

# MechaTronix in LED

## LPF70 LED Pin Fin Heatsink $\varnothing$ 70mm



### Features & Benefits

- Designed for high-performance convection cooling of power LEDs
- Diameter 70mm base
- Thermal resistance Rth 2.1 - 2.7°C/W
- Forged from highly conductive aluminum
- 117 round pins for maximum cooling surface
- 3 standard heights 30 to 50 mm  
Overall height can be customized from 10 to 60 mm
- 2 standard base thicknesses 3 and 5 mm  
Other base thicknesses on request
- 3 standard colors - clear anodised - black anodised  
blue anodised



### Order Information

Example: LPF70A30-3-Black

LPF70 **1** **2** - **3** - **4**

- 1** Mechanical version
  - A] Solid base
  - B] Center hole  $\varnothing$  11.5mm
  - C] 3\*M3 mounting hole
  - D] Center hole  $\varnothing$  11.5mm +  
3\*M3 mounting hole
  - XX] Customised
- 2** Height (pins+base) (mm) - 30, 40 or 50
- 3** Base thickness (mm) – 3 or 5
- 4** Color anodising – black, clear or blue



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### Product Details

	Total Height mm	Base Height mm	Rth(°C/W)	Volume mm <sup>3</sup>	Cooling Surface mm <sup>2</sup>	Weight g
LPF70A30-3	30	3	2.7	33875.01	38129.51	91.46
LPF70A40-3	40	3	2.4	42145.25	49156.50	113.79
LPF70A50-3	50	3	2.1	50415.49	60183.49	136.12
LPF70A30-5	30	5	2.7	39917.86	36363.93	107.78
LPF70A40-5	40	5	2.4	48188.10	47390.93	130.11
LPF70A50-5	50	5	2.1	56458.35	58417.92	152.44

### Notes:

1. MechaTronix reserves the right to change products or specifications without prior notice.
2. Mentioned models are an extraction of the full product range.  
For specific mechanical adaptations please contact MechaTronix.
3. All these types are made by forging process from highly conductive aluminum type AL6063 T5 with a typical Thermal Conductivity of 209W/m-K.



**A** Mechanical version  
Solid base



**B** Mechanical version  
Center hole  $\phi$  11.5mm



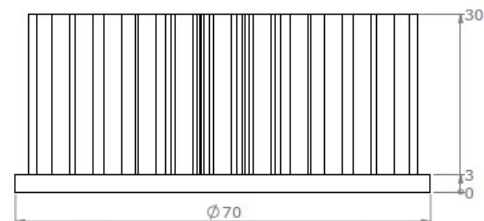
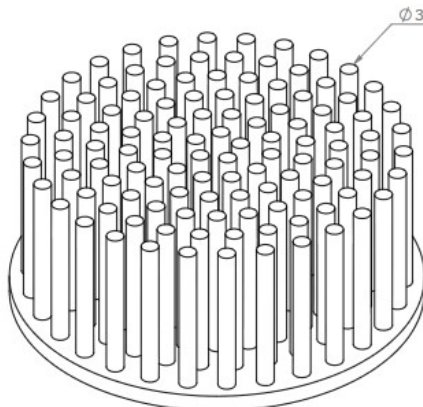
**C** Mechanical version  
3\*M3 mounting hole



**D** Mechanical version  
Center hole  $\phi$  11.5mm + 3\*M3 mounting hole

### Drawings & Dimensions

#### Example: LPF70A30-3-Black



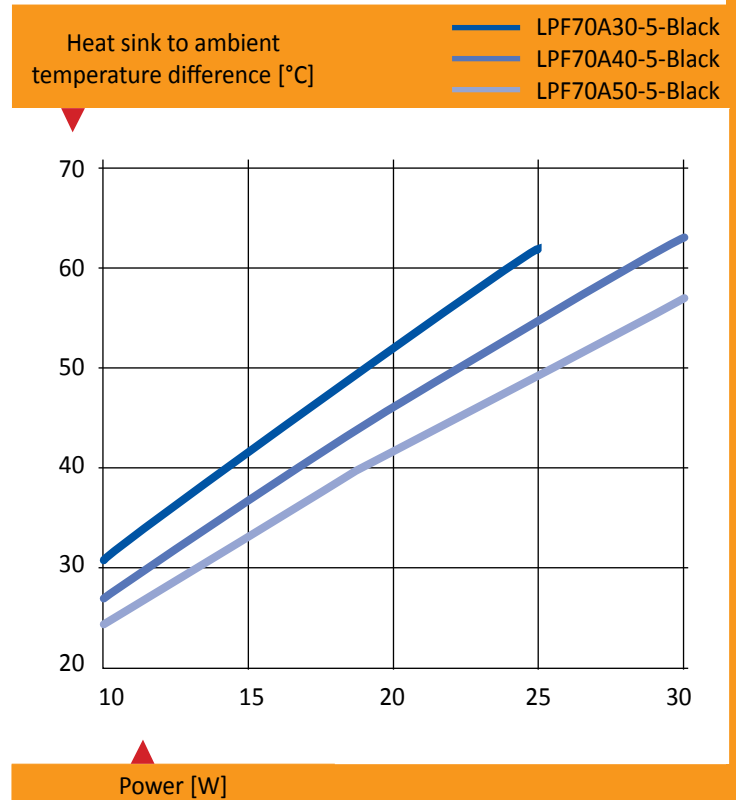
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### Thermal Data

Heat sink base to ambient thermal resistance, Rhs-amb [K/W]			
Power (W)	LPF70A30-5-Black	LPF70A40-5-Black	LPF70A50-5-Black
10	3.1	2.7	2.4
15	2.8	2.5	2.2
17	2.7	2.4	2.2
20	2.6	2.3	2.1
25	2.5	2.2	2.0
30	n/a	2.1	1.9
Rth Av.	2.7	2.4	2.1



Spreading resistance, Rsp [K/W]					
Base thickness		t=2mm	t=3mm	t=5mm	t=10mm
Ratio of light engine (LE) area over heat sink base area, ALE/Ahs [%]	1%	0.87	0.61	0.41	0.30
	3%	0.68	0.47	0.30	0.20
	5%	0.54	0.37	0.24	0.15
	8%	0.44	0.30	0.19	0.12
	11%	0.36	0.24	0.15	0.09
	20%	0.24	0.17	0.10	0.06
	32%	0.16	0.11	0.07	0.04
	62%	0.06	0.04	0.03	0.01

