DATA SHEET

DB_SZ_BALNEO_EX_V22.05_EN

BALNEO EX® SERIES

Intelligent modular system with a wide range of options for individual room ventilation.

Mounting design
Flush-mounted / Surface-mounted

Areas of application for:

⟶ Bathroom

⟶ Restroom

⟶ Kitchen

✺	Exhaust air unit

⑅	With sound insulation up to **46 dB** ($D_{n,e,w}$)

① Housing

- Flush-mounted housing with / without fire protection
- Surface-mounted housing without fire protection
- Flat housing with plaster protection cover
- Variable installation depth
- Wall/ceiling installation possible

② Control system

- For AC motor with attached control unit
  - one, two or three volume levels selectable
- For EC motor with integrated control
  - one or two volume levels selectable
- Sensor technology/humidity sensor, variable time delays (switch-on/run-on time) possible
- Electronic encapsulation

③ Fan unit with cover / backflow flap and filter

- Universal fan unit with smooth cover and filter
- Equipped with selected control module at the factory
- Integrated backflow flap

④ Special feature

- Simple realisation of a wide range of control programming combinations + Retrofittability through modular system
- Sophisticated design for easy installation => time-saving assembly on site
- 100% ige functional testing before delivery => Quality promise for users
- Filter change possible without tools => particularly simple and clean
- Control via e.g. humidity sensor possible => needs-orientated, barrier-free, energy-saving

TECHNICAL DATA

BALNEO EX® - AC / EC FAN

		AC fan			EC fan with integrated control unit
Operating temperature	[°C]	-5 to 30			-5 to 30
Room air / Exhaust air		without agressive gases, dusts, oils			without agressive gases, dusts, oils
Protection class		II			II
Protected area		IPX5			IPX5
Protection area according to VDE 0100	701.55	≥ 1			≥ 1
Operating voltage	V [AC/Hz]	230/50			230/50
Control System		V-NE/NF 60	V-NE/NF 30/60	V-NE 30/60/100	integrated / adjustable via DIP switch
Full load	[m³/h]	60	60	100	30/50/60/100
Partial load	[m³/h]	-	-	60	-
Base load	[m³/h]	-	30	30	20/30/40/60
Power consumption					
at 30 m³/h	[W]	-	7	7	2,2
at 60 m³/h	[W]	20	20	20	4,5
at 100 m³/h	[W]	-	-	30	15,3
Sound pressure level* **LpA (1,5m distance)**	dB [A]	43	34 - 43	34 - 48	33 - 47
at 30 m³/h		-	34	34	33
at 60 m³/h		43	43	43	40
at 100 m³/h		-	-	48	47
Pressure difference at full load	[Pa]	118	118	80	200
Humidity control sensor		sliding		-	sliding
available at		NF	NF	-	Additional circuit board (see accessories)
Switch-on delay for NE	[s]	3 - 150	3 - 150	3 - 150	0 - 240
Switch-on delay with LF	[s]	60	60	-	-
Follow-up time for NE	[s]	180 - 1800	180 - 1800	180 - 1800	0 - 900
Follow-up time with LF	[s]	900	900	-	-

* Factory measurements

OVERVIEW OF DEVICE DESIGN

BALNEO EX® SERIES -
DIMENSIONS OF FLUSH-MOUNTED AND SURFACE-MOUNTED HOUSINGS

Depending on the module and combination, the system can be equipped with a follow-up, humidity and/or multi-stage control. Further requirements, such as fire protection or second room connection, can be realised with the corresponding flush-mounted or surface-mounted housing.

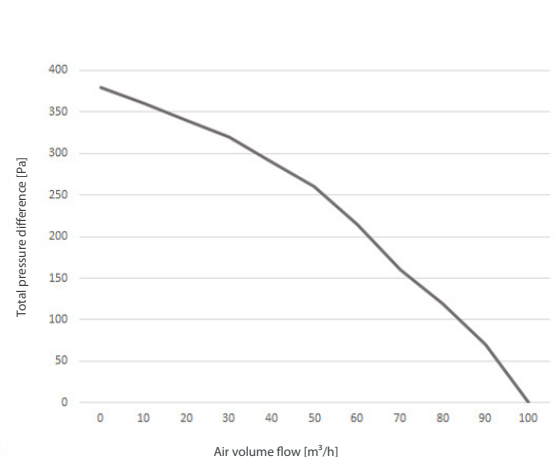|	Designation	Flush-mounted					Surface-mounted
		Type U	Type U/BU	Type UL/UR	Type UK	Type US	Type A
Height (Plaster protection / External dimension)	[mm]	225/255	225/255	225/255	245/270	225/255	260
Width (Plaster protection / External dimension)	[mm]	225/255	225/255	225/255	245/290	225/255	260
Depth	[mm]	95	95	95	83	105	130
Duct connector	DN	75	75	75	75	75	80-100
Secondary connector	DN	-	-	75	-	75	-

PERFORMANCE CURVES AC FAN

Flush-mounted housing
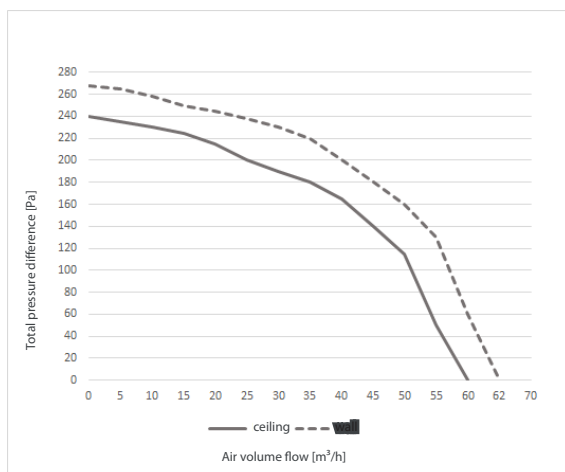
Performance curve AC fan (flush-mounted) -
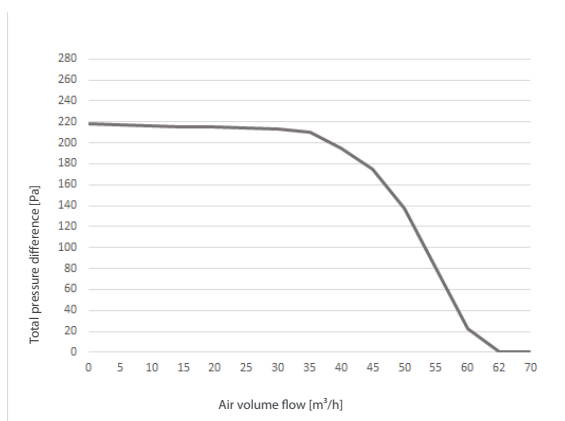Installation version ceiling, wall

Surface-mounted housing

Performance curve AC fan (surface-mounted) - wall-mounted version

PERFORMANCE CURVE EC FAN

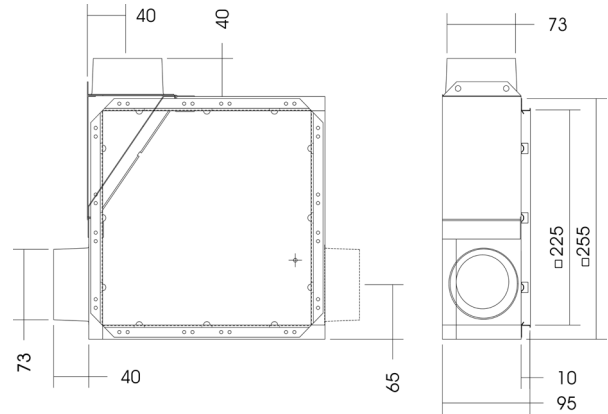Performance curve EC fan - air flow rate 50Hz

TECHNICAL **ILLUSTRATIONS**

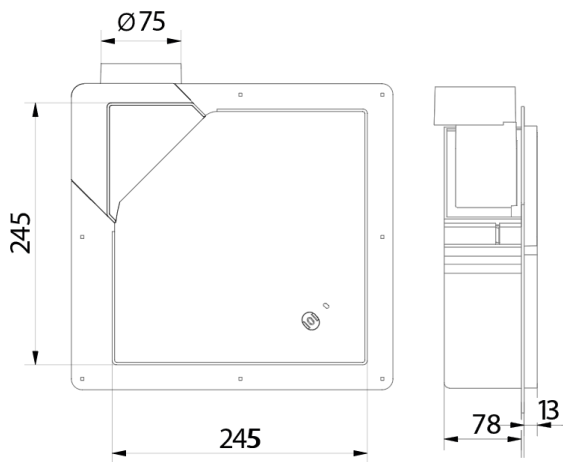## SURFACE-MOUNTED AND FLUSH-MOUNTED HOUSING

With fire protection type U | Type U / BU (flush-mounted)
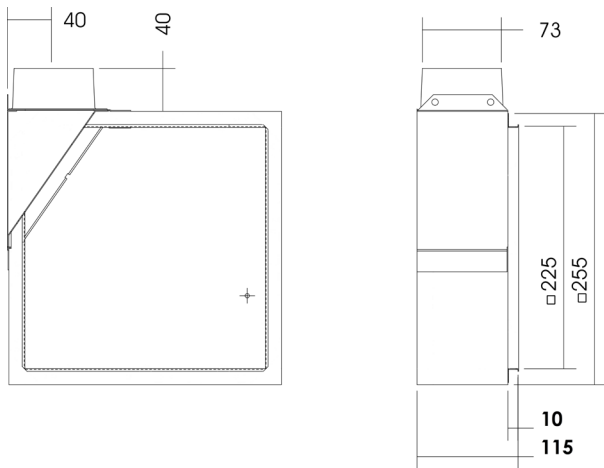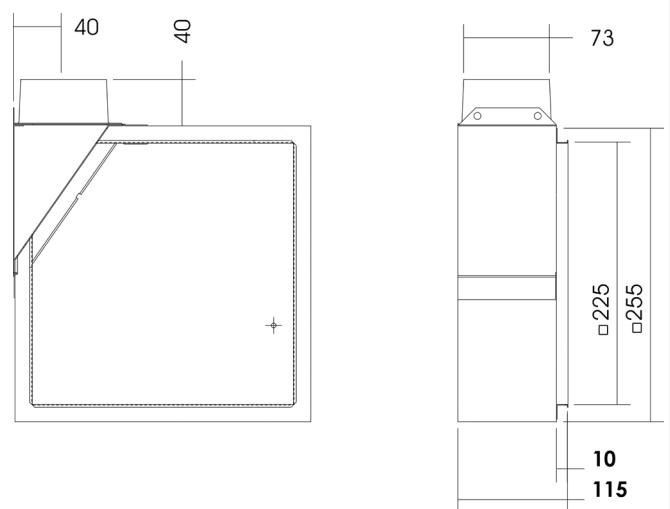

With fire protection type UL / UR (flush-mounted)
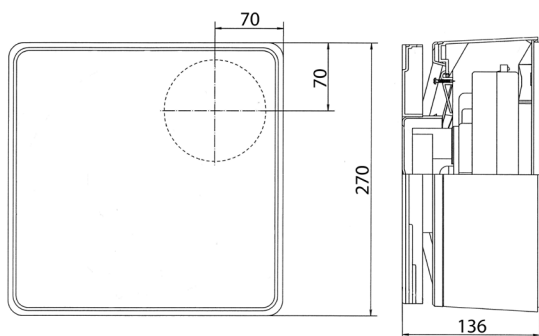

Without fire protection type UK (flush-mounted)

Without fire protection type US (flush-mounted)

Without fire protection type A (surface-mounted)

SYSTEM COMPONENTS - BALNEO EX® SERIES

The exhaust air system is made up of three components. Housing, fan unit and control unit. Modular, flexible and retrofittable, depending on the individual requirements add-ons. Extension and convenient installation materials make installation easier.

With integrated fire damper

Product presentation	PG	Item no:	Type	Brief description
Flush-mounted housing with fire protection				
	0	1700-0100BA 1700-0101BA 1700-0102BA	Type U Type UL Type UR	Flush-mounted housing type U for bathrooms and WCs made of 15 mm A1 calcium silicate fire protection boards, 95 mm flat housing with plaster protection cover. Variable installation depth, as no fixed connection to the fan facade is required. With the UL/ UR versions, there is the option of a secondary duct connector.
	0	1700-0106BA	Type U/BU	Flush-mounted housing type U/BU for bathrooms, restrooms and kitchens; with self-locking fire protection device, made of 15 mm A1 calcium silicate fire protection boards (fire class A1); with plaster cover ; additional fire protection device consisting of a stainless steel bracket with double spring and 72°C fusible link as release mechanism.
Flush-mounted without fire protection				
	0	1700-0111BA	Type UK	Flush-mounted housing type UK for bathrooms and restrooms that do not place any fire protection requirements on the ventilation unit. The housing is characterised by a very shallow installation depth (78 mm).
	0	1700-0120BA	Type US	Flush-mounted housing type US for bathrooms and restrooms that do not place any fire protection requirements on the ventilation unit.
Surface-mounted housing without fire protection				
	0	1700-0200BA	Type A	Type A surface-mounted housing for bathrooms and restrooms that do not place any fire protection requirements on the ventilation unit.

SYSTEM COMPONENTS

CONTROLS FOR AC FANS

Product presentation	PG	Item no:	Type	Brief description
Single-stage control				
	0	1700-1104BA	V-NE 60	AC plug-in module 60 m³/h, follow-up full load 60 m³/h Switch-on delay adjustable, Tv = 3s - 150 s Run-on time adjustable, Tn = 3-30 min
Multi-level controls				
	0	1700-1203BA	V-NE 30/60	AC plug-in module 30/60 m³/h, run-on base load 30 m³/h; full load 60 m³/h Switch-on delay adjustable, Tv = 3 s - 150 s Run-on time adjustable, Tn = 3-30 min
	0	1700-1205BA	V-NF 30/60	AC plug-in module 30/60 m³/h, hygrostat, overrun base load 30 m³/h; full load 60 m³/h switch-on delay Tv = 60 s Run-on time Tn = 15 min Humidity sensor works with sliding humidity control mounting of the sensor is concealed in the filter holder.
	0	1700-1302BA	V-NE 30/60/100	AC plug-in module 30/60/100 m³/h, overrun base load 30 m³/h; partial load 60 m³/h; full load 100 m³/h Switch-on delay adjustable, Tv = 3s - 2.5 min Run on time adjustable, Tn = 3-30 min

COMPONENTS

FAN UNIT, ACCESSORIES

Product presentation	Product designation	Brief description
Fan insert		
	AC fan unit L-N *Item no.: 1706-2000BA*	Fan unit for all surface-mounted and flush-mounted housings incl. elegant, smooth-surface cover (AC control electronics are also required). Integrated backflow flap; Approved for installation in protection zone 1 of wet rooms; approval number Z 51.1 - 97 DIBt Berlin, in accordance with DIN 18017-3 Intrinsic noise 30m³/h 34 dB, 60m³/h 43 dB, 100 m³/h 48 dB Ao = 10m², (Ao 4m² = +4dB)
	EC fan unit *Item no.: 1706-6000BA*	Fan unit for all surface-mounted and flush-mounted housings incl. elegant, smooth-surfaced cover. With integrated backflow flap; Approved for installation in protection zone 1 of wet rooms; approval number Z 51.1 - 97 DIBt Berlin, according to DIN 18017-3 Intrinsic noise 30m³/h 33dB, 60m³/h 40 dB, 100m3/h 47 dB Ao = 10m², (Ao 4m² = +4dB)
Accessories		
	EC-F additional board **Additional circuit board -** **control electronics with** **humidity sensor** *Item no.: 1700-6010BA*	The EC-F additional board is an accessory for the EC-fan. It measures the humidity at regular intervals. An average value is calculated from the measured values over a period of time. If this is exceeded within a short time, the fan starts and runs at 60 m³/h for a maximum of 30 minutes. If the average value is reached again during this time, the fan switches off prematurely or returns to the basic load.
	Mounting bracket M *Item no.: 1700-0150BA*	Mounting bracket with fixing material for flush-mounted housing.
	Exhaust air valve AV *Item no.: 1700-0175BA*	Abluftventil AV zur Abdeckung des Nebenanschlusses. Komponenten: Filterträger Filter G3 (ISO Coarse 50%)
	Duct connector N *Item no.: 1700-0121BA*	Secondary duct connector outlet type N made of sheet steel for flush-mounted housing US made of EPS material (art. no. 1700-0120BA).
	Fire protection equipment BA *Item no.: 1700-0104BA*	Universal fire protection device BA For fan installations outside shaft walls and for installation between ceilings. Connection piece DN75 removable, for direct attachment of the exhaust air valve AV (secondary connector).

COMPONENT MAPPING

	Housing	Flush-mounted					Surface-mounted
		Type U	Type UL Type UR	Type U/BU	Type UK	Type US	Type A
	Item no.	1700-0100BA	1700-0101BA 1700-0102BA	1700-0106BA	1700-0111BA	1700-0120BA	1700-0200BA
Functions							
Fire protection function		yes	yes	yes	no	no	no
Approval number DIBt Berlin		Z-41.3-369	Z-41.3-369	Z-41.3-370	-	-	Z-51.1-48
Integrated fire damper		no	no	yes	no	no	no
Accessories							
Shunt N	**1700-0121BA**	-	integrated	-	-	◯	-
Fire protection equipment BA	**1700-0104BA**	-	-	-	◯▽	◯▽	◯▽
Exhaust air valve AV	**1700-0175BA**	-	◯	-	-	◯	-
Mounting bracket M	**1700-0150BA**	◉	◉	◉	◉	◉	-
EC fan insert							
EC fan N	**1706-6000BA**	●	●	●	●	●	●
Additional board with humidity sensor	**1700-6010BA**	◯	◯	◯	◯	◯	◯
AC fan insert							
AC fan L-N	**1706-2000BA**	●	●	●	●	●	●
Control unit V-NE 30/60	**1700-1203BA**	●	●	●	●	●	●
Control unit V-NF 30/60	**1700-1205BA**	◉	◉	◉	◉	◉	◉
Control unit V-NE 30/60/100	**1700-1302BA**	◉	◉	◉	◉	◉	◉
Control unit V-NE 60	**1700-1104BA**	◉	◉	◉	◉	◉	◉

● necessary accessories   ◉ alternatively selectable   ◯ optional accessories   ◉ mounting accessories   ▽ not available for recessed ceiling installation