
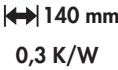
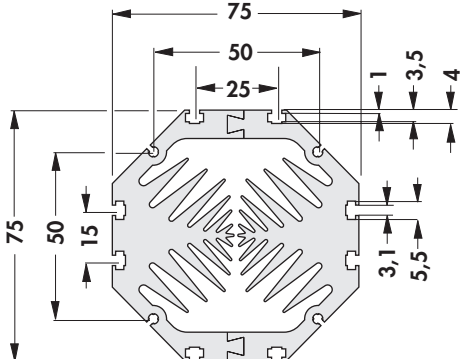


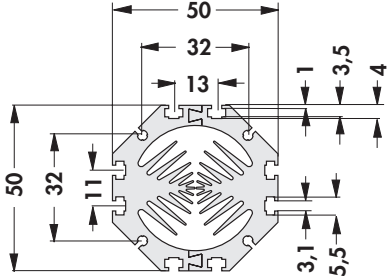



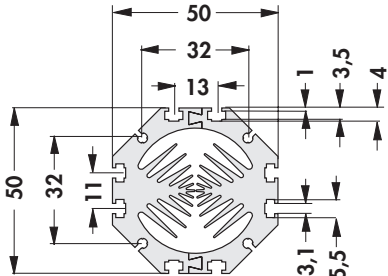


Miniature cooling aggregates

- made for dissipation of high power within a very small space
- fixed length is optimised to the fan
- slide-nut channels for M3 nuts for mounting the transistors and circuit boards
- other fan types and fan voltages on request


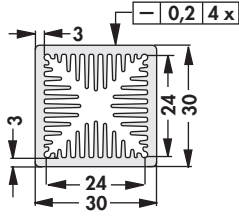
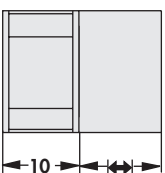
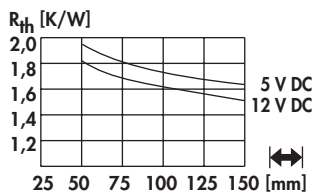

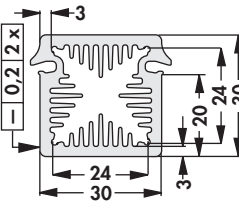
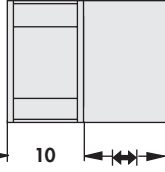
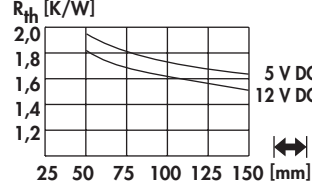

art. no. LAM 1			
art. no. LAM 2			
art. no. LAM 2 S		 	
pre-assembled with Molex case 2695 including alarm output, 3 pins; → B 78; strand length: 70 mm			
surface:		natural colour anodised	

Technical data of the fans

	LAM 1	LAM 2	LAM 2
type	ebmpapst 612 NHH-118	ebmpapst 412 F	sepa MFB 40 H 12 HA
dimensions	60x60x25 mm	40x40x10 mm	40x40x10 mm
tension	12 V DC	12 V DC	12 V DC
power inout	2.9 W	0.7 W	
max. air volume	56 m ³ /h	8 m ³ /h	13.9 m ³ /h
temperature range	-20°C... +70°C	-20°C... +70°C	-40°C... +85°C
noise level	41 dB(A)	22.1 dB(A)	33 dB(A)
speed	6,800 min ⁻¹	5,400 min ⁻¹	7,300 min ⁻¹
weight	66 g	17 g	13 g
failure rate (L₁₀)	L ₁₀ > 60,000 h (40°C)	L ₁₀ > 45,000 h (20°C)	L ₁₀ > 70,000 h (40°C)

Miniature cooling aggregates

- compact design
- homogeneous heat distribution
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and machinings according to customer's specifications
- other surfaces, fan types and fan voltages upon request


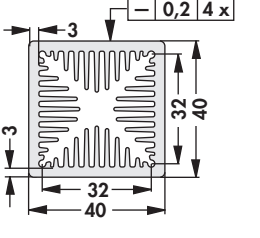
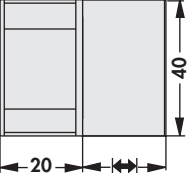
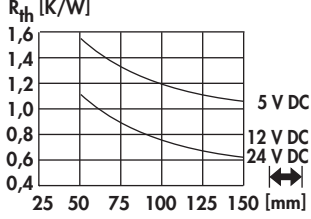

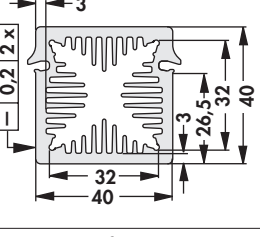
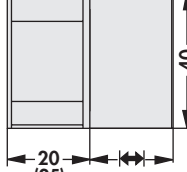
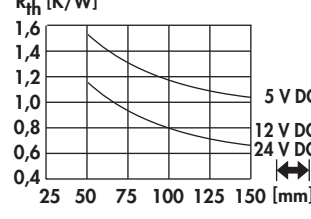
art. no.				
LAM 3 ...				
art. no.				
LAM 3 K ...	with grooves for lock-in retaining spring for transistors THFU → A 149			
please indicate:	...  50 75 100 125 150 mm		... fan type 5 = 5 V DC 12 = 12 V DC	
surface:	natural colour anodised			

Technical data of the fans

	... 5	... 12
type	Sepa, MFB 30 G 05	Sepa, MFB 30 G 12
dimensions	30x30x10 mm	30x30x10 mm
tension	5 V DC	12 V DC
max. air volume	6.8 m ³ /h	7.7 m ³ /h
cur. consumpt.	130 mA	60 mA
temperature range	-10°C... +70°C	-10°C ... +85°C
noise level	21 dB(A)	27 dB(A)
speed	8,500 min ⁻¹	9,100 min ⁻¹
weight	8 g	8 g
failure rate (L₁₀)	L ₁₀ > 95,000 h (20°C) MTBF > 280,000 h (20°C)	L ₁₀ > 100,000 h (20°C) MTBF > 400,000 h (20°C)

Miniature cooling aggregates

- compact design
- homogeneous heat distribution
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and machinings according to customer's specifications
- other surfaces, fan types and fan voltages upon request

art. no. LAM 4 ...				
art. no. LAM 4 K ...				
<p>LAM 4 K ... with grooves for lock-in retaining spring for transistors THFU → A 149</p> <p>please indicate: ... $\left[\begin{array}{c} \text{---} \\ \text{---} \end{array} \right]$ 50 75 100 125 150 mm ... fan type 5 = 5 V DC 12 = 12 V DC 24 = 24 V DC</p>				
surface:		natural colour anodised		


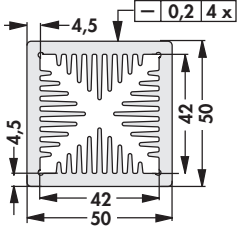
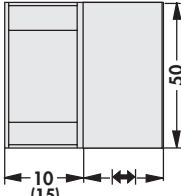
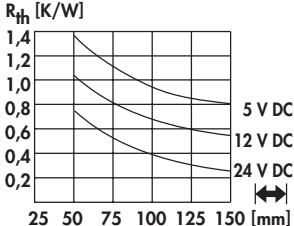

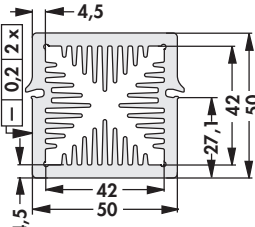
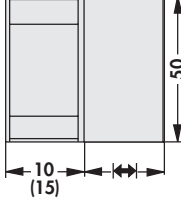
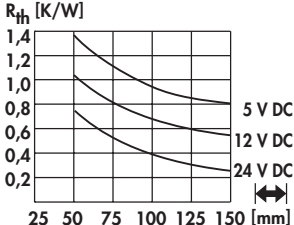
Technical data of the fans

	... 5	... 12	... 24
type	ebmpapst 405	ebmpapst 412 JHH	ebmpapst 414 JHH
dimensions	40x40x20 mm	40x40x25 mm	40x40x25 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 m ³ /h	24 m ³ /h	24 m ³ /h
temperature range	-20°C... +70°C	-20°C... +60°C	-20°C... +60°C
noise level	18 dB(A)	46 dB(A)	46 dB(A)
speed	6,000 min ⁻¹	13,000 min ⁻¹	13,000 min ⁻¹
weight	27 g	50 g	50 g
failure rate (L₁₀)	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)

A

Miniature cooling aggregates

- compact design
- homogeneous heat distribution
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and machinings according to customer's specifications
- other surfaces, fan types and fan voltages upon request

art. no. LAM 5 ...				
art. no. LAM 5 K ...				
LAM 5 K ... with grooves for lock-in retaining spring for transistors THFU → A 149				
please indicate: ... $\left[\begin{array}{c} \text{---} \\ \text{---} \end{array} \right]$ 50 75 100 125 150 mm				
... fan type 5 = 5 V DC 12 = 12 V DC 24 = 24 V DC				
surface:		natural colour anodised		


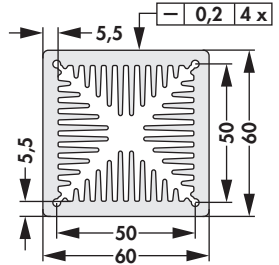
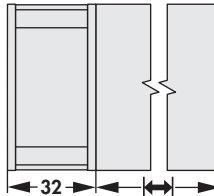
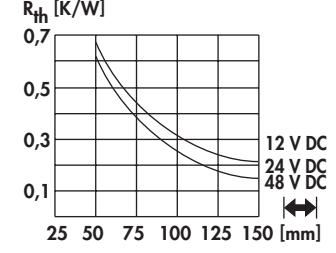

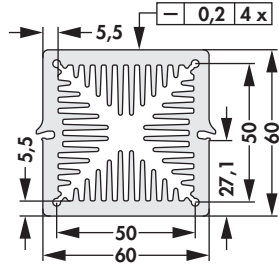
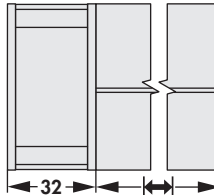
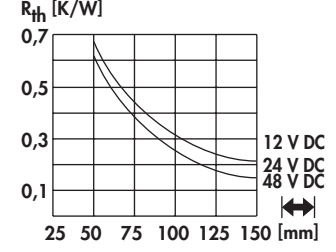
Technical data of the fans

	... 5	... 12	... 24
type	Sepa, MFB 50 E 05 A	Sepa, MFB 50 E 12 A	ebmpapst 514 F
dimensions	50x50x10 mm	50x50x10 mm	50x50x15 mm
tension	5 V DC	12 V DC	24 V DC
max. air volume	10 m ³ /h	14.3 m ³ /h	20 m ³ /h
temperature range	-10°C... +70°C	-10°C... +70°C	-20°C... +70°C
speed	3,400 min ⁻¹	4,800 min ⁻¹	5,000 min ⁻¹
noise level	17 dB(A)	22 dB(A)	30 dB(A)
weight	19 g	19 g	27 g
failure rate (L₁₀)	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	

N

Miniature cooling aggregates

- compact design
- homogeneous heat distribution
- mounting possible on any side
- powerful axial-fan motor
- other lengths, special designs and machinings according to customer's specifications
- other surfaces, fan types and fan voltages upon request

art. no. LAM 6 ...					
art. no. LAM 6 K ...					
please indicate: ... \longleftrightarrow		... fan type 12 = 12 V DC 24 = 24 V DC 48 = 48 V DC		50 75 100 125 150 mm	
surface:		natural colour anodised			

Technical data of the fans

	... 12	... 24	... 48
type	ebmpapst 612 JH	ebmpapst 614 J/2HHP	ebmpapst 618 J/2HHP
dimensions	60x60x32 mm	60x60x32 mm	60x60x32 mm
tension	12 V DC	24 V DC	48 V DC
power inout	7.7 W	14.6 W	14.6 W
max. air volume	70 m ³ /h	82 m ³ /h	82 m ³ /h
temperature range	-20°C... +70°C	-20°C... 75°C	-20°C... 75°C
noise level	53 dB(A)	62 dB(A)	62 dB(A)
speed	11,700 min ⁻¹	15,000 min ⁻¹	15,000 min ⁻¹
weight	100 g	100 g	100 g
failure rate (L₁₀)	L ₁₀ > 57,500 h (40°C)	L ₁₀ > 65,000 h (40°C)	L ₁₀ > 65,000 h (40°C)