and** toilet. Otherwise as ELS-GUBZL. Fan unit with 100 m³/h recommended.

ELS-GUBZR
Ref. No. 8118



As ELS-GUBZR, however **discharge spigot to the back and turnable by 90° into any position.**

Two room ventilation of bathroom **and** toilet. Otherwise as ELS-GUBZL. Fan unit with 100 m³/h recommended.

Surface mounted casing

ELS-GAP *
Ref. No. 8127



Surface mounted casing **without fire protection**, with airtight backdraught shutter installed in the discharge spigot, for any mounting position by 90° rearrangeable. With quick plug connector for electrical connection as well as screws and dowels for fastening. Made from polymer in white. Discharge spigot diameter 80 mm.

For ventilation of bathroom or toilet. Surface mounted wall or ceiling installation. For connection to one single main riser up to two floors applicable. Connection of 1 or 2 casings per floor possible.

ELS-GAPB *
Ref. No. 8128



Surface mounted casing **with fire protection shutter K 90, metal discharge spigot with automatic backdraught shutter and shut-off with release of fusible link.** For any mounting position by 90° rearrangeable. With quick plug connector for electrical connection as well as screws and dowels for fastening. Made from flame retardant polymer, fire class B 2. Discharge spigot diameter 80 mm.

For ventilation of apartment kitchens, bathroom or toilet. Surface mounted wall or ceiling installation. Connection of 1 or 2 units to one single main riser up to 20 floors possible. Fan unit with 100 m³/h recommended.

Discharge lateral, to the top, left or right	Discharge to the back	One room ventilation	Extraction set for second room accessory
•	—	—	ELS-ZS Ref. No. 8186
•	—	—	ELS-ZS Ref. No. 8186
—	•	—	ELS-ZS Ref. No. 8186
—	•	—	ELS-ZS Ref. No. 8186
—	•	•	—
—	•	•	—

* Presumably available starting from June 2008.

■ Fan units with 60 m³/h air flow volume. For bathroom or toilet.

ELS-V 60

Ref. No. 8131



Description

Fan units **with 60 m³/h air flow volume**. Operational delivery with flat fascia (white) and ultraSilence[®] technology. With permanent filter and filter control as standard. Integrated quick plug connector for electrical connection. Insulation class II, protection to IP 55, for installation in zone 1 of bathrooms. Maintenance free, energy saving ball bearing motor 230 V / 1 ph. / 50 Hz / 18 W. Sound levels: sound power 39 dB(A), sound pressure 35 dB(A).*

Application

For ventilation of shower, bathroom or toilet. Control manually via the light switch. The overrun which is necessary in windowless rooms is to be guaranteed by means of an overrun timer (accessory).

ELS-VN 60

Ref. No. 8137

As ELS-V 60, however **with built-in overrun timer**, run on time approx. 6 min., delayed start approx. 45 sec. (firmly adjusted).

For ventilation of rooms as previously mentioned. With overrun function for windowless rooms. Control via the light switch.

ELS-VNC 60

Ref. No. 8143

As ELS-V 60, however **with codable overrun and interval operation**. Delayed start of 0 or 45 sec., run on time 6, 12, 18 or 24 min. and intervals of 4, 8, 12 or 24 hours selectable.

Automatic, periodical ventilation of rooms with low user frequency (hotel, vacation homes). Individually adjustable run over times increase the comfort in the private area.

ELS-VP 60

Ref. No. 8149

As ELS-V 60, however **with integrated motion sensor ventilates** automatically when entering the room. Run on time approx. 6 min. Electrical connection is direct to the power supply without need for a switch.

Automatic, PIR controlled ventilation without need of a switch. Without barriers, because of automatic function.

ELS-VF 60

Ref. No. 8161

As ELS-V 60, however **with built-in electronic dynamic humidity sensor**. With achievement of the adjusted humidity level, the fan runs automatically until the room humidity is back to normal. Run on time approx. 6 min. and delayed start approx. 45 sec. when switched on/off manually.

Ideally for the prevention of damages due to humidity and mould in small, humidity polluted rooms. Without barriers, because of automatic function.

■ Fan units with 2 speeds 60/35 m³/h. For bathroom or toilet.

ELS-V 60/35

Ref. No. 8133



Fan units **with 2 speeds (60/35 m³/h) for general and trickle ventilation**. Operational delivery with flat fascia (white) and ultraSilence[®] technology. With permanent filter and filter control as standard. Integrated quick plug connector for electrical connection. 230 V~ / 1 ph. / 50 Hz / 18/9 W. Sound levels: sound power 39/30 dB(A), sound pressure 35/26 dB(A)*, Otherwise as ELS-V 60.

For ventilation of small rooms (shower, bathroom, toilet) with high polluted air. The low speed can be connected for continuous trickle operation. The high speed is then controlled manually via the light switch. Manual controlling of both speed steps with switch DSEL 2 possible. Run on function by means of accessories kit possible.

ELS-VN 60/35

Ref. No. 8139

As ELS-V 60/35, however **with built-in overrun timer**, run on time approx. 6 min., delayed start approx. 45 sec. (firmly adjusted).

As ELS-V 60/35. The built-in overrun timer causes extended operation on high performance level after manual switching off.

ELS-VF 60/35

Ref. No. 8163

As ELS-V 60/35, however **with built-in electronic dynamic humidity sensor**. Trickle ventilation at continuous operation. With achievement of the adjusted humidity level, the fan runs automatically on high speed until the room humidity is back to normal. High air flow with run on time approx. 6 min., delayed start approx. 45 sec. when switched on/off manually.



Ideally for the prevention of damages due to humidity and mould in small, humidity polluted rooms. Without barriers, because of automatic function.

possible accessories

DSEL 2 No. 1306 2 speed on/off switch	ZT No. 1277 Overrun timer with variable run on time	ZNE No. 0342 ZNI No. 0343 Overrun timer	ZV No. 1279 Electronic overrun timer
—	•	•	•
—	—	—	—
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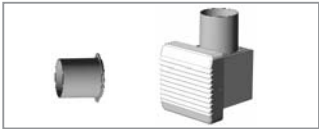
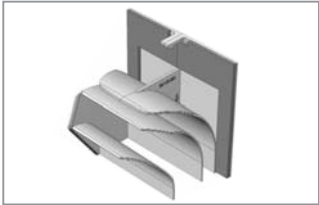


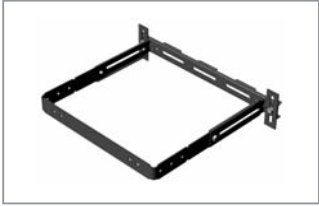
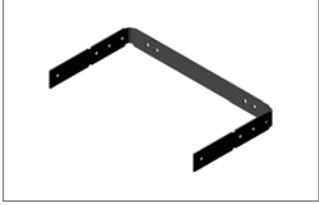
* with AL = 10 m² equivalent absorption surface in combination with casing type ELS-GU, discharge lateral. To DIN 18017, Pt. 3, edition 1990, digit 6.2.4 footnote 3.

■ Fan units with 100 m³/h air flow volume. For bathroom and toilet or kitchen.




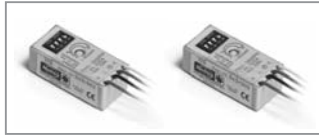


	Decription	Application	possible accessories			
			DSEL 2 No. 1306 2 speed on/off switch	ZT No.1277 Overrun timer with variable run on time	ZNE No. 0342 ZNI No. 0343 Overrun timer	ZV No.1279 Electronic overrun timer
ELS-V 100 Ref. No. 8132 	<p>Fan units with 100 m³/h air flow volume. Operational delivery with flat facia (white) and ultraSilence® technology. With permanent filter and filter control as standard. Integrated quick plug connector for electrical connection. Insulation class II, protection to IP 55, for installation in zone 1 of bathrooms. Maintenance free, energy saving ball bearing motor 230 V / 1 ph. / 50 Hz / 34 W. Sound levels: sound power 51 dB(A), sound pressure 47 dB(A).*</p>	<p>Simultaneous ventilation of bathroom and toilet (flush mounted). Ventilation of kitchen apartments. Overrun function by accessories possible.</p>	—	•	•	•
ELS-VN 100 Ref. No. 8138	<p>As ELS-V 100, however with built-in overrun timer, run on time approx. 6 min., delayed start approx. 45 sec. (firmly adjusted).</p>	<p>Simultaneous ventilation of bathroom and toilet. Ventilation of kitchen apartments.</p>	—	—	—	—
ELS-VNC 100 Ref. No. 8144	<p>As ELS-V 100, however with codable overrun and interval operation. Delayed start of 0 or 45 sec., run on time 6, 12, 18 or 24 min. and intervals of 4, 8, 12 or 24 hours selectable.</p>	<p>Automatic, periodical ventilation of rooms (covering also second room ventilation) with low user frequency (hotel, vacation homes). Individually adjustable run over times increase the comfort in the private area.</p>	—	—	—	—
ELS-VP 100 Ref. No. 8150	<p>As ELS-V 100, however with integrated motion sensor ventilates automatically when entering the room. Run on time approx. 6 min. Electrical connection is direct to the power supply without need for a switch.</p>	<p>Automatic, PIR controlled ventilation without need of a switch. Without barriers, because of automatic function.</p>	—	—	—	—
<p>■ Fan units with 100/60 m³/h and 100/60/35 m³/h air flow volume. For bathroom <u>and</u> toilet or kitchen.</p>						
ELS-VN 100/60 Ref. No. 8141 	<p>Fan units with 2 speeds (100/60 m³/h) for general and trickle ventilation and built-in overrun timer. Run on time approx. 6 min., delayed start approx. 45 sec. (firmly adjusted). Operational delivery with flat facia (white) and ultraSilence® technology. With permanent filter and filter control as standard. 230 V~ / 1 ph. / 50 Hz / 18/9 W. Sound levels: sound power 34/18 dB(A) sound pressure 47/35 dB(A)* Otherwise as ELS-V 100.</p>	<p>Simultaneous ventilation of bathroom and toilet (flush mounted). Ventilation of kitchen apartments. The low speed can be connected for continuous trickle operation. The high speed is then controlled manually via the light switch. Manual controlling of both speed steps with switch DSEL 2 possible.</p>	•	—	—	—
ELS-V 100/60/35 Ref. No. 8136	<p>As ELS-V 100, however with 3 speeds (100/60/35 m³/h) for general and trickle ventilation. 230 V~ / 1 ph. / 50 Hz / 34/18/9 W. Sound levels: sound power 51/39/30 dB(A), sound pressure 47/35/26 dB(A)*</p>	<p>The middle or small performance level can be connected for continuous operation and be switched by means of DSEL 2. Manual operation by means of DSEL 3.</p>	DSEL 3 Ref. No. 1611	•	—	•
ELS-VF 100/60/35 Ref. No. 8166	<p>Fan units with 3 speeds (100/60/35 m³/h) for general and trickle ventilation and with built-in electronic dynamic humidity sensor. 230 V~ / 1 ph. / 50 Hz / 34/18/9 W. Sound levels: sound power 51/39/30 dB(A), sound pressure 47/35/26 dB(A)*. Otherwise as ELS-VF 60/35.</p>	<p>Ideally for the prevention of damages due to humidity and mould in small, humidity polluted rooms. Without barriers, because of automatic function.</p>	•	—	—	—

* with AL = 10 m² equivalent absorption surface in combination with casing type ELS-GU, discharge lateral. To DIN 18017, Pt. 3, edition 1990, digit 6.2.4 footnote 3.

Accessories for flush mounted casing

- ELS-ZS**
Ref. No. 8186
- 
- For casing types ELS-GU, -GUBA and -GUB..Z..
- Second room kit**, consisting of plenum box and second room spigot.
- ELS-ZAS**
Ref. No. 8184
- Second room spigot ELS-ZAS**, optional applicable on the right or on the left.
- ELS-ARS**
Ref. No. 8185
- 
- Reversion kit for discharge to the back**, consisting of diverter and rivets (for metal spigot of type ELS-GUBA).
For discharge to the back with all flush mounted casings without fire protection encasement.
- ELS-WCS**
Ref. No. 8191
- 
- Toilet extraction kit**, consisting of bend 90° with Ø 500 mm, stepped spigot Ø 40 / Ø 30 mm and cap.
For types -GU and -GUBA.
- ELS-VA**
Ref. No. 8189
- 
- Plasterboard adapter**, for room-sided casing insertion in covered funnels and plasterboards.
For types -GU and -GUBA.
- ELS-MHU**
Ref. No. 8187
- 
- Universal mounting bracket**, for flush mounted casing fixation on walls, in funnels and false ceilings.
Vertically-, depth-, perpendicular adjustable. For all flush mounted casings.
- ELS-MB**
Ref. No. 8188
- 
- Mounting holder**, for integration in plasterboard systems in connection with system elements of plasterboard suppliers.
For all flush mounted casings.

Filters and switches

- ELF-ELS**
Ref. No. 8190
- Spare permanent filter** for ELS-fan-units, can be cleaned in dishwasher (contents: 2 pcs.)
- ELF-ZS**
Ref. No. 0557
- 
- Spare filter**, for second room plenum box ELS-ZS (contents: 5 pcs.)
- DSEL 2**
Ref. No. 1306
- 
- Two speed on/off switch**
Reverse and on/off switch of ELS-fans with 2 performance levels and on/off switching. Room light can be wired in parallel. For flush mounted installation.
230 V~ / 1 ph. / 50/60 Hz,
I max. 3 A (ind.), IP 30
W 80 x H 80 x D 15 mm
- DSEL 3**
Ref. No. 1611
- 
- Three speed and operation switch** with 0 position for the control of ELS-fans with 3 performance levels. Room light can not be wired in parallel. For flush mounted installation.
230 V~ / 1 ph. / 50/60 Hz,
I max. 3 A (ind.), IP 30
W 80 x H 80 x D 23 mm
- ZNE**
Ref. No. 0342
- Electronic overrun**, timer with stepless adjustable run on time 0 to 21 min. Delayed start (approx. 45 sec.) which can be switched off. 230 V~ / 1 ph. / 50/60 Hz, I max. 0.8 A (ind.), I min. 0.05 A, IP 40, W 17 x H 37 x D 13 mm
- ZNI**
Ref. No. 0343
- 
- Electronic interval switch**, with adjustable time intervals (0, 4, 8, 12, 24 hours) and run on times. Otherwise as ZNE.
- ZV**
Ref. No. 1279
- 
- Electronic overrun timer**, with stepless adjustable run on time (4-15 min.) and operation switch with on/off and run on time and continuous operation.
Installation in 35 mm rail.
230 V~ / 1 ph. / 50/60 Hz,
I max. 2.1 A (ind.), IP 20
W 18 x H 93 x D 67 mm
- ZT**
Ref. No. 1277
- 
- Thermal electric overrun timer**, run on time depending on running time approx. 2 to 12 min.
230 V~ / 1 ph. / 50/60 Hz,
I max. 4 A (ind.), IP 20
W 32 x H 40 x D 14 mm

Technical data

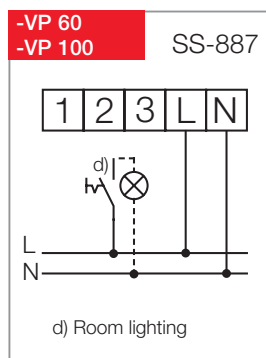
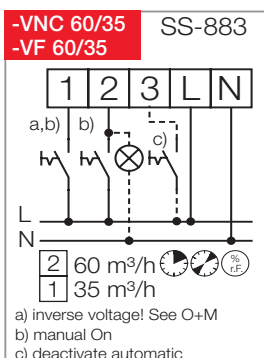
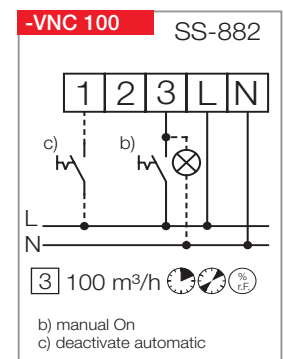
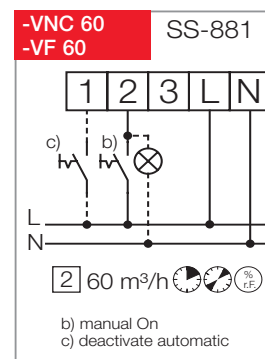
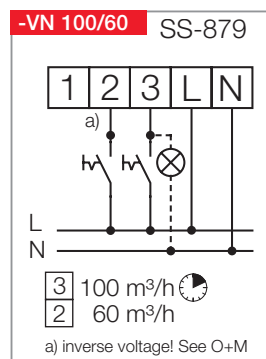
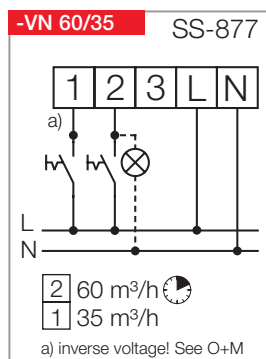
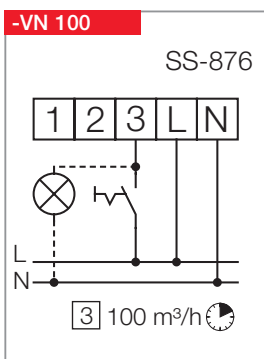
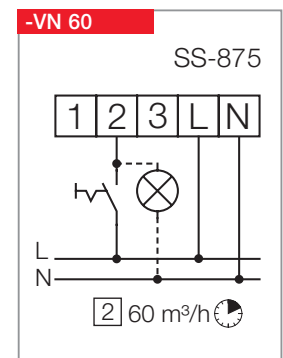
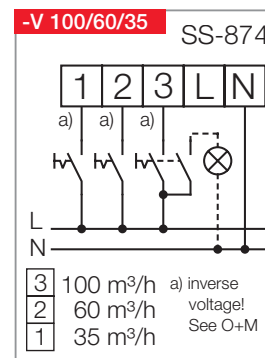
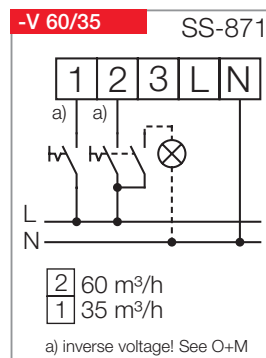
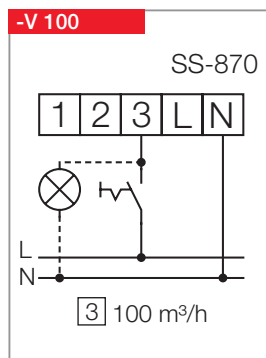
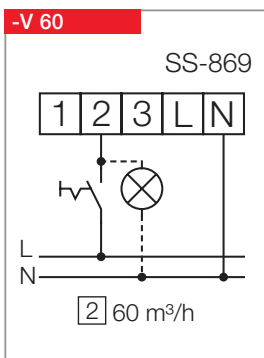
Technical data	Fan unit														
Type	ELS	-V 60	-VN 60	-VNC 60	-VP 60	-VF 60	-V 60/35	-VN 60/35	-VF 60/35	-V 100	-VN 100	-VNC 100	-VP 100	-VN 100/60	-V 100/60/35
Ref. No.	8131	8137	8143	8149	8161	8133	8139	8163	8132	8138	8144	8150	8141	8136	
Run on time minutes	—	6	6, 12, 18, 24	6	6	—	6	6	—	6	6, 12, 18, 24	6	6	—	
Air flow volume (FID) m³/h	60	60	60	60	60	60/35	60/35	60/35	100	100	100	100	100/60	100/60/35	
Power consumption Watt	18	18	18	18	18	18/9	18/9	18/9	34	34	34	34	34/18	34/18/9	
Sound pressure level ¹⁾ approx dB(A) at 10 m² equivalent absorption surface	35	35	35	35	35	35/26	35/26	35/26	47	47	47	47	47/35	47/35/26	
Sound power level ¹⁾ LWA approx. dB(A)	39	39	39	39	39	39/30	39/30	39/30	51	51	51	51	51/39	51/39/30	
Elec. connection: 230 V~ / 1 ph. / 50 Hz	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0	NYM-0
Electrical power supply in mm²	2 x 1.5	3 x 1.5	3 x 1.5	2 x 1.5	3 x 1.5	3 x 1.5	4 x 1.5	4 x 1.5	2 x 1.5	3 x 1.5	3 x 1.5	2 x 1.5	4 x 1.5	4 x 1.5	
Protection class II without PE			4 x 1.5*		4 x 1.5*			5 x 1.5*			4 x 1.5*				
Wiring diagram No.	SS-869	SS-875	SS-881	SS-887	SS-881	SS-871	SS-877	SS-883	SS-870	SS-876	SS-882	SS-887	SS-879	SS-874	

All power and sound levels statements to DIN 24163, DIN 24166, DIN 45635, DIN 44974.

¹⁾ in combination with casing type ELS-GU, discharge lateral.

* for deactivation of the automatic function.

Wiring diagrams



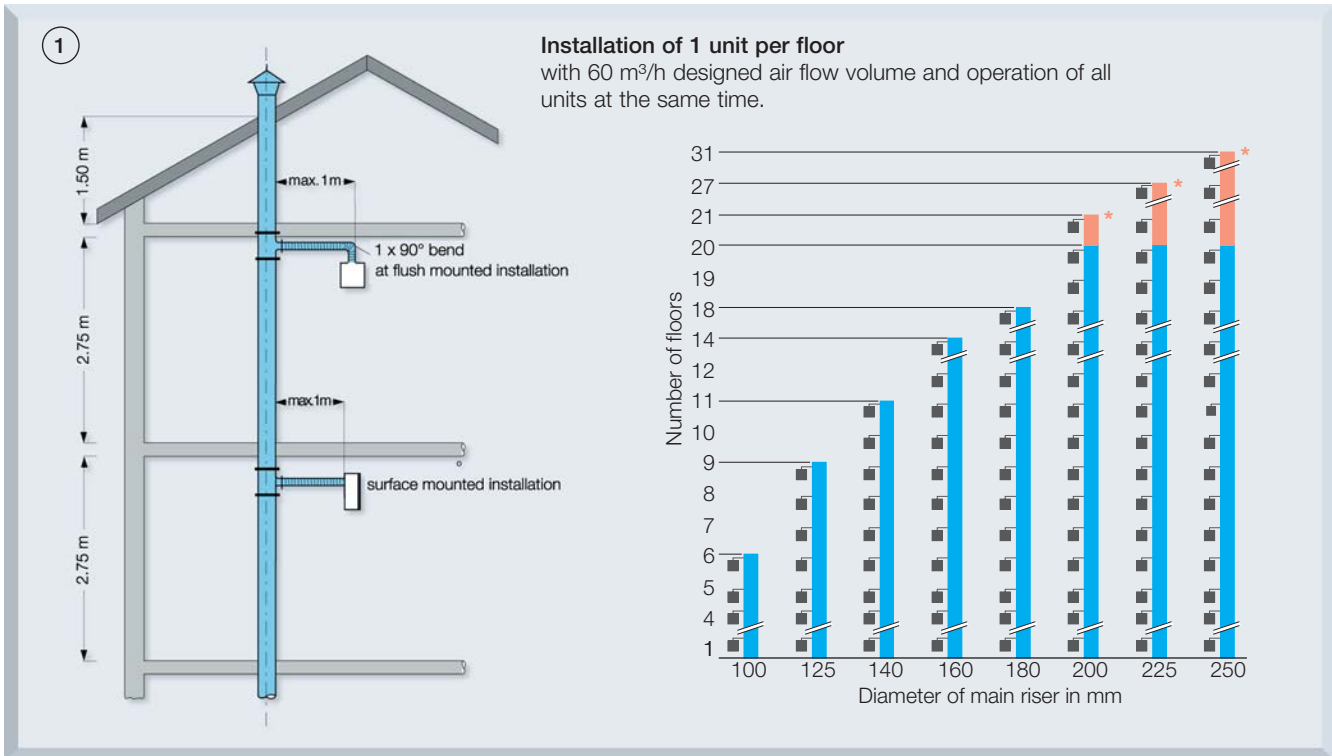
Note:

- An inverse voltage rests respectively at parallel connection of the terminals 1-2-3 against the other not switched terminal. Wire room light only via two pole switch.
- Subordinated to the automatic function (types VN, VNC, VF, VP) the respective available speed steps can be switched on manually.
- With the VNC types the interval function, with the VF types the humidity sensor can be deactivated (except types with 3 speeds).
- Fan-independent controlling of the room light.

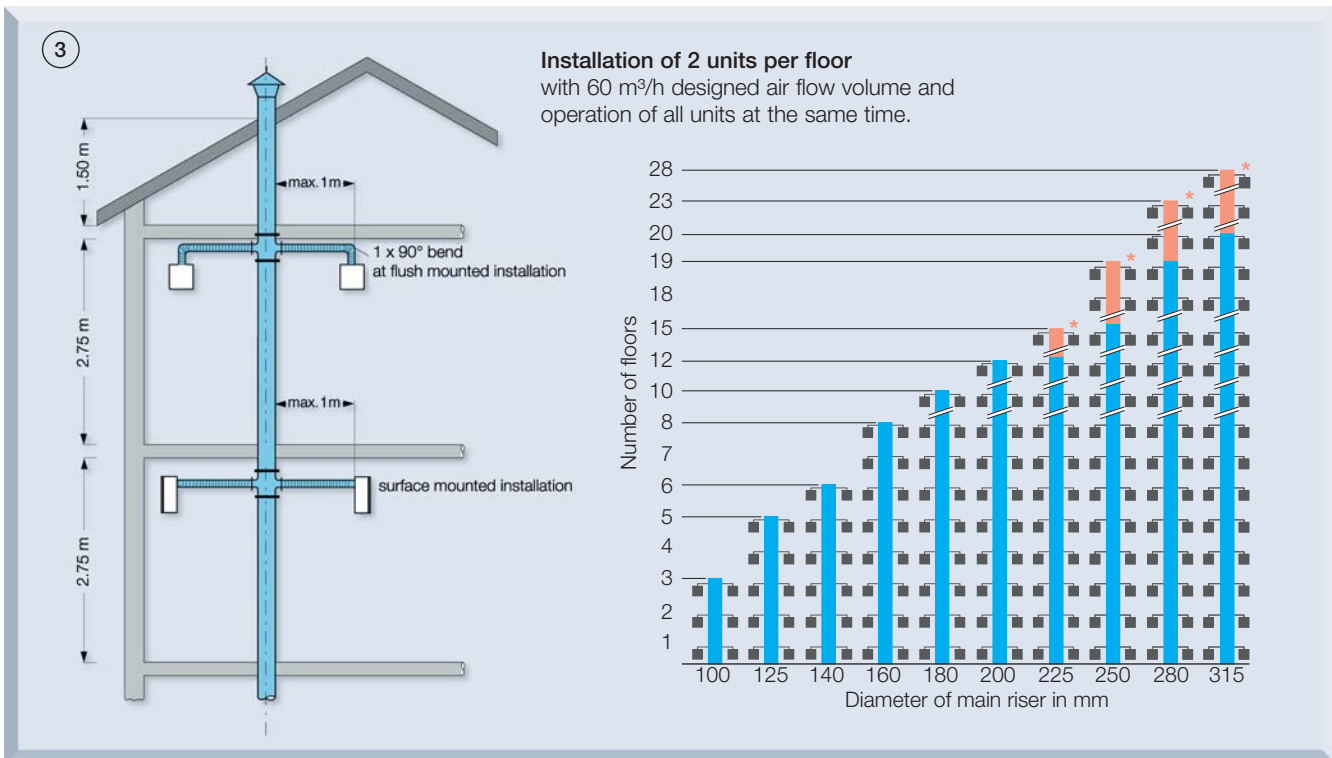
For easy design, the regulations from DIN 18017, Pt. 3 have been integrated in the diagrams below.

60 m³/h Bathroom or toilets

1 unit per floor



2 units per floor



Assuming a room height of 2.75 m, a straight ducting without bends, a ducting length of max. 1.5 m from last unit to air extract above the roof as well as max. 60 Pa between ventilated room and exhaust opening, the required main riser diameter can be read from above's diagram.

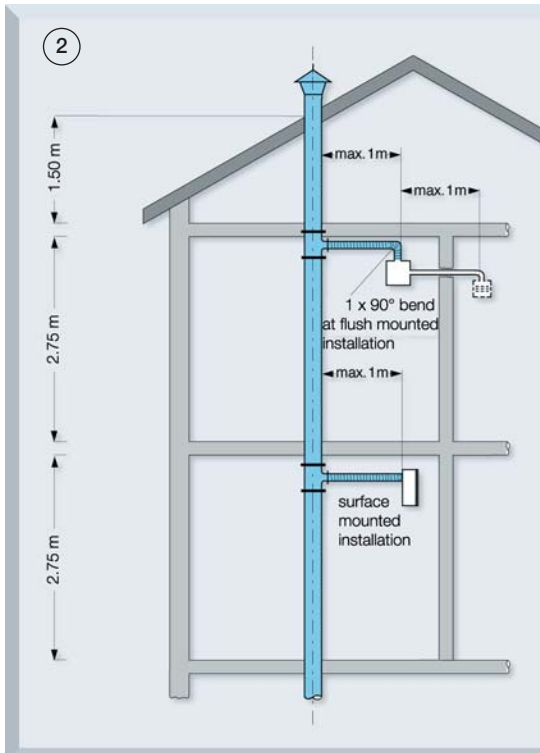
Copies of approvals are available on request.

* Construction dimensioning for these number of floors outside of comfort range, therefore not recommendable.

They are valid for a designed air flow volume of 60 or 100 m³/h per unit and operation of all units at the same time.

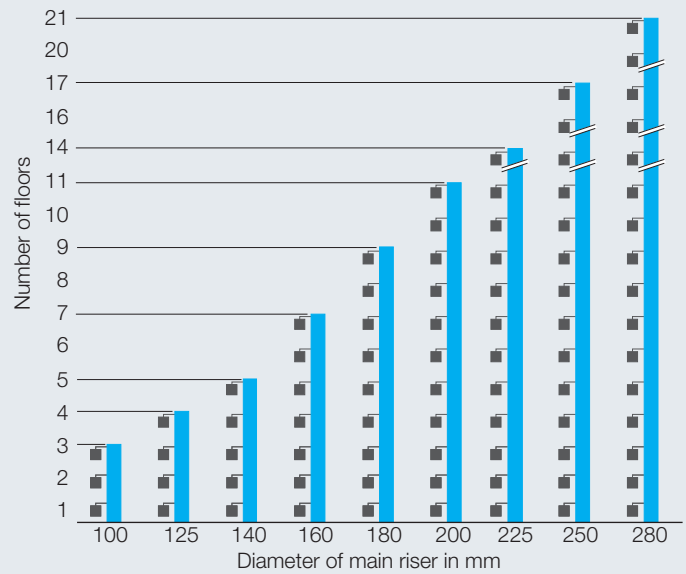
100 m³/h One and two room ventilation

1 unit per floor (possibly with extraction for second room)

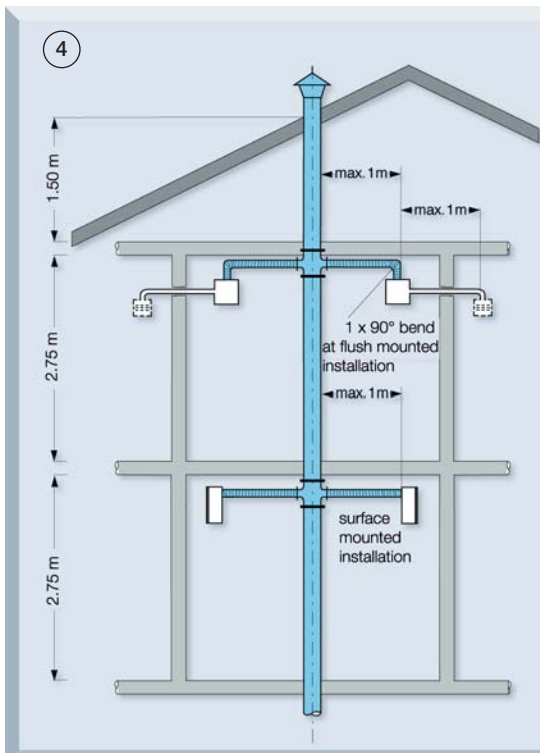


Installation of 1 unit per floor

with 100 m³/h designed air flow volume and operation of all units at the same time. (Volume e.g. = 100 m³/h. Second room ventilation with one unit = bathroom 60 m³/h, toilet 40 m³/h).

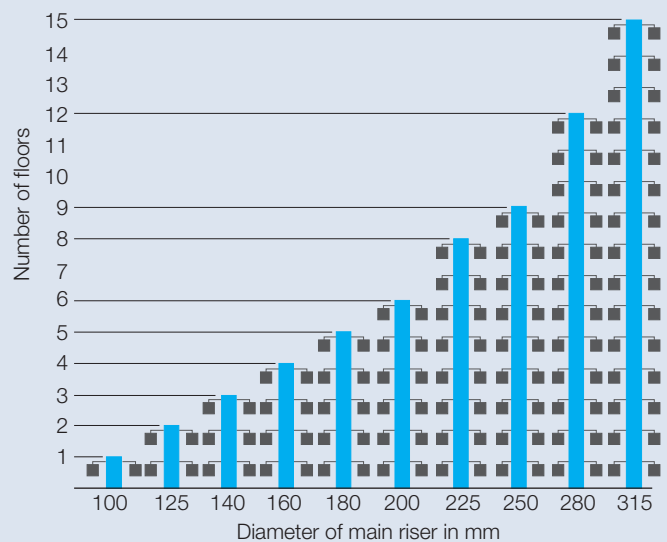


2 units per floor (possibly with extraction for second room)



Installation of 2 units per floor

with 100 m³/h designed air flow volume and operation of all units at the same time. (Volume e.g. = 100 m³/h. Second room ventilation with one unit = bathroom 60 m³/h, toilet 40 m³/h).



Example 1:

Type of room: bathroom/toilet

$\dot{V} = 60 \text{ m}^3/\text{h}$

Units per floor: 1

Floor levels: 9

Main riser diameter: ?

According to diagram ①

Steigrohrdurchmesser: 125 mm

Example 2:

Type of room: bathroom separated toilet with one unit or kitchen ventilation

$\dot{V} = 100 \text{ m}^3/\text{h}$ (bathroom 60 m³/h and toilet 40 m³/h)

Units per floor: 2

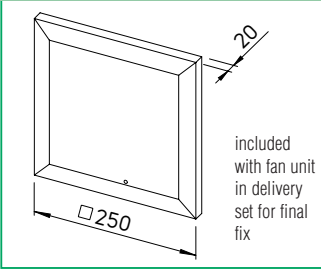
Floor levels: 6

Main riser diameter: ?

According to diagram ④

Main riser diameter: 200 mm

ultraSilence[®] ELS-facia



Dimensions in mm

Flush mounted casing

- Flush mounted casing for one and two room ventilation

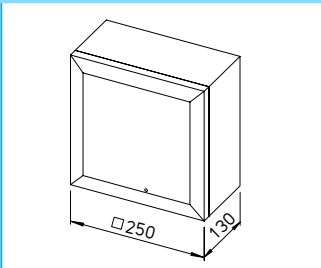
Flush mounted casing

- for one room ventilation
- with fire protection encasement

Flush mounted casing

- for two room ventilation
- with fire protection encasement

ultraSilence[®] surface mounted unit



Dimensions in mm

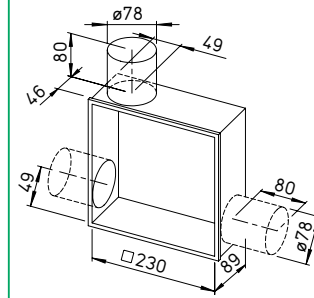
Surface mounted casing

- with and without fire protection

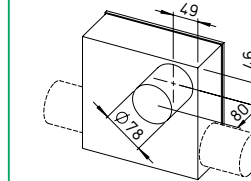
Accessories

ELS-GU Flush casing **without** fire protection

Optional with spigot for second room (using accessory kit ELS-ZS)

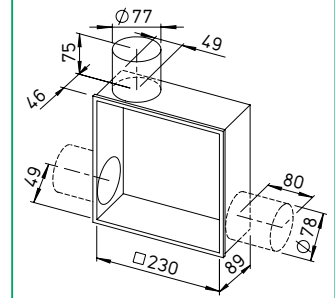


Optional with discharge to the back (using accessory kit ELS-ARS)

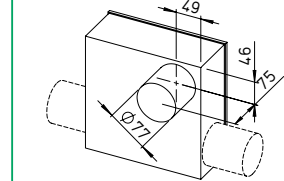


ELS-GUBA Flush casing **with** fire protection

Optional with spigot for second room (using accessory kit ELS-ZS)

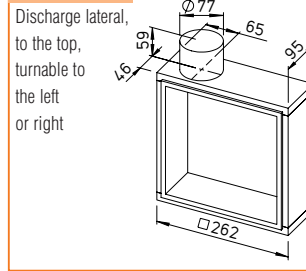


Optional with discharge to the back (using accessory kit ELS-ARS)



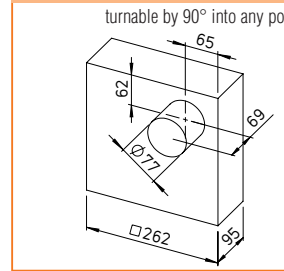
ELS-GUB

Discharge lateral, to the top, turnable to the left or right



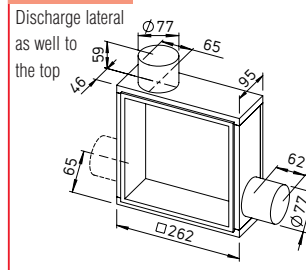
ELS-GUBR Discharge to the back,

turnable by 90° into any position



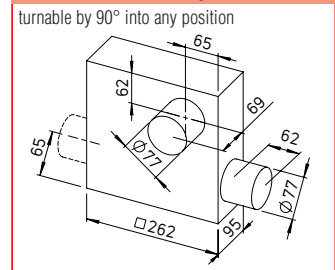
ELS-GUBZL / R

Discharge lateral as well to the top

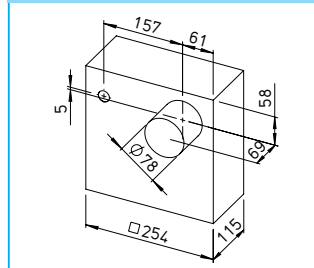


ELS-GUBRZL / R Discharge to the back,

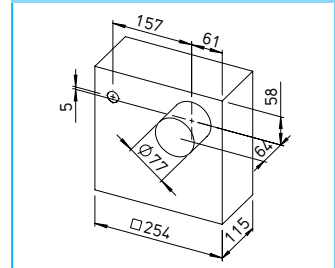
turnable by 90° into any position



ELS-GAP Surface casing **without** fire protection

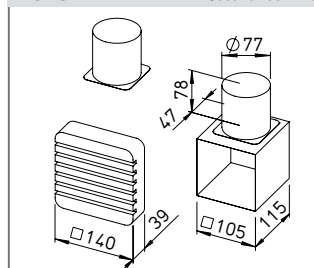


ELS-GAPB Surface casing **with** fire protection



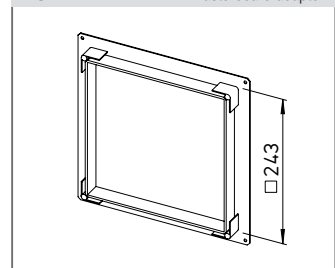
ELS-ZS

Second room kit



ELS-VA

Plasterboard adapter



ELS casing types

Description	ELS type series until 2007		ultraSilence® ELS type series NEW			
	Type	Ref. No.	Discharge lateral		Discharge to the back	
	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Standard flush mounted casing	ELS-G	0579	ELS-GU	8111	ELS-GU	8111
					ELS-ARS ¹⁾	8185
Flush mounted casing with spigot for second room	ELS-GZR	0581	ELS-GU	8111	ELS-GU	8111
Second room unit	ELS-ZA	0455	ELS-ZS ²⁾	8186	ELS-ZS ²⁾	8186
					ELS-ARS ¹⁾	8185
Flush mounted casing with fire protection K 90, casing installation in K 90 ventilation shaft	ELS-GB	0549	ELS-GUB	8112	ELS-GUBR	8113
	ELS-GBK	0433				
Flush mounted casing with fire protection K 90, for positioning outside of K 90 ventilation shaft	ELS-GDB	0554	ELS-GUBA	8114	ELS-GUBA	8114
	ELS-GDBK	0436			ELS-ARS ¹⁾	8185
Flush mounted casing with fire protection enclosure K 90, installation in K 90 ventilation shaft						
– with spigot for second room on the left	ELS-GBZRL	0547	ELS-GUBZL	8115	ELS-GUBRZL	8116
– with spigot for second room on the right	ELS-GBZRR	0548	ELS-GUBZR	8117	ELS-GUBRZR	8118
Flush mounted casing with fire protection K 90, for positioning outside of K 90 ventilation shaft for second room	ELS-GDBZR	0554	ELS-GUBA	8114	ELS-GUBA	8114
	ELS-ZA	0455	ELS-ZS ²⁾	8186	ELS-ZS ²⁾	8186
					ELS-ARS ¹⁾	8185
Standard surface mounted casing	ELS-GA	1592			ELS-GAP	8127
Surface mounted casing						
– with fire protection K 90	ELS-GAB	1590			ELS-GAPB	8128
– with fire protection K 90 kitchen	ELS-GAK	1599				

¹⁾ Accessory kit ELS-ARS for discharge to the back ²⁾ Accessory kit ELS-ZS includes plenum box and spigot for second room.

ELS fan units

Until 60 m³/h air flow volume				Until 100 m³/h air flow volume			
ELS type series until 2007		ultraSilence® type series NEW		ELS type series until 2007		ultraSilence® type series NEW	
Type	Ref. No.	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
ELS-VE 60	0425	ELS-V 60	8131	ELS-VE 100	0429	ELS-V 100	8132
Fan unit with 60 m³/h				Fan unit with 100 m³/h			
ELS-VE 60/30	0535	ELS-V 60/35	8133	ELS-VE 100/60/40	0432	ELS-V 100/60/35	8136
– with two speeds				– with three speeds			
ELS-VEZ 60	0426	ELS-VN 60	8137	ELS-VEZ 100	0434	ELS-VN 100	8138
– with overrun timer				– with overrun timer			
ELS-VEZ 60/30	0536	ELS-VN 60/35	8139	ELS-VEZ 100/60	0430	ELS-VN 100/60	8141
– two speeds with overrun timer				– two speeds with overrun timer			
ELS-VEI 60	0427	ELS-VNC 60	8143			ELS-VNC 100	8144
– with interval timer				NEW with interval timer			
ELS-VEB 60	0509	ELS-VP 60	8149			ELS-VP 100	8150
– with PIR sensor				NEW with PIR sensor			
ELS-VEF 60	0431	ELS-VF 60	8161			ELS-VF 100/60/35	8166
– with humidity sensor				NEW three speeds with humidity sensor			
ELS-VEF 60/30	0515	ELS-VF 60/35	8163				
– two speeds with humidity sensor							

ELS accessories

ELS type series until 2007		ultraSilence® type series			NEW
Type	Ref. No.	Type	Ref. No.		
ELS-ZA	0455	ELS-ZS	8186	ELS-MB	8188
		Second room kit, spigot included		ELS-VA	8189
ELS-MH	0583	ELS-MHU	8187	ELS-WCS	8191
		Mounting bracket		ELS-ARS	8185
				ELS-ZAS	8184
					Mounting holder for plasterboard
					Plasterboard adapter for ELS-GU
					Toilet extraction kit
					Reversion kit for discharge to the back
					Spigot for second room

