

VILPE[®] ROOF FANS AND VENTILATION PIPES



**Guaranteed
VILPE[®] quality:**

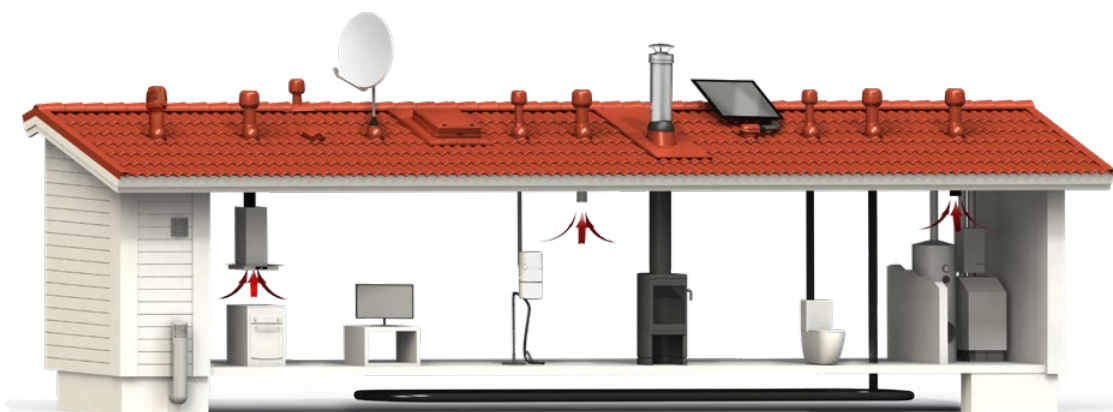
- 10-year aesthetic guarantee
- 20-year technical guarantee
- 2-year guarantee for electrical parts

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- Roof fans, ECo roof fans
- Exhaust ventilation pipes
- Sewer ventilation pipes
- Roof vents
- Aerial sleeves
- Radon fans
- Ross ventilation poles
- Ventilation grilles
- Roof hatches
- Solar pass-throughs
- Chimney pass-throughs
- Air Intake vents

VILPE® raw materials

- Polypropylene plastic (PP)
 - non-corrosive
 - weather and shockproof
 - recyclable
 - body-tinted
 - UV-protected
 - chemically neutral
 - withstands continuously temperatures of -30°C ... +80°C, temporarily -40°C ... +120°C
- The P-series and C-series roof fans and exhaust ventilation pipes are pre-insulated
 - Polyurethane insulation in E120 roof fans and exhaust ventilation pipe Ø 125.
 - Mineral wool insulation in E190 and ECo190 roof fans.
 - Expanded polystyrene insulation in E220, ECo220 and all XL roof fans as well as exhaust ventilation pipe 160 and all XL exhaust ventilation pipes.

Guaranteed VILPE® quality:

- 10-year aesthetic guarantee
- 20-year technical guarantee
- 2-year guarantee for electrical parts

VILPE® standard colours

- black – reference RAL 9005
- brown – reference RAL 8017
- green – reference RAL 6020
- grey – reference RAL 7015
- red – reference RAL 3009
- brick red – reference RAL 8004
- light grey – reference RAL 7040

Due to the printing techniques, the colours of the products displayed in the catalogue may differ from the colour of the real products.

VILPE® installation

Please refer to the VILPE® Installation, Operating and Maintenance instructions for more detailed information on the installation of the VILPE® systems.

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Product certification



Roof fan and exhaust vent series

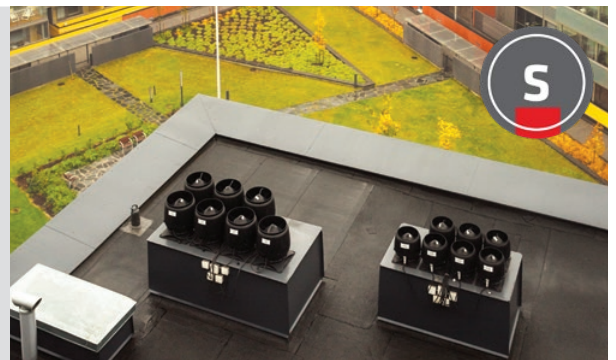
P-series for pitched roofs

The P-series roof fans and exhaust ventilation pipes can be led watertightly with a pass-through set through a roof. VILPE® pass-through sets can be installed on any roofs with the most common pitches (less than 50 degrees). The pass-through set is always selected according to the roofing material. All the roof fans and exhaust ventilation pipes in the P-series are compatible with all pass-through set types. Using P-series XL roof fans and XL exhaust ventilation pipes requires an XL pass-through.



S-series for flat surface installation

The S-series roof fans and exhaust vents are designed to be installed in the ventilation shaft, onto a silencer or in or other horizontal surface. Thus, they are also suitable for gently sloping roofs. The S-roof fans and S-exhaust vents are used, for example, in blocks of flats and terraced houses, when flat-specific ventilation is required. The S-series roof fan can also be used for modifying an old natural ventilation system into a mechanical one during renovation.



C-series for handmade/pre-bent steel cones

The C-series roof fans and exhaust ventilation pipes are used in the same way as P-series products in solutions where the pipe is led through a roof and a cone. The difference is that the C-series fans and exhaust ventilation pipes are installed on top of the sheet metal cone made by a sheet metal worker on the roof. The diameter of the upper part of the sheet metal cone has to be either Ø 170 or 315 mm, according to the size of the roof fan or ventilation pipe.



Products for low-pitched roofs

The VILPE® product family includes a wide selection of fasteners, sealings and underpressure vents for the needs of various roofings. The Felt Tall pass-throughs enable installing all the roof fans and exhaust ventilation pipes with a diameter of 100–250 mm on low-pitched roofs. The backwater height of pass-throughs are all according to regulations.



Pass-throughs for P-series

Pass-throughs for tile roofing



Tile
• tile width up to 330 mm and wave height of 27-40 mm

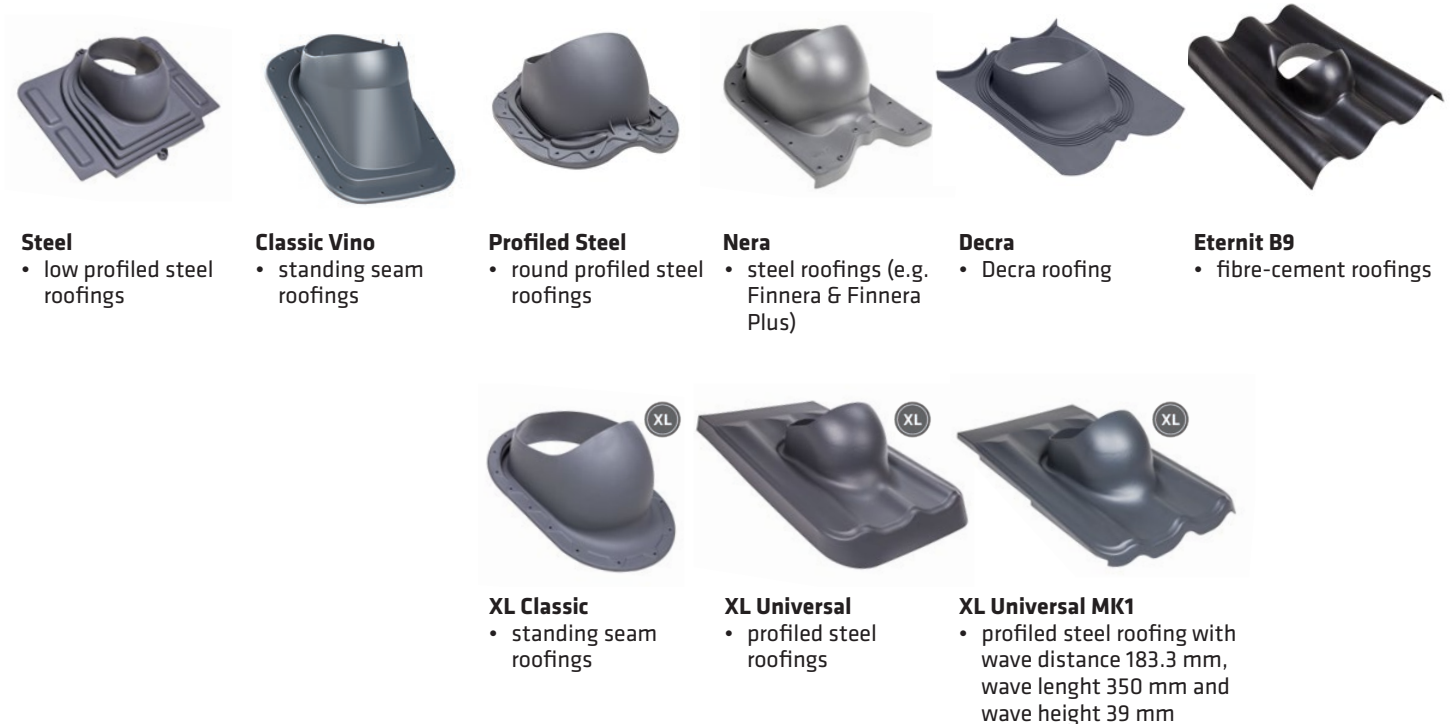
Universal
• all tile roofings

Vittinge
• 1- and 2- waved Vittinge clay tile roofings

XL Tile
• tile width up to 330 mm and wave height of 27-40 mm

XL Universal
• all tile roofings

Pass-throughs for steel roofing



Steel
• low profiled steel roofings

Classic Vino
• standing seam roofings

Profiled Steel
• round profiled steel roofings

Nera
• steel roofings (e.g. Finnera & Finnera Plus)

Decra
• Decra roofing

Eternit B9
• fibre-cement roofings

XL Classic
• standing seam roofings

XL Universal
• profiled steel roofings

XL Universal MK1
• profiled steel roofing with wave distance 183.3 mm, wave length 350 mm and wave height 39 mm

Pass-throughs for felt roofing



HS Shingle/Slate
• felt, shingle and slate roofings

Classic Vino
• retrofitting on felt roofings

Felt tall
• roof with a pitch less than 1:5 (11.5°)

XL Felt
• felt roofings

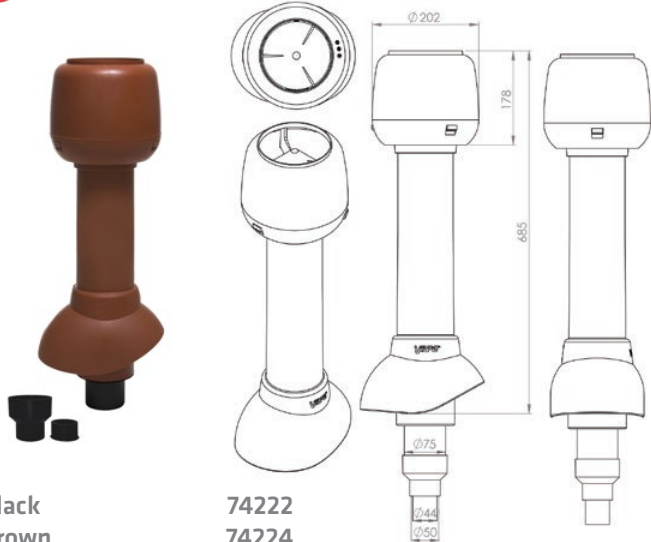
XL Classic
• retrofitting on felt roofings

XL Felt tall
• roof with a pitch less than 1:5 (11.5°)

Exhaust ventilation pipes \varnothing 75 mm and \varnothing 110 mm

75P/IS/500 Central vacuum cleaner exhaust pipe

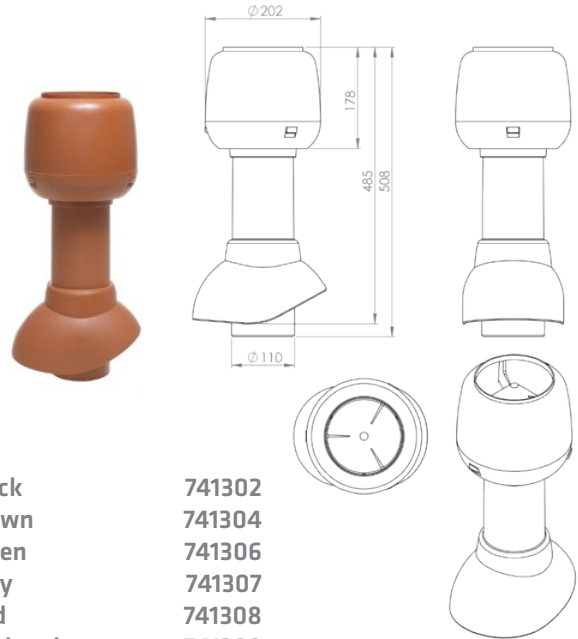
P



Black	74222
Brown	74224
Green	74226
Grey	74227
Red	74228
Brick red	74229

110P/300 Ventilation pipe + cowl

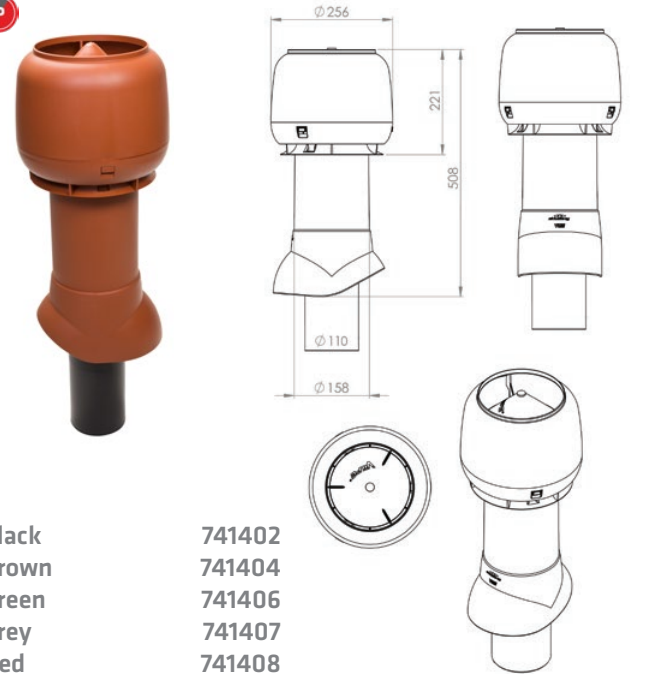
P



Black	741302
Brown	741304
Green	741306
Grey	741307
Red	741308
Brick red	741309
Light grey	741301

110P/IS/350 Ventilation pipe + cowl

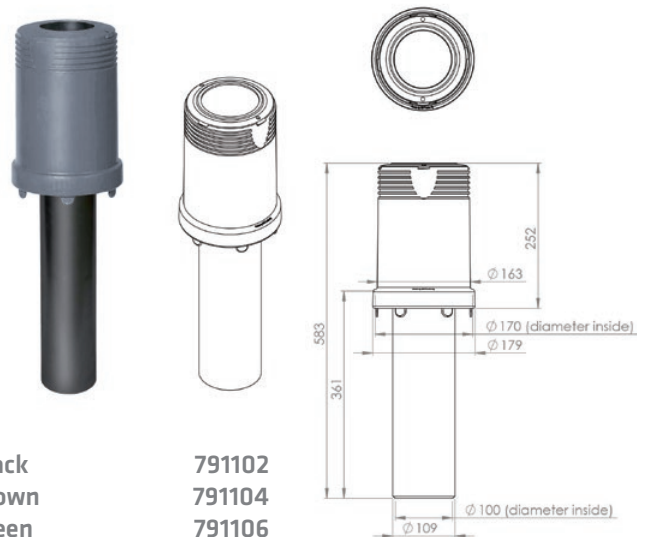
P



Black	741402
Brown	741404
Green	741406
Grey	741407
Red	741408
Brick red	741409

110C/IS/250 Ventilation pipe

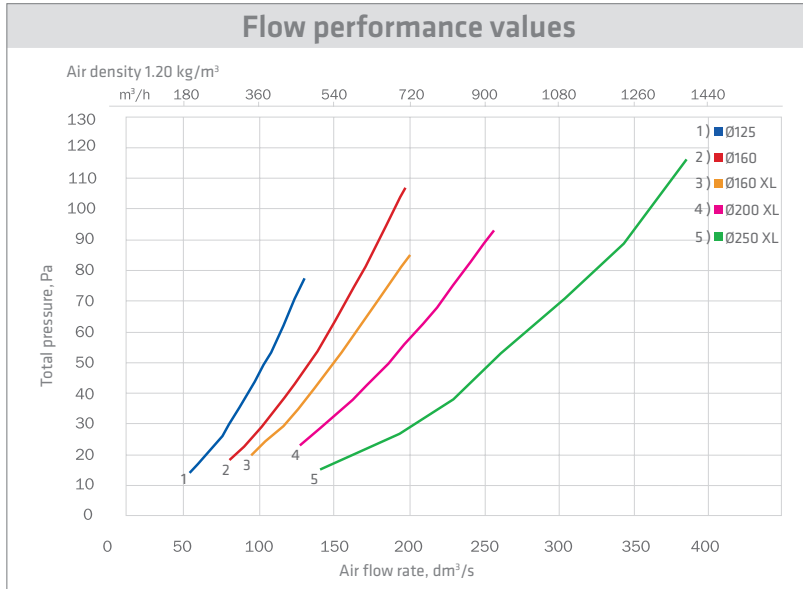
C



Black	791102
Brown	791104
Green	791106
Grey	791107
Red	791108
Brick red	791109
Light grey	791101



Exhaust ventilation pipes Ø 125 mm



125S 250x250 Exhaust vent

Black	741802
Brown	741804
Green	741806
Grey	741807
Red	741808
Brick red	741809

125P/IS/500 Exhaust ventilation pipe

Black	734402
Brown	734404
Green	734406
Grey	734407
Red	734408
Brick red	734409
Light grey	734401

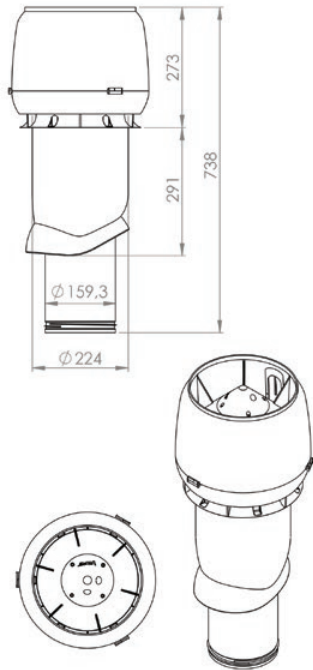
125C/IS/400 Exhaust ventilation pipe

Black	791202
Brown	791204
Green	791206
Grey	791207
Red	791208
Brick red	791209
Light grey	791201

Exhaust ventilation pipes Ø 160 mm

160P/IS/500 Exhaust ventilation pipe

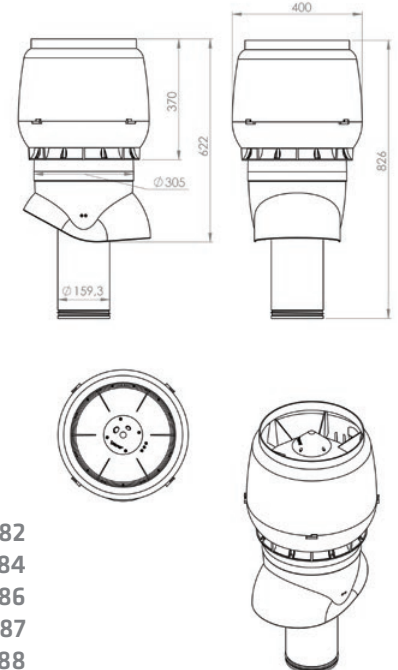
P



Black	741692
Brown	741694
Green	741696
Grey	741697
Red	741698
Brick red	741699
Light grey	741691

XL 160P/IS/500 Exhaust ventilation pipe

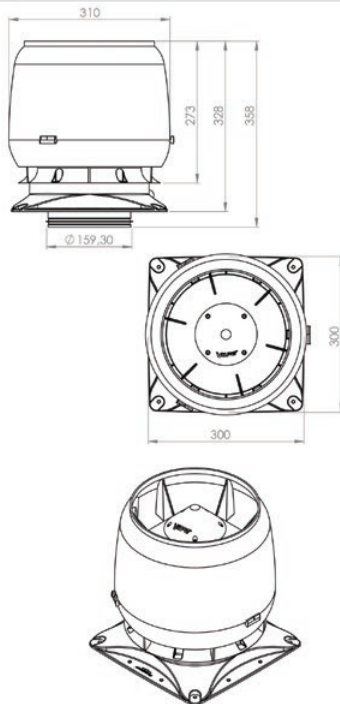
P XL



Black	741782
Brown	741784
Green	741786
Grey	741787
Red	741788
Brick red	741789

160S 300x300 Exhaust vent

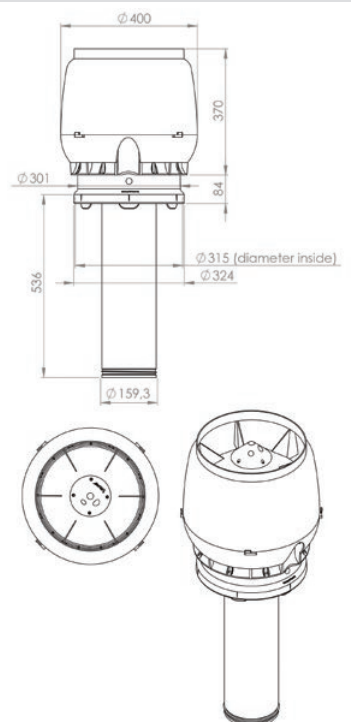
S



Black	741822
Brown	741824
Green	741826
Grey	741827
Red	741828
Brick red	741829

XL 160C/IS/450 Exhaust ventilation pipe

C XL



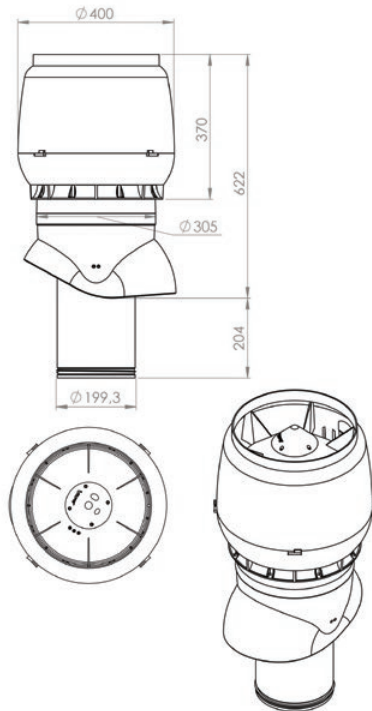
Black	791212
Brown	791214
Green	791216
Grey	791217
Red	791218
Brick red	791219
Light grey	791211



Exhaust ventilation pipes Ø 200 mm

XL 200P/IS/500 Exhaust ventilation pipe

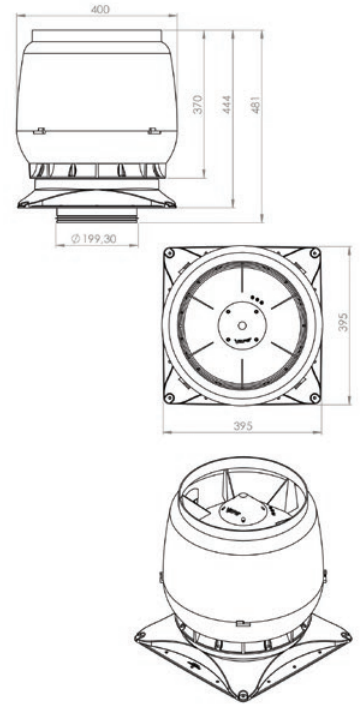
P XL



Black	741712
Brown	741714
Green	741716
Grey	741717
Red	741718
Brick red	741719

200S 400x400 Exhaust vent

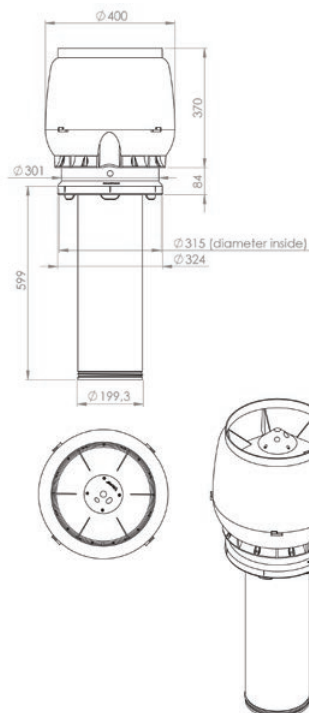
S XL



Black	741842
Brown	741844
Green	741846
Grey	741847
Red	741848
Brick red	741849

XL 200C/IS/450 Exhaust ventilation pipe

C XL

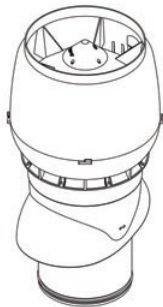
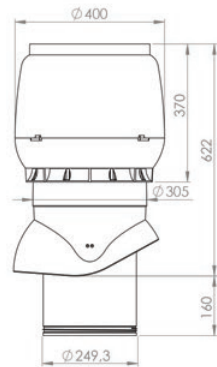


Black	791222
Brown	791224
Green	791226
Grey	791227
Red	791228
Brick red	791229

Exhaust ventilation pipes Ø 250 mm

XL 250P/IS/500 Exhaust ventilation pipe

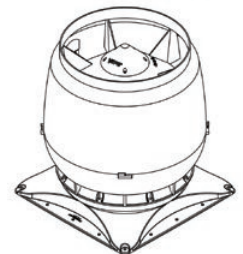
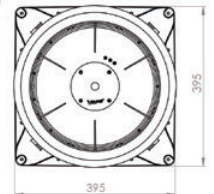
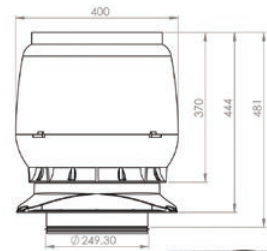
P XL



Black	741762
Brown	741764
Green	741766
Grey	741767
Red	741768
Brick red	741769

250S 400x400 Exhaust vent

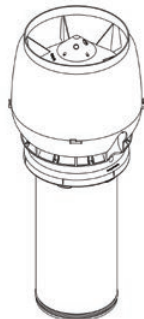
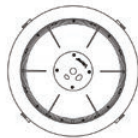
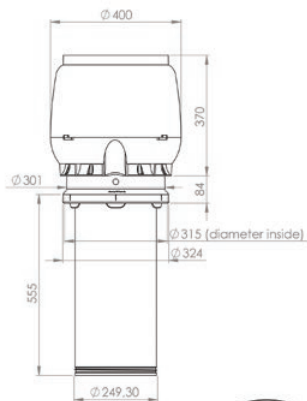
S XL



Black	741862
Brown	741864
Green	741866
Grey	741867
Red	741868
Brick red	741869

XL 250C/IS/450 Exhaust ventilation pipe

C XL

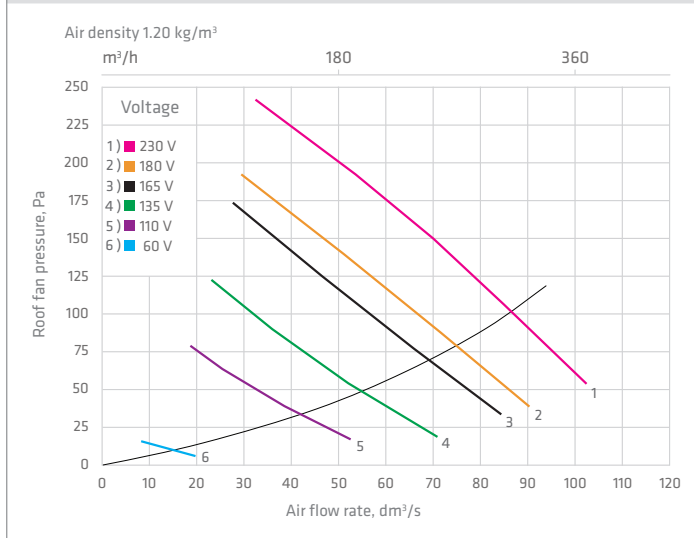


Black	791232
Brown	791234
Green	791236
Grey	791237
Red	791238
Brick red	791239



Roof fans E120

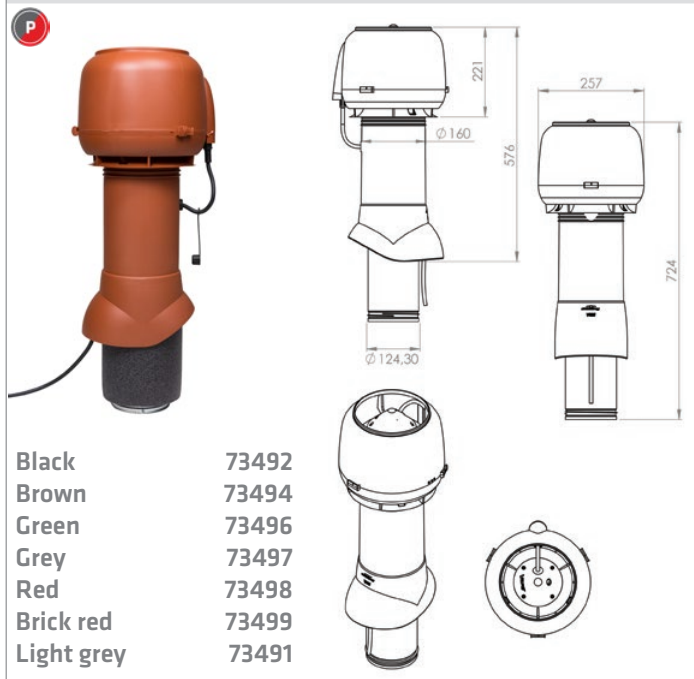
Flow performance values



Flow and noise performance values

E120P / 125		60 V	110 V	135 V	165 V	180 V	230 V
q V1	dm ³ / s	8.5	38.8	52.0	65.7	71.6	85.2
p tF	Pa	16	38	53	75	85	104
PE	W	9	27.0	37.7	51.0	57.3	82.7
ηtE	-	0.015	0.054	0.073	0.097	0.106	0.107
n	1/min	643	1237	1552	1901	2044	2355
Duct							
L W63	dB	47.6	54.9	57.4	60.8	61.9	65.4
L W125	dB	53.9	67.2	71.2	73.1	73.4	76.0
L W250	dB	52.0	64.4	70.3	72.9	73.2	75.0
L W500	dB	38.6	52.8	57.6	61.5	62.8	67.2
L W1000	dB	32.6	52.4	56.3	60.9	62.2	66.9
L W2000	dB	15.3	45.3	53.6	58.3	59.6	62.3
L W4000	dB	*	28.2	37.1	46.5	49.4	55.7
L W8000	dB	*	*	21.1	31.8	34.7	40.5
L W	dB	56.7	69.4	74.1	76.5	76.9	79.4
L WA	dB (A)	44.8	59.0	64.0	67.4	68.3	71.7

E120P/125/IS/500



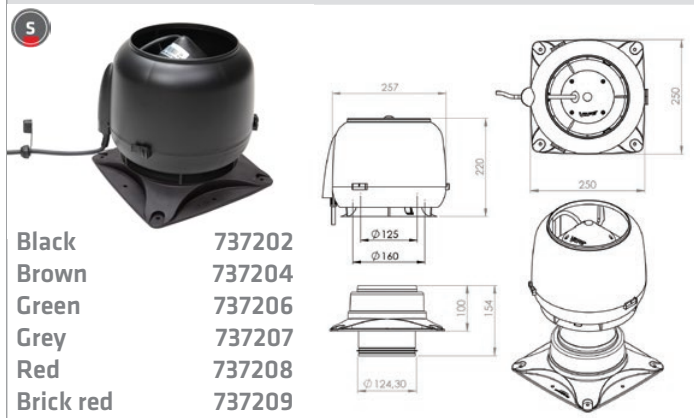
Electrical details

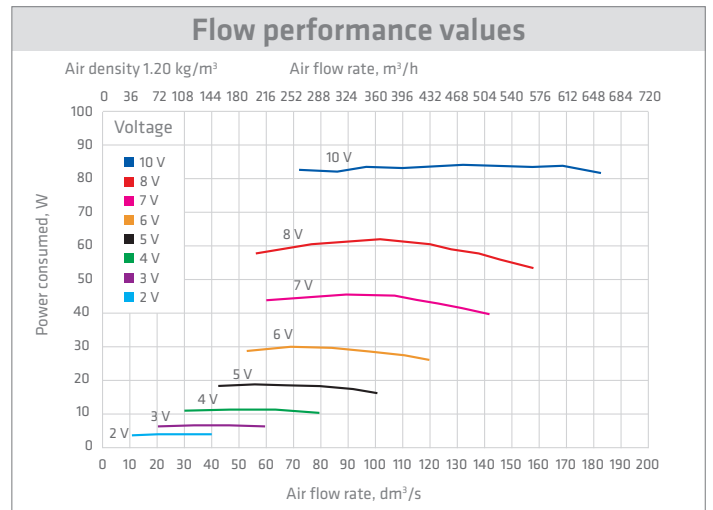
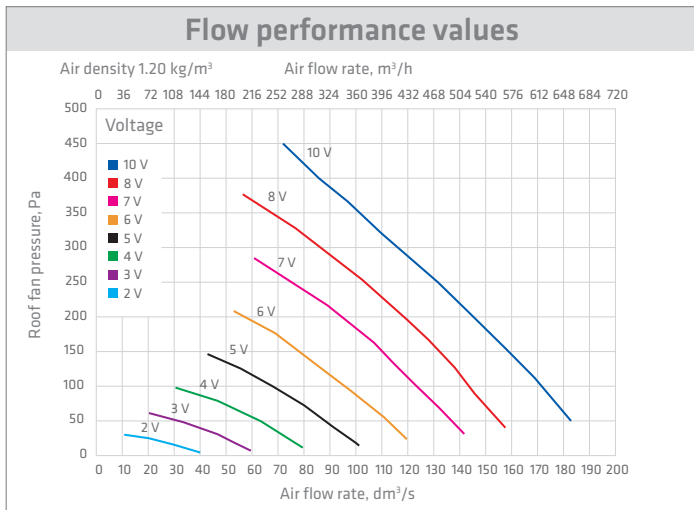
Fan type	E120
Power Input	52 W
Current	0.23 A
Nominal Voltage	230 V / 50 Hz
Speed	2350 r/min
Capacitor	1.5 μF
Speed Controller	Thyristor or transformer

E120C/125/IS/400



E120S





ECo190P/125/IS/500

Black 737342
 Brown 737344
 Green 737346
 Grey 737347
 Red 737348
 Brick red 737349
 Light grey 737341

ECo190S

Black 737512
 Brown 737514
 Green 737516
 Grey 737517
 Red 737518
 Brick red 737519
 Light grey 737511

Flow and noise performance values

U	V	2	3	4	5	6	7	8	10
qv	dm ³ /s	10.8	20.5	46.8	67.6	84	107	120	132
pF	Pa	30.6	61.2	79.7	102	135	164	196	251
Pe	W	4	6.6	11.6	19	29.6	45	60.6	84.2
N	1/min	807	1155	1474	1818	2161	2536	2810	3122
Duct									
LW63	dB	*	55.5	54.6	58.6	61.6	63.9	78.9	67
LW125	dB	40.5	53.5	53.5	58.1	62.1	65.9	67.1	68.4
LW250	dB	37.2	43.5	48.1	57	59.5	64.7	65.3	66.9
LW500	dB	21.4	30.8	37.5	44.8	50	54.4	56.7	59.8
LW1000	dB	*	16.9	24.4	33.8	41.7	47.1	49.7	52.4
LW2000	dB	*	*	13.9	25.5	33.5	41.6	44.9	49.5
LW4000	dB	*	*	*	15	27.7	36.6	40.3	44.2
LW8000	dB	*	*	*	*	21	28.9	33.8	38
LW	dB	42.2	57.8	57.6	62.8	66.1	69.8	79.4	72.6
LWA	dB(A)	29.6	39	42.1	49.2	53.2	58.9	60.1	61.7

Electrical details

Fan type	ECo190
Power Input	83 W
Current	0.75 A
Nominal Voltage	230 V / 50 Hz
Speed	3200 r/min
Speed Controller	ECo Controller

Flow and noise performance values

U	V	2	3	4	5	6	7	8	10
qv	dm ³ /s	10.8	16.3	44.8	68.7	85.6	114	128	145
pF	Pa	37.1	71.8	99.0	117	161	168	201	164
Pe	W	4.1	6.7	13.5	22.5	36.8	54.5	74.3	82.8
N	1/min	886	1232	1608	1953	2338	2721	3020	3158
Environment									
LW63	dB	42.2	43.4	47.7	50.1	50.8	55.1	56.7	59.7
LW125	dB	36.5	44.2	47.8	50.1	53.7	57.9	60.3	60.5
LW250	dB	35.0	40.1	47.4	52.6	56.1	62.2	64.6	65.1
LW500	dB	37.9	44.6	51.4	54.8	58.8	64.1	67.7	69.7
LW1000	dB	34.9	42.6	50.1	53.2	57.6	62.8	65.5	67.9
LW2000	dB	30.8	41.6	52.1	55.3	59.8	65.1	67.9	70.2
LW4000	dB	22.7	30.7	41.7	47.4	53.1	58.7	61.8	64.2
LW8000	dB	29.4	28.4	29.8	35.7	43.5	49.2	53.4	55.2
LW	dB	45.5	50.8	57.7	61.1	65.2	70.5	73.4	75.3
LWA	dB(A)	39.6	47.4	56.2	59.5	64.1	69.4	72.3	74.5



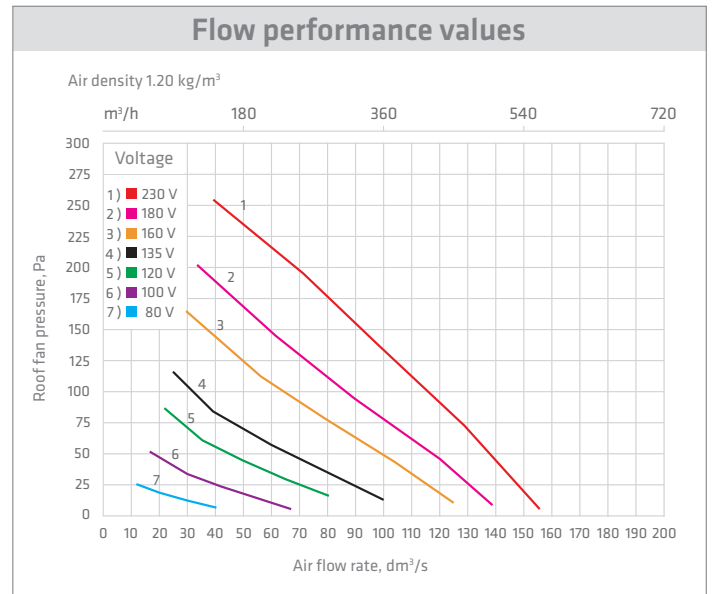
Roof fans E190

E190P/125/IS/500

Black 73592
Brown 73594
Green 73596
Grey 73597
Red 73598
Brick red 73599

E190S

Black 737522
Brown 737524
Green 737526
Grey 737527
Red 737528
Brick red 737529
Light Grey 737521

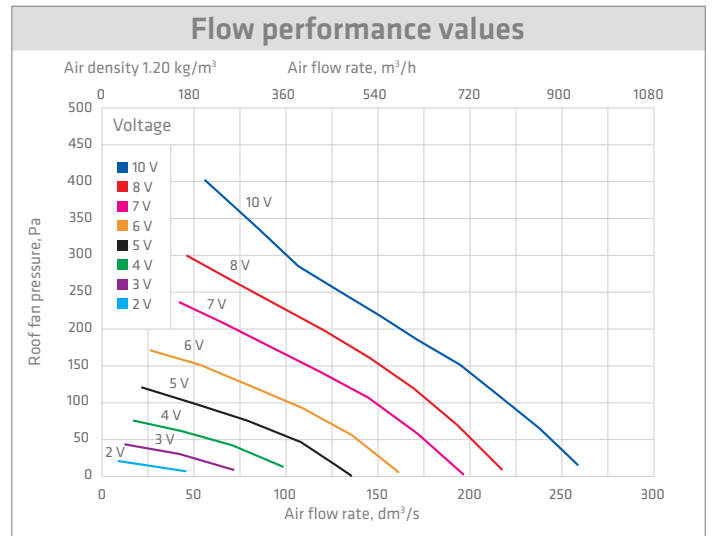
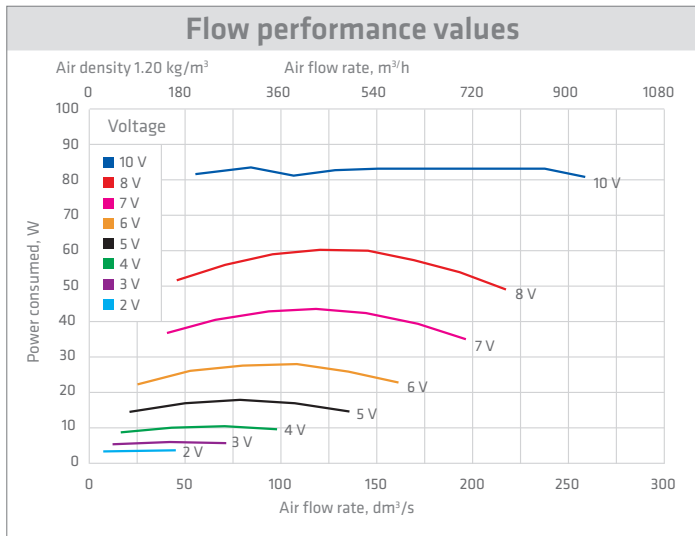


Electrical details

Fan type	E190
Power Input	52 W
Current	0,23 A
Nominal Voltage	230 V / 50 Hz
Speed	2350 r/min
Capacitor	1.5 μF
Speed Controller	Thyristor or transformer

Flow and noise performance values

E190P / 125		60 V	110 V	135 V	165 V	180 V	230 V
q V1	dm ³ / s	21.6	35.4	52.1	59.9	64.7	79.5
p tF	Pa	7	55	73	121	137	174
PE	W	8.0	25.0	35.7	49.0	54.7	80.0
ηtE	-	0.019	0.077	0.107	0.148	0.162	0.173
n	1/min	532	1226	1510	1874	2002	2322
Duct							
L W63	dB	43.4	52.7	56.1	59.2	60.1	63.3
L W125	dB	52.6	69.5	75.0	76.9	76.8	78.3
L W250	dB	42.6	61.0	68.2	73.1	73.6	75.4
L W500	dB	0.0	47.7	53.9	58.3	60.0	64.4
L W1000	dB	18.8	46.2	52.1	59.2	61.1	63.4
L W2000	dB	*	36.4	44.4	49.6	50.7	54.4
L W4000	dB	*	26.0	34.1	42.2	43.5	47.5
L W8000	dB	*	*	19.4	31.3	34.0	38.9
L W	dB	53.5	70.2	75.9	78.6	78.7	80.4
L WA	dB (A)	39.4	57.6	63.7	67.3	68.1	70.4



Electrical details

Fan type	ECo220
Power Input	85 W
Current	0.7 A
Nominal Voltage	230 V / 50 Hz
Speed	2580 r/min
Speed Controller	ECo Controller

Flow and noise performance values

U	V	2	3	4	5	6	7	8	10
qv	dm ³ /s	8.7	42.4	71	79.2	108.9	119	146	172
pF	Pa	21.6	30.7	42.8	77	94.7	142	162	186
Pe	W	3.6	6.2	10.6	17.9	28.2	43.7	60.2	83.2
N	1/min	630	868	1144	1429	1698	1994	2225	2489
Duct									
LW63	dB	64.2	62.9	66.5	66.6	66.6	72.0	72.7	74.5
LW125	dB	54.5	60.9	61.4	68.8	68.2	70.5	71.3	72.9
LW250	dB	44.1	48.7	53.9	59.7	69.9	71.6	82.0	73.5
LW500	dB	35.7	40.5	47.7	51.9	57.1	60.3	63.4	67.3
LW1000	dB	31.5	38.1	44.8	48.7	53.3	56.5	59.6	62.2
LW2000	dB	17.9	25.7	38.3	43.0	48.5	51.7	54.5	57.5
LW4000	dB	17.6	18.7	25.6	33.3	41.9	46.4	50.3	53.6
LW8000	dB	21.8	22.1	22.6	25.4	30.6	36.3	41.4	45.9
LW	dB	64.7	65.1	67.9	71.3	73.4	76.3	82.9	78.9
LWA	dB(A)	41.6	46.1	51.2	57.4	62.0	65.1	74.0	70.0

Flow and noise performance values

U	V	2	3	4	5	6	7	8	10
qv	dm ³ /s	7.6	-	71.9	77.7	105	120	145	170
pF	Pa	22.4	-	45.9	81.7	103	147	169	191
Pe	W	3.6	-	11.0	18.4	29.1	44.8	61.8	83.6
N	1/min	636	-	1173	1451	1730	2027	2269	2513
Environment									
LW63	dB	45.6	-	44.1	48.0	49.4	53.7	54.5	56.2
LW125	dB	37.0	-	55.0	50.5	51.3	54.3	56.9	58.1
LW250	dB	36.8	-	46.7	51.4	62.0	60.2	67.0	70.9
LW500	dB	35.9	-	47.9	52.5	57.3	60.9	63.6	66.2
LW1000	dB	32.5	-	48.4	52.4	57.2	61.2	63.8	66.5
LW2000	dB	23.8	-	42.6	49.1	54.9	59.0	61.5	65.2
LW4000	dB	19.1	-	30.1	38.4	46.5	51.6	54.6	61.0
LW8000	dB	23.4	-	24.9	28.3	36.1	43.2	47.2	53.9
LW	dB	47.2	-	55.6	58.8	65.1	67.1	72.0	76.3
LWA	dB(A)	37.0	-	49.9	55.9	61.4	65.1	67.9	73.3



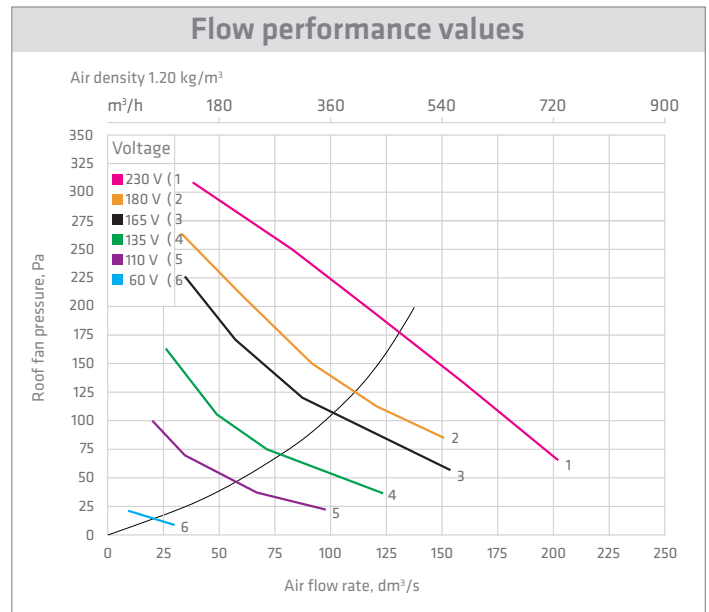
Roof fans E220

E220P/160/IS/500

Black 73472
Brown 73474
Green 73476
Grey 73477
Red 73478
Brick red 73479
Light grey 73471

E220S

Black 737502
Brown 737504
Green 737506
Grey 737507
Red 737508
Brick red 737509
Light Grey 737501



Electrical details

Fan type	E220
Power Input	85 W
Current	0.38 A
Nominal Voltage	230 V / 50 Hz
Speed	2600 r/min
Capacitor	2 μF
Speed Controller	Thyristor or transformer

Flow and noise performance values

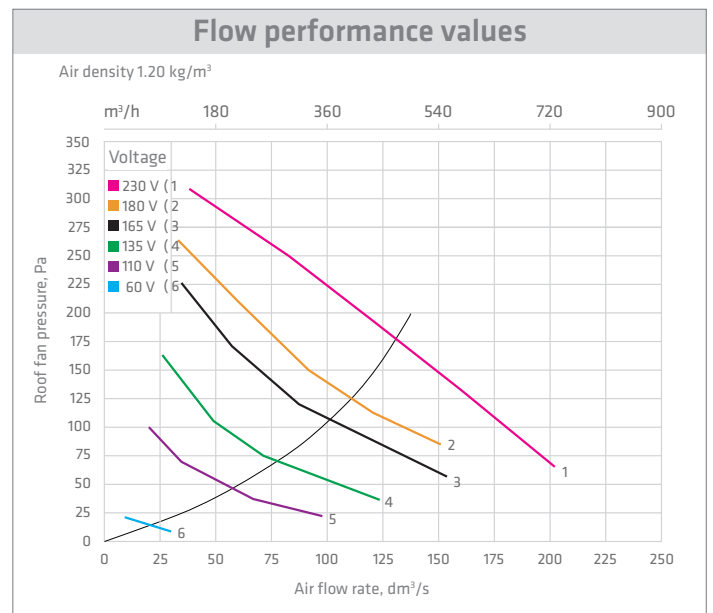
E220P / 160		60 V	110 V	135 V	165 V	180 V	230 V
q V1	dm ³ / s	30.4	67.8	72.7	88.5	121.6	160.6
p tF	Pa	9	37	74	118	110	130
PE	W	10.0	30.0	43.0	60.7	69.0	99.0
ηtE	-	0.028	0.083	0.125	0.172	0.194	0.211
n	1/min	518	1077	1386	1727	1892	2266
Duct							
L W63	dB	45.6	52.9	61.7	64.6	60.1	62.2
L W125	dB	50.0	66.0	71.5	76.3	72.2	74.3
L W250	dB	42.8	59.4	64.8	70.4	67.9	70.5
L W500	dB	26.2	48.5	52.7	58.1	61.1	65.0
L W1000	dB	35.0	49.6	53.5	57.8	60.7	64.6
L W2000	dB	21.0	40.4	47.0	52.5	56.2	60.8
L W4000	dB	*	30.4	39.1	45.9	49.0	56.6
L W8000	dB	*	*	24.8	34.0	38.0	44.3
L W	dB	52.0	67.2	72.8	77.7	74.3	76.8
L WA	dB (A)	39.6	56.0	61.2	66.4	66.1	69.7

Roof fans XL E220

XL E220P/160/IS/500

P **XL**

Black 734502
Brown 734504
Green 734506
Grey 734507
Red 734508
Brick red 734509



Electrical details

Fan type	E220
Power Input	85 W
Current	0.38 A
Nominal Voltage	230 V / 50 Hz
Speed	2600 r/min
Capacitor	2 μ F
Speed Controller	Thyristor or transformer

XL E220C/160/IS/450

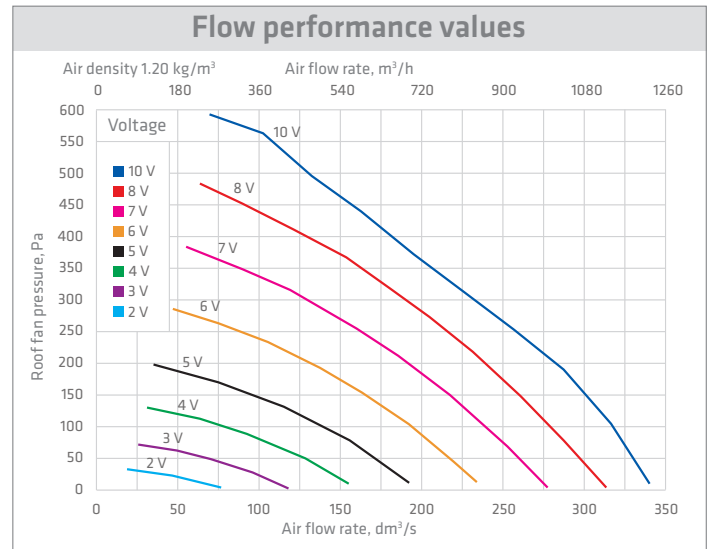
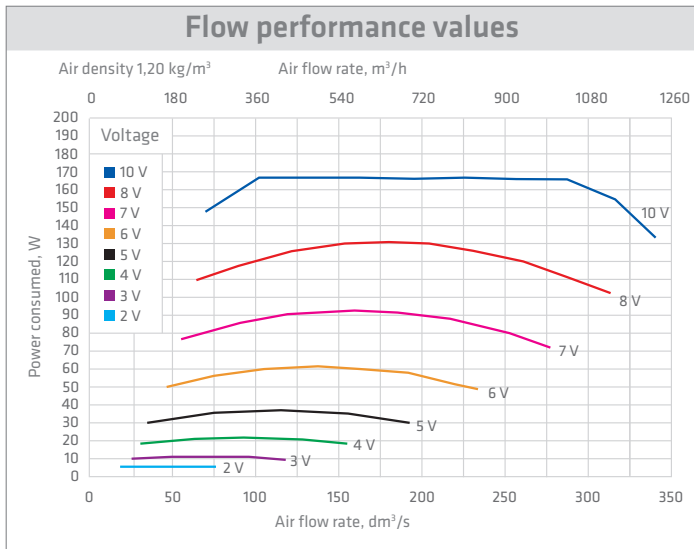
C **XL**

Black 791352
Brown 791354
Green 791356
Grey 791357
Red 791358
Brick red 791359

Flow and noise performance values

E220P / 160		60 V	110 V	135 V	165 V	180 V	230 V
q V1	dm ³ / s	30.4	67.8	72.7	88.5	121.6	160.6
p tF	Pa	9	37	74	118	110	130
PE	W	10.0	30.0	43.0	60.7	69.0	99.0
η tE	-	0.028	0.083	0.125	0.172	0.194	0.211
n	1/min	518	1077	1386	1727	1892	2266
Duct							
L W63	dB	45.6	52.9	61.7	64.6	60.1	62.2
L W125	dB	50.0	66.0	71.5	76.3	72.2	74.3
L W250	dB	42.8	59.4	64.8	70.4	67.9	70.5
L W500	dB	26.2	48.5	52.7	58.1	61.1	65.0
L W1000	dB	35.0	49.6	53.5	57.8	60.7	64.6
L W2000	dB	21.0	40.4	47.0	52.5	56.2	60.8
L W4000	dB	*	30.4	39.1	45.9	49.0	56.6
L W8000	dB	*	*	24.8	34.0	38.0	44.3
L W	dB	52.0	67.2	72.8	77.7	74.3	76.8
L WA	dB (A)	39.6	56.0	61.2	66.4	66.1	69.7





ECo250P/200/IS/500

Black 737442
 Brown 737444
 Green 737446
 Grey 737447
 Red 737448
 Brick red 737449

Electrical details

Fan type	ECo250
Power Input	165 W
Current	1.4 A
Nominal Voltage	230 V / 50 Hz
Speed	2560 r/min
Speed Controller	ECo Controller

ECo250S

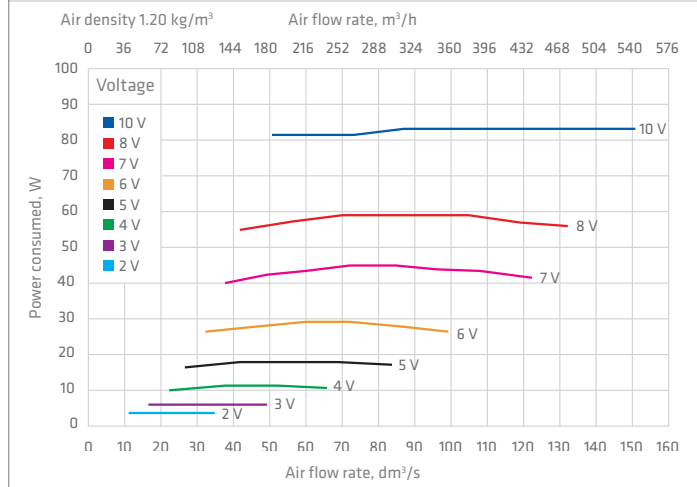
Black 737452
 Brown 737454
 Green 737456
 Grey 737457
 Red 737458
 Brick red 737459

Flow and noise performance values

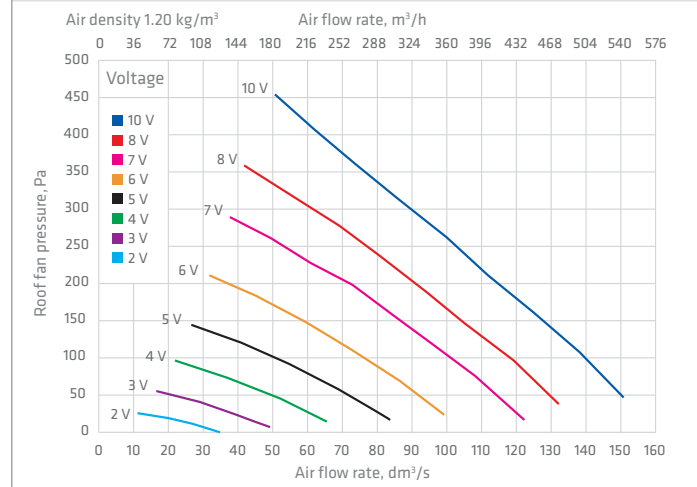
U	V	2	3	4	5	6	7	8	10
qv	dm ³ /s	46.4	70.3	92.3	115	163	186	205	226
pF	Pa	22.8	48.7	89.2	131.5	154	212	273	312
Pe	W	5.6	11.3	21.8	37	60.8	91.8	130	166
N	1/min	620	912	1219	1492	1794	2071	2320	2513
Duct									
LW63	dB	52.4	55.6	61.7	65.4	70.2	72.4	75.5	76.9
LW125	dB	50	58.7	63.0	66.4	70.2	73.9	76.4	77.9
LW250	dB	39.7	49.2	56.2	61	66.1	69.0	71.8	73.7
LW500	dB	42.9	45.7	52.7	57.3	62.3	64.5	67.0	69.1
LW1000	dB	33.2	43.2	48.1	51.6	55.7	58.7	61.2	63.2
LW2000	dB	19	28.3	39.3	46.2	54.7	57.8	59.8	61.1
LW4000	dB	19.6	22.9	29.5	36.7	44.5	49.0	53.1	56.6
LW8000	dB	21.9	24.2	23.4	26.4	32.8	38.3	42.6	45.6
LW	dB	54.8	60.9	66.2	69.9	74.4	77.3	80.1	81.5
LWA	dB(A)	41.9	48	54.2	58.6	63.7	66.5	69.1	71.0
Environment									
LW63	dB	37.7	43.4	48.4	53.3	58.2	60.4	62.3	64.3
LW125	dB	36.7	45.5	50.9	55	59.1	61.3	63.5	65.2
LW250	dB	37.8	45.9	52.2	57.4	63.5	66.7	69.1	71.1
LW500	dB	42.7	45.1	51.2	55.9	61	64.4	67.3	69.1
LW1000	dB	35.6	43.9	50.2	54.4	58.7	62.1	64.3	66.3
LW2000	dB	27.4	38.7	49.1	56.2	63.6	66.2	68.2	69.8
LW4000	dB	22.6	22.8	32.5	40.1	48.3	53.5	57.7	61.1
LW8000	dB	25.9	23.7	29.2	34.1	42.6	49	53.7	57.2
LW	dB	46	51.1	58.3	69.9	69.1	72	74.4	76.3
LWA	dB(A)	41.6	47.3	54.8	58.6	66.7	69.7	72	73.9

Roof fans ECo110, for radon ventilation

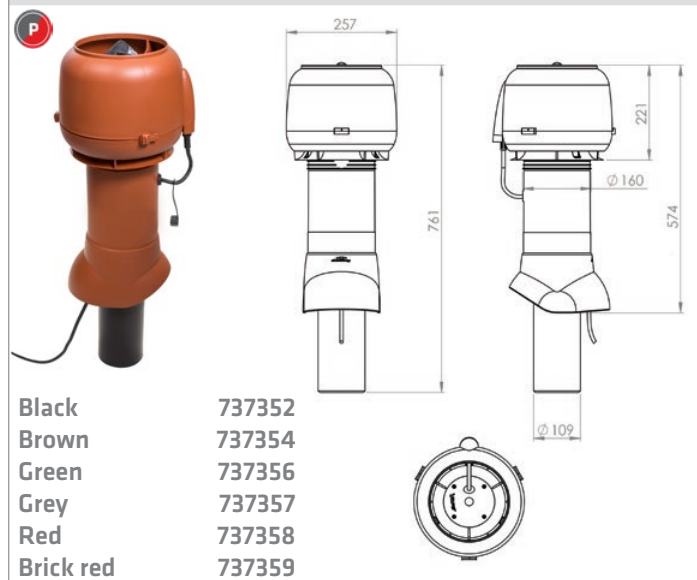
Flow performance values



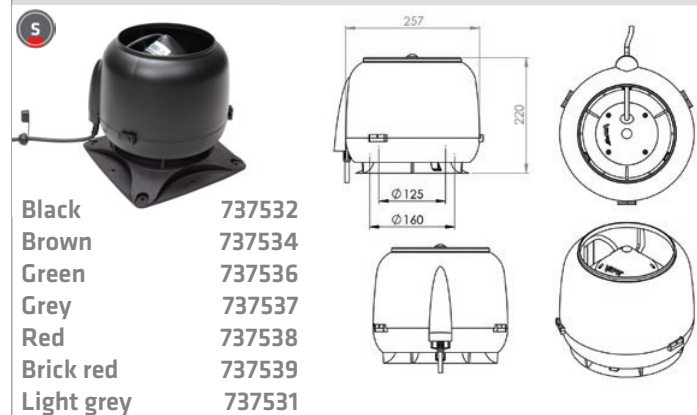
Flow performance values



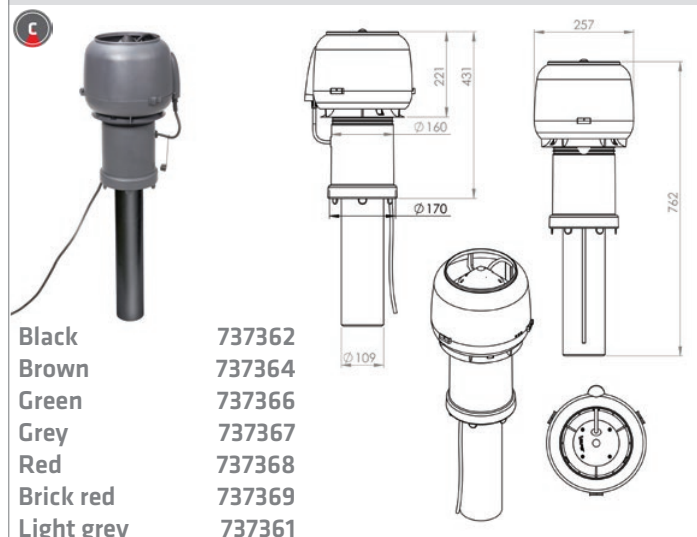
ECo110P/110/IS/500



ECo110S



ECo110C/110/IS/400



Electrical details

Fan type	ECo110
Power Input	83 W
Current	0.75 A
Nominal Voltage	230 V / 50 Hz
Speed	3200 r/min
Speed Controller	Potentiometer in the cowl of the roof fan



Controllers

E120, E190, E220

Thyristor, flush-mount



Code 735024

Thyristor, surface-mount



Code 735022

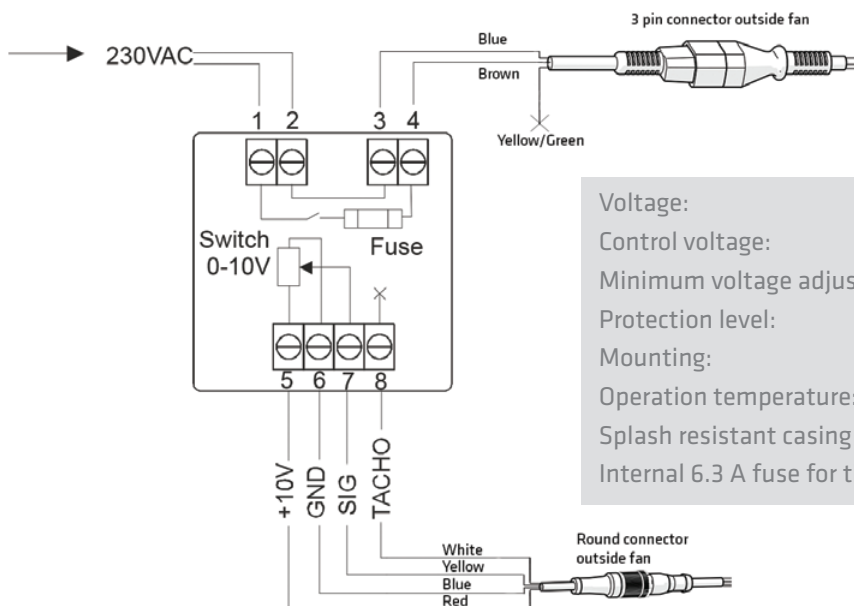
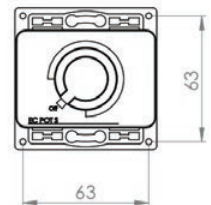
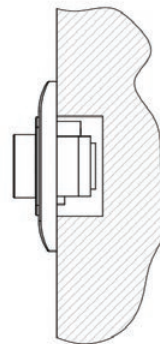
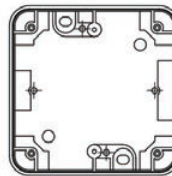
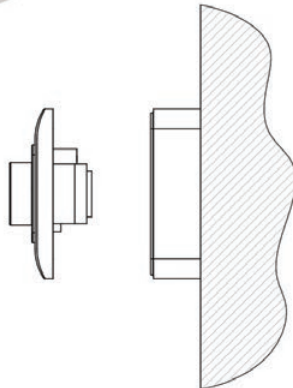
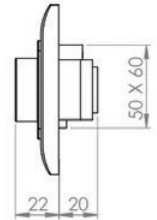
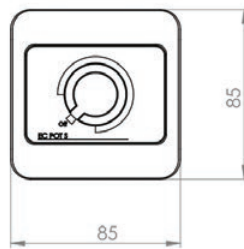


ECo 190, ECo 220, ECo 250

ECo Controller



Code 735028



Properties

Voltage:	230 VAC
Control voltage:	0-10 V
Minimum voltage adjustable by internal trimmer:	0-1.6 VDC
Protection level:	IP40/54
Mounting:	Surface and flush
Operation temperature:	0...40 °C
Splash resistant casing	
Internal 6.3 A fuse for the 230 V input of the roof fan	

ECo 190, ECo 220, ECo 250

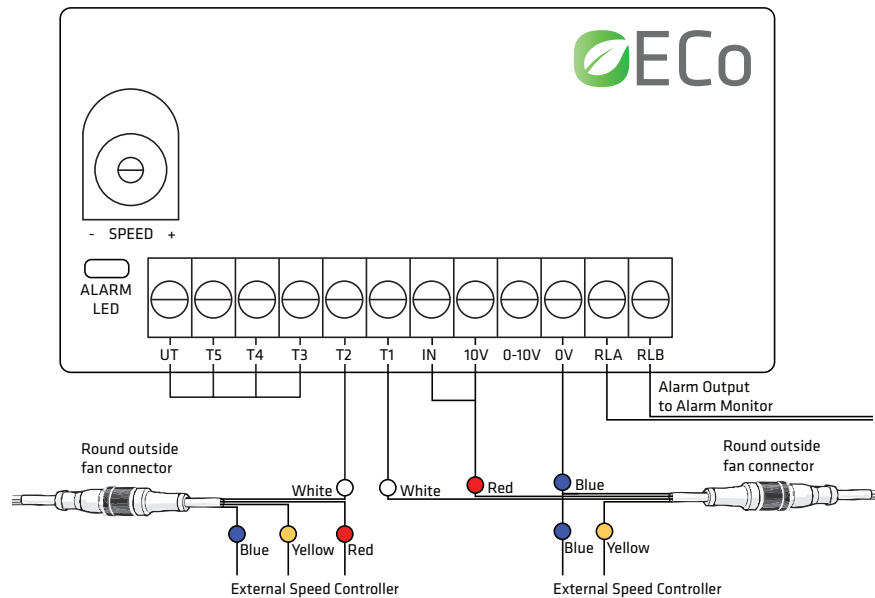


Code 735029

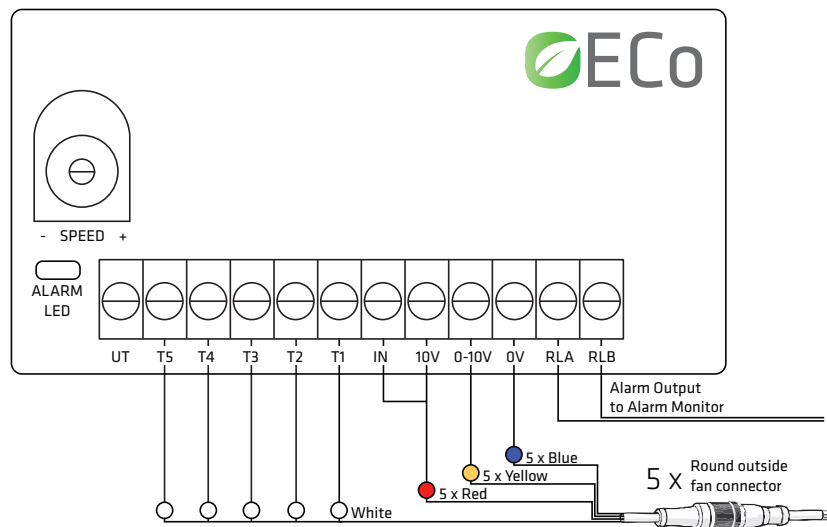
Properties

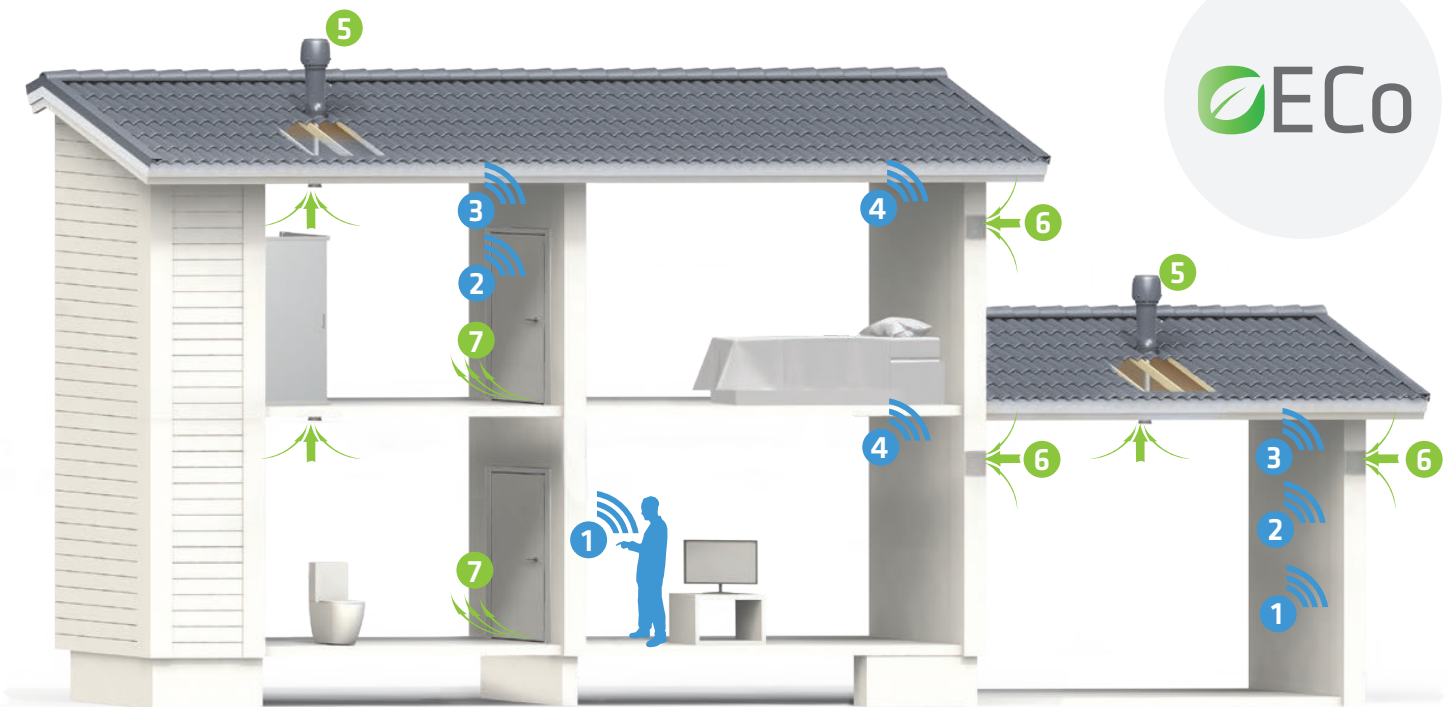
Supply Voltage	10V + 10% DC
Supply Current	Up to 1 mA
Isolated Alarm Output rating	Contacts 100 mA, 60 V, 100 mW Max
Tachometer Inputs	Open Collector fan Tachometer (1 - 5)
External Control Input	0-10 V, 100 kOhm load
Control Output	Fan speed control signal, 0-10 V, 2 kHz PWM
Operating Environment	-20 °C to +60 °C, 90% RH at 40 °C max.

Example wiring:
2 fan monitor,
no on-board speed control



Example wiring:
5 fan monitor,
on-board speed control





Automatised demand-controlled ventilation

Wireless sensors measure the relative humidity (RH) and carbon dioxide (CO₂) levels in the air and send this information to the control unit. The level of ventilation is then adjusted to secure good air quality without the use of excess energy.

The VILPE® ECo Ideal Wireless ventilation solution is used with VILPE® ECo roof fan (and VILPE® roof pass-through). The system can also be expanded to include several VILPE® ECo roof fans. With additional humidity and CO₂ sensors the system can be expanded to monitor several rooms in the building. Additional sensors are sold separately.

Basic package

Art. 735030 VILPE® ECo Ideal Wireless ventilation control, incl.

- User Panel (UP), 1 pc
- Control Unit (CU), 1 pc
- Relative Humidity Sensor (RH), 1 pc

Separately available:

Art. 735031 VILPE® ECo Ideal Wireless RH Sensor (relative humidity sensor)

Art. 735032 VILPE® ECo Ideal Wireless CO₂ Sensor (carbon dioxide sensor)

Further information: VILPE.COM

- Quick selection tool for the VILPE® roof fans (see page 25)
- VILPE® ECo Roof fans
- VILPE® Pass-throughs for tile, steel, felt and special roofings (see page 5)

Intake air vents

The size and number of intake air vents will depend on the site. Valve pressure loss should not exceed 10 Pa level of the selected air flow. Contact your HVAC designer.

Settings of the User Panel

Home setting - for conditions requiring constant air conditioning in order to maintain a good indoor air quality.

Away setting - is used when there are no occupants present and only basic ventilation is required.

High setting - is used when there is a temporary need for increased ventilation.

Automatic setting - sustains the ventilation at the level of the predetermined Away level and adjusts itself according to the information from the RH and CO₂ sensors. If the levels are elevated, the roof fan output is increased; if the levels are low, the roof fan output is decreased.

Always refer to a HVAC system designer to get a specification on the required ventilation capacities, on the positions of the exhaust and supply vents etc. in view of the characteristics of the installation site, national legislation and local norms set requirements on the HVAC system design.

The installation and operations manuals for each separate part of the solution are available at VILPE.COM/ECO or in the sales boxes.



Technical data



1 User Panel



2 Control Unit



3 RH Sensor



4 Sensor CO₂

5 VILPE® ECo roof fan + roof pass-through

6 Supply air valves

7 Transfer air

1. VILPE® ECo Ideal Wireless User Panel

Overall dimensions (h x w x d)	84 x 84 x 15 mm
Weight	± 125 g
Operating Temperature Range	0 to 40 °C
Shipping & Storage Temperature Range	-20 to 55°C
Relative Humidity	0 - 90%, non-condensing
Ingress protection (IEC60529)	IP30
Power supply	Battery
Battery type	CR2032
Battery lifetime	6 years
Communication frequency	868.3 MHz
Output power	at least 0 dBm.

You are not allowed to use the device outside of Europe.

2. VILPE® ECo Ideal Wireless Control Unit

Overall dimensions (h x w x d)	100 x 102 x 28 mm
Weight	± 125 g
Operating Temperature Range	0 to 40 °C
Shipping & Storage Temperature Range	-20 to 55°C
Relative Humidity	0 - 90%, non-condensing
Ingress protection (IEC60529)	IP30
Mains Power Source	230VAC ± 10%, 50Hz
Maximum power consumption	4VA
Wire diameter	0.25 to 2.5 mm ²
Communication frequency	868.3 MHz
Output power	at least 0 dBm
Multipoint communication, max 20 devices	
Output signal	0-10V
Input signals	Normally Open

You are not allowed to use the device outside of Europe.

3. VILPE® ECo Ideal Wireless RH Sensor

Overall dimensions (h x w x d)	100 x 100 x 25 mm
Weight	± 125 g
Operating Temperature Range	0 to 40 °C
Shipping & Storage Temperature Range	-20 to 55°C
Relative Humidity	0 - 90%, non-condensing
Ingress protection (IEC60529)	IP30
Power supply	Battery
Battery type	AA battery, 2x
Communication frequency	868.3 MHz
Output power	at least 0 dBm.
Measurement range:	0 - 100 % RH
Measurement accuracy	
11-89%RH	3% RH
at 0-10% and 90-100%	7% RH
Measurement resolution	1% RH
Measurement stability	1.5% RH over 5 years

You are not allowed to use the device outside of Europe.

4. VILPE® ECo Ideal Wireless Sensor CO₂

Overall dimensions (h x w x d)	100 x 100 x 25 mm
Weight	± 125 g
Operating Temperature Range	0 to 40 °C
Shipping & Storage Temperature Range	-20 to 55°C
Relative Humidity	0 - 90%, non-condensing
Ingress protection (IEC60529)	IP30
Mains Power Source	195 - 253 VAC, 50Hz.
Maximum power consumption	4VA
Wire diameter	0.25 to 2.5 mm ²
Communication frequency	868.3 MHz
Output power	at least 0 dBm
Optimal measurement range	400 to 2000 PPM
Measurement accuracy (within optimum range, >10min after powerup)	40 PPM + 2% of reading at 20°C
Stabilization period after power-up	2 minutes

You are not allowed to use the device outside of Europe.

Maximal roof pitches for the VILPE® P-series pass-throughs

Pass-through	Pipe XL Pass-through	Ø 110 mm	Ø 125 mm	Ø 160 mm	Ø 160 mm	Ø 200 mm	Ø 250 mm
					XL	XL	XL
Tile 2K / Tiili	XL Tile	40° / 48°	37° / 48°	32° / 37°	47°	45°	43°
Universal 2K / Universal	-	45° / 55°	40° / 55°	36° / 45°	-	-	-
Vittinge 1-w	-	45°	40°	30°	-	-	-
Vittinge 2-w	-	55°	50°	35°	-	-	-
Profiled steel 2K / Profiled steel	XL Universal MK1	43° / 50°	40° / 45°	36° / 40°	47°	47°	47°
Steel	XL Universal	45°	40°	27°	47°	47°	47°
Classic	XL Classic	55°	55°	48°	47°	47°	47°
Classic Vino 2K	-	48°	46°	43°	-	-	-
HS Slate	XL Felt	59°	57°	52°	47°	48°	45°
Felt Tall	XL Felt Tall	*	*	*	*	*	*
Decra	-	45°	45°	45°	-	-	-
Eternit B9	-	45°	45°	45°	-	-	-
Nera	-	57°	57°	50°	-	-	-
Aalto	-	55°	50°	45°	-	-	-

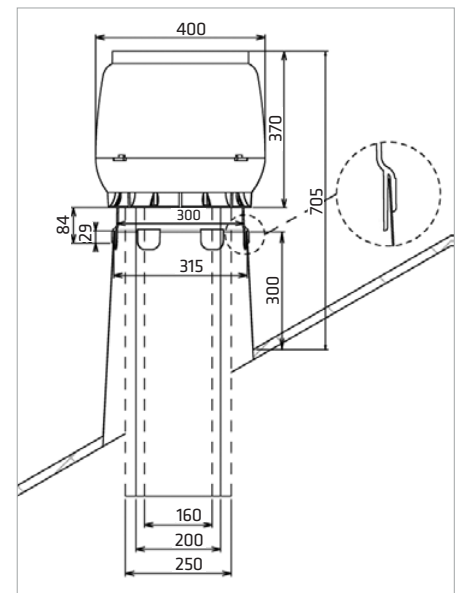
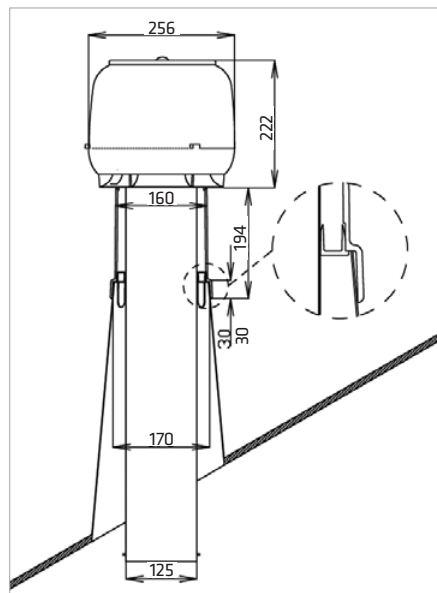
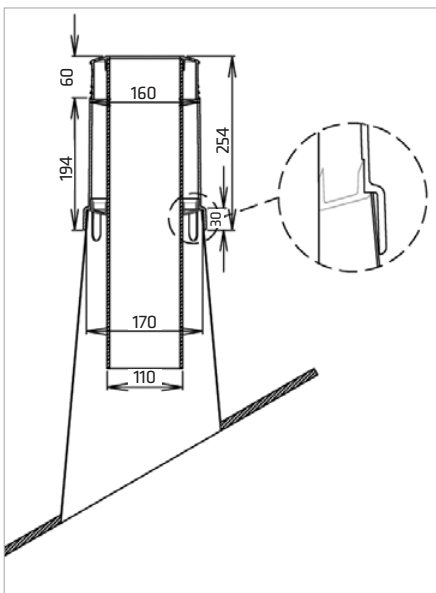
P-series pass-throughs are for roofs with pitches of more than 1:5 (11.5°), unless stated otherwise.

On maximal roof pitches make sure that the roof structure does not prevent the installation.

* The Felt tall pass-through is designed for installation on roofs with a pitch of less than 1:5 (11.5°). For the steeper roofs the normal Felt pass-through suits better.

Note! The roof pitches in the table are suggestive values. In extreme situations, the height of the roofing profile or the installation point of the underlay seals affects the values.

C-series schematics



Quick selection for the VILPE® roof fans

Selecting a roof fan for residential ventilation

A general recommendation is that the indoor air should be substituted completely every other hour. The exhaust air, removed by the roof fan, is replaced with fresh air coming in through ventilators in various rooms.

A rule of thumb is that a ducting system of a 120–150 m² house has a loss of compression of ca 100 Pa. A fast way to calculate the accurate loss of compression in pascals is to calculate 5 Pa per meter of ducting (including terminal equipment of ducting, bends, etc.).



m² maximum size

Roof fan	Duct	50 Pa	100 Pa	150 Pa
E120	125 mm	220 m ²	180 m ²	135 m ²
E190	125 mm	270 m ²	230 m ²	180 m ²
ECo190	125 mm	360 m ²	340 m ²	310 m ²
E220	160 mm	410 m ²	360 m ²	300 m ²
ECo220	160 mm	490 m ²	440 m ²	390 m ²
ECo250	200 mm	660 m ²	630 m ²	600 m ²

The loss of compression (Pa) depends on the length and diameter of piping but also on the number of corners and the speed of airflow. Recommended ventilation is achieved with the roof fan functioning at 70% of maximum capacity.

The table is indicative only.



Selecting a roof fan for a cooker hood

Indoor air and ventilation recommendations (in Finland) state a cooker hood should work 25 litres of air per second. The noise level in the kitchen should not exceed 33 dB (or 43 dB if heightened). Accurate data on loss of compression in the cooker hood (and its ducts) should be available from the manufacturer.



Roof fan	Duct	Free flow	50 Pa	100 Pa
E120	Ø 125 mm	120 l/s (432 m ³ /h)	103 l/s (371 m ³ /h)	87 l/s (313 m ³ /h)
E190	Ø 125 mm	155 l/s (558 m ³ /h)	138 l/s (497 m ³ /h)	116 l/s (418 m ³ /h)
ECo190	Ø 125 mm	190 l/s (684 m ³ /h)	182 l/s (655 m ³ /h)	171 l/s (616 m ³ /h)
E220	Ø 160 mm	236 l/s (850 m ³ /h)	212 l/s (763 m ³ /h)	180 l/s (648 m ³ /h)
ECo220	Ø 160 mm	257 l/s (925 m ³ /h)	245 l/s (882 m ³ /h)	223 l/s (803 m ³ /h)
ECo250	Ø 200 mm	340 l/s (1224 m ³ /h)	330 l/s (1188 m ³ /h)	320 l/s (1152 m ³ /h)

The table is indicative only.



Safety instructions

Receiving inspection

Check if there are damages due to transportation. If so, please contact the carrier without delay. Make sure that the delivery is complete and identical with the order.

The speed controller has to be bought separately and it should be recommended by the fan producer.

Speed controller

The fan can be speed-controlled by voltage variation. Normally, the speed is controlled by a step transformer or a stepless thyristor regulator. Please note, that an unfit thyristor may cause jamming and noise especially in low-speed use.

Safety direction

The fan has to be installed on the roof so that maintenance and service can be safely done. The fan must be installed in such a way that no moving parts can be touched.

The fan may only be installed by a qualified electrician.

The fan is not designed for transporting hot, explosive or erosive gases, grinding dust or similar. The main power must always be switched off before the fan hood is opened for service or repair. The special plug has to be plugged out and the shelter put on the plug. Be sure that the impeller is fully stopped before opening the fan hood.

Handle the motor unit with extra care. Note that after disconnecting the special plug and opening the slide locks the motor unit is loose. Always use original spare parts.

Electrical installation

A coupling box has to be used between the rubber cable and the fixed coupling. There must be a contact breaker in the coupling box. The rubber cable must be safely fixed in the box, meaning that a fitting cable clamp is installed within the coupling box. The fan has a built-in thermocontact and the switch on function is operating automatically.

Before use

The electrical installation must be wholly complete, and the connections earthed. There must not be any foreign objects in the fan hood or impeller. Check that the electrical conduit is properly installed.

When taking in use - check

The measured electrical results must not be higher than those shown on the fan. Rated current must not be higher than 5% with rated voltage. Voltage should be in accordance with DIN IEC38, with tolerance range of -10%...+6%.

No strange noises should be audible from the fan.

Service - Repairation - Guarantee

The main power must always be switched off before the fan hood is opened. We recommend inspection of the impeller and removal of possible foreign objects at least once a year. Failing to do so can result in damage in the bearings. The bearings are capsuled, lubricated and completely maintenance-free. Always use original spare parts. The rubber cable must be safely fixed after mounting the spare part. If the impeller is broken, an entirely new fan-engine has to be installed.

The cover on top of the hood has to be opened if the fan, cable or capacitor has to be disconnected. When closing the cover be sure that the rubber gasket under the cover is properly in place. The guarantee is valid one (1) year accordingly to the clauses of the producer or importer of the fan.

Troubleshooting

The main power must always be switched off before the fan hood is opened.

The fan is not running - check:

- That the electrical installation is correct.
- That the impeller runs easily.
- That there is no ice or foreign objects in the fan.

The fan is designed for continuous use!

The capacitor may be damaged (inspection is to be done only by a qualified electrician)

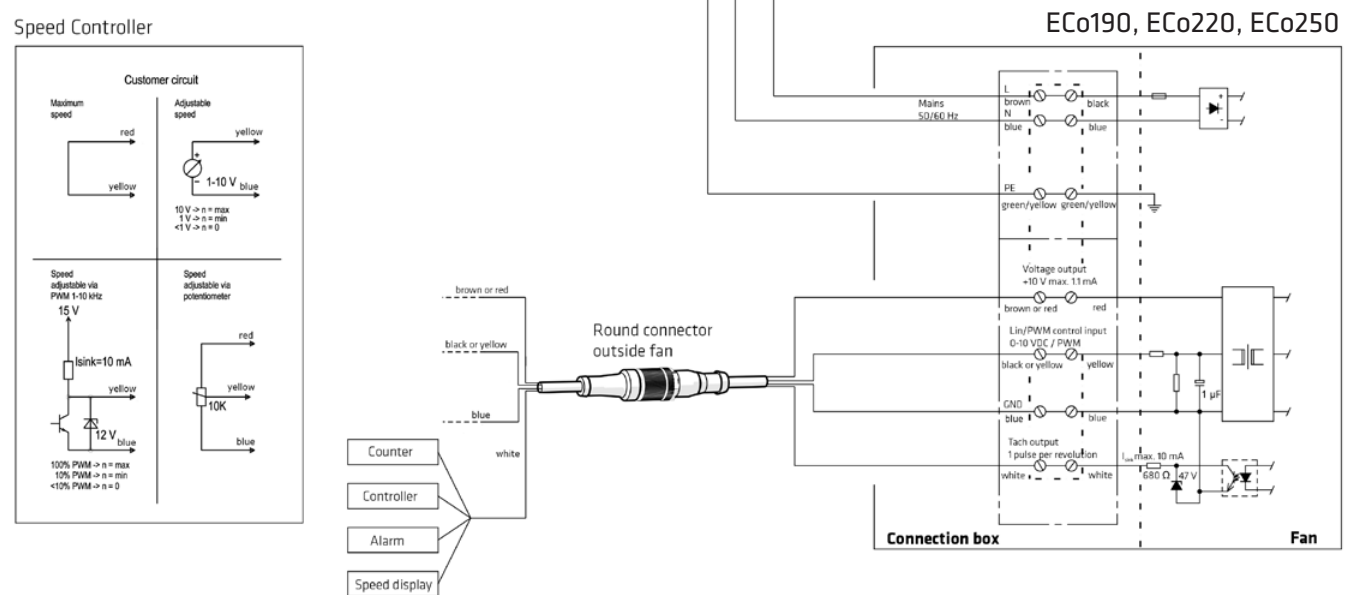
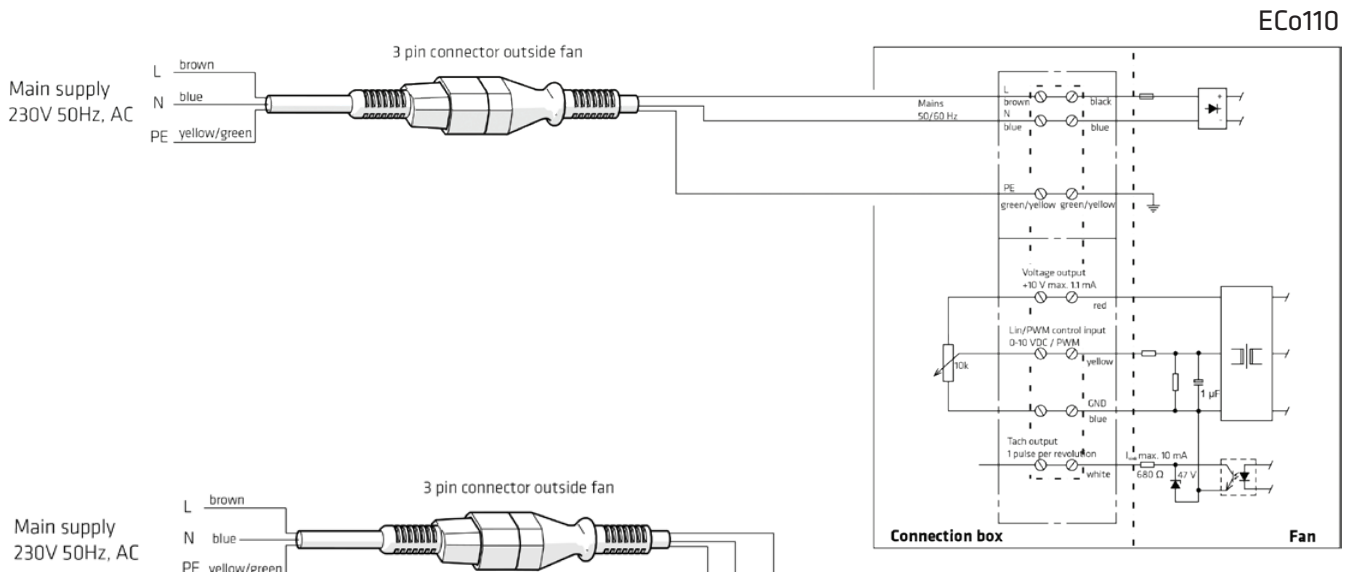
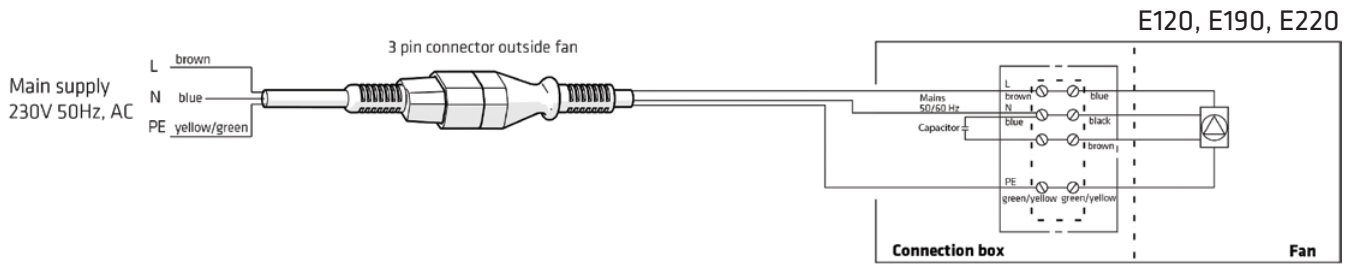
The fan is noisy

The impeller must be intact and clean. Imbalance may cause vibrations. There may be foreign materials in the impeller, e.g. pieces of insulation.

Water in the ventilation system

Pipe must be completely insulated in cold areas with minimum of 5 + 5 cm insulation boards. No moisture barrier may be installed on the insulation. The fan is designed for continuous use. Condensation in the pipes may occur if the fan has been switched off.

Electrotechnical information



VILPE® model	Power input	Current	Voltage	Capacitor	Rotation speed
E120	52 W	0.23 A	230 V, 50 Hz	1.5 µF	2350 rpm
E190	52 W	0.23 A	230 V, 50 Hz	1.5 µF	2350 rpm
E220	85 W	0.38 A	230 V, 50 Hz	2 µF	2600 rpm
ECo110	83 W	0.75 A	230 V, 50 Hz	-	3200 rpm
ECo190	83 W	0.75 A	230 V, 50 Hz	-	3200 rpm
ECo220	85 W	0.70 A	230 V, 50 Hz	-	2580 rpm
ECo250	165 W	1.40 A	230 V, 50 Hz	-	2560 rpm



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SK Tuote Oy

Founded on 1975, SK Tuote Oy is the leading company developing and manufacturing ventilation equipment and speciality roof products in Finland, the Baltic countries, Russia and the Nordic countries. SK Tuote is a reliable, stable and a determined partner. Its products are known for the VILPE® brand.

VILPE® products improve the quality of housing and living, ensure fresh indoor air, reduce health risks and prolong the lifespan of the structure. VILPE® products are innovative and high-quality as well as responsibly designed, manufactured and certified solutions.

Continual improvement of our operations and products is central to SK Tuote; after all, it means safety and long-lasting comfort for end users. VILPE® is a brand of safe building and living.

Quality and the Environment

SK Tuote Oy is most devoted on the quality of company products as well as its operations. The management system of SK Tuote has been granted both the ISO 9001:2008 quality certificate and the ISO 14001:2004 environmental certificate. These certifications cover the product development, manufacturing and sales of VILPE® products.

The primary objective of the quality system of SK Tuote Oy is to provide quality fulfilling our customers' needs. Environmental objectives include developing energy-efficient products and production methods, decreasing the amount of waste and increasing recyclability of plastic materials in the entire product lifespan.



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