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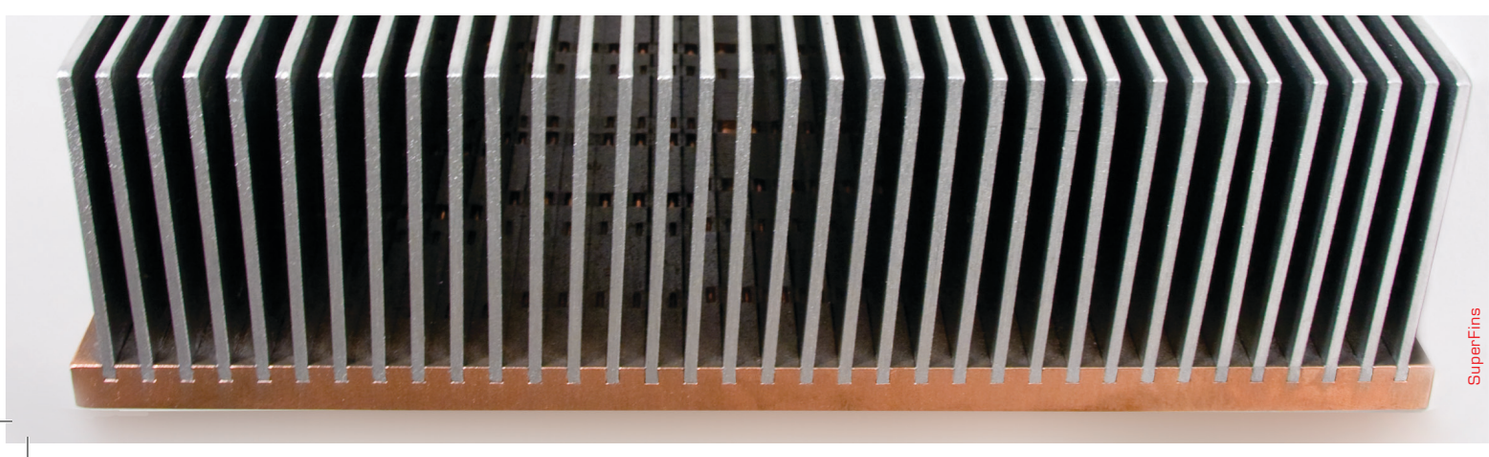
We are proud to announce a new high efficiency heat sink. In fact, a new copper heatsink is available to meet thermal requirements, in case of very high power to dissipate and /or concentrate in small powerful components. SuperFin can be produced completely in copper (base and fns) or, for lower power, with aluminum fins.



SuperFins

R&D laboratories have designed and developed a new and wide range of products named SuperFins. In order to solve the challenges related to continuous increase of power in electronic devices, SuperFins fullfll all necessary requirements.

SuperFins are able to reduce volume and/or dissipate the very high and concentrated power per unit. It doesn't matter if we are talking about Broadcasting systems or Power Supply or UPS or any other electronics application.

Always looking ahead to cost optimization and fexibility of the systems, SuperFins are properly designed to be produced according to the customer's specific thermal needs.

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General notes and technical data

1) Materials used are copper and/or aluminum alloy.
2) The standard finishing is a simple washing (degreasing).
3) The flatness of the components assembling surfaces is of 0,015 mm/200x200 mm, and the roughness Ra = 1.2 µm.

Dimensional tolerances:

in length and in width <= 500 mm +/- 0.5 mm

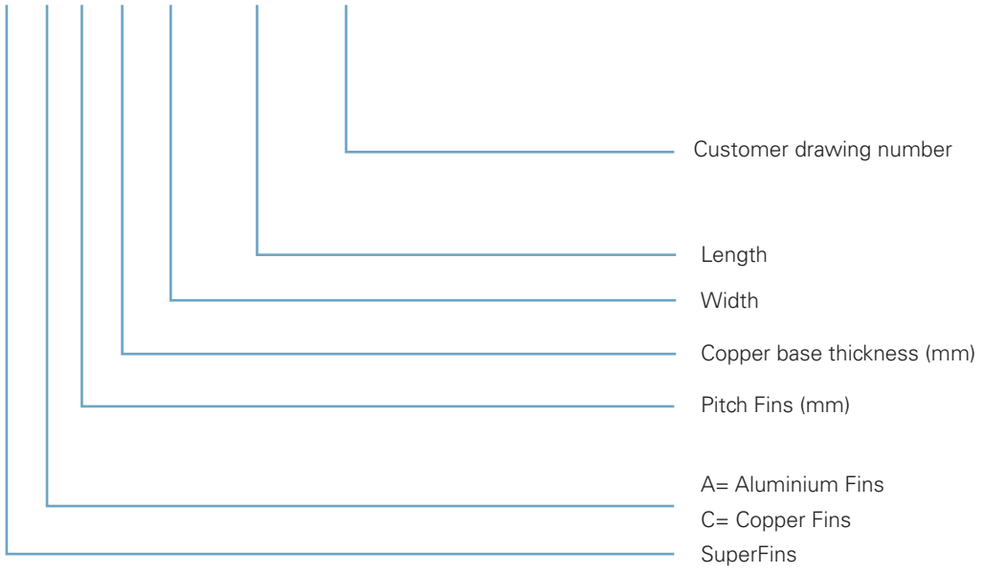
> 500 mm +/- 1 mm

in height +/- 1mm

SuperFins are made through combining different components: copper extruded or machined base and extruded or laminated aluminum or copper fins. Thanks to our special assembly technology, thermal features and optimum mechanical resistance of the finished product is granted.
Copper base thickness and fins shape (height, thickness, pitch) have been designed to meet every requirement.
Average dimensions of the copper base are starting from 9 mm thickness.
On the other hand pitch fins can start from 5 mm and thickness from 2 mm.
SuperFins can be assembled up to a maximum of 600 x 800 mm.
Thanks to their special design all SuperFins can be machined as any other extruded profiles with no problem at all: milling, drilling, screw thread,...etc.

Nomenclature

SF A 5 / 9 200 / 300 DIS. XXX



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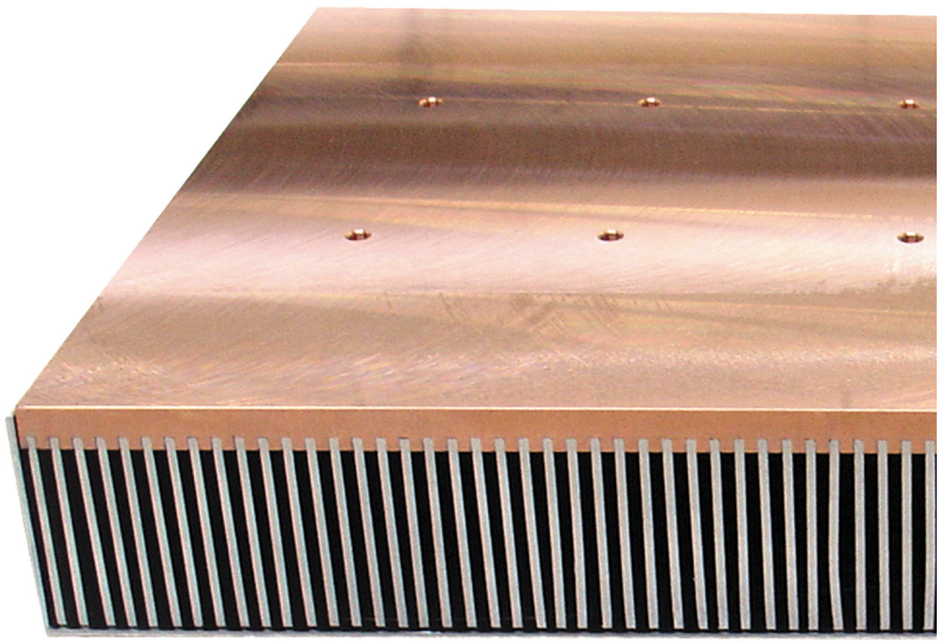


SuperFins: Power evolution

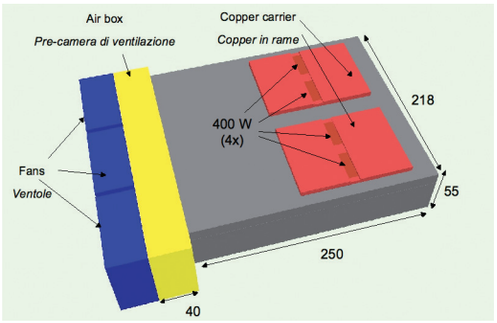
SuperFins features table

Type *Tipo*	Pd (Watt)	TAmb(°C)	Air Flow (m3/h)	Pressure drop (Pa)	Rth *(°C/W)*
LP4J 218/250	1600	20	264	370	0,036
SFA5/9 218/250	1600	20	288	345	0,032
SFC5/9 218/250	1600	20	288	345	0,030

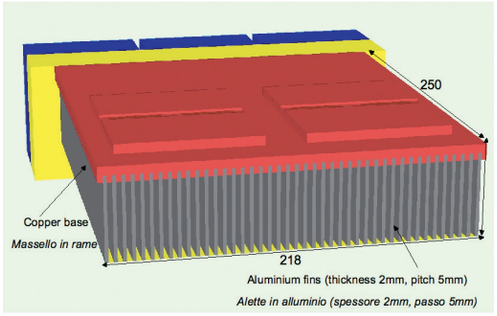
Type *Tipo*	Pitch Fins mm	Thickness base mm	Width mm	Length mm
LP4J 218/250 SuperPower	4	aluminum, 14		
SFA5/9 218/250 SuperFins	5	copper, 9	218	250
SFC5/9 218/250 SuperFins	5	copper, 9		

Utilized fans: 3 axial fans 80x80/38 mm

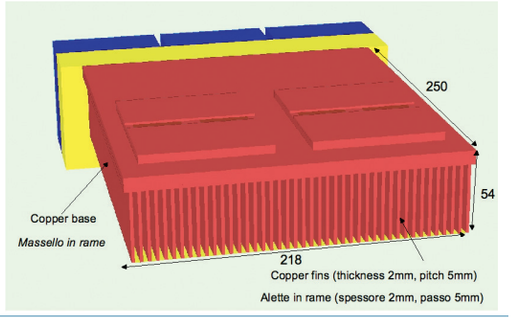
LP4J 218/250



SFA5/9 218/250



SFC5/9 218/250



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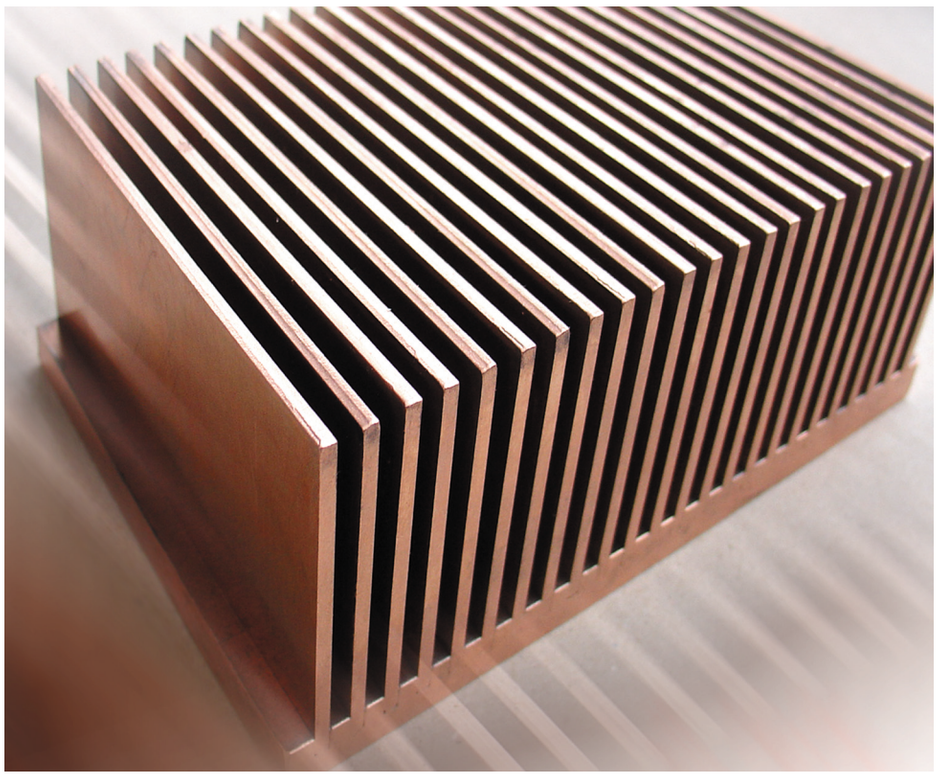
SuperFins vs SuperPower

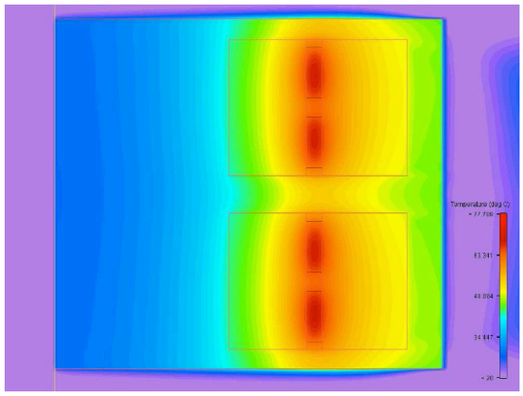
Compared with the standard aluminum high effciency heat sinks “Superpower” type, it’s possible to obtain more than 20% reduction of surface temperature.
All dimensions (width, length, base thickness,pitch fns, thickness fns) are produced according to customer needs and after feasibility study.

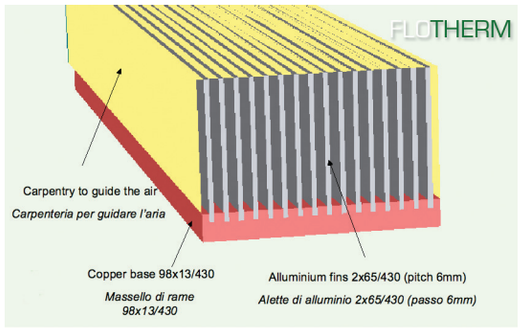
	LP4J 218/250	SFC5/9 218/250	SuperFins vs SuperPower
Weight (Kg)	4,3	13,0	300%
Rth (°C/W)	0,036	0,030	83%

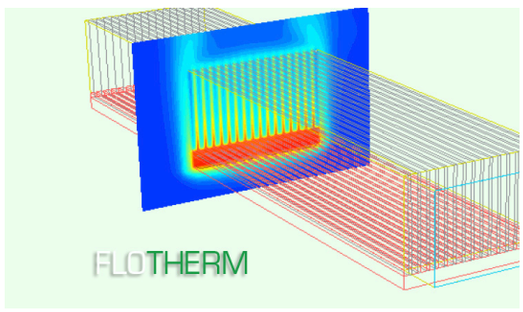


Thermal Analysis

Herebelow some SuperFins thermal simulations carried out by FloTherm.







As usual our Engineering R&D Dept. can suggest through highly accurate thermal analysis the best possible optimized solution.

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