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For a range of it's heat sinks designed for forced convection, Alutronic offers pre-assembled, standardised cooling aggregates.

These standards offer a proven thermal solution for your electronic power device such as IGBTs or similar.

You can choose from several combinations of heat sinks, each at different lengths, with different options of high quality axial fans.

Also you can add a pressure chamber to the cooling aggregates.

The pressure chamber leads to a more even air flow throughout the length of the heat sink, thereby increasing its efficiency.

As always at Alutronic, feel free to contact us directly if you need any customisation done to our standard offer, or if you have any questions.

We are constantly expanding our range of products, and you can also get the latest information by visiting our website at [www.alutronic.de](http://www.alutronic.de)

Alutronic in Short

Customised Extrusions

Standard Extrusions

Heat Sink PCB Mounting

Powerbloccs

Heat Sink Systems

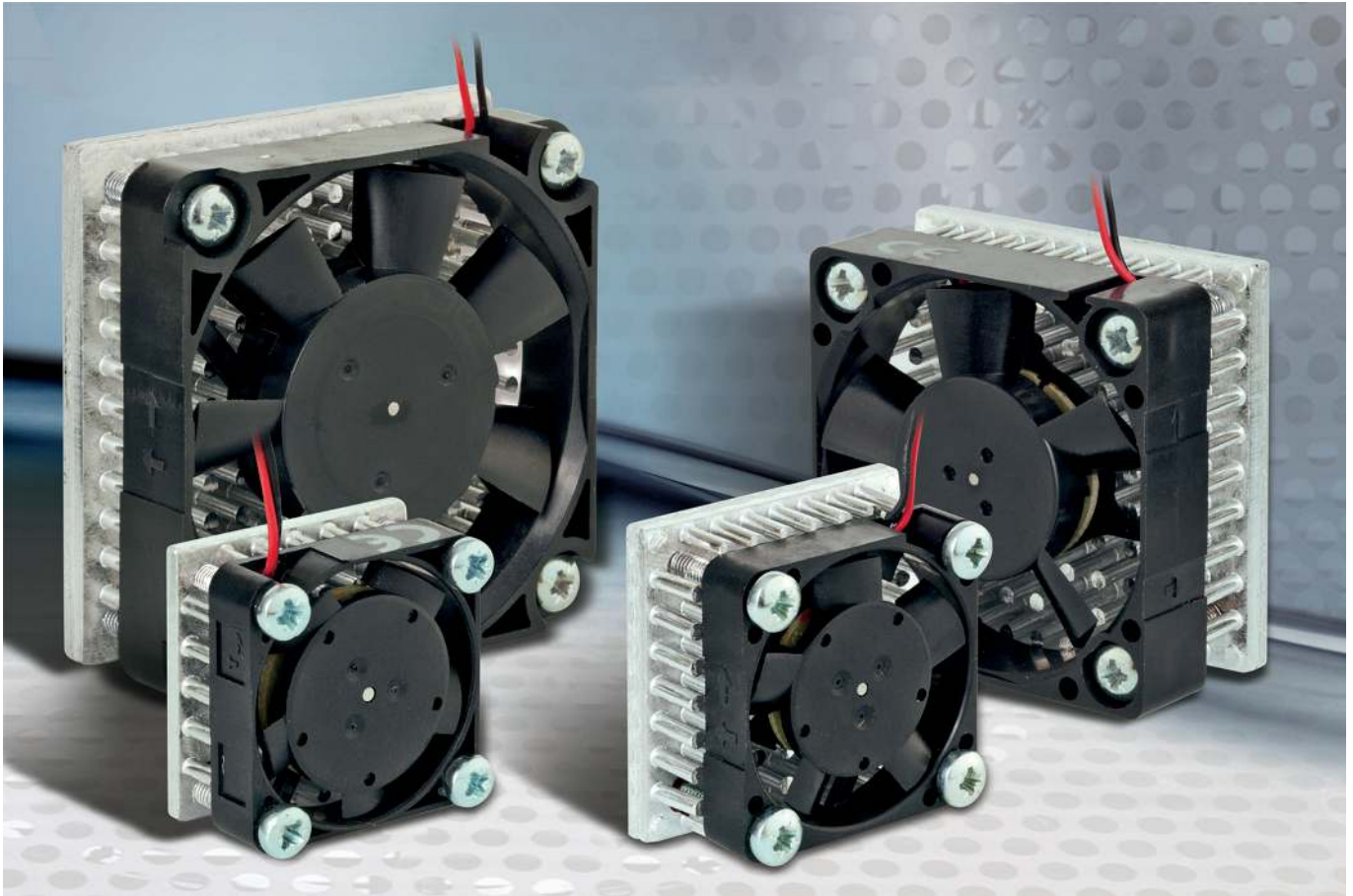
Casings

Insulation + Heat Conduction

Mounting

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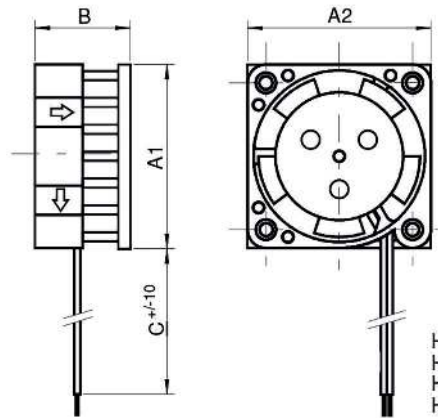
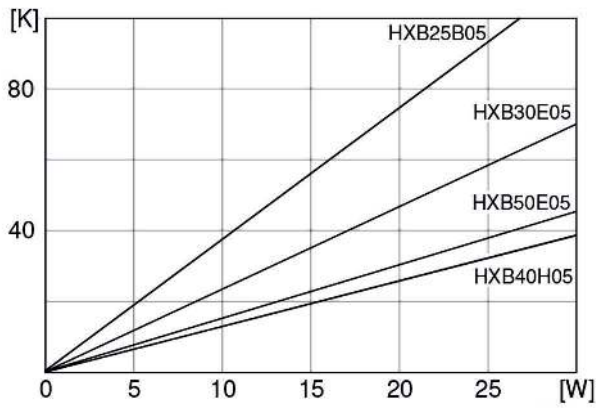
**ALUTRONIC heat sink and SEPA Fan**

From the fusion of ALUTRONIC heat sinks and SEPA fans the HXB models have been created. A combination, with which the fan distributes air through the heat sink for optimal cooling.

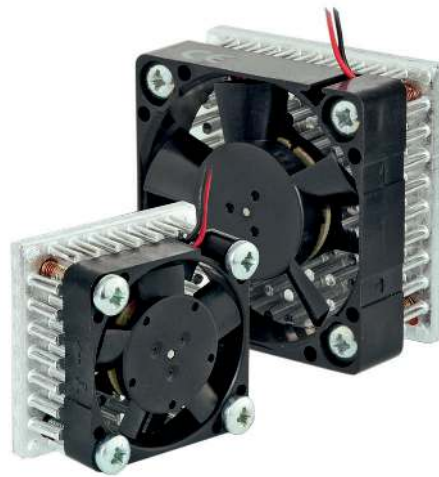
The coolers of the latest generation achieve a high flow rate with very low values of power consumption. As a result of the computer-supported development of the wing geometry, even the noise development has been optimised, and thus, the noise generated by a typical rotor speed of 11,000 rpm<sup>-1</sup> is very quiet with a sound level of 21 dB(A) (e.g. HXB25B12).

Another plus point is the long service life of 70,000 / 350,000 hours (L<sub>10</sub> / MTBF at 40°C). Moreover, the chip coolers have an electronically commuted motor whose motor winding is switched by a special IC.

By a selection of suitable electronic components and high-quality ball bearings, the reliability of the fans is achieved at operating temperatures between -10 and +80 °C.

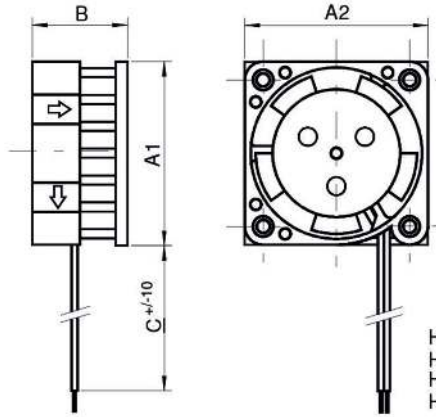
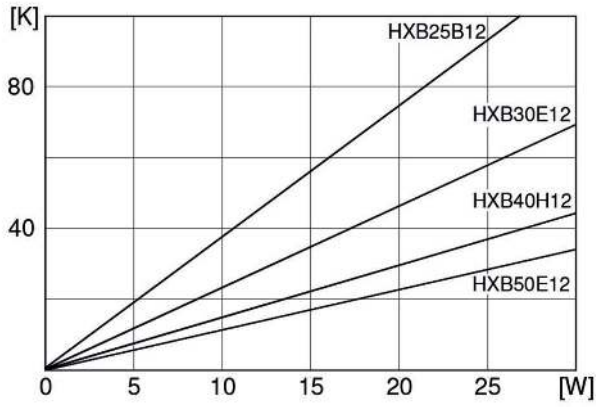


	A1xA2xB
HXB25B	25x25x15
HXB30E	32x32x19
HXB40H	40x40x20
HXB50E	50x50x20



ARTICLE NAME		HXB25B05	HXB30E05	HXB40H05	HXB50E05
Operating voltage	[VDC]	4.5 ... 5 ... 5.5			
Typ. operating current	[mA]	40	90	90	50
Max. starts current	[mA]	120	130	250	120
Typ. thermal resistance	[K/W]	3,9	2,4	1,3	1,5
Typ. noise (1m dist. from air intake s.)	[dB(A)]	20	21	30	19
Typ. rotor speed	[RPM]	10000	8600	5800	3500
FG (...A)	[PPR]	3	3	2	2
Operating temperature	[°C]	-10 to +80			
Life expectancy L10/MTBF@ 40°C	[h]	70.000/350.000			
Bearing system		2 Ball bearings ZZ			
Weight	[g]	11	23	37	55





	A1xA2xB
HXB25B	25x25x15
HXB30E	32x30x19
HXB40H	40x40x20
HXB50E	50x50x20



ARTICLE NAME		HXB25B12	HXB30E12	HXB40H12	HXB50E12
Operating voltage	[VDC]	10.2 ... 12 ... 13.8			
Typ. operating current	[mA]	30	30	60	60
Max. starts current	[mA]	80	70	90	140
Typ. thermal resistance	[K/W]	3,8	2,5	1,4	1,2
Typ. noise (1m dist. from air intake s.)	[dB(A)]	21	22	25	25
Typ. rotor speed	[RPM]	11000	9000	5500	4800
FG (...A)	[PPR]	3	3	2	2
Operating temperature	[°C]	-10 to +80			
Life expectancy L10/MTBF@ 40°C	[h]	70.000/350.000			
Bearing system		2 Ball bearings ZZ			
Weight	[g]	11	23	37	55

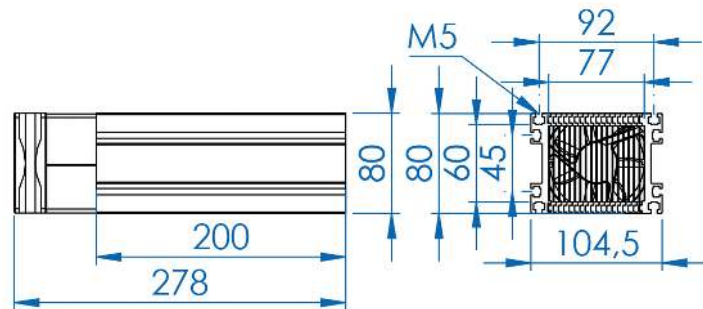
Fan units with axial blowers, also suitable for double-sided mounting of devices

- Optimisation by special lamella construction
- There are two assembly surfaces available for assembly of the semiconductor modules to be cooled, if necessary.
- The technical specifications are related to the fitting of a plane-milled assembly surface with uniform load distribution
- The pressure chamber between the fan and lamella unit ensures optimal air distribution on all blades.
- The safety regulations on technical equipment according to law must be observed and followed.

General technical specifications:

- The aluminium lamellas are chrome-plated for corrosion protection (RoHS-compliant)
- Assembly surface plane milled ( $R_z$  max. 10  $\mu\text{m}$ )
- Material AlMgSi 0.5 F22
- Plug-in channels for M5 threaded nuts according to DIN 562

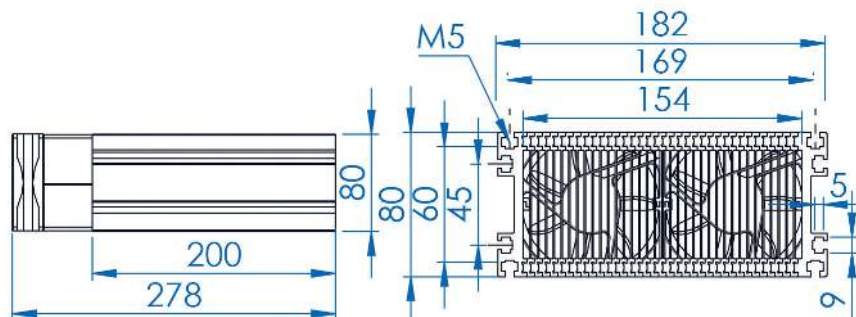
## LK 10/200/A



Max. power loss: [W]: **200**

Min. thermal resistance: [K/W]: **0.131**

## LK 20/200/A

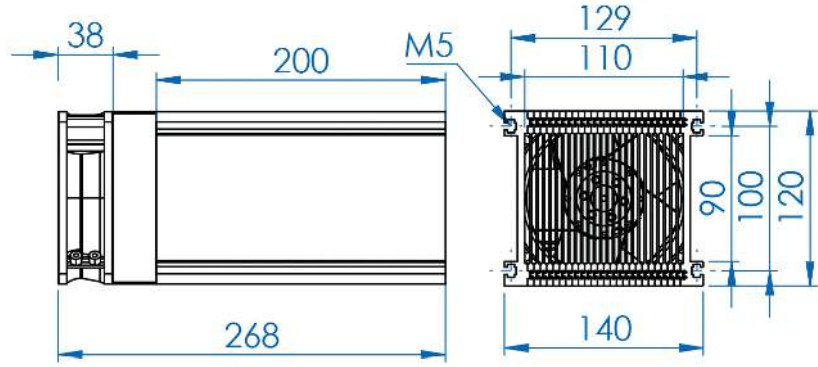


Max. power loss: [W]: **400**

Min. thermal resistance: [K/W]: **0.068**

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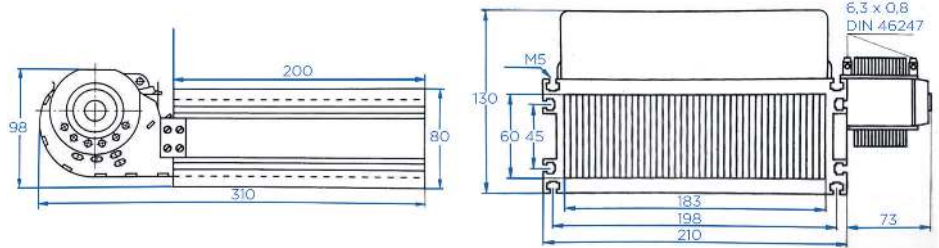
**LK 30/200/A**



Max. power loss: [W]: **400**

Min. thermal resistance: [K/W]: **0.073**

**LK 40/200/Q**



Max. power loss: [W]: **625**

Min. thermal resistance: [K/W]: **0.044**



Our ERP system is programmed in-house and offers transparency and control- all the time!

The cooling aggregates of the PK series are designed for high capacity of heat dissipation.

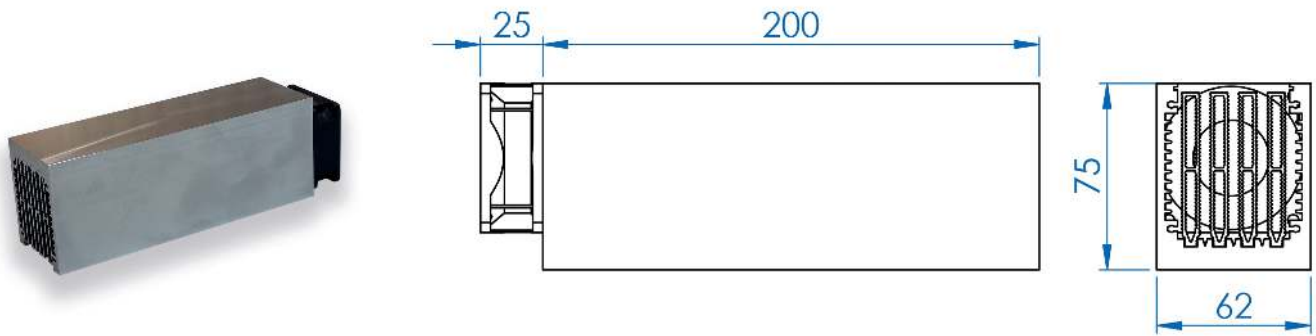
The pre-milled mounting surface ( $R_z$  max 10 $\mu$ m) is ready for assembly.

Customised shapes are also possible upon request.

Detailed fan specifications you will find on [www.alutronic.com](http://www.alutronic.com).

### PK715 including fan

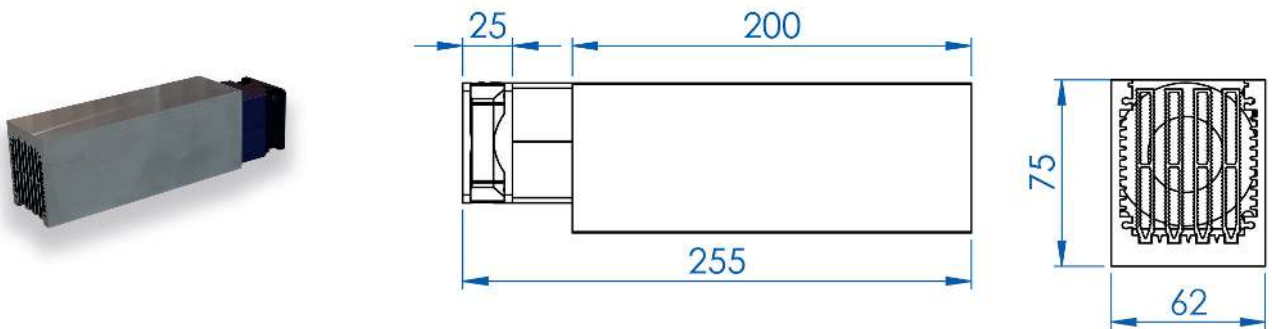
Alutronic extrusion PR715 with pre-milled mounting surface, inserted sheet to channel airflow and pre-mounted fan (12V or 24V)



article	Rth [K/W]	length [mm]
PK 715-100-AL-12V	0.21	100
PK 715-100-AL-24V	0.2	100
PK 715-200-AL-12V	0.15	200
PK 715-200-AL-24V	0.15	200
PK 715-300-AL-12V	0.12	300
PK 715-300-AL-24V	0.11	300

### PK715 including fan and pressure chamber

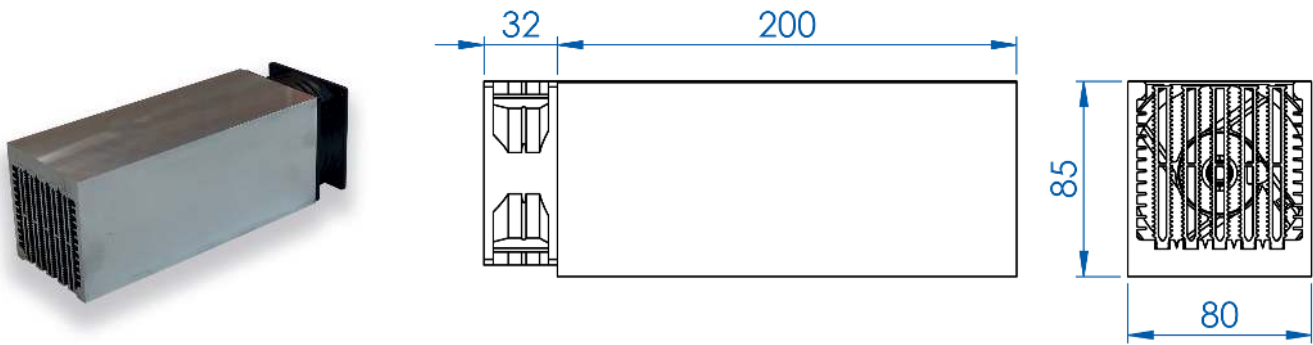
Alutronic extrusion PR715 with premilled mounting surface, inserted sheet to channel airflow, pressure chamber and pre-mounted fan (12V or 24V)



article	Rth [K/W]	length [mm]
PK 715-100-AL-D12V	0.15	100
PK 715-100-AL-D24V	0.17	100
PK 715-200-AL-D12V	0.11	200
PK 715-200-AL-D24V	0.11	200
PK 715-300-AL-D12V	0.11	300
PK 715-300-AL-D24V	0.09	300

## PK716 including fan

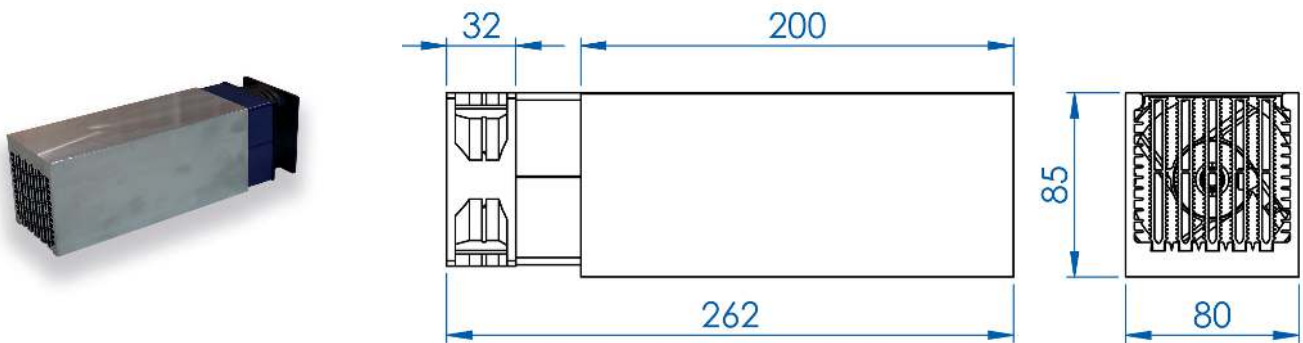
Alutronic extrusion PR716 with pre-milled mounting surface, inserted sheet to channel airflow and pre-mounted fan (24V DC or 230 V AC)



article	Rth [K/W]	length [mm]
PK 716-100-AL-24V	0.224	100
PK 716-100-AL-230V	0.28	100
PK 716-200-AL-24V	0.148	200
PK 716-200-AL-230V	0.204	200
PK 716-300-AL-24V	0.124	300
PK 716-300-AL-230V	0.177	300

## PK716 including fan and pressure chamber

Alutronic extrusion PR716 with premilled mounting surface, inserted sheet to channel airflow, pressure chamber and pre-mounted fan (24 V DC or 230 V AC)

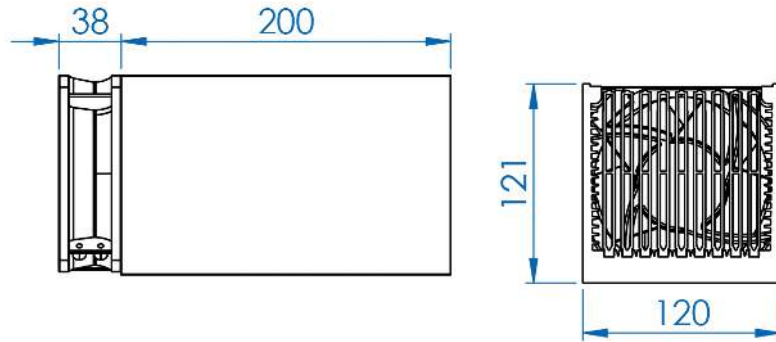


article	Rth [K/W]	length [mm]
PK 716-100-AL-D24V	0.2	100
PK 716-100-AL-D230V	0.27	100
PK 716-200-AL-D24V	0.122	200
PK 716-200-AL-D230V	0.168	200
PK 716-300-AL-D24V	0.1	300
PK 716-300-AL-D230V	0.145	300



## PK717 including fan

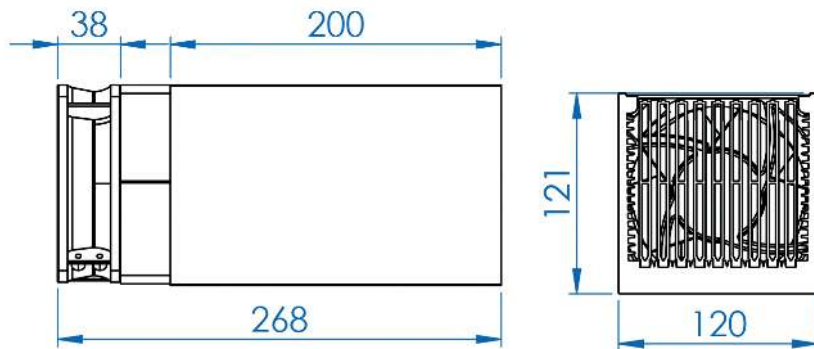
Alutronic extrusion PR717 with pre-milled mounting surface, inserted sheet to channel airflow and pre-mounted fan (24V DC or 230V AC)



article	Rth [K/W]	length [mm]
PK 717-100-AL-24V	0.14	100
PK 717-100-AL-230V	0.175	100
PK 717-200-AL-24V	0.075	200
PK 717-200-AL-230V	0.01	200
PK 717-300-AL-24V	0.072	300
PK 717-300-AL-230V	0.092	300

## PK717 including fan and pressure chamber

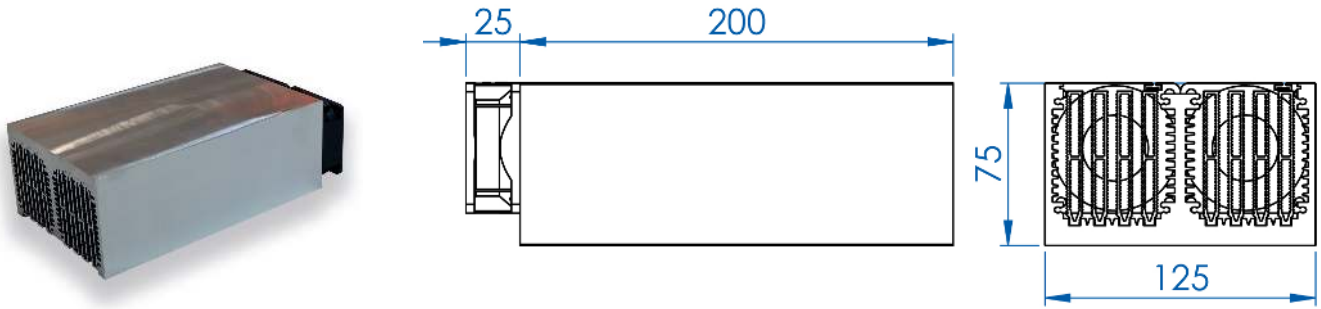
Alutronic extrusion PR717 with premilled mounting surface, inserted sheet to channel airflow, pressure chamber and pre-mounted fan (24V DC or 230V AC)



article	Rth [K/W]	length [mm]
PK 717-100-AL-D24V	0.11	100
PK 717-100-AL-D230V	0.145	100
PK 717-200-AL-D24V	0.061	200
PK 717-200-AL-D230V	0.085	200
PK 717-300-AL-D24V	0.051	300
PK 717-300-AL-D230V	0.075	300

## PK718 including fan

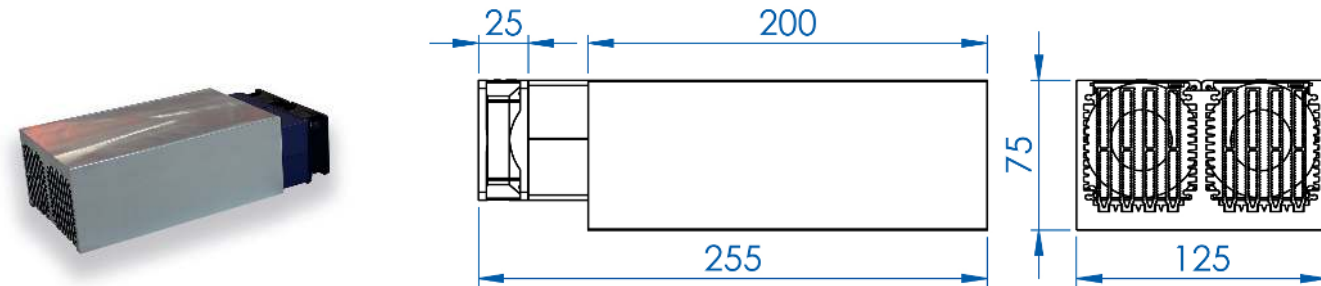
Alutronic extrusion PR718 with pre-milled mounting surface, inserted sheet to channel airflow and pre-mounted fan (12V or 24V)



article	Rth [K/W]	length [mm]
PK 718-100-AL-12V	0.11	100
PK 718-100-AL-24V	0.1	100
PK 718-200-AL-12V	0.075	200
PK 718-200-AL-24V	0.075	200
PK 718-300-AL-12V	0.055	300
PK 718-300-AL-24V	0.045	300

## PK718 including fan and pressure chamber

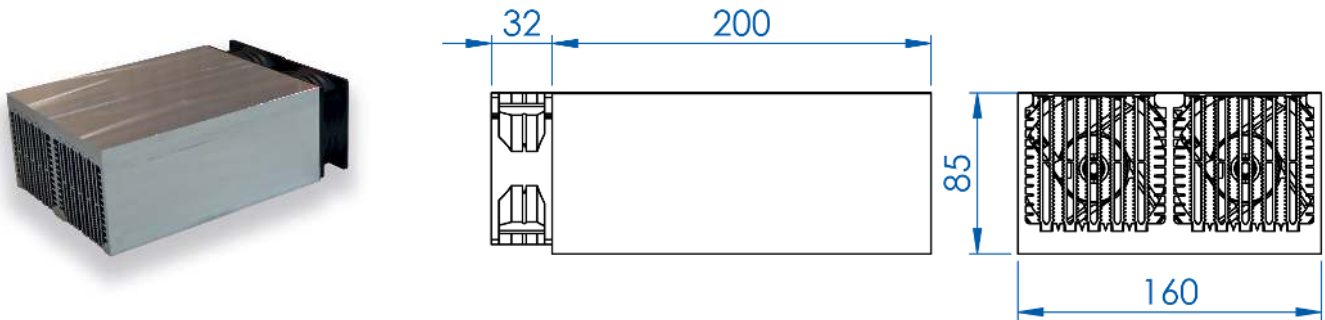
Alutronic extrusion PR718 with premilled mounting surface, inserted sheet to channel airflow, pressure chamber and pre-mounted fan (12V or 24V)



article	Rth [K/W]	length [mm]
PR 718-100-AL-D12V	0.1	100
PR 718-100-AL-D24V	0.1	100
PR 718-200-AL-D12V	0.06	200
PR 718-200-AL-D24V	0.058	200
PR 718-300-AL-D12V	0.045	300
PR 718-300-AL-D24V	0.042	300

## PK719 including fan

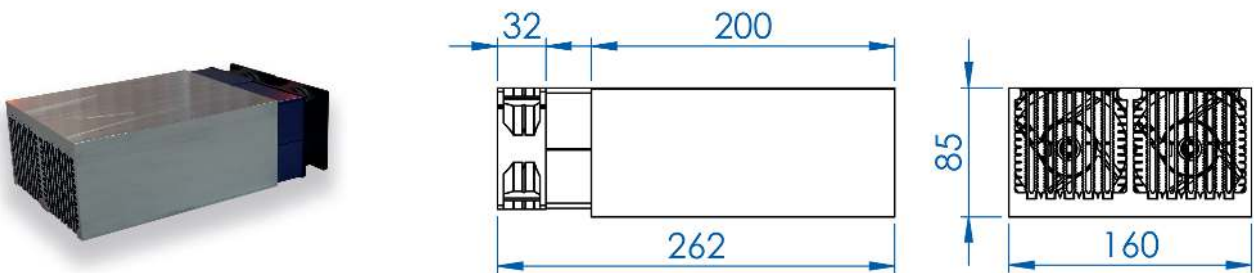
Alutronic extrusion PR719 with pre-milled mounting surface, inserted sheet to channel airflow and pre-mounted fan (24V DC or 230V AC)



article	Rth [K/W]	length [mm]
PK 719-100-AL-24V	0.185	100
PK 719-100-AL-230V	0.28	100
PK 719-200-AL-24V	0.08	200
PK 719-200-AL-230V	0.11	200
PK 719-300-AL-24V	0.145	300
PK 719-300-AL-230V	0.18	300

## PK719 including fan and pressure chamber

Alutronic extrusion PR719 with premilled mounting surface, inserted sheet to channel airflow, pressure chamber and pre-mounted fan (24V DC or 230V AC)

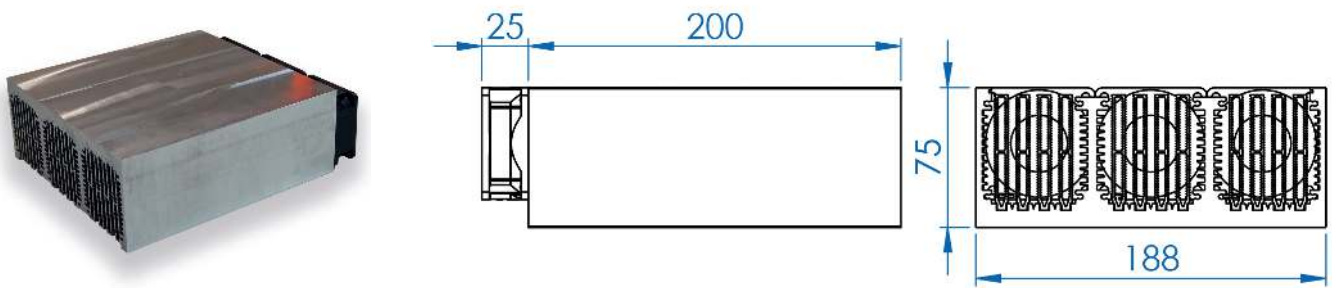


article	Rth [K/W]	length [mm]
PK 719-100_AL_D24V	0.152	100
PK 719-100_AL_D230V	0.18	100
PK 719-200_AL_D24V	0.075	200
PK 719-200_AL_D230V	0.1	200
PK 719-300_AL_D24V	0.065	300
PK 719-300_AL_D230V	0.085	300

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## PK721 including fan

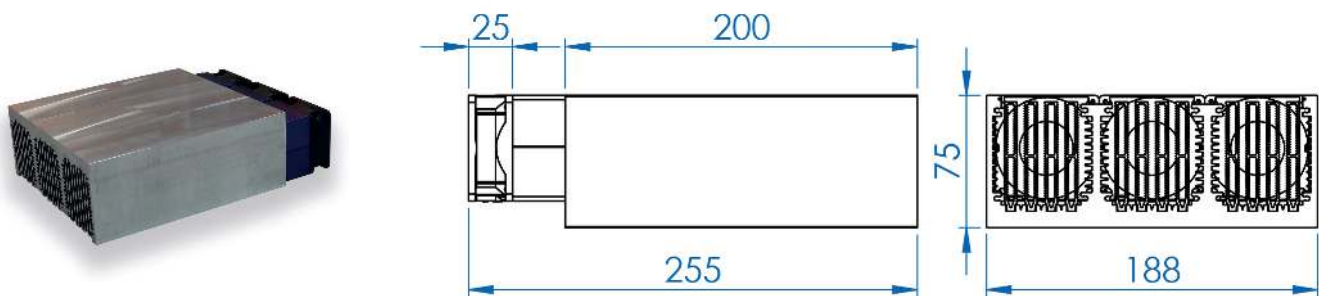
Alutronic extrusion PR721 with pre-milled mounting surface, inserted sheet to channel airflow and pre-mounted fan (12V or 24V)



article	Rth [K/W]	length [mm]
PK 721-100-AL-12V	0.075	100
PK 721-100-AL-24V	0.075	100
PK 721-200-AL-12V	0.05	200
PK 721-200-AL-24V	0.05	200
PK 721-300-AL-12V	0.041	300
PK 721-300-AL-24V	0.041	300

## PK721 including fan and pressure chamber

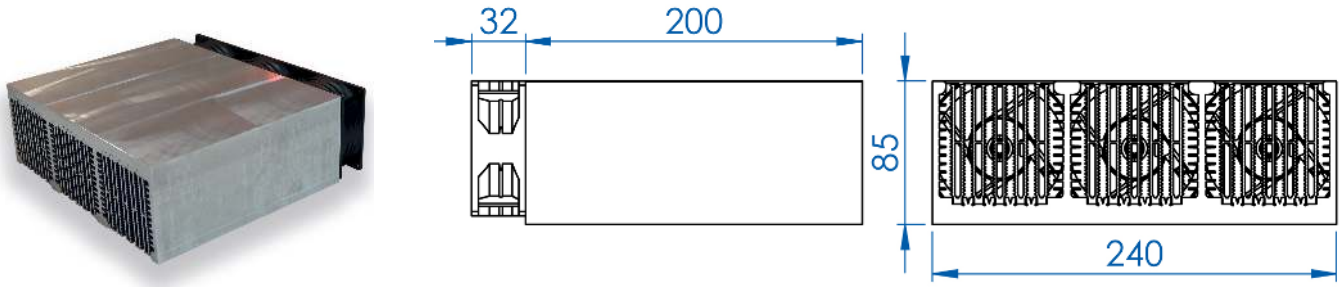
Alutronic extrusion PR721 with premilled mounting surface, inserted sheet to channel airflow, pressure chamber and pre-mounted fan (12V or 24V)



article	Rth [K/W]	length [mm]
PK 721-100-AL-D12V	0.068	100
PK 721-100-AL-D24V	0.068	100
PK 721-200-AL-D12V	0.039	200
PK 721-200-AL-D24V	0.04	200
PK 721-300-AL-D12V	0.03	300
PK 721-300-AL-D24V	0.022	300

## PK712 including fan

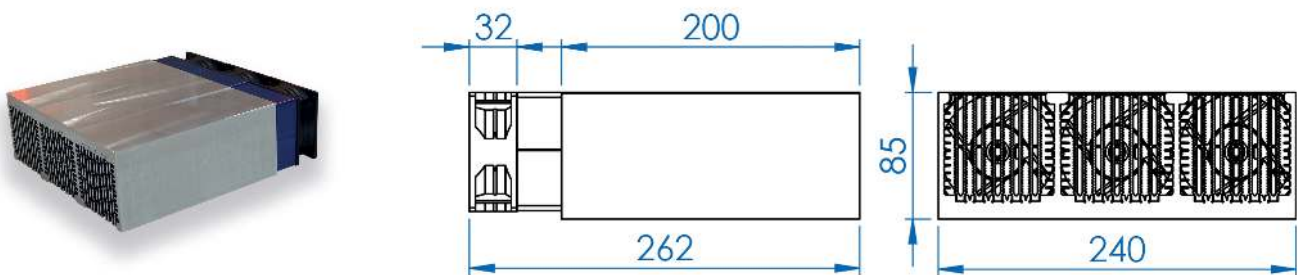
Alutronic extrusion PR712 with pre-milled mounting surface, inserted sheet to channel airflow and pre-mounted fan (24V DC or 230V AC)



article	Rth [K/W]	length [mm]
PK 712-100-AL-24V	0.095	100
PK 712-100-AL-230V	0.115	100
PK 712-200-AL-24V	0.06	200
PK 712-200-AL-230V	0.075	200
PK 712-300-AL-24V	0.048	300
PK 712-300-AL-230V	0.06	300

## PK712 including fan and pressure chamber

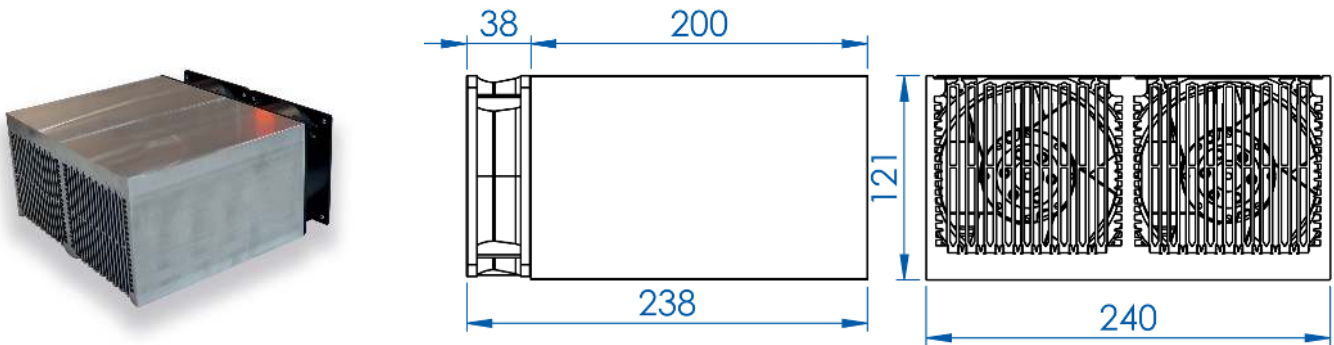
Alutronic extrusion PR712 with premilled mounting surface, inserted sheet to channel airflow, pressure chamber and pre-mounted fan (24V DC or 230V AC)



article	Rth [K/W]	length [mm]
PK 712-100-AL-D24V	0.09	100
PK 712-100-AL-D230V	0.12	100
PK 712-200-AL-D24V	0.055	200
PK 712-200-AL-D230V	0.065	200
PK 712-300-AL-D24V	0.048	300
PK 712-300-AL-D230V	0.055	300

## PK720 including fan

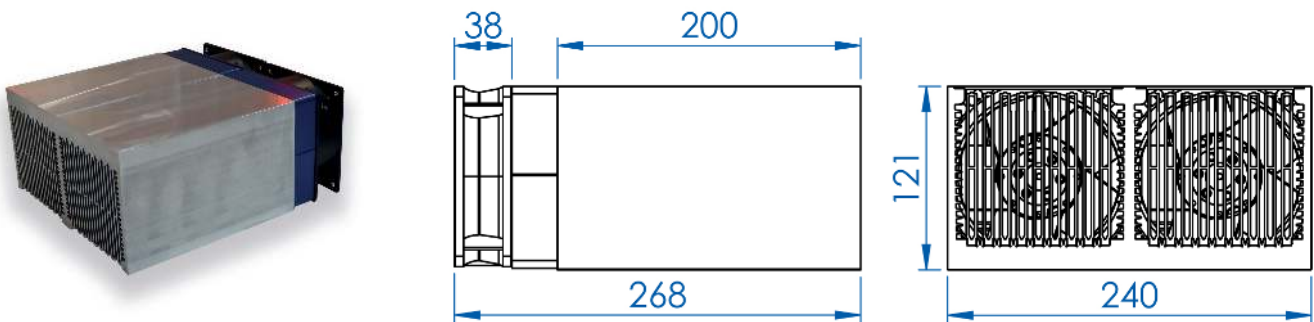
Alutronic extrusion PR717 with pre-milled mounting surface, inserted sheet to channel airflow and pre-mounted fan (24V DC or 230V AC)



article	Rth [K/W]	length [mm]
PK 720-100-AL-24V	0.07	100
PK 720-100-AL-230V	0.175	100
PK 720-200-AL-24V	0.075	200
PK 720-200-AL-230V	0.05	200
PK 720-300-AL-24V	0.033	300
PK 720-300-AL-230V	0.042	300

## PK720 including fan and pressure chamber

Alutronic extrusion PR717 with premilled mounting surface, inserted sheet to channel airflow, pressure chamber and pre-mounted fan (24V DC or 230V AC)



article	Rth [K/W]	length [mm]
PK 720-100-AL-D24V	0.065	100
PK 720-100-AL-D230V	0.075	100
PK 720-200-AL-D24V	0.035	200
PK 720-200-AL-D230V	0.045	200
PK 720-300-AL-D24V	0.031	300
PK 720-300-AL-D230V	0.042	300