

A

## Cooling aggregates with axial fan

B

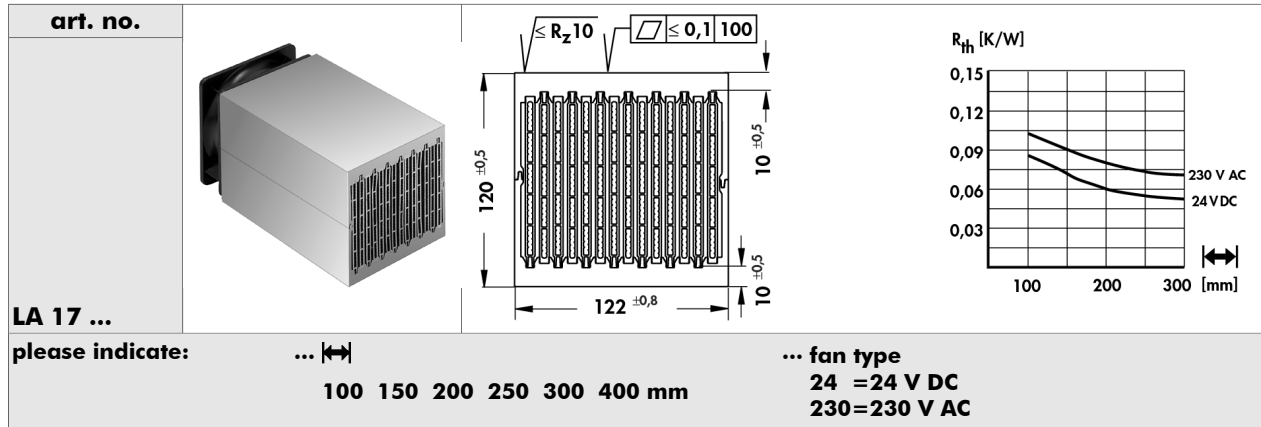
### Hollow-fin cooling aggregates

- extremely low losses due to optimised hollow fin geometry
- effective heat dissipation
- compact construction with axial fans
- two opposite mounting surfaces are milled flat

C

without air flow chamber

D



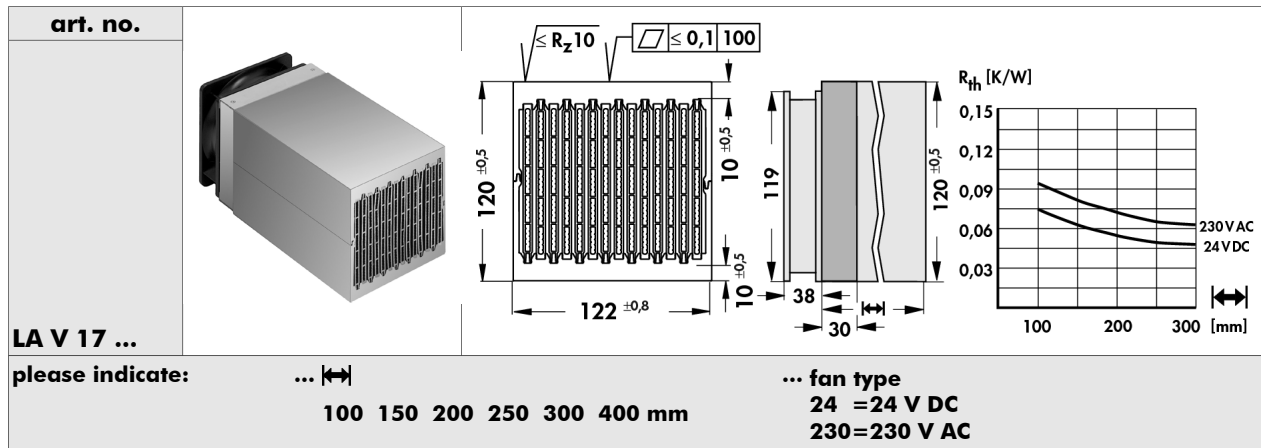
E

additional treatment upon customer's request

F

with air flow chamber

G



H

additional treatment upon customer's request

K

### Technical data of the fans

	<b>... 24</b>	<b>... 230</b>
<b>type</b>	Papst, ball bearing	Papst, ball bearing
<b>dimensions</b>	119 x 119 x 38 mm	119 x 119 x 38 mm
<b>voltage</b>	24 V DC	230 V AC
<b>power input</b>	11 W	19 W
<b>max. air flow</b>	237 m <sup>3</sup> /h	160 m <sup>3</sup> /h
<b>temperature range</b>	-30 °C ... +55 °C	-40 °C ... +85 °C
<b>noise level</b>	59 dB(A)	47 dB(A)
<b>rated speed</b>	4,400 min <sup>-1</sup>	2,650 min <sup>-1</sup>
<b>weight</b>	390 g	550 g
<b>failure rate</b>	L <sub>10</sub> > 70.000 h (40 °C)	L <sub>10</sub> > 37.500 h (40 °C)

M

N

**D 19**

**Protection grid for axial fans** → **D 30**  
**High capacity cooling aggregat.** → **D 21 – 24**  
**Cooling aggregates with radial fan** → **D 27 – 29**  
**Cooling aggreg. in segment mount.** → **D 3 – 5**

**Hole pattern** → **A 21**  
**Silicone wafers** → **E 2 – 4**  
**Thermal. conductive silicone foam foil** → **E 6**  
**Mounting pads** → **E 36**