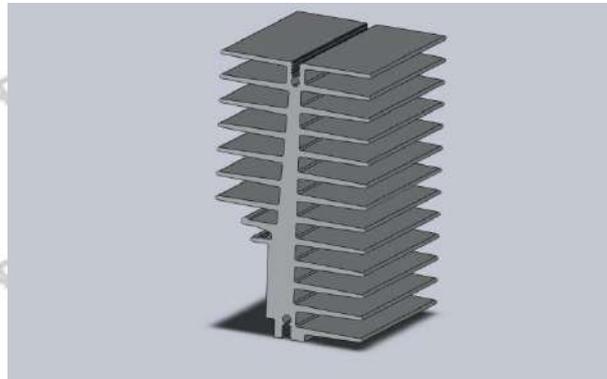
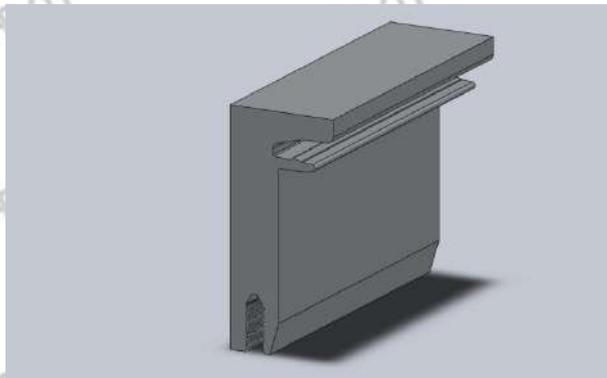


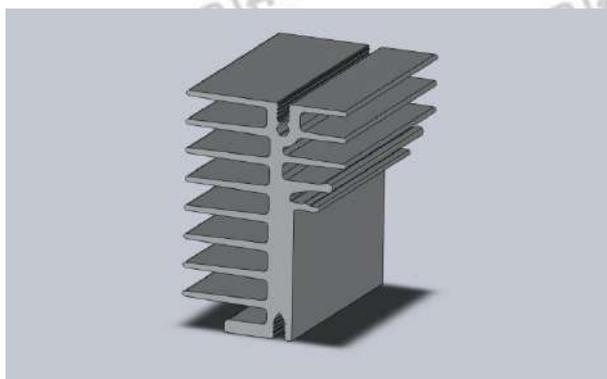
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0007	49.5	85	3.47	0.91	0.28	M3 groove



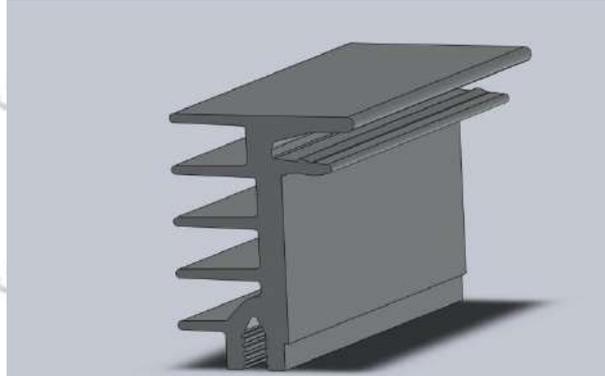
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0008	17	37.3	0.85	n.a.	n.a.	M3 groove



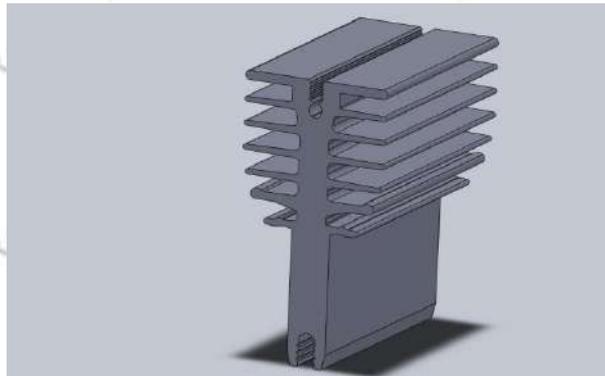
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0009	38	54	1.69	1.70	0.55	M3 groove



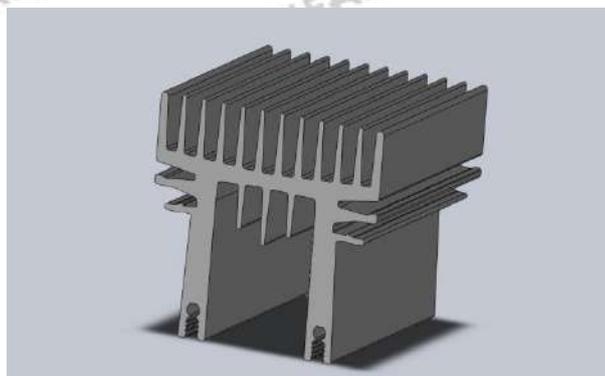
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0010	22	28.5	0.49	4.11	1.70	M3 groove



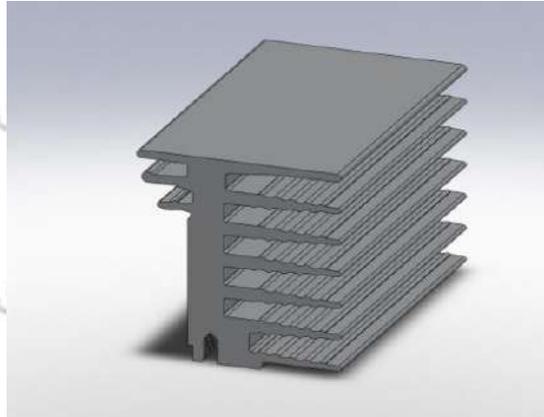
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0011	30	57	1.59	2.41	0.76	M4 groove



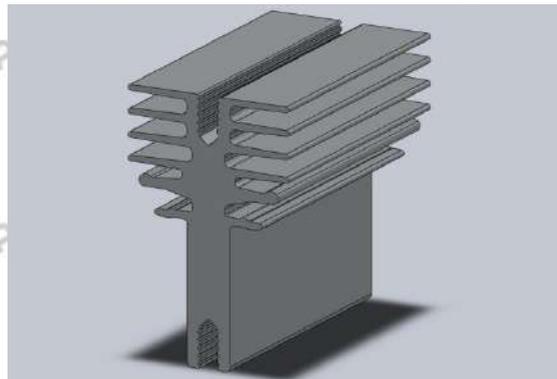
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0013	49.5	50	2.16	1.92	0.56	M3 groove



Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0015	40	40	1.64	2.11	0.64	M3 groove



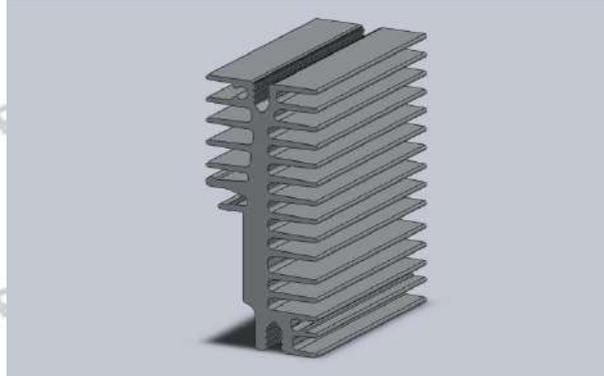
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0025	30	47.2	1.31	3.00	0.85	M4 groove



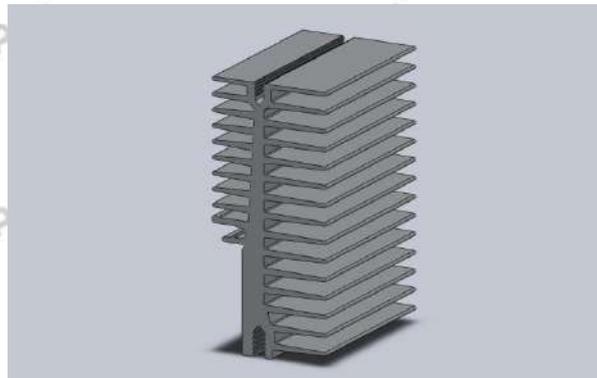
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0026	15	54	0.92	3.61	1.55	M3 groove



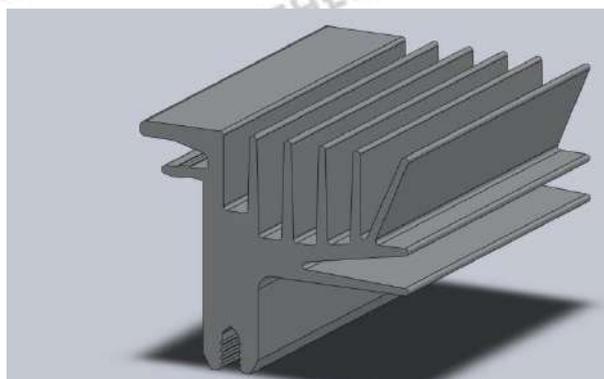
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0027	27	60	1.65	2.30	0.53	M4 groove



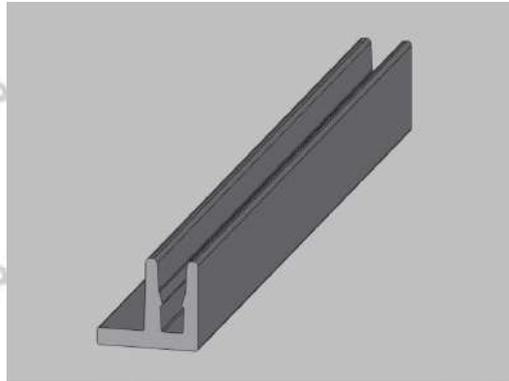
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0028	34	75	2.48	1.44	0.39	M3 & M4 groove



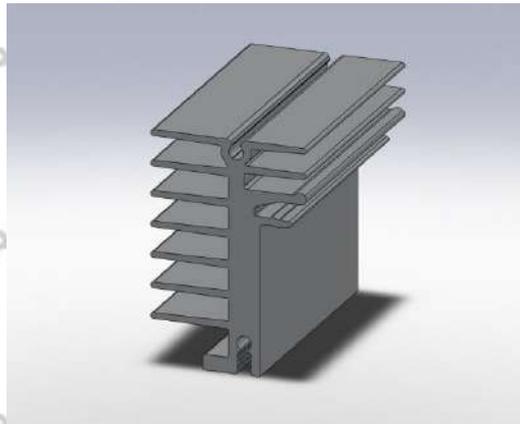
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0029	39	32	1.02	3.12	1.03	M3 groove



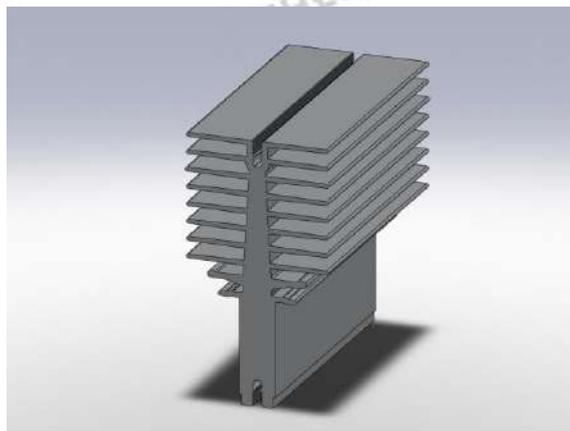
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0032	12.6	10.5	0.15	n.a.	n.a.	



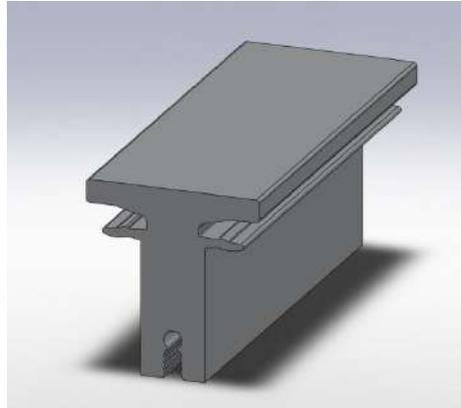
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0036	30	45	1.19	2.33	0.75	M3 groove



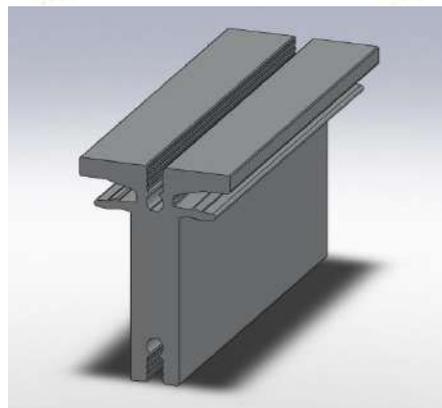
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0037	40	75	2.59	1.54	0.39	M3 groove



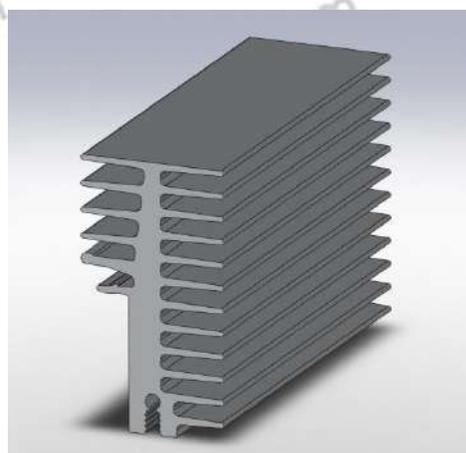
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0038	27	29.5	0.96	n.a.	n.a.	M3 groove



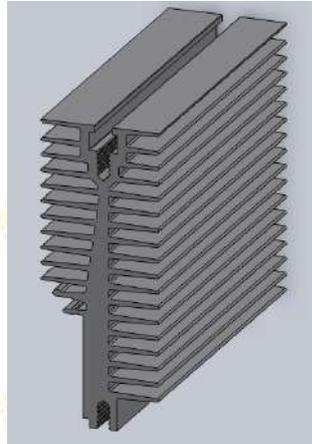
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0039	25	36	0.87	n.a.	n.a.	M3 groove



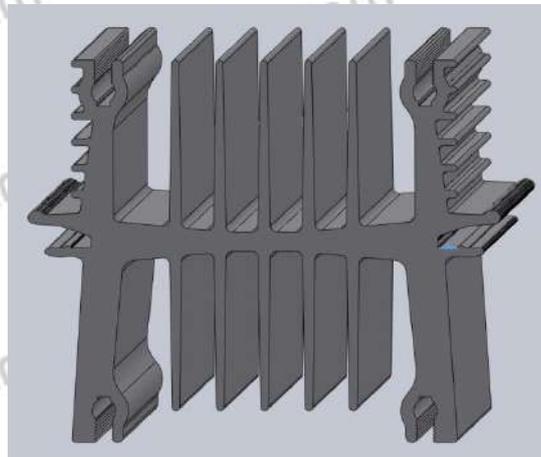
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0040	27	50	1.41	2.46	0.66	M3 groove



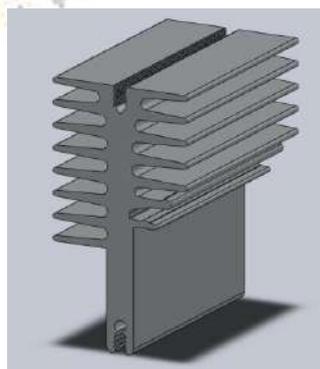
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0053	35	90.1	3.08	1.34	0.33	M4 groove



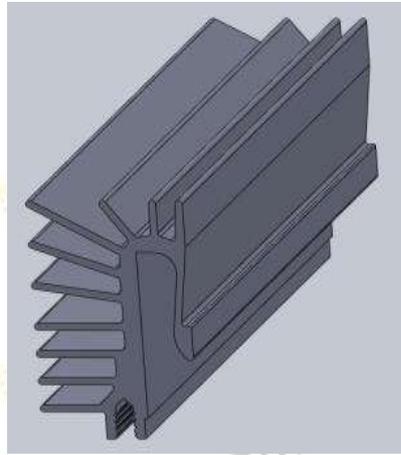
Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0073	73	60	3.46	1.25	0.36	M3 groove



Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMREC0008	31.8	58.7	1.81	2.32	0.70	M3 groove

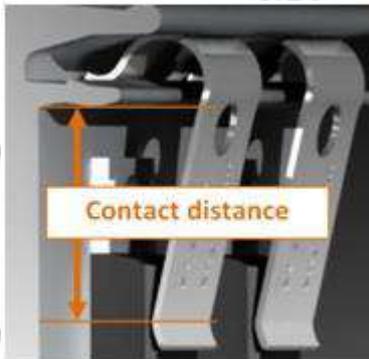


Part Number	Width (mm)	Height (mm)	Linear weight (kg/m)	Rth,n *) (°C/W)	Rth,f **) (°C/W)	Features
RMRES0075	22	35	0.65	1.74	0.58	M3 groove

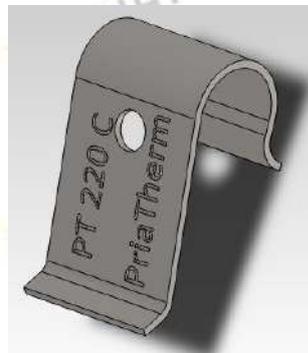


## PT clips : steel C67 – Nickel plated

Part Number	Width (mm)	Thickness (mm)	Clamping force by 4,5 mm deformation (N)	Contact Distance (mm)
PT 220 N+	10	0.5	22 to 38	14.5



Part Number	Width (mm)	Thickness (mm)	Clamping force by 4,5 mm deformation (N)	Contact Distance (mm)
PT 220 C+	10	0.5	45 to 61	10.0



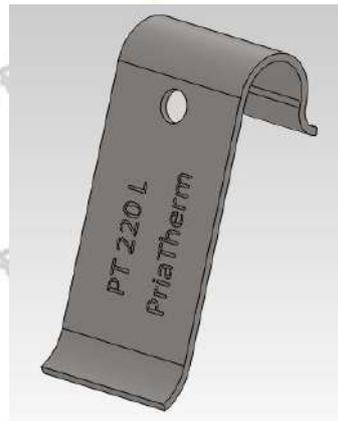
Part Number	Width (mm)	Thickness (mm)	Clamping force by 5 mm deformation (N)	Contact Distance (mm)
PT 247 N+	15	0.5	45 to 61	14.5



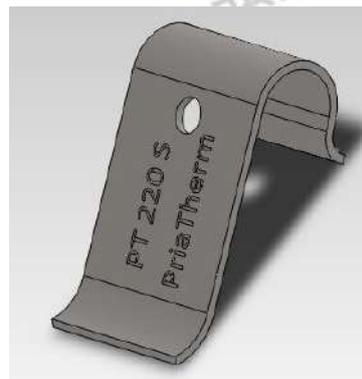
Part Number	Width (mm)	Thickness (mm)	Clamping force by 5 mm deformation (N)	Contact Distance (mm)
PT 247 S+	18	0.6	80 to 108	14.5



Part Number	Width (mm)	Thickness (mm)	Clamping force by 4,5 mm deformation (N)	Contact Distance (mm)
PT 220 L+	12	0.6	40 to 55	19.8



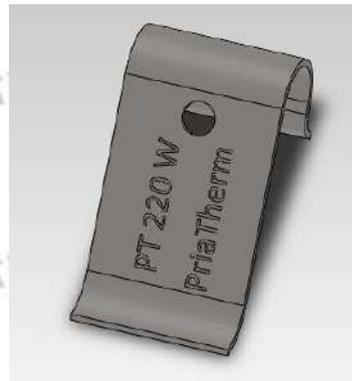
Part Number	Width (mm)	Thickness (mm)	Clamping force by 4,5 mm deformation (N)	Contact Distance (mm)
PT 220 S+	13	0.6	60 to 80	14.5



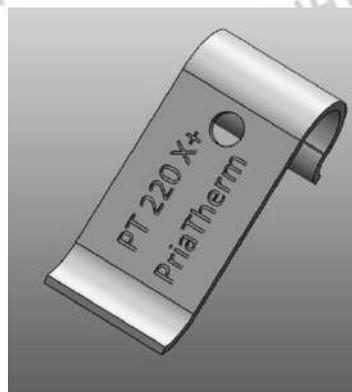
Part Number	Width (mm)	Thickness (mm)	Clamping force by 5 mm deformation (N)	Contact Distance (mm)
PT 247 W+	20	0.5	60 to 81	14.5



Part Number	Width (mm)	Thickness (mm)	Clamping force by 4,5 mm deformation (N)	Contact Distance (mm)
PT 220 W+	12	0.5	35 to 48	15.5



Part Number	Width (mm)	Thickness (mm)	Clamping force by 4,5 mm deformation (N)	Contact Distance (mm)
PT 220 X+	10	0.7	80 to 108	14.5



Part Number	Width (mm)	Thickness (mm)	Clamping force by 3,5 mm deformation (N)	Contact Distance (mm)
PT THIN	6	0.6	20 to 27	19.5



## Notes about Thermal Resistance values

The  $R_{th}$  values in the tables above have been measured by following conditions:

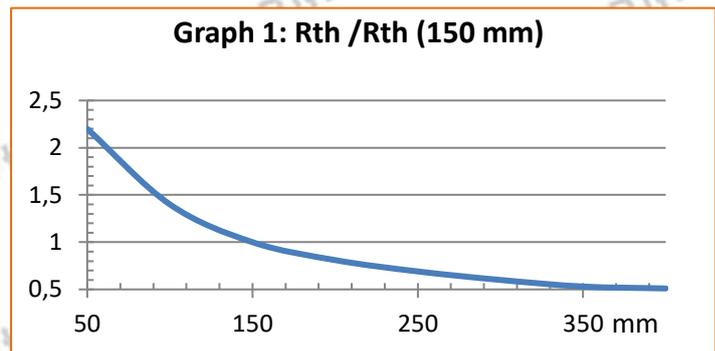
\*)  $R_{th,n}$  = Thermal resistance by natural convection

- length = 150 mm
- black anodized surface
- vertical oriented
- $T_{ambient} = 25^{\circ}C$
- $T_{heatsink} = 100^{\circ}C$

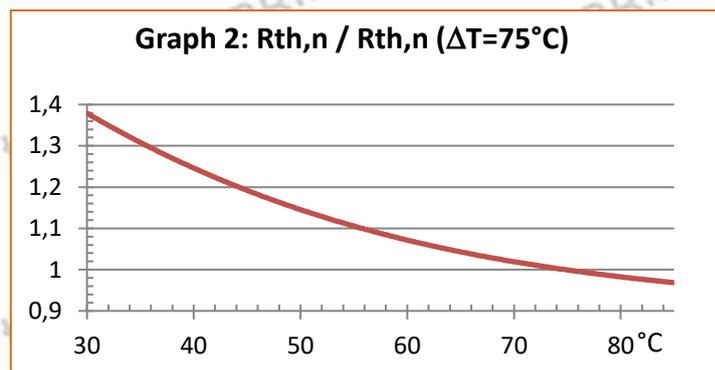
\*\*\*)  $R_{th,f}$  = Thermal resistance by forced convection

- length=150 mm
- fully ducted air flow
- inlet air speed = 2 m/s
- $T_{ambient} = 25^{\circ}C$
- $T_{heatsink} = 100^{\circ}C$

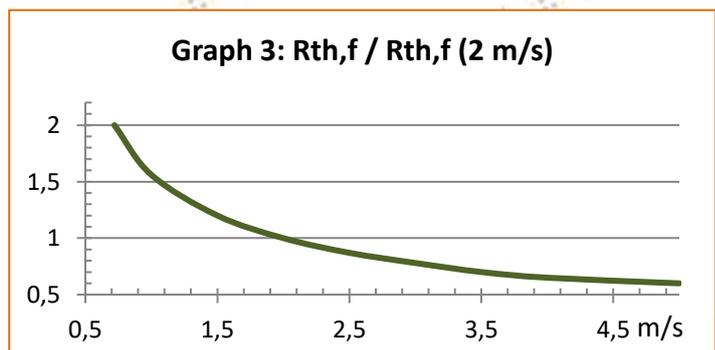
To calculate thermal resistance, in both natural and forced convection, by lengths other than 150 mm, multiply the given value by a corrective factor as plotted in the graph 1



To calculate thermal resistance in natural convection by a temperature rise (heatsink vs. ambient) other than  $75^{\circ}C$ , use correction factors plotted in graph 2



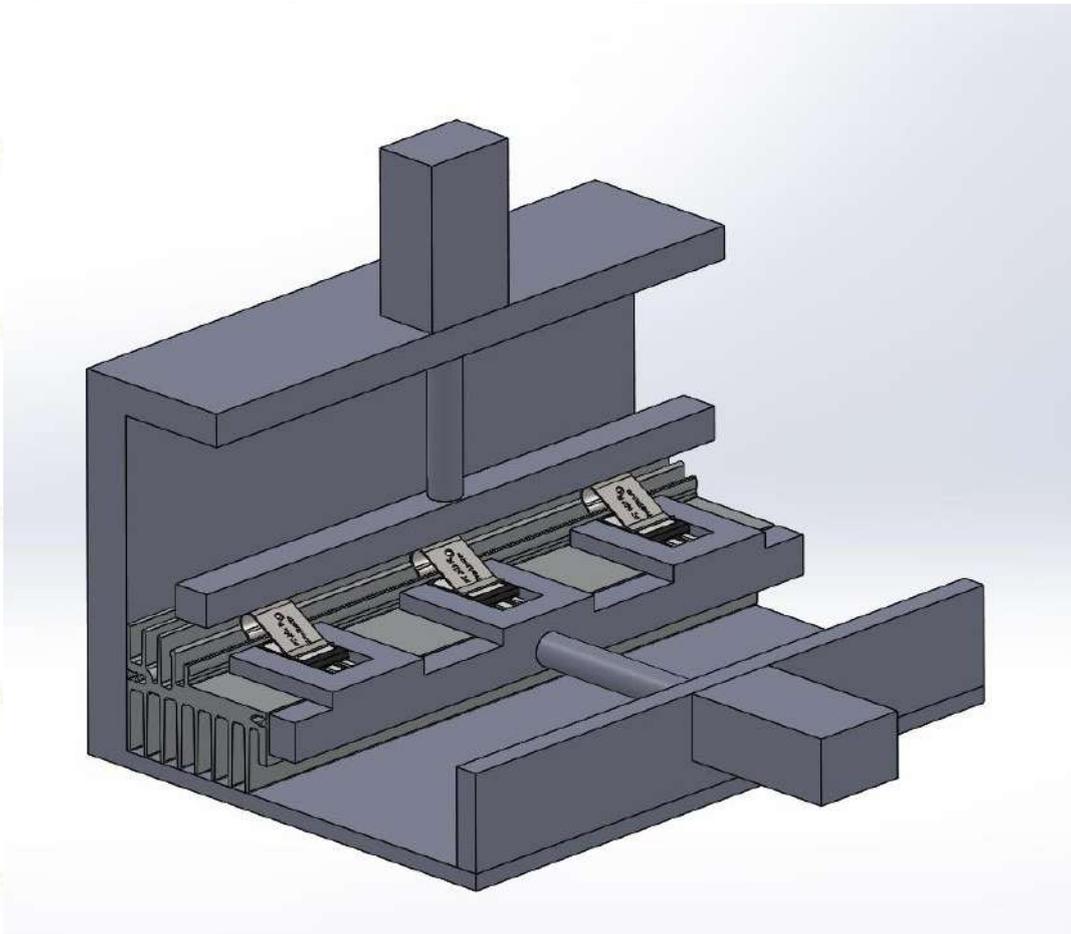
To calculate thermal resistance in forced convection by inlet air speeds other than 2m/s, use correction factors plotted in graph 3



## APPLICATION NOTE

The use of PT Clip has many advantages:

1. The operation of mounting the electronic module is much more rapid by clip than by screw.
2. The electronic module (TO220 or TO247) is pressed and fixed uniformly. This homogeneous contact between heat sink and electrical component improves thermal performance.
3. The aluminum profile is cheaper as machine-threaded holes are avoided.
4. The operator can assemble the electronic package manually or even more packages at the same time by a semi-automated press; In that case the TO 220 or TO 247 cases can be placed and the clips can be assembled simultaneously (see below).



5. The risk of damage to the electronic element during mounting is far less than it would be if using a screw (which, if over-tightened, can crack the module).