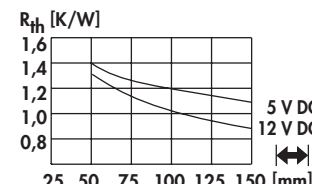
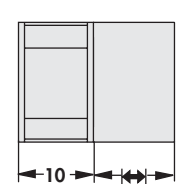
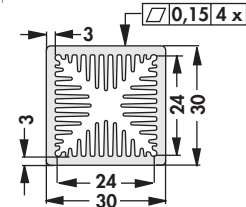



Miniature cooling aggregates


- compact design
- homogeneous heat dissipation
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and processing according to customer´s requirements
- other surfaces treatment, fan types and fan voltages on request

art. no.

LAM 3 ...



please indicate:

...  50 75 100 125 150 mm

... fan type
5 = 5 V DC
12 = 12 V DC

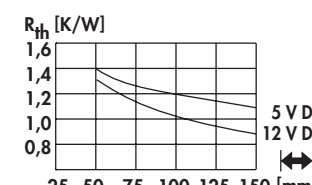
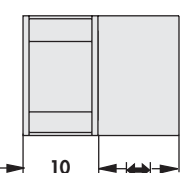
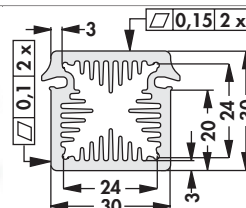
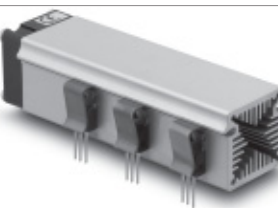
surface:

natural colour anodised


- with grooves for transistor retaining springs THFU → A 117
- compact design
- homogeneous heat dissipation
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and processing according to customers requirements
- other surfaces treatment, fan types and fan voltages on request

art. no.

LAM 3 K ...



please indicate:

...  50 75 100 125 150 mm

... fan type
5 = 5 V DC
12 = 12 V DC

surface:

natural colour anodised

Technical data of the fans

	... 5	... 12
type	Sepa, ball bearing	Sepa, ball bearing
dimensions	30 x 30 x 10 mm	30 x 30 x 10 mm
tension	5 V DC	12 V DC
max. air volume	6.8 m³/h	7.7 m³/h
cur. consumpt.	130 mA	70 mA
temperature range	-10 °C ... +70 °C	-10 °C ... +70 °C
noise level	21 dB(A)	23 dB(A)
speed	8,500 min ⁻¹	9,100 min ⁻¹
weight	8 g	8 g
failure rate (L ₁₀)	L ₁₀ > 95,000 h (20 °C) MTBF > 280,000 h (20 °C)	L ₁₀ > 95,000 h (20 °C) MTBF > 280,000 h (20 °C)

A

Miniature cooling aggregates


B

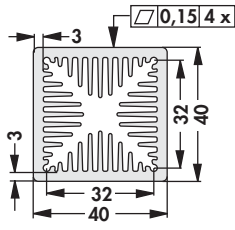
- compact design
- homogeneous heat dissipation
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and processing according to customer’s requirements
- other surfaces treatment, fan types and fan voltages on request

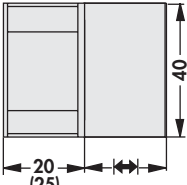
C

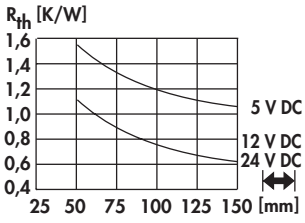
D

art. no.









LAM 4 ...

please indicate: ...

50 75 100 125 150 mm

... fan type

5 = 5 V DC
12 = 12 V DC
24 = 24 V DC

surface:

natural colour anodised

E


- with grooves for transistor retaining springs THFU → A 117
- compact design
- homogeneous heat dissipation
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and processing according to customer's requirements
- other surfaces treatment, fan types and fan voltages on request

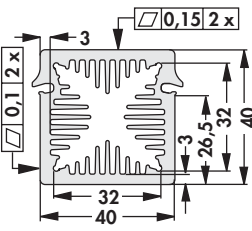
F

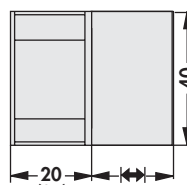
G

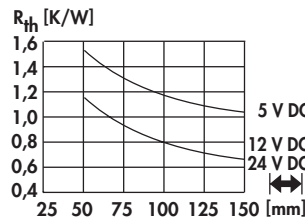
H

art. no.









LAM 4 K ...

please indicate: ...

50 75 100 125 150 mm

... fan type

5 = 5 V DC
12 = 12 V DC
24 = 24 V DC

surface:

natural colour anodised

I

Technical data of the fans

	... 5	... 12	... 24
type	ebmpapst 405	ebmpapst 412 JHH	ebmpapst 414 JHH
dimensions	40 x 40 x 20 mm	40 x 40 x 25 mm	40 x 40 x 25 mm
tension	5 V DC	12 V DC	24 V DC
power inout	0.9 W	3.3 W	3.6 W
max. air volume	10 m³/h	24 m³/h	24 m³/h
temperature range	-20 °C ... +70 °C	-20 °C ... +60 °C	-20 °C ... +60 °C
speed	6,000 min ⁻¹	13,000 min ⁻¹	13,000 min ⁻¹
noise level	18 dB(A)	46 dB(A)	46 dB(A)
weight	27 g	50 g	50 g
failure rate (L ₁₀)	L ₁₀ > 50,000 h (40 °C) L ₁₀ > 20,000 h (tmax)	L ₁₀ > 57,500 h (40 °C) L ₁₀ > 35.000 h (tmax)	L ₁₀ > 57,500 h (40 °C) L ₁₀ > 35.000 h (tmax)

K

L

M

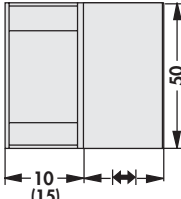
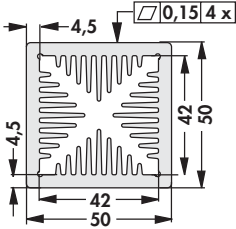

N

Miniature cooling aggregates

- compact design
- homogeneous heat dissipation
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and processing according to customer’s requirements
- other surfaces treatment, fan types and fan voltages on request

art. no.

LAM 5 ...




R_{th} [K/W]

1,4
1,2
1,0
0,8
0,6
0,4
0,2

25 50 75 100 125 150 [mm]

5 V DC
12 V DC
24 V DC

please indicate:

...  50 75 100 125 150 mm

... fan type

5 = 5 V DC
12 = 12 V DC
24 = 24 V DC

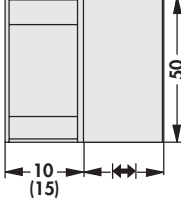
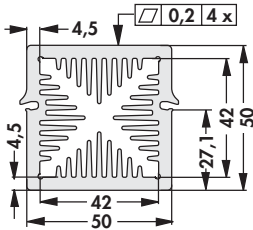

surface:

natural colour anodised

- with grooves for transistor retaining springs THFU → A 117
- compact design
- homogeneous heat dissipation
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and processing according to customer’s requirements
- other surfaces treatment, fan types and fan voltages on request

art. no.

LAM 5 K ...




R_{th} [K/W]

1,4
1,2
1,0
0,8
0,6
0,4
0,2

25 50 75 100 125 150 [mm]

5 V DC
12 V DC
24 V DC

please indicate:

...  50 75 100 125 150 mm

... fan type

5 = 5 V DC
12 = 12 V DC
24 = 24 V DC

surface:

natural colour anodised

Technical data of the fans

	... 5	... 12	... 24
type	Sepa, ball bearing	Sepa, ball bearing	ebmpapst
dimensions	50 x 50 x 10 mm	50 x 50 x 10 mm	50 x 50 x 15 mm
tension	5 V DC	12 V DC	24 V DC
max. air volume	10.1 m³/h	14.3 m³/h	20 m³/h
cur. consumpt.	50 mA	40 mA	42 mA
temperature range	-40 °C ... +80 °C	-40 °C ... +80 °C	-20 °C ... +70 °C
speed	3,500 min ⁻¹	4,800 min ⁻¹	5,000 min ⁻¹
noise level	16 dB(A)	25 dB(A)	30 dB(A)
weight	19 g	19 g	25 g
failure rate (L ₁₀)	L ₁₀ > 95,000 h (20 °C) MTBF > 280,000 h (20 °C)	L ₁₀ > 95,000 h (20 °C) MTBF > 280,000 h (20 °C)	L ₁₀ 50,000 h (20 °C)
alarm output	with	with	

Retaining springs for transistors
Special heatsink design
Hollow-fin cooling aggregates
High capacity cooling aggregat.

→ A 114 – 120 Fluid coolers
→ A 135 – 136 Protection grid for axial fans
→ D 15 – 25 Thermally conductive foil
→ D 26 – 35 Technical introduction

→ A 129 – 131
→ D 36
→ E 5 – 13
→ A 2 – 7

D 12

A

B

C

D

E

F

G

H

I

K

L

M

N