

#	Sr no.	LDP45	Aluminium	Aluminium	Steel	Units
	1	Thermal Resistance	5.1	5.1	5.1	degC/W
	2	Number of fins	44	44	44	
	3	Fin overall height	0.035	0.035	0.035	m
	4	Base thickness	0.003	0.003	0.003	m
	5	Fin length	0.032	0.032	0.032	m
	6	Base width	0.045	0.045	0.045	m
	7	Base depth	0.045	0.045	0.045	m
	8	Base area	0.002025	0.002025	0.002025	m
	9	Fin perimeter	0.004899096875	0.004899096875	0.004899096875	m
	10	Tip area of the fin	0.0000014885	0.0000014885	0.0000014885	m^2
	11	side area of the fin	0.0001567711	0.0001567711	0.0001567711	m^2
	12	area of each fin	0.0001582596	0.0001582596	0.0001582596	m^2
	13	total area of n fins	0.0069634224	0.0069634224	0.0069634224	m^2
	14	Fin base area	0.001959506	0.001959506	0.001959506	m^2
	15	Base side area	0.00054	0.00054	0.00054	m^2
	16	Total fin array surface area	0.0094629284	0.0094629284	0.0094629284	m^2
	17	Fin array heat transfer coefficient (h)	6.96	20.72	20.72	W/m^2K
	18	Set thermal conductivity of the material	202	202	16.27	W/mK
	19	T_ambient	300	300	300	K
	20	T_base	321	321	321	K
	21	Maximum possible Q_max from each fin = (T_base - T_ambient)*h*(A+A_side)	0.02313122314	0.06886191715	0.06886191715	W
	22	Q obtained from the simulation using h, T_ambient and T_wall for Aluminium	0.0222579	0.06177933	0.03191599	W
	23	Predicted Fin_efficiency = Q_simulation/Q_max * 100	96.22448354	89.71479819	46.34780924	%
	24	m	10.64909078	18.37396078	64.74178858	
	25	Theoretical Fin Efficiency	96.30090134	89.87441861	46.76077802	%