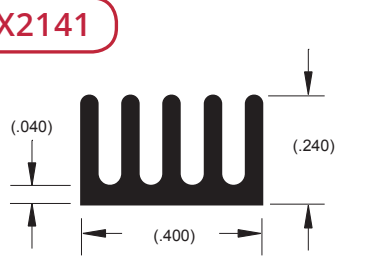
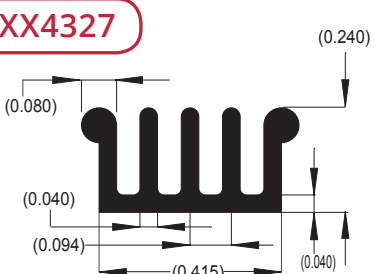


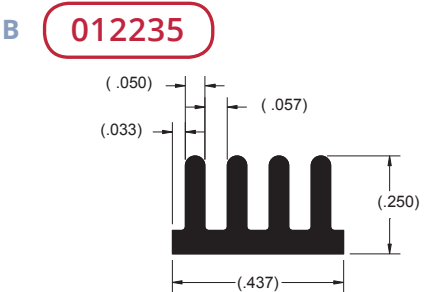
Per.	1.79	in.
WT.	0.04	lb/ft
θsa	42.00	°C/w/3"



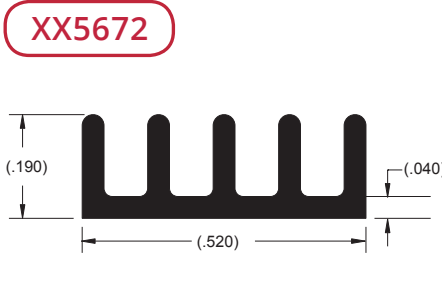
Per.	2.71	in.
WT.	0.06	lb/ft
θsa	20.30	°C/w/3"



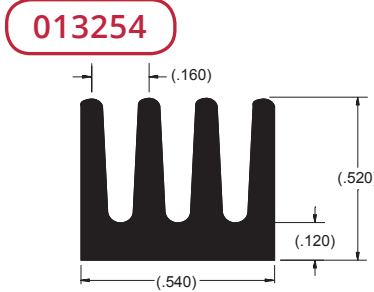
Per.	2.83	in.
WT.	0.07	lb/ft
θsa	26.00	°C/w/3"



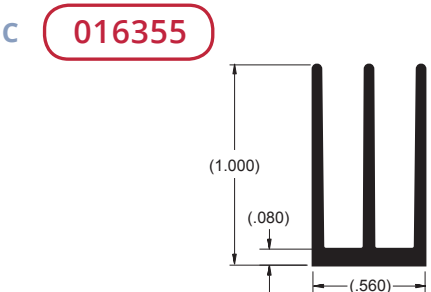
Per.	2.39	in.
WT.	0.07	lb/ft
θsa	29.16	°C/w/3"



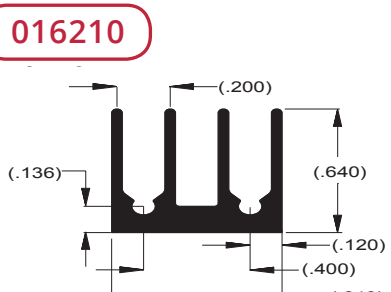
Per.	2.48	in.
WT.	0.06	lb/ft
θsa	28.50	°C/w/3"



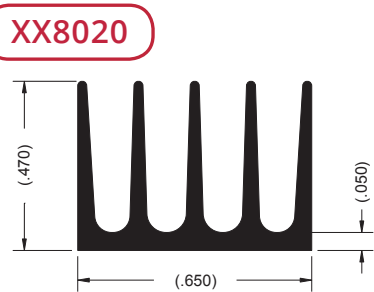
Per.	4.24	in.
WT.	0.21	lb/ft
θsa	14.00	°C/w/3"



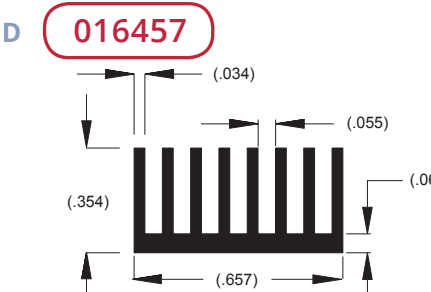
Per.	6.69	in.
WT.	0.20	lb/ft
θsa	9.50	°C/w/3"



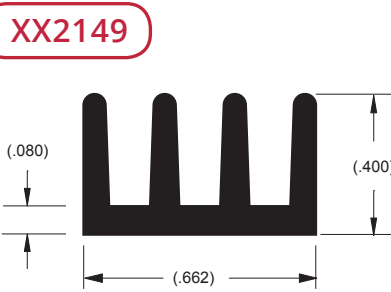
Per.	5.53	in.
WT.	0.20	lb/ft
θsa	11.10	°C/w/3"



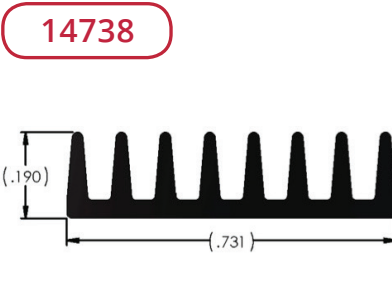
Per.	5.25	in.
WT.	0.14	lb/ft
θsa	12.00	°C/w/3"



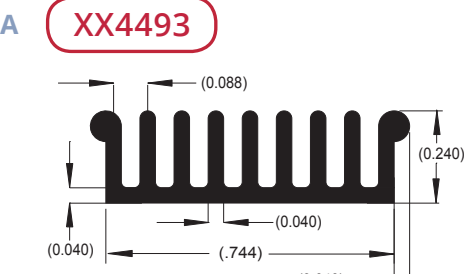
Per.	6.08	in.
WT.	0.15	lb/ft
θsa	15.80	°C/w/3"



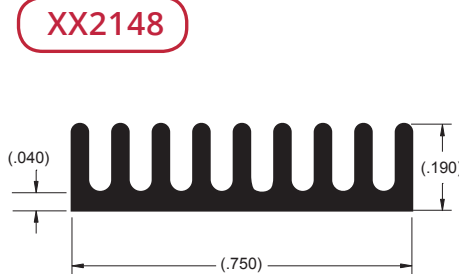
Per.	3.86	in.
WT.	0.14	lb/ft
θsa	8.80	°C/w/3"



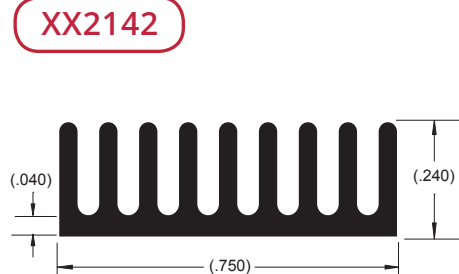
Per.	3.63	in.
WT.	0.08	lb/ft
θsa	19.29	°C/w/3"



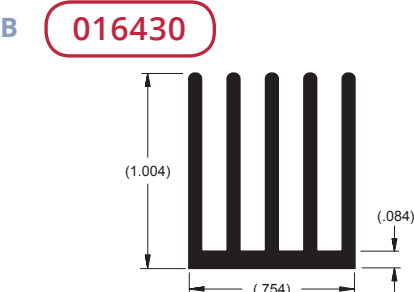
Per.	5.01	in.
WT.	0.13	lb/ft
θsa	18.00	°C/w/3"



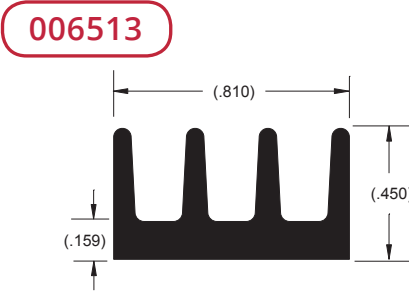
Per.	3.96	in.
WT.	0.09	lb/ft
θsa	7.00	°C/w/3"



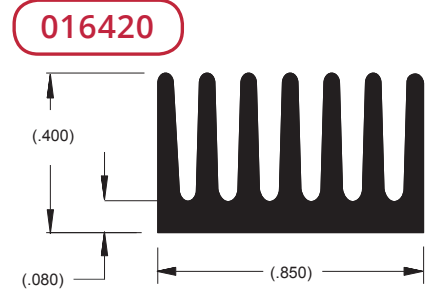
Per.	4.86	in.
WT.	0.11	lb/ft
θsa	8.20	°C/w/3"



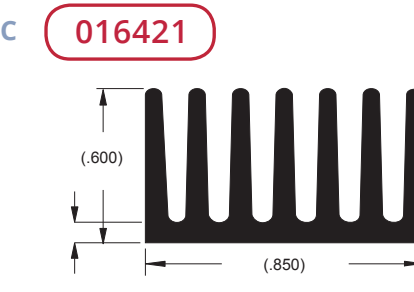
Per.	10.76	in.
WT.	0.37	lb/ft
θsa	7.90	°C/w/3"



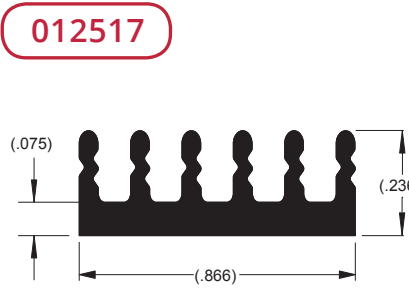
Per.	4.63	in.
WT.	0.24	lb/ft
θsa	15.10	°C/w/3"



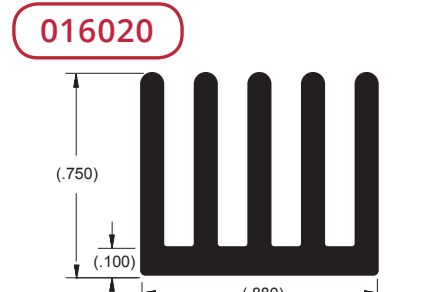
Per.	5.91	in.
WT.	0.24	lb/ft
θsa	12.50	°C/w/3"



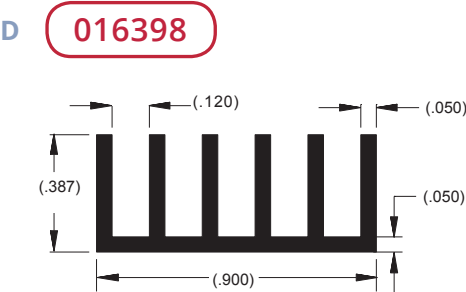
Per.	8.71	in.
WT.	0.34	lb/ft
θsa	9.70	°C/w/3"



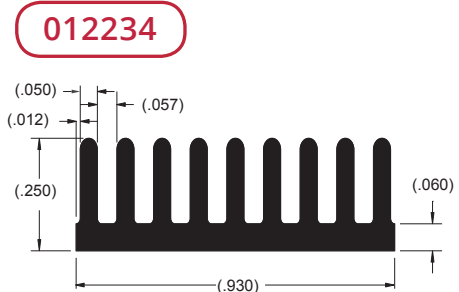
Per.	3.79	in.
WT.	0.13	lb/ft
θsa	17.10	°C/w/3"



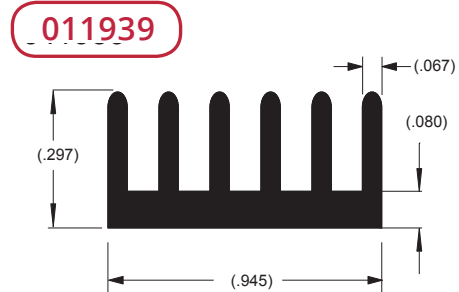
Per.	8.90	in.
WT.	0.41	lb/ft
θsa	8.40	°C/w/3"



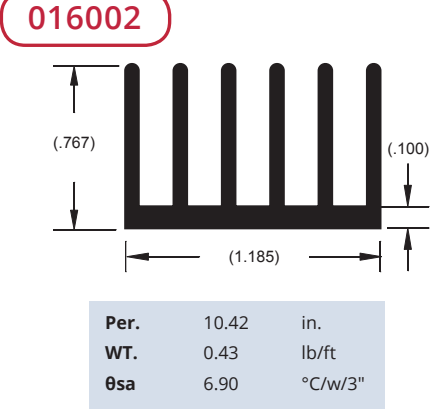
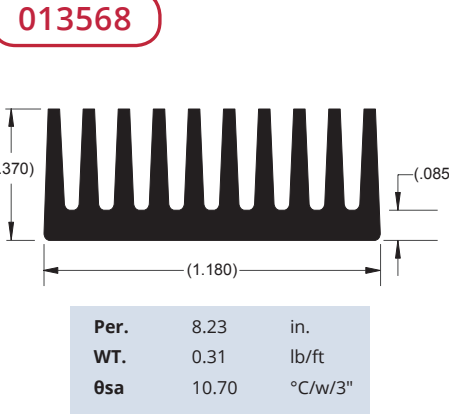
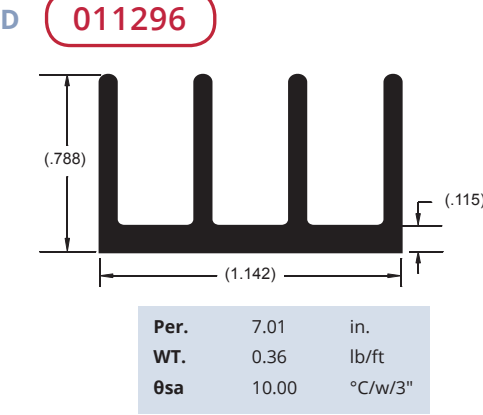
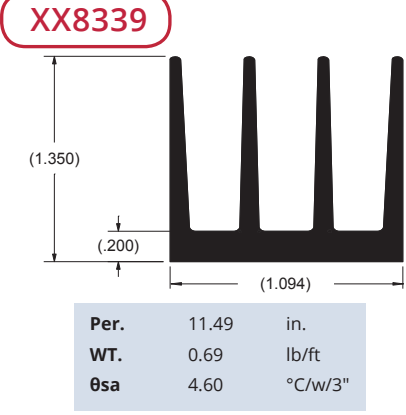
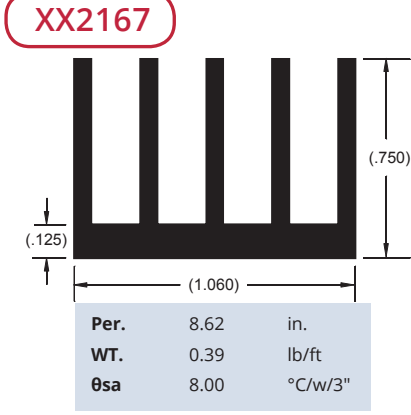
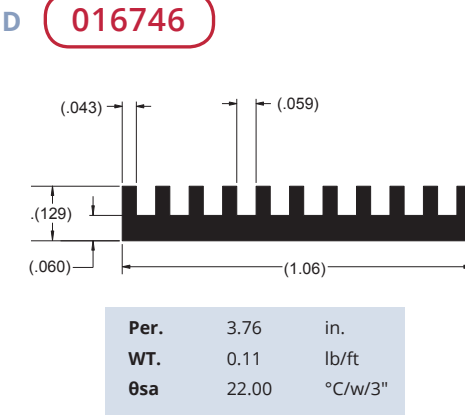
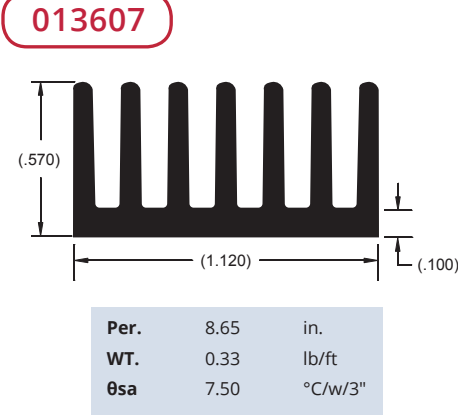
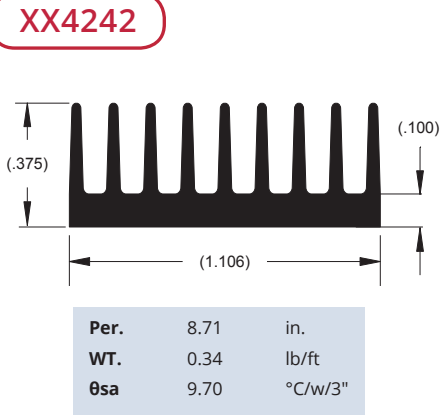
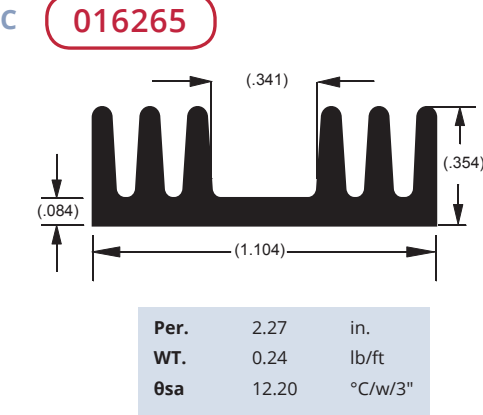
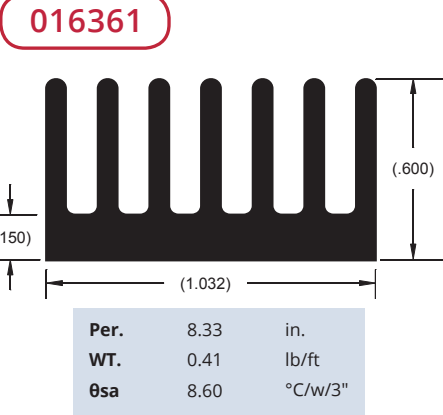
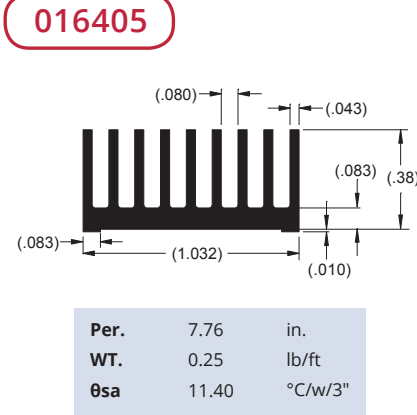
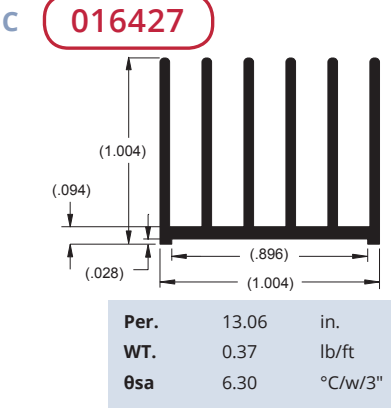
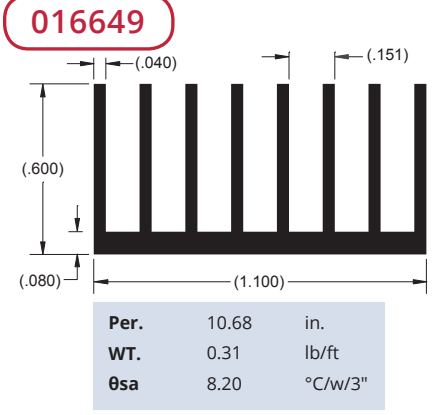
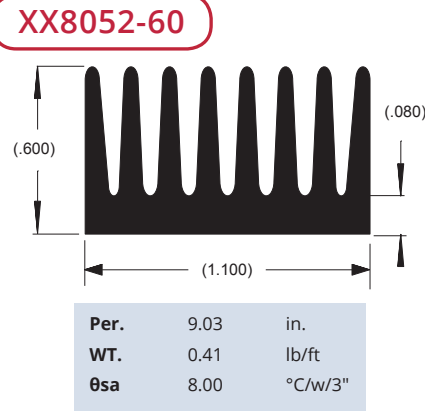
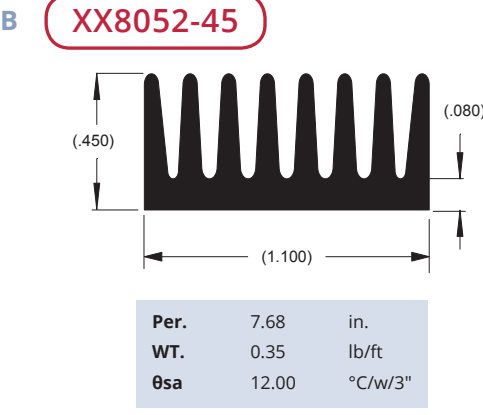
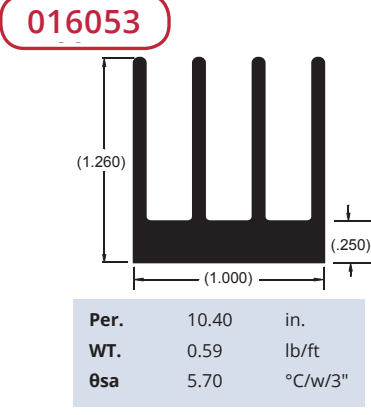
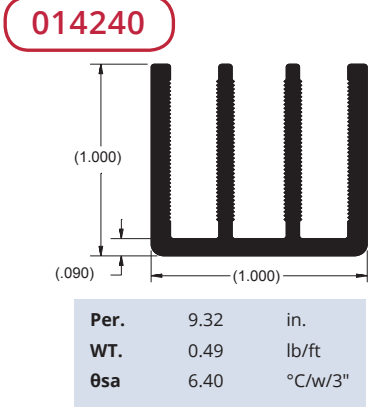
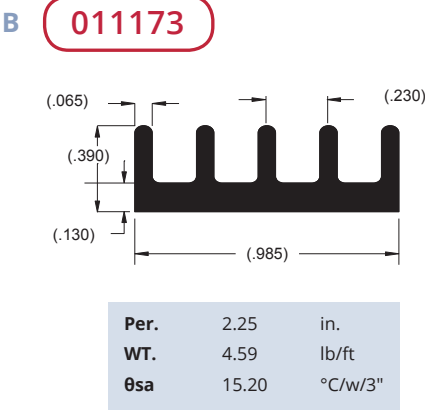
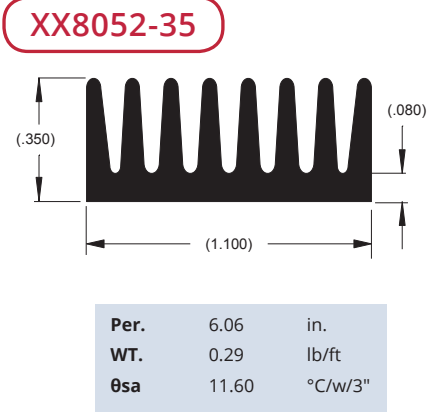
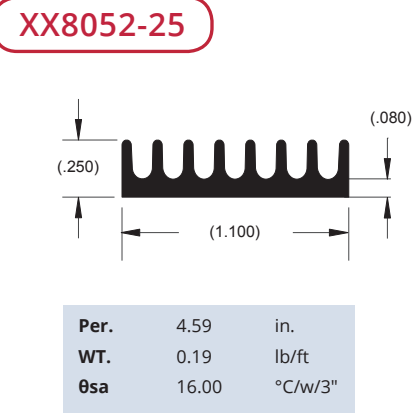
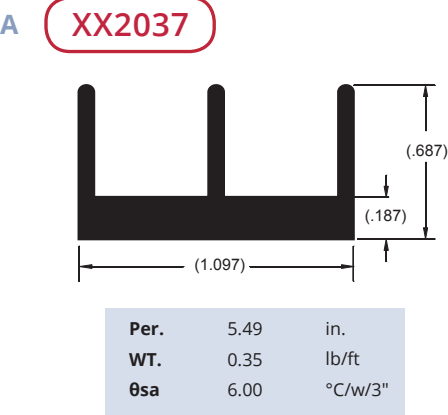
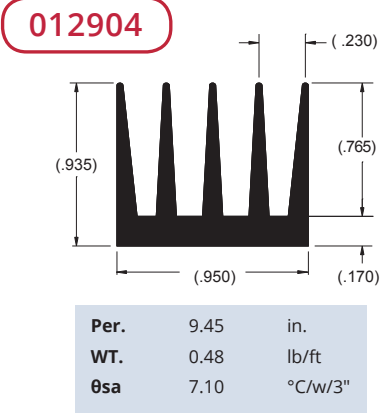
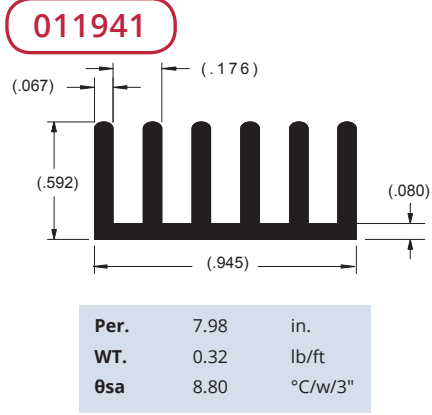
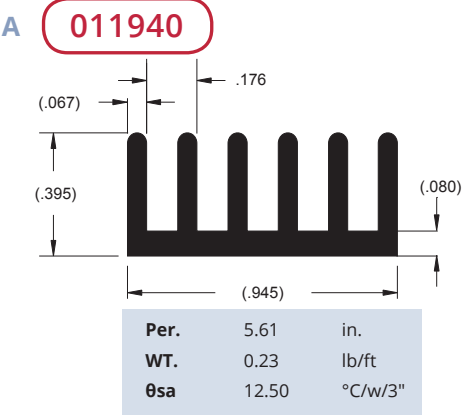
Per.	5.94	in.
WT.	0.18	lb/ft
θsa	12.30	°C/w/3"

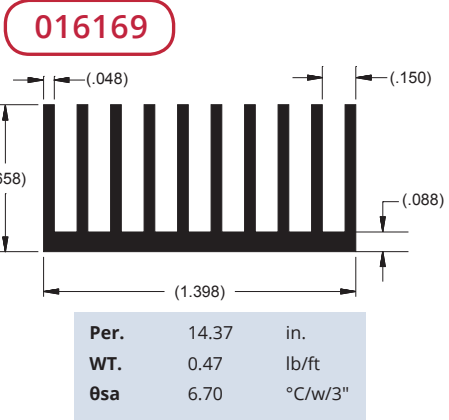
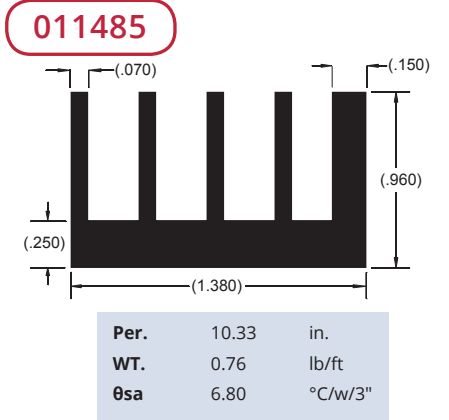
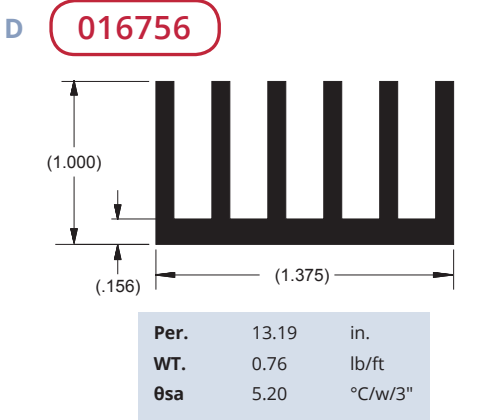
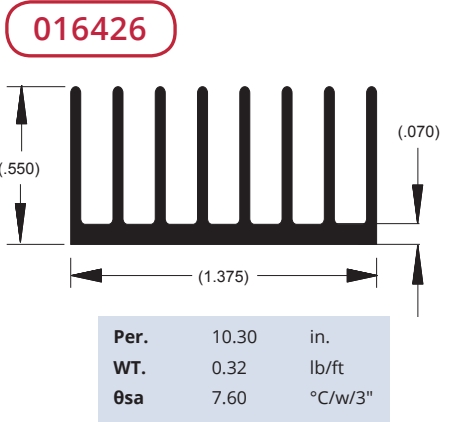
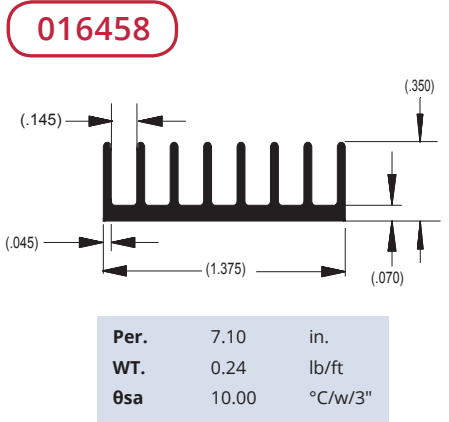
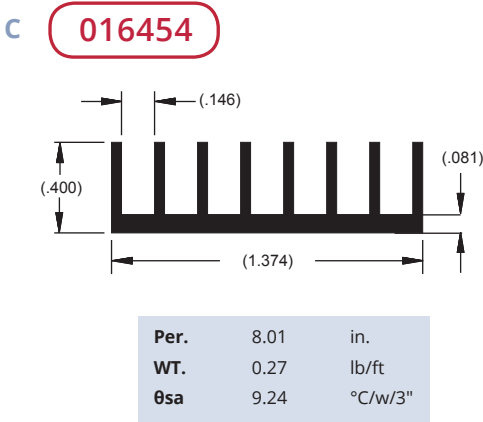
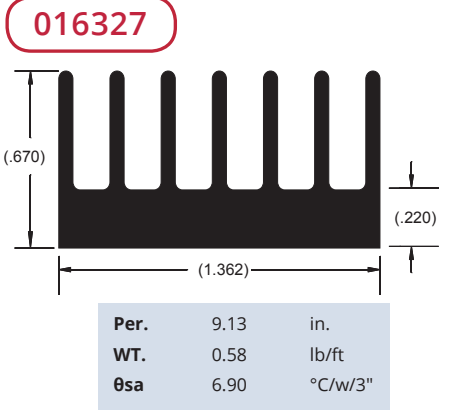
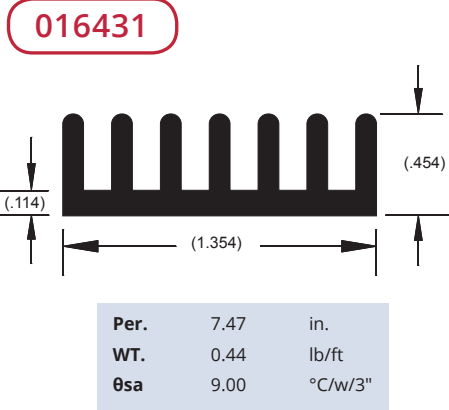
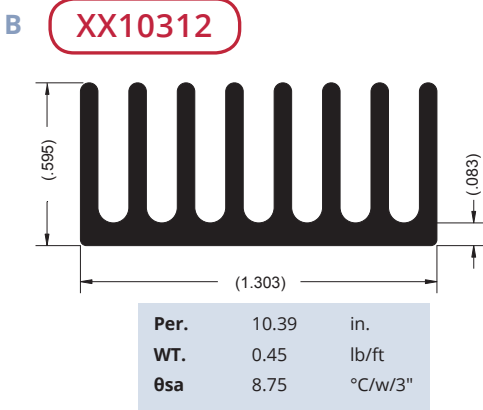
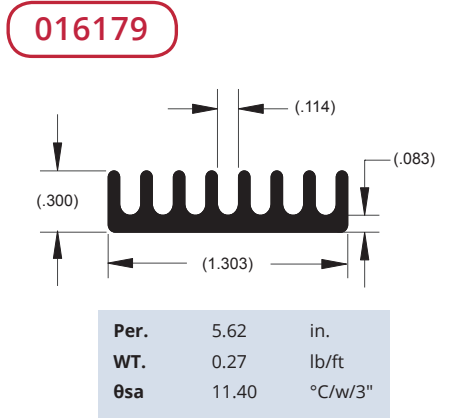
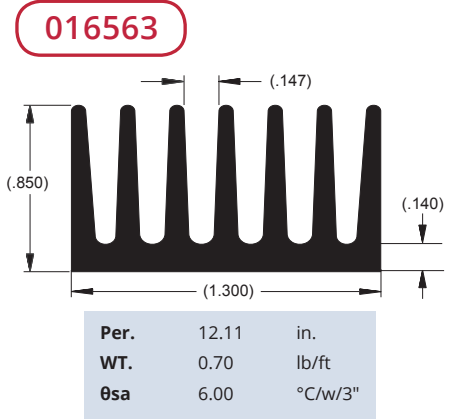
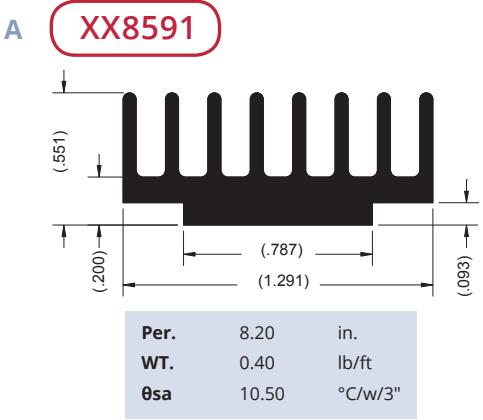
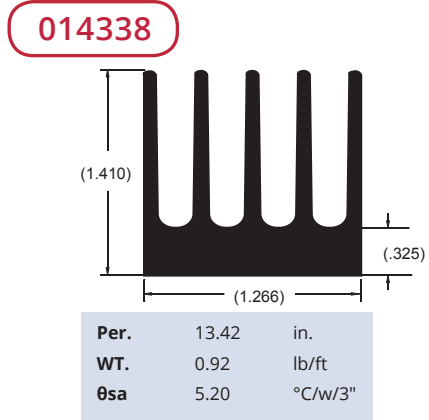
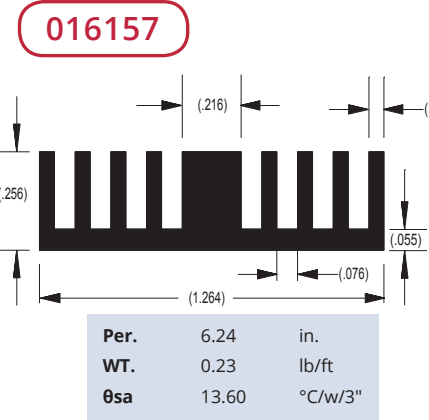
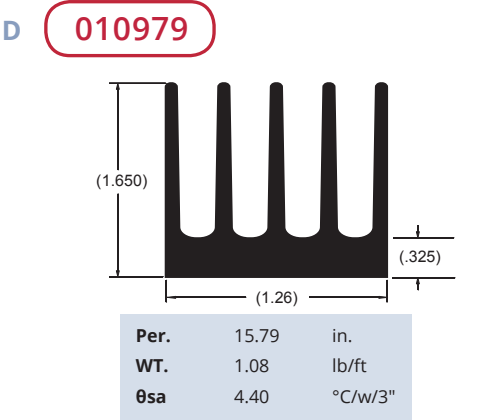
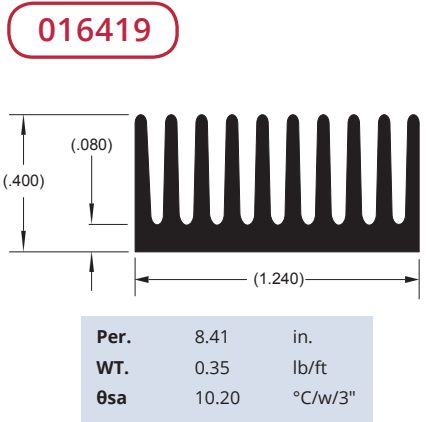
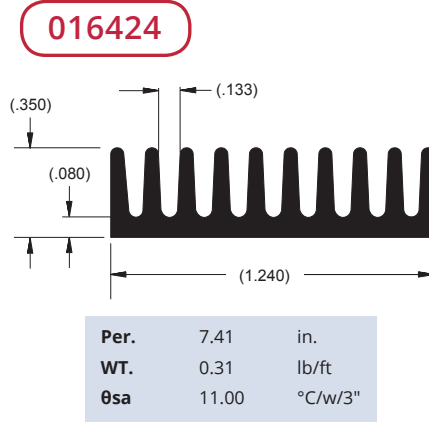
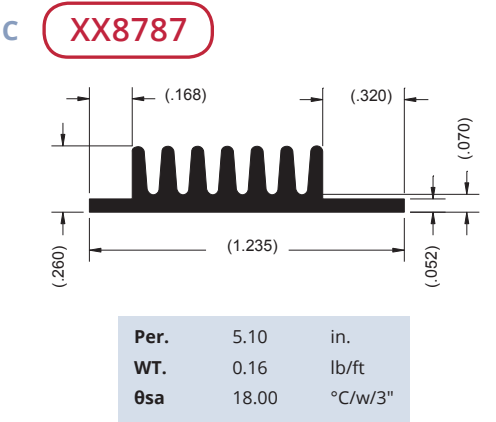
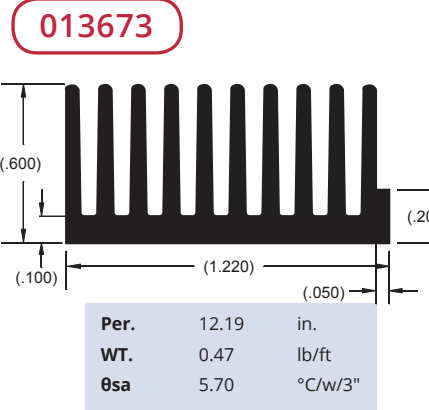
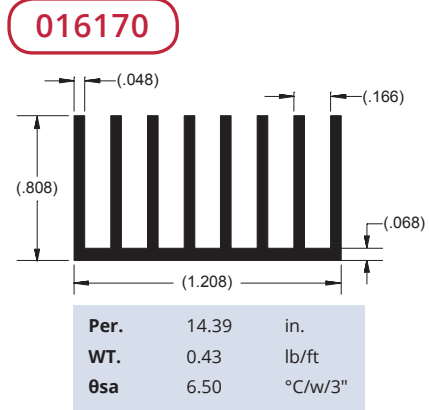
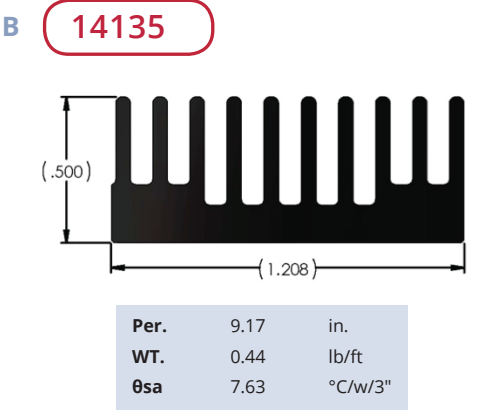
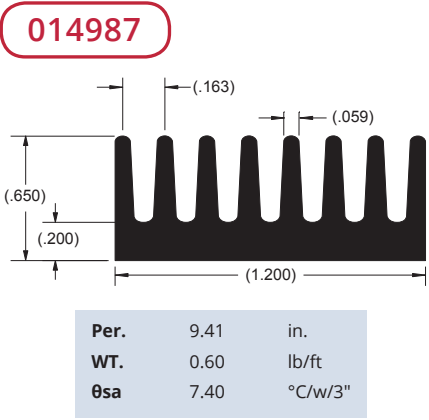
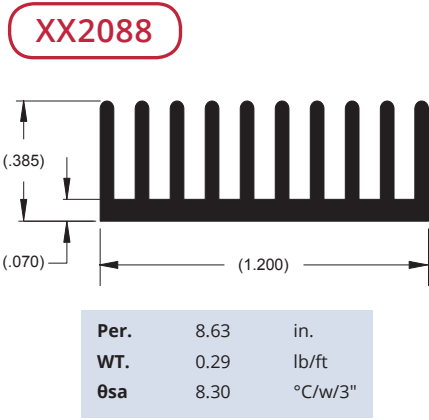
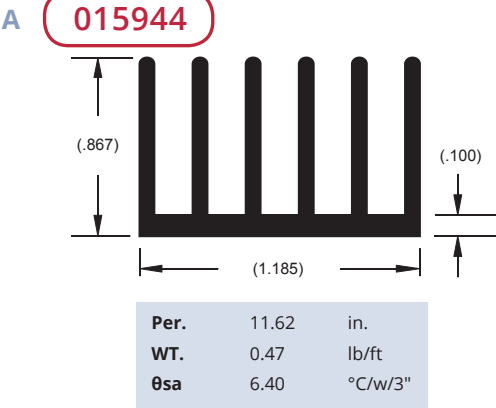


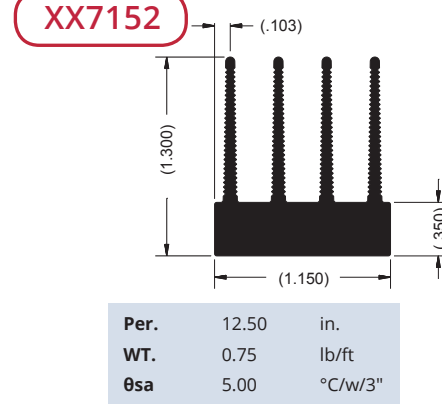
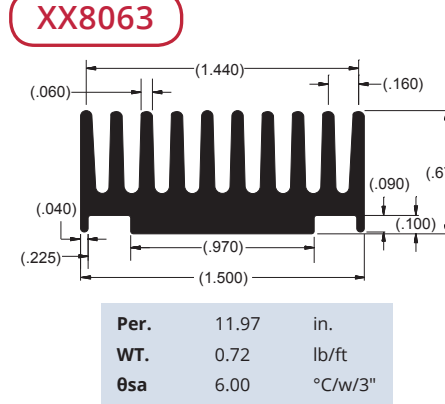
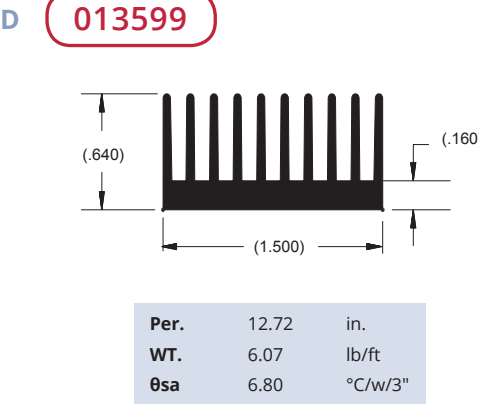
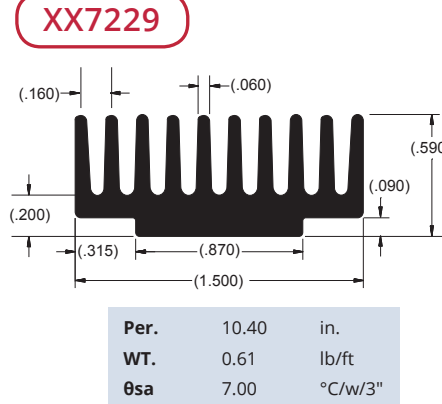
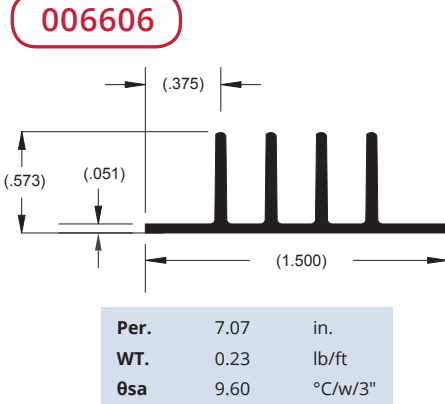
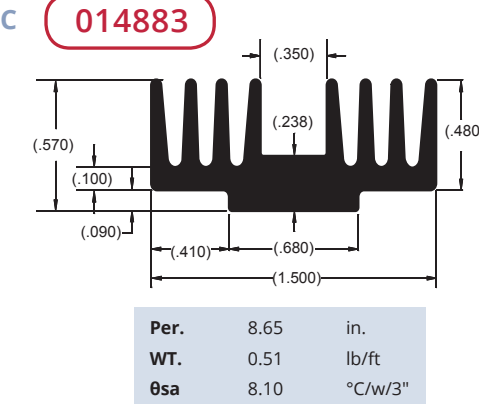
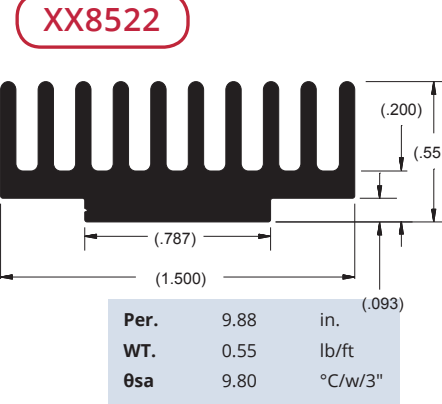
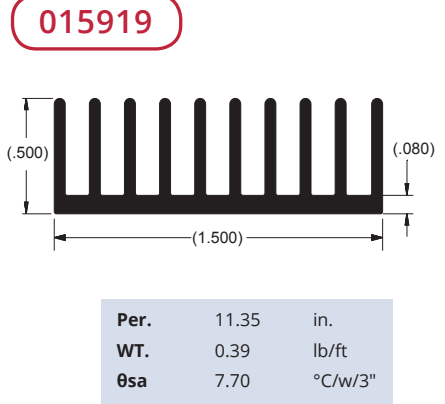
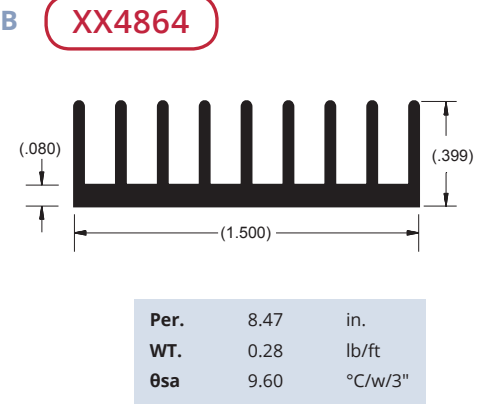
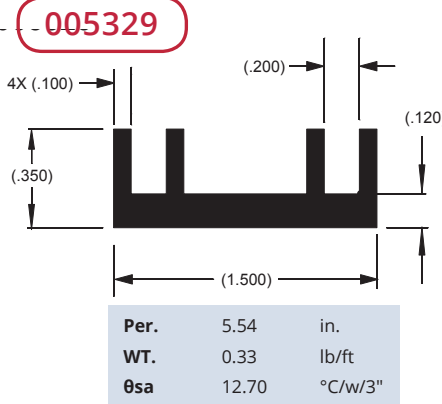
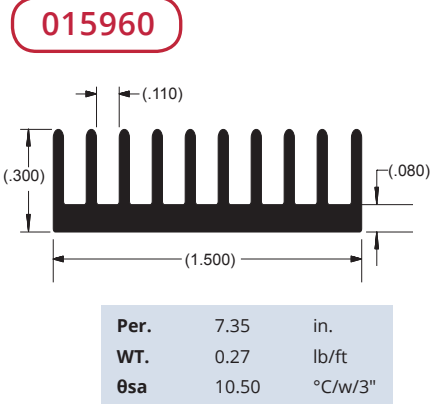
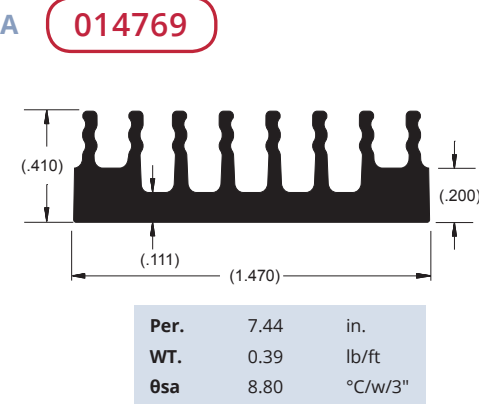
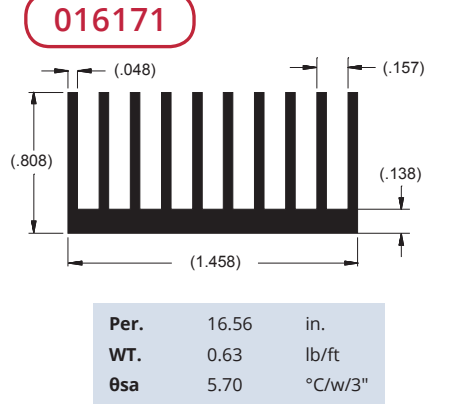
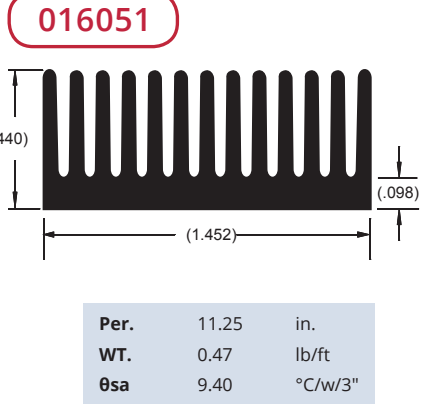
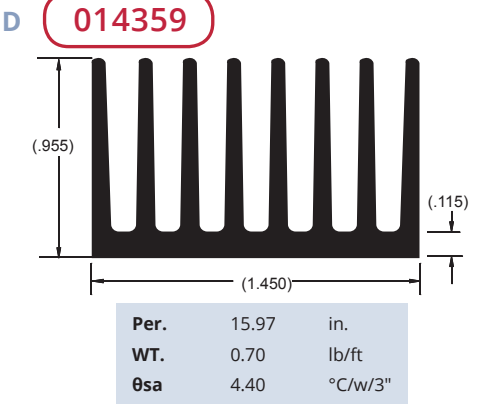
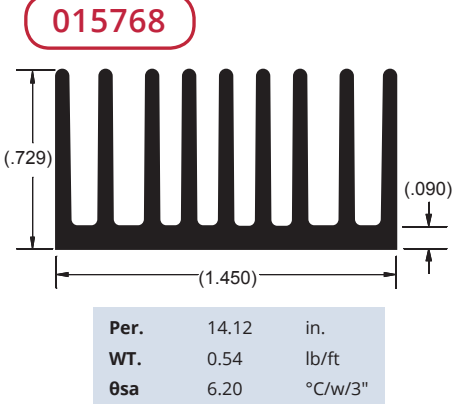
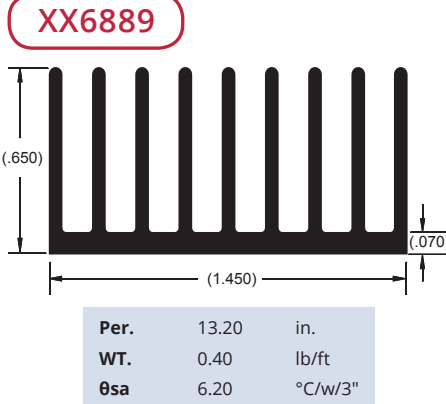
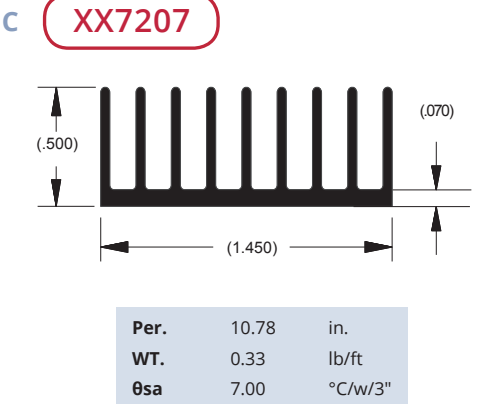
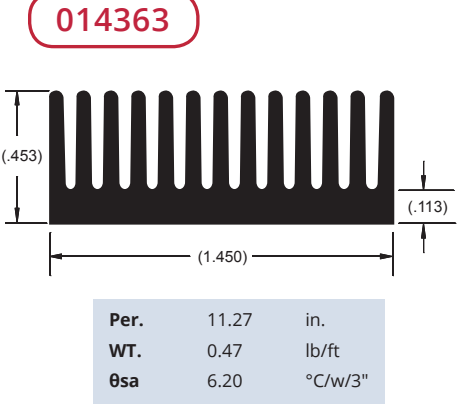
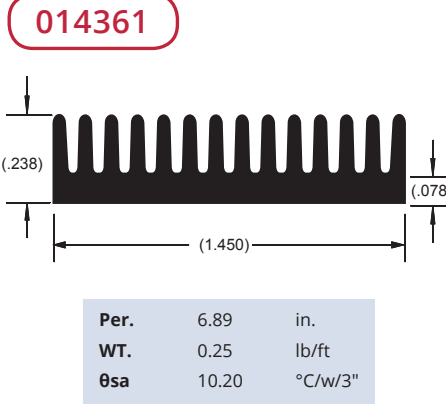
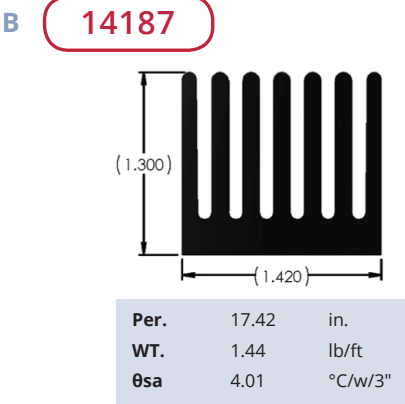
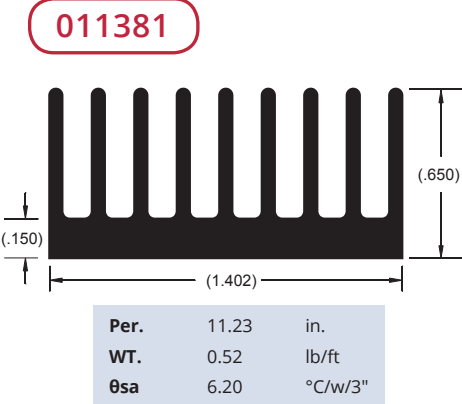
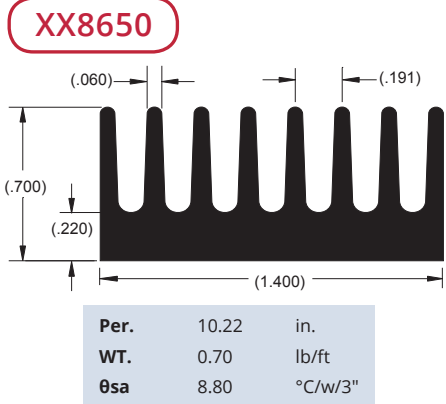
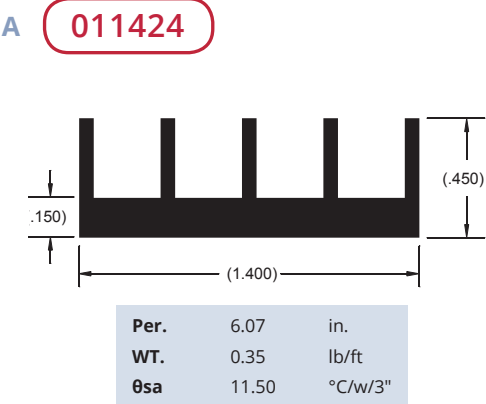
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WT.	0.16	lb/ft
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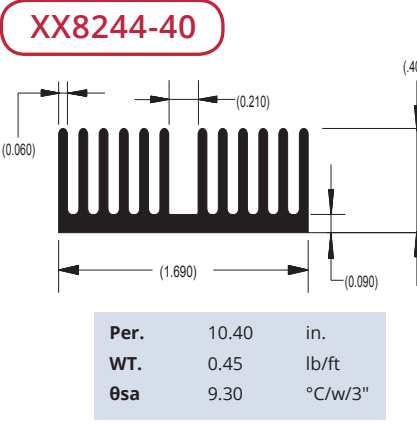
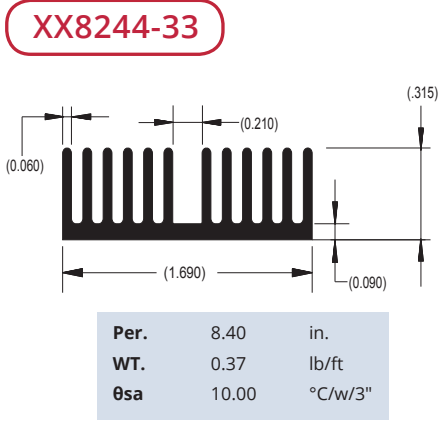
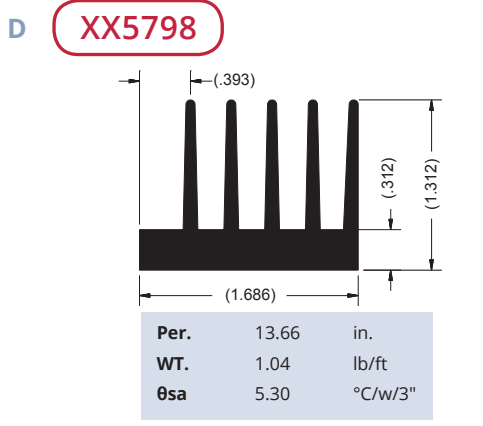
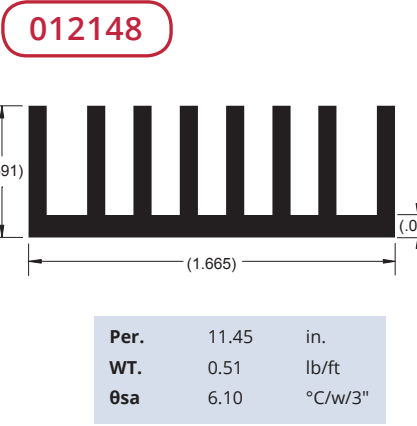
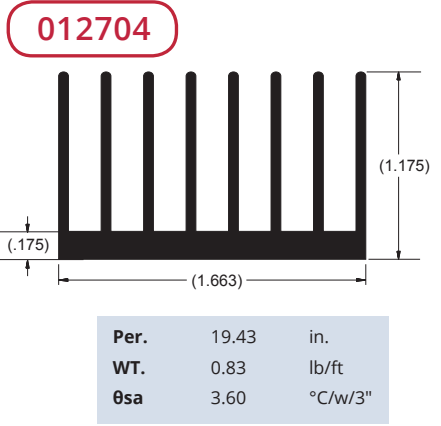
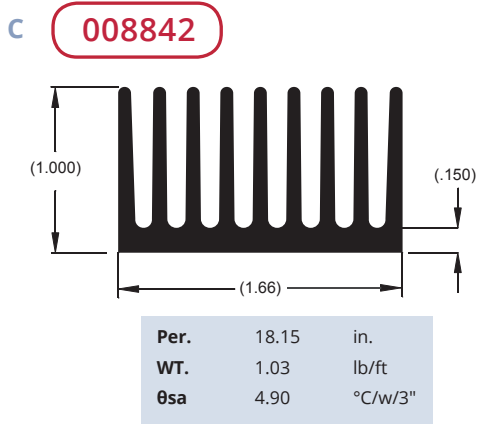
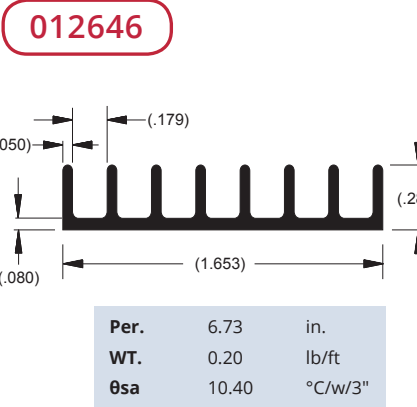
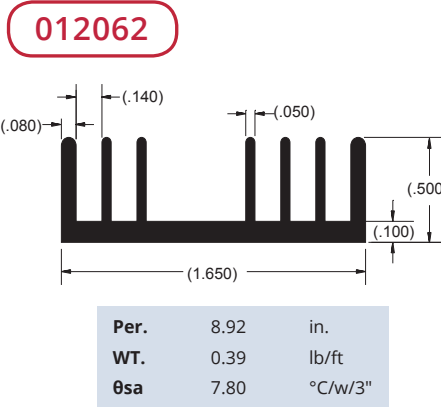
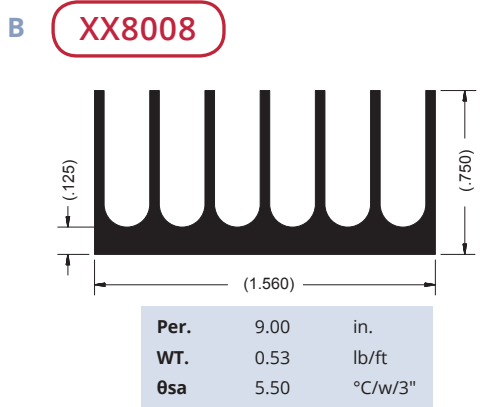
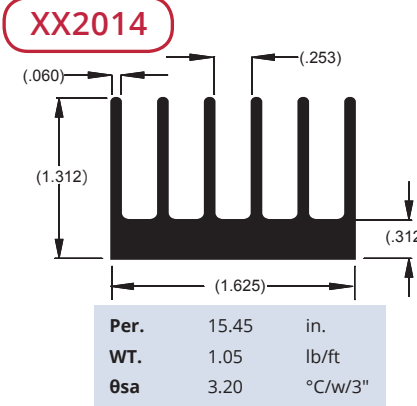
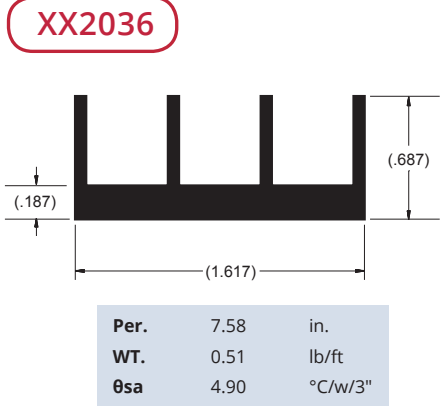
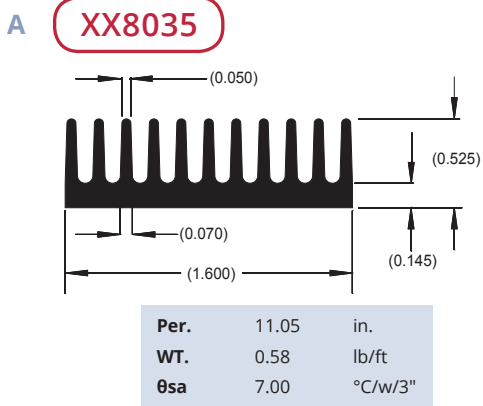
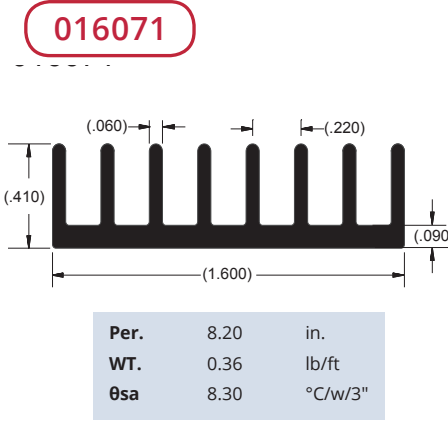
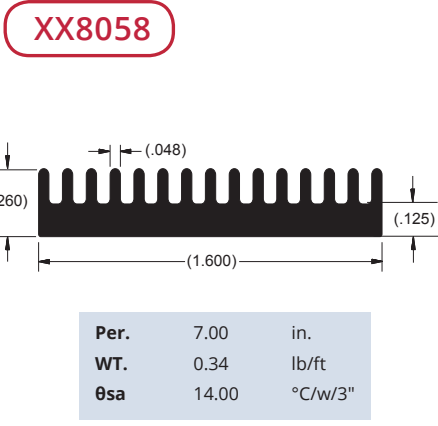
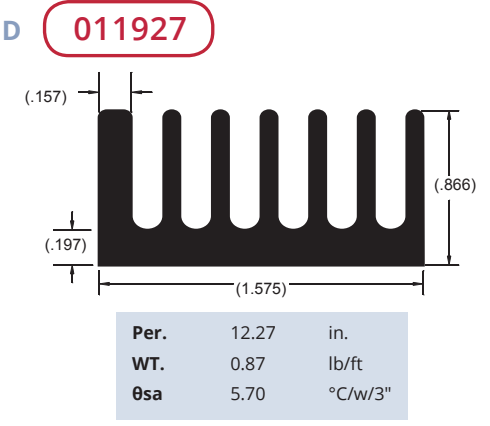
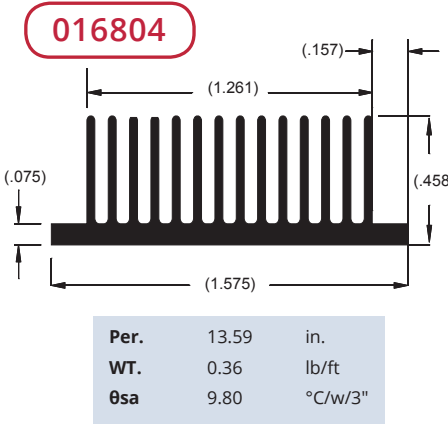
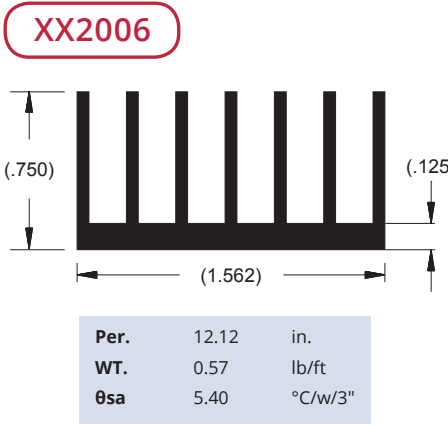
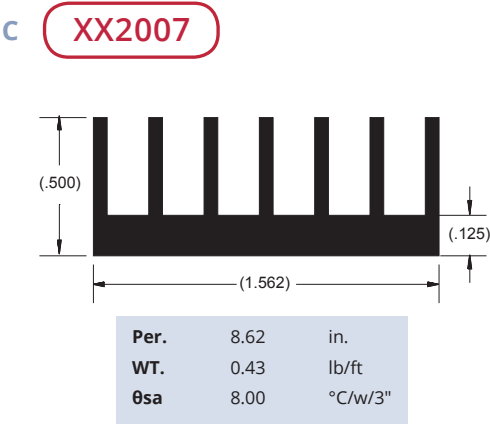
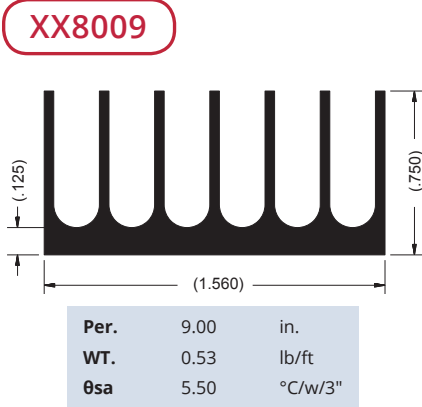
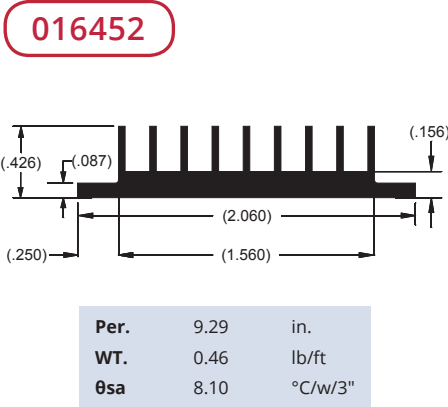
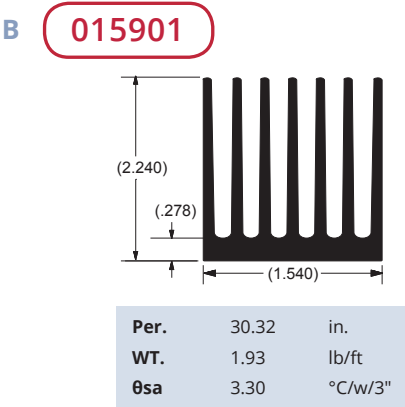
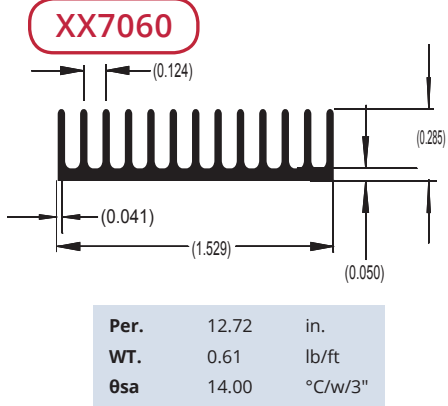
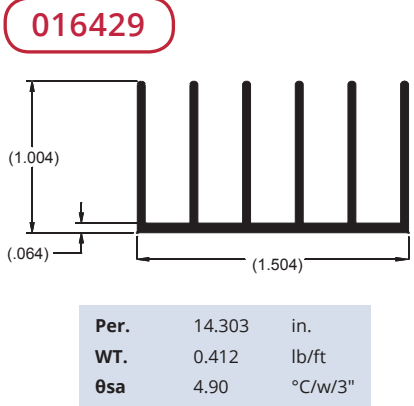
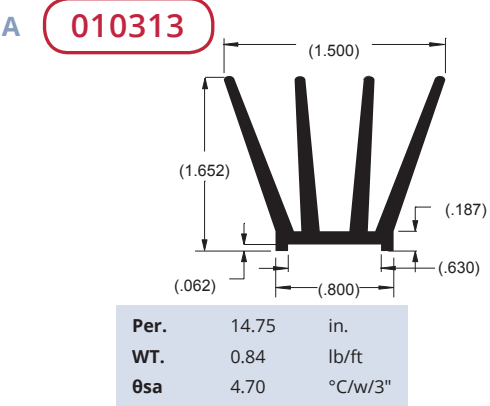


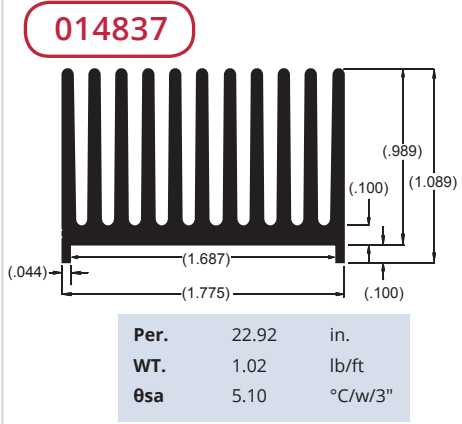
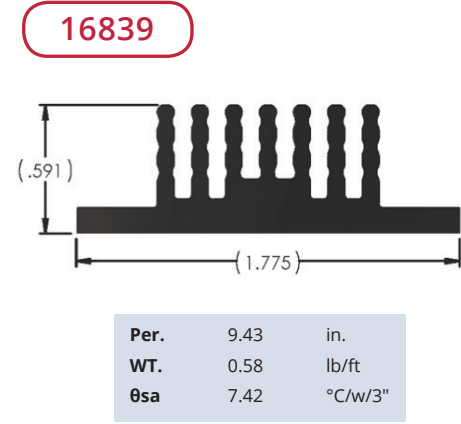
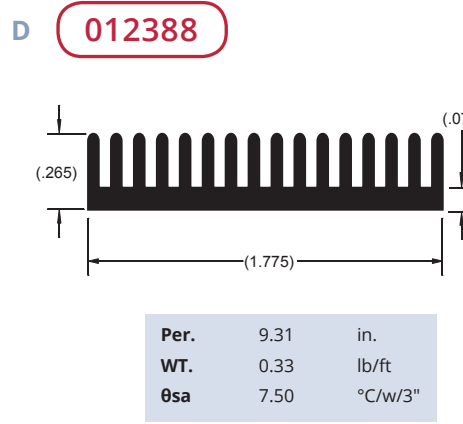
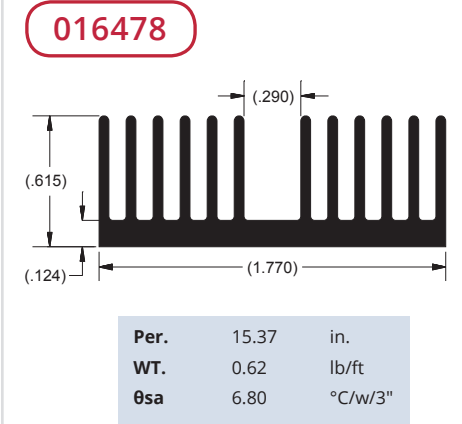
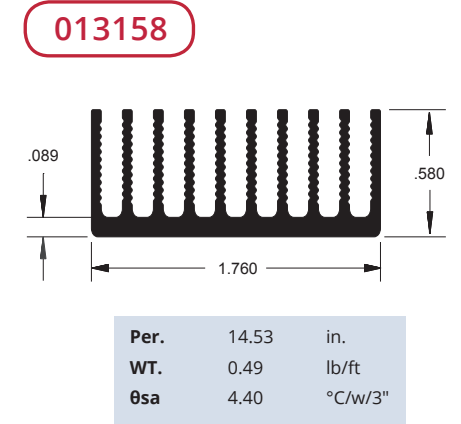
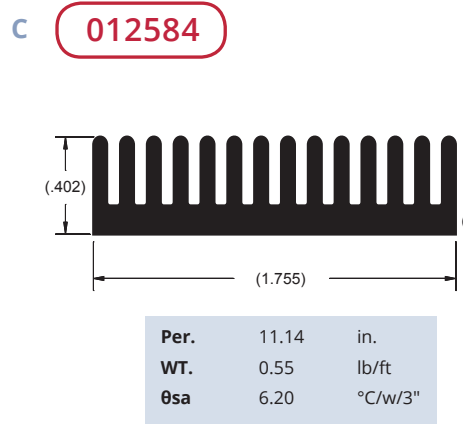
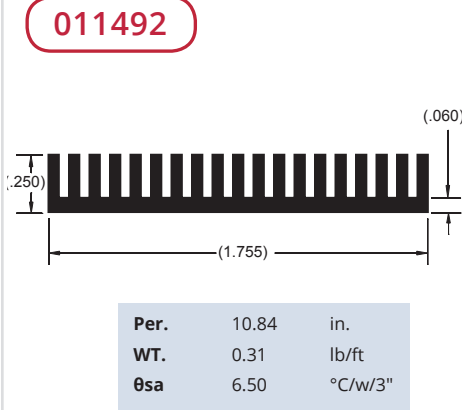
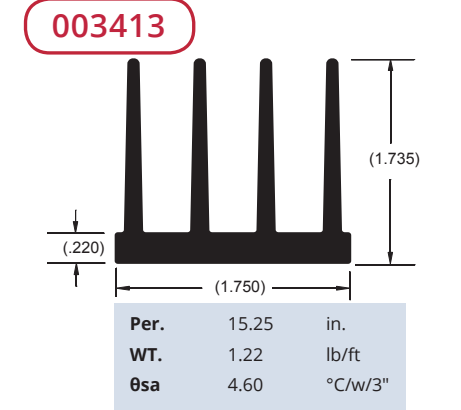
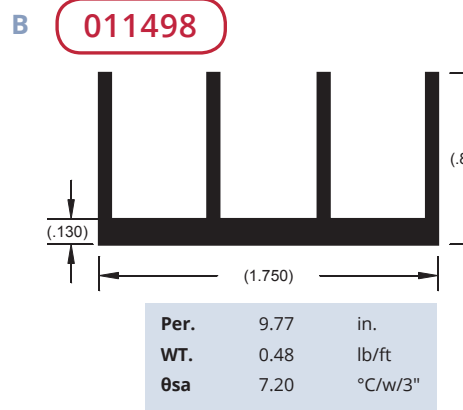
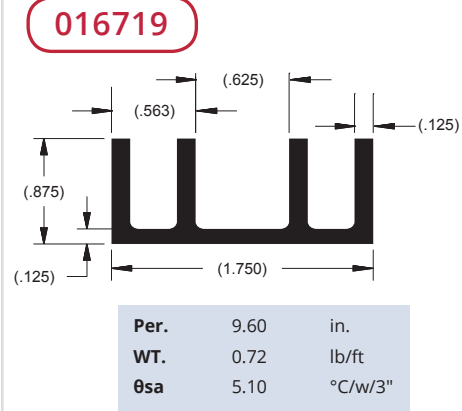
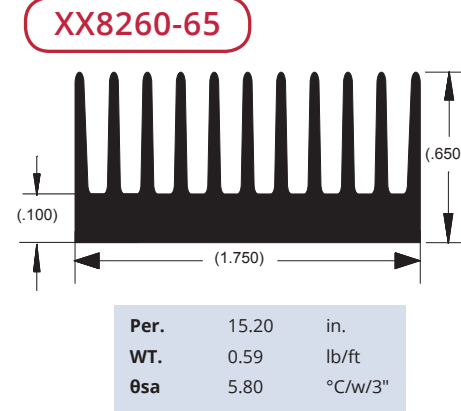
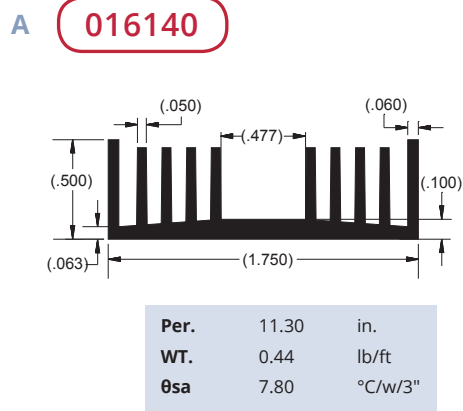
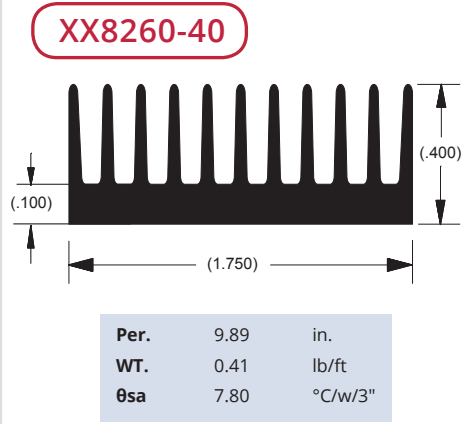
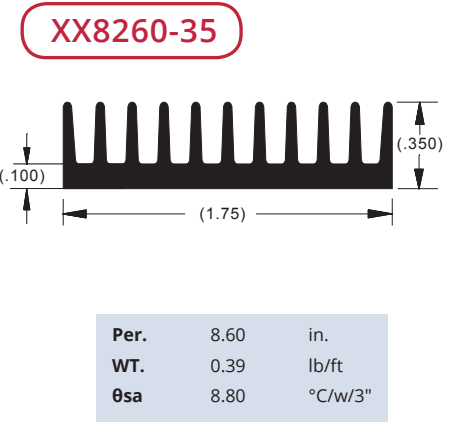
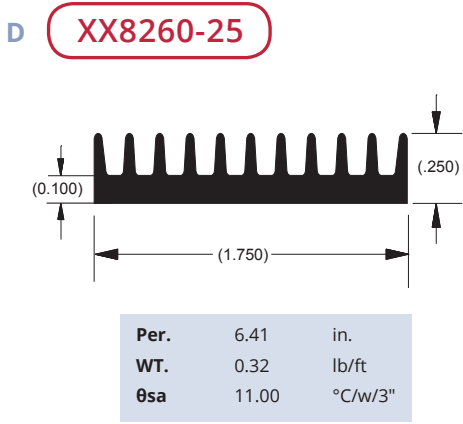
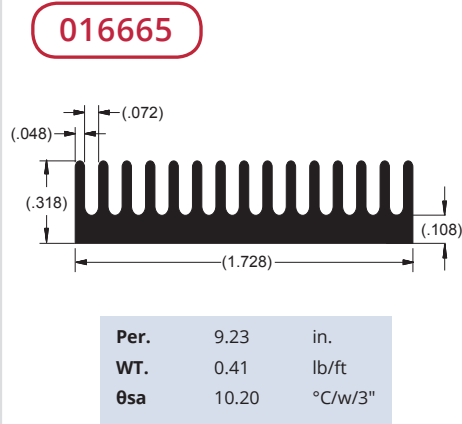
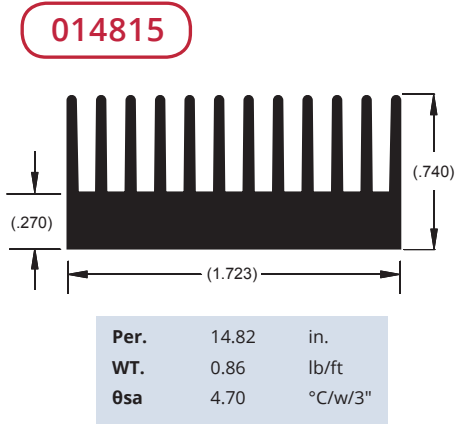
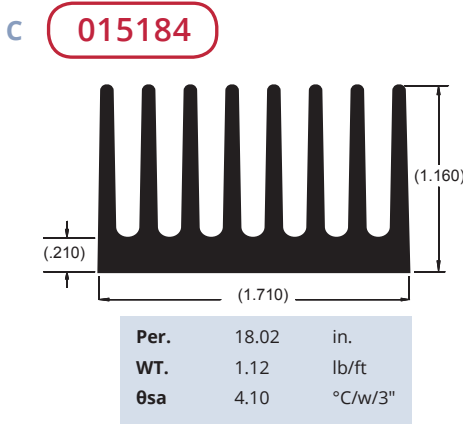
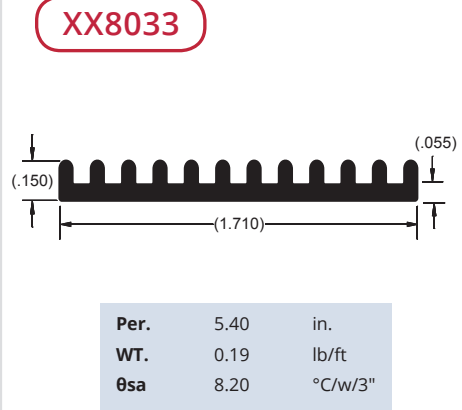
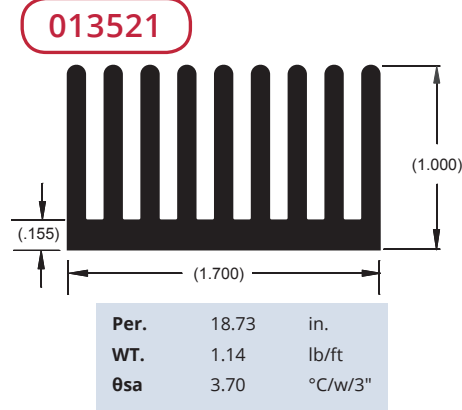
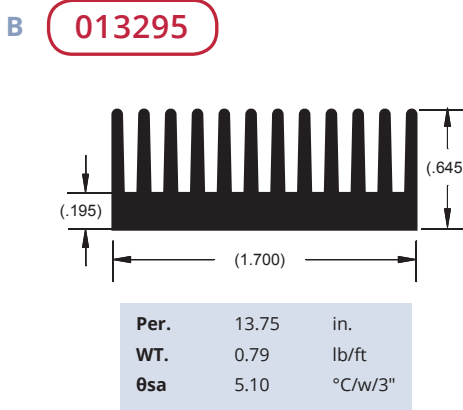
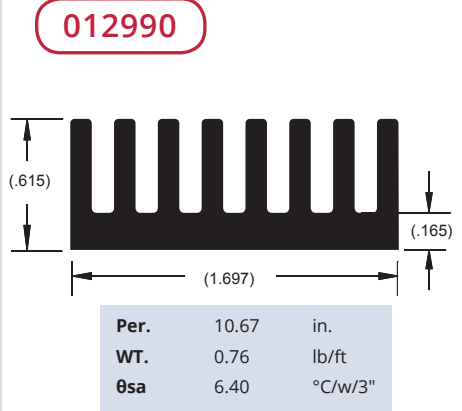
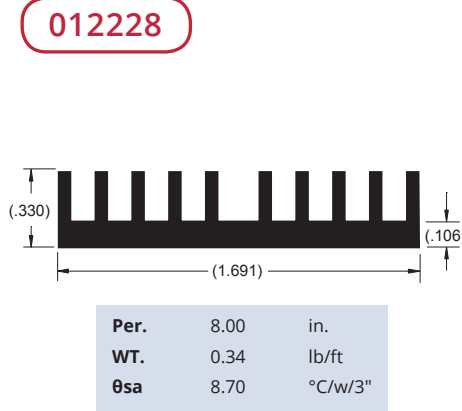
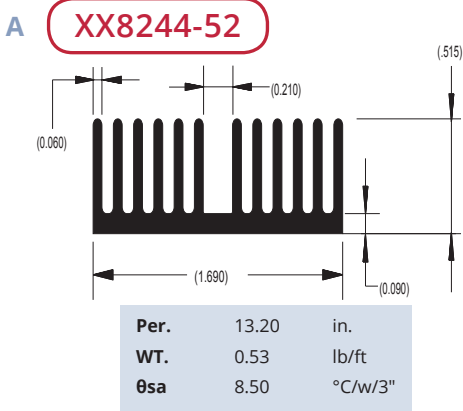
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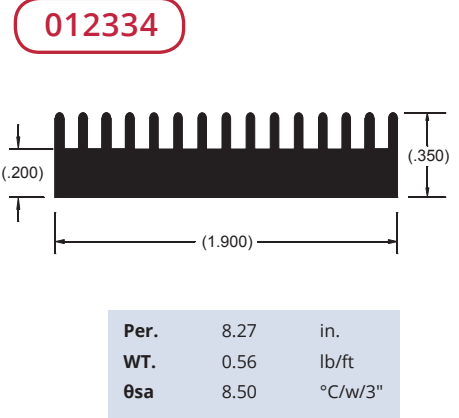
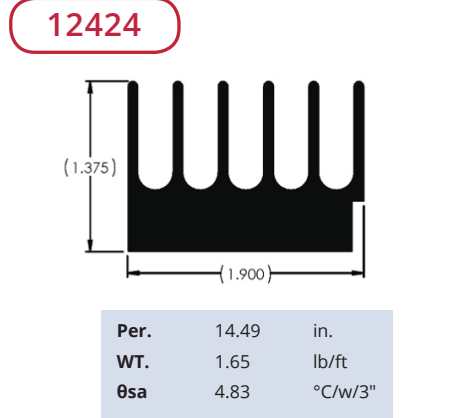
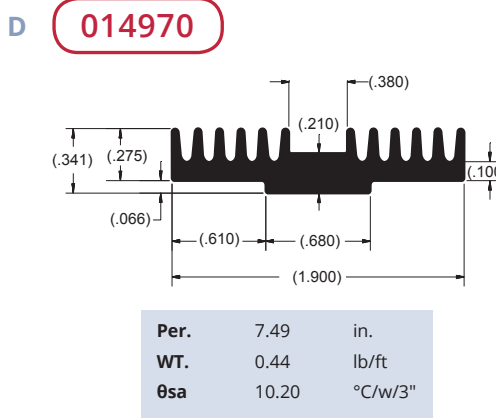
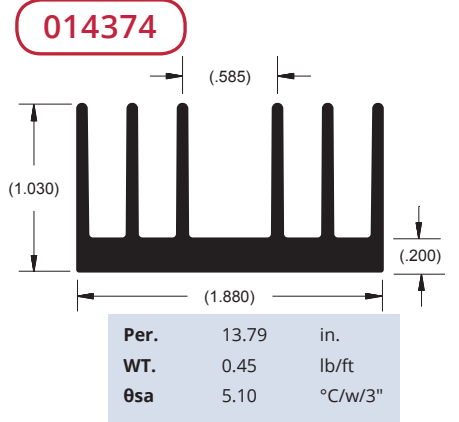
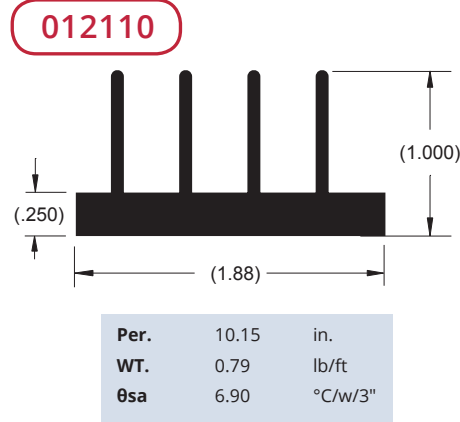
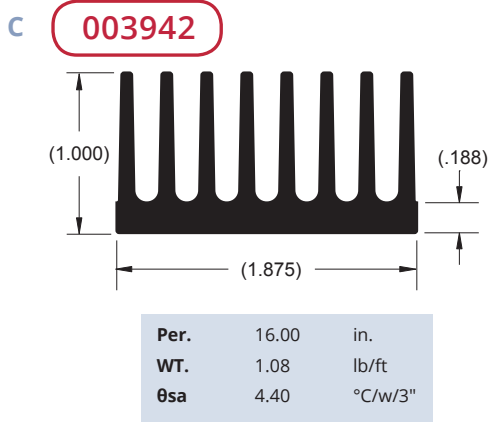
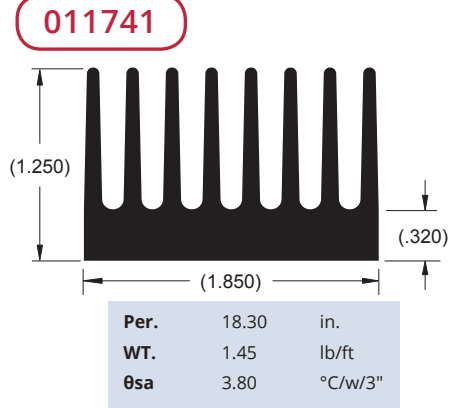
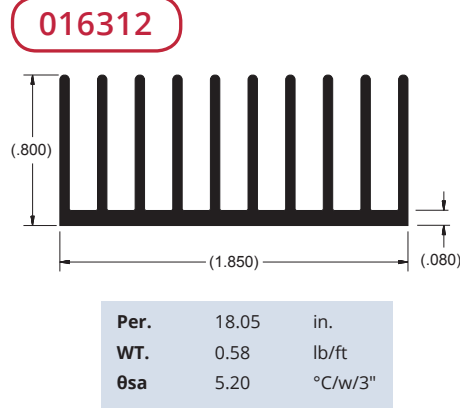
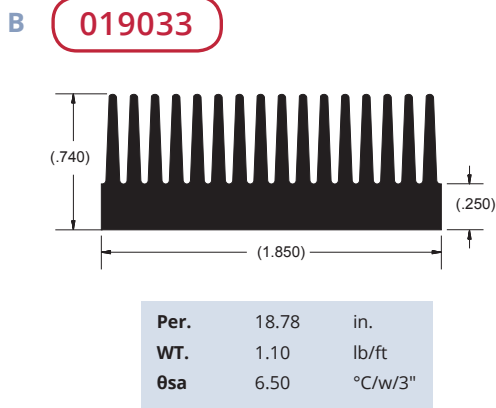
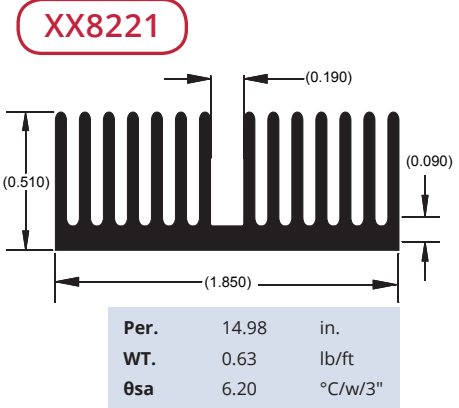
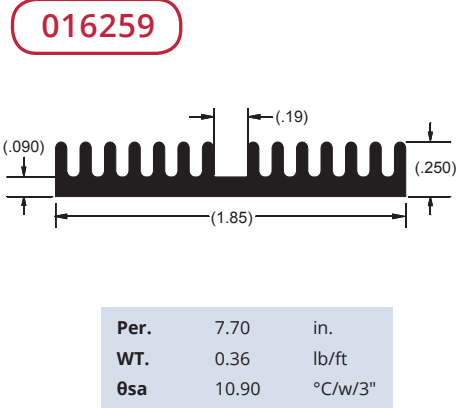
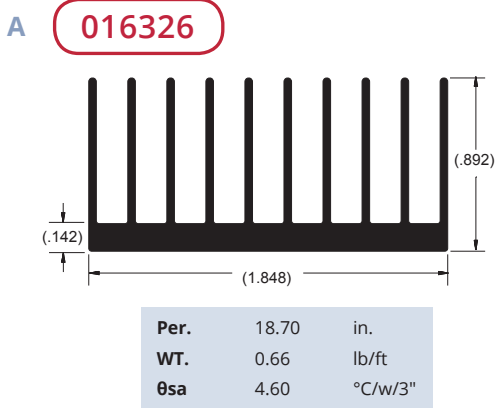
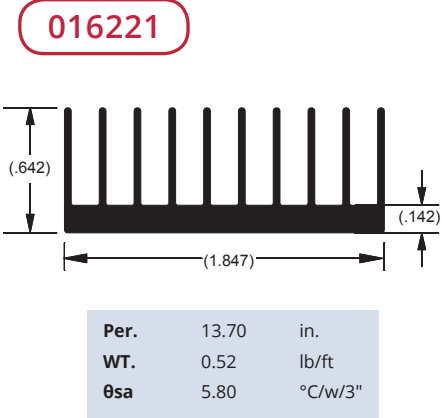
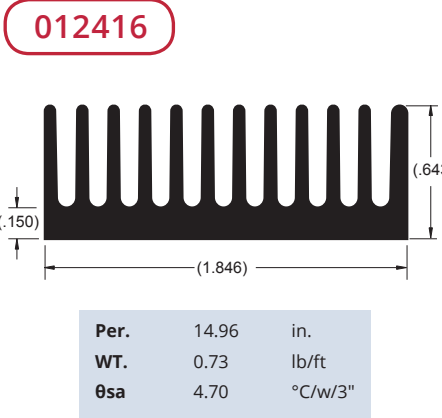
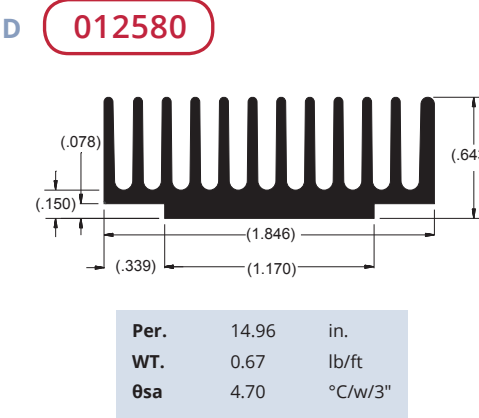
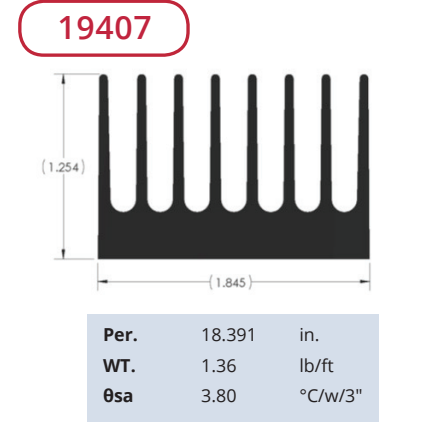
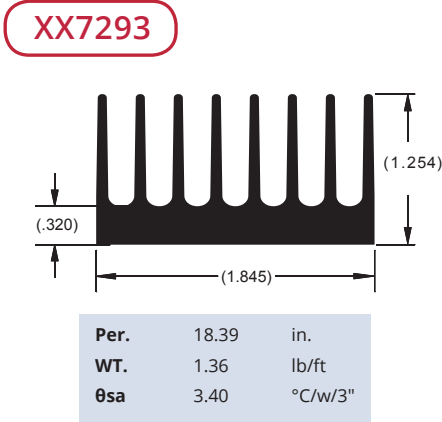
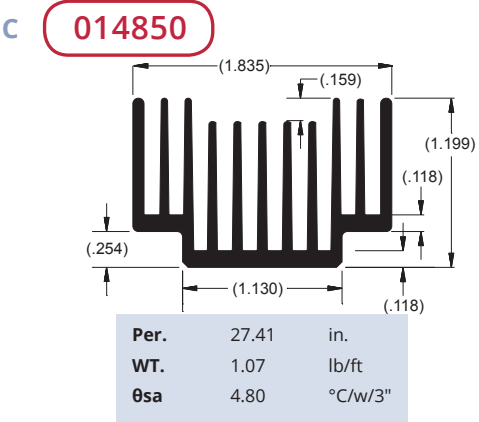
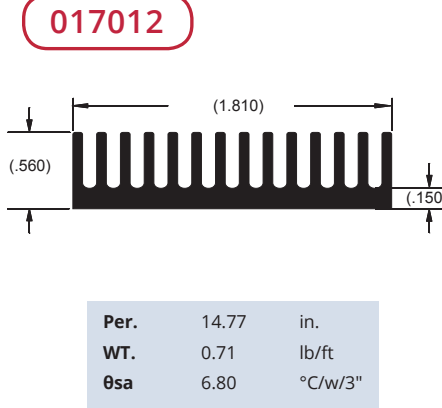
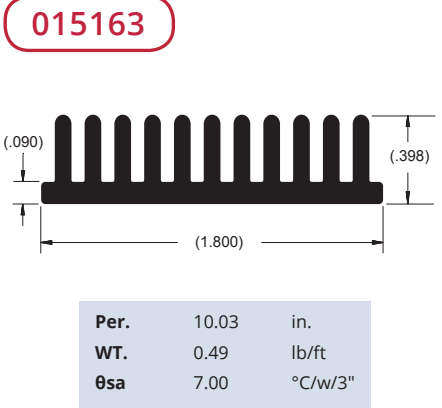
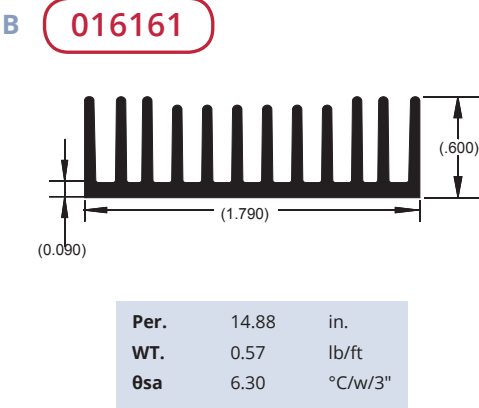
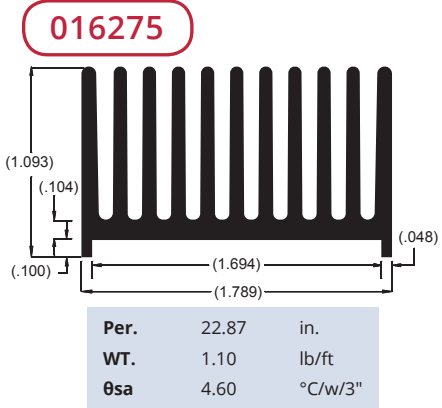
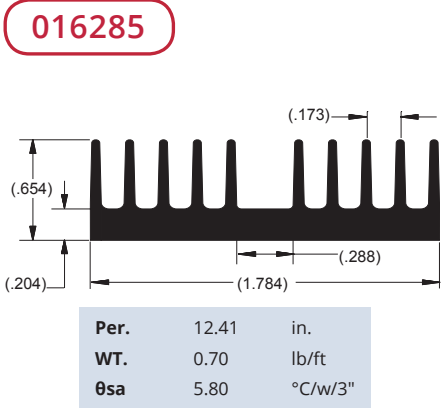
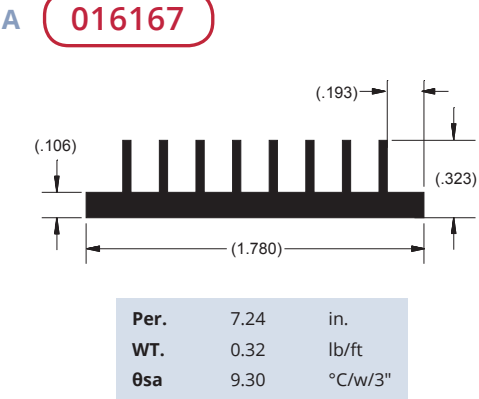


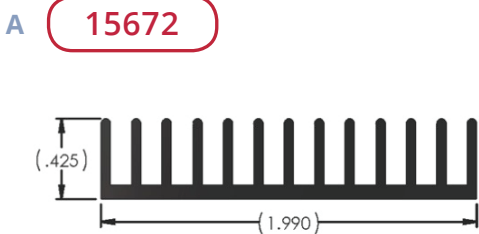




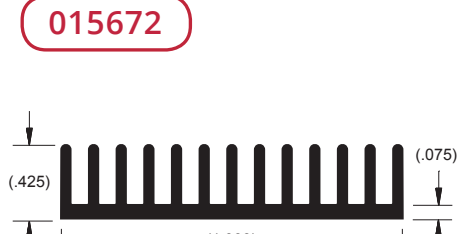








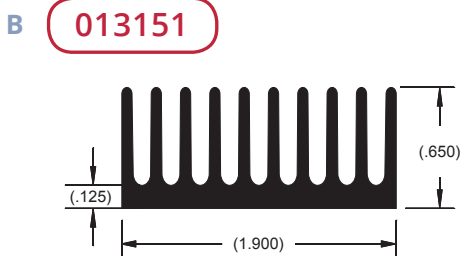
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WT.	0.45	lb/ft
θsa	5.40	°C/w/3"



Per.	17.78	in.
WT.	0.45	lb/ft
θsa	7.00	°C/w/3"



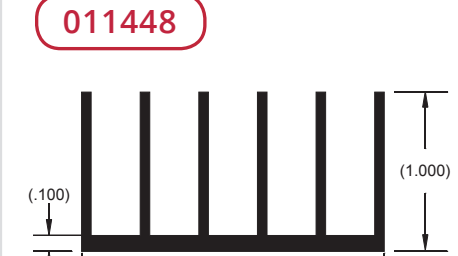
Per.	15.39	in.
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θsa	4.50	°C/w/3"



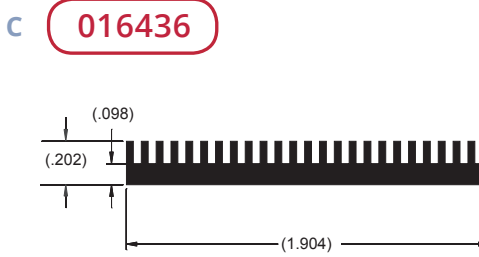
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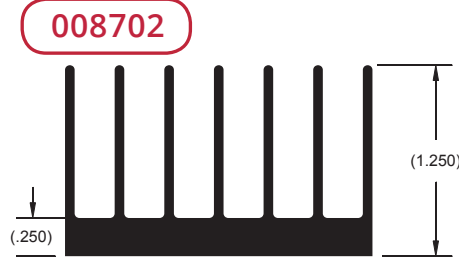
Per.	13.56	in.
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θsa	5.70	°C/w/3"



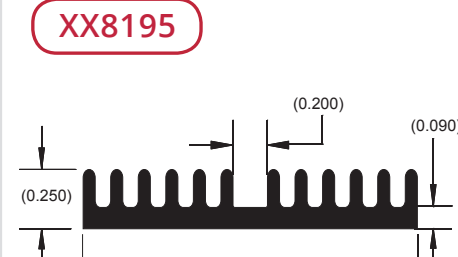
Per.	14.76	in.
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θsa	4.70	°C/w/3"



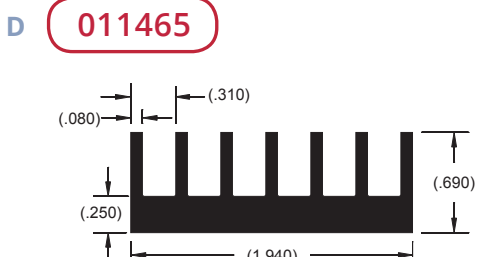
Per.	9.20	in.
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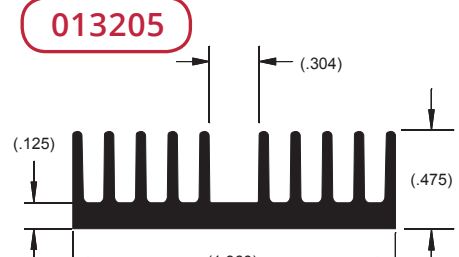
Per.	18.34	in.
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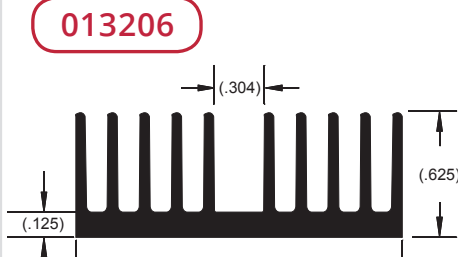
Per.	77.43	in.
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θsa	10.00	°C/w/3"



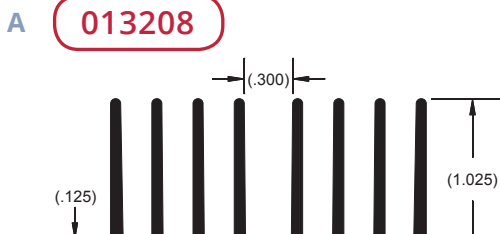
Per.	10.46	in.
WT.	0.85	lb/ft
θsa	6.70	°C/w/3"



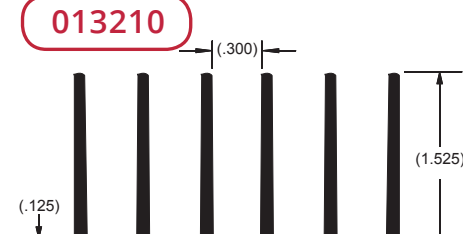
Per.	10.63	in.
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θsa	6.60	°C/w/3"



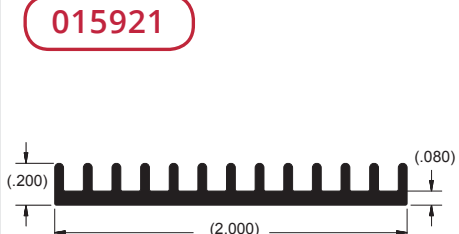
Per.	13.63	in.
WT.	0.63	lb/ft
θsa	5.10	°C/w/3"



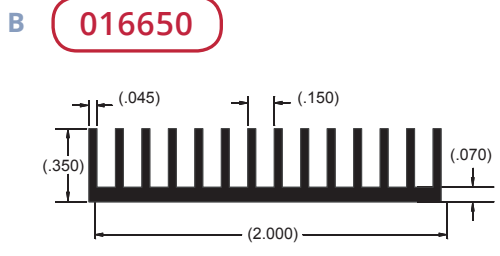
Per.	18.07	in.
WT.	0.87	lb/ft
θsa	3.90	°C/w/3"



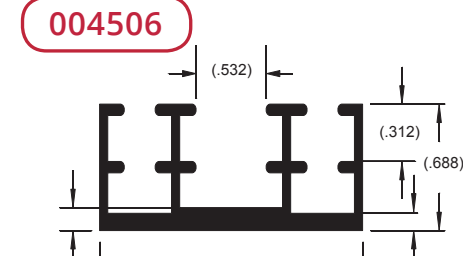
Per.	20.61	in.
WT.	0.97	lb/ft
θsa	3.40	°C/w/3"



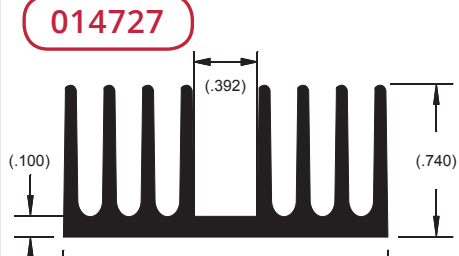
Per.	7.86	in.
WT.	0.31	lb/ft
θsa	11.50	°C/w/3"



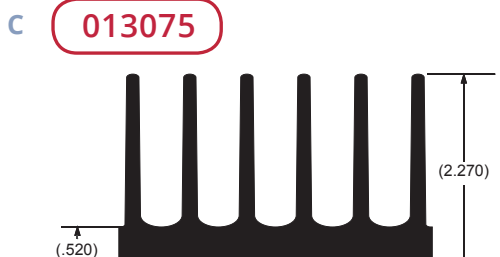
Per.	11.98	in.
WT.	0.38	lb/ft
θsa	8.00	°C/w/3"



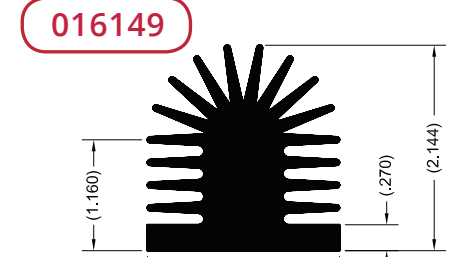
Per.	11.50	in.
WT.	0.55	lb/ft
θsa	6.10	°C/w/3"



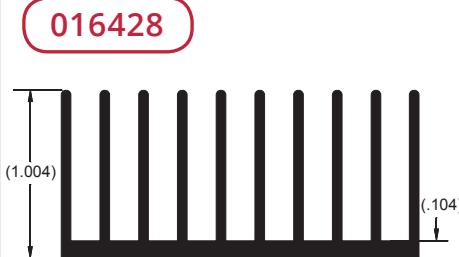
Per.	13.66	in.
WT.	0.76	lb/ft
θsa	5.10	°C/w/3"



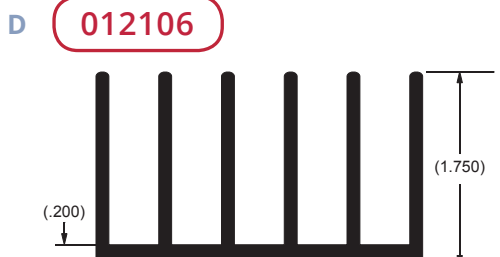
Per.	25.12	in.
WT.	2.35	lb/ft
θsa	2.80	°C/w/3"



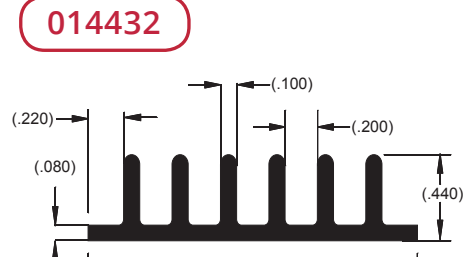
Per.	24.02	in.
WT.	2.75	lb/ft
θsa	3.10	°C/w/3"



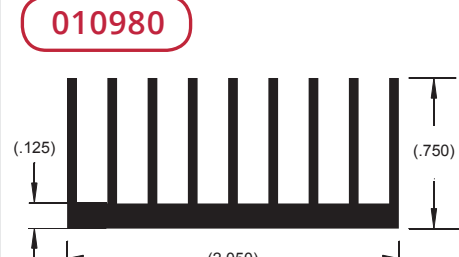
Per.	21.98	in.
WT.	0.83	lb/ft
θsa	4.20	°C/w/3"



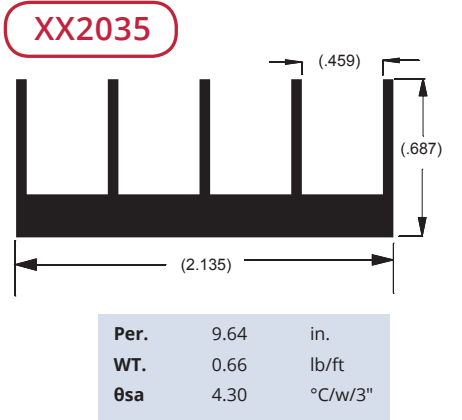
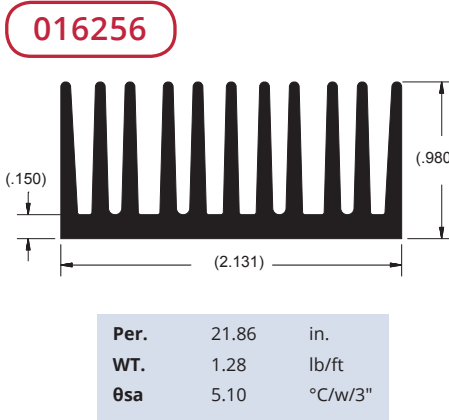
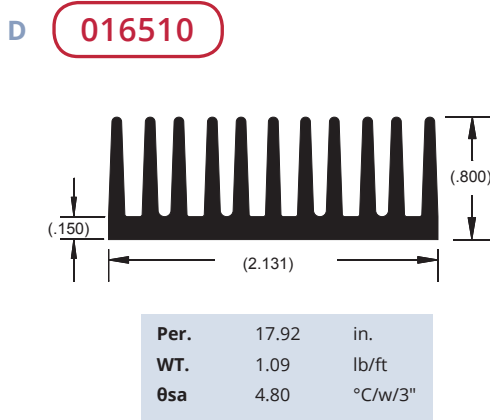
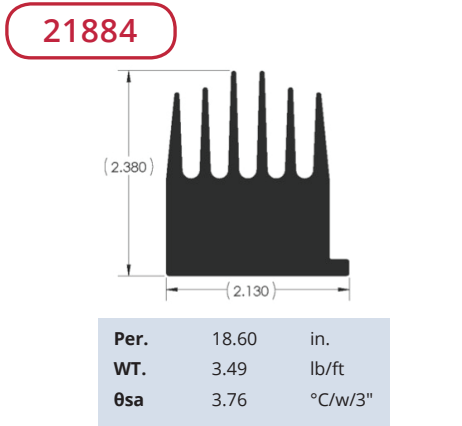
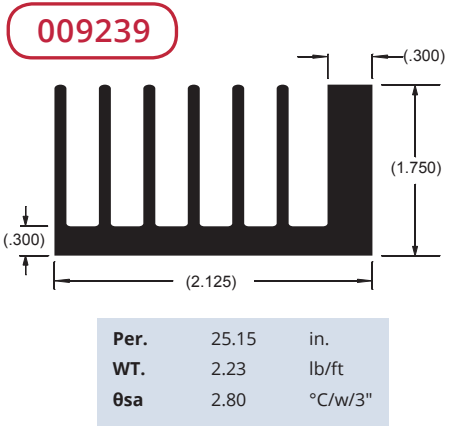
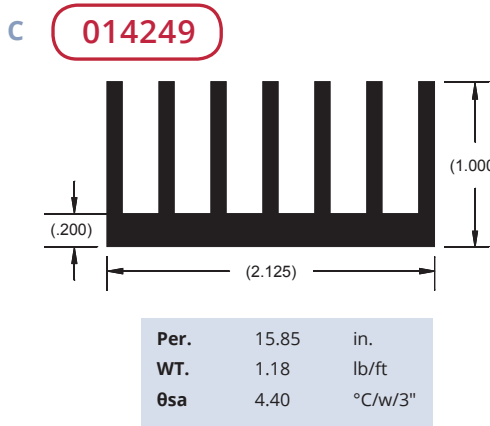
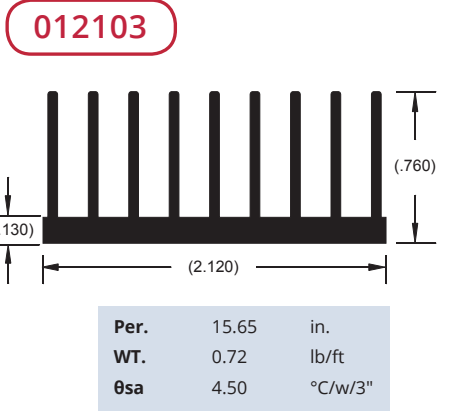
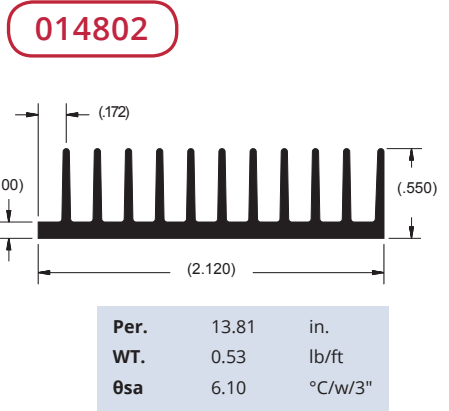
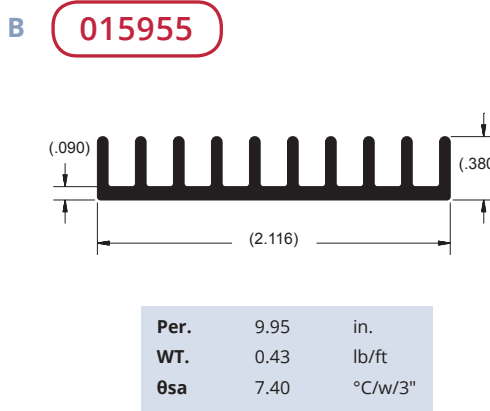
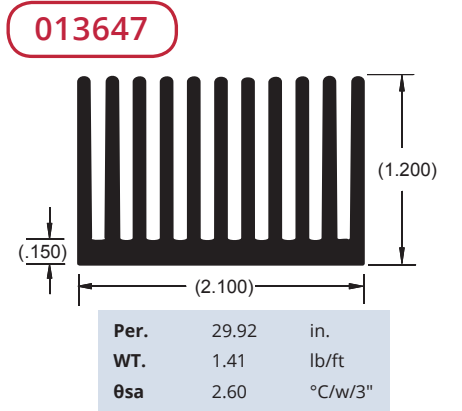
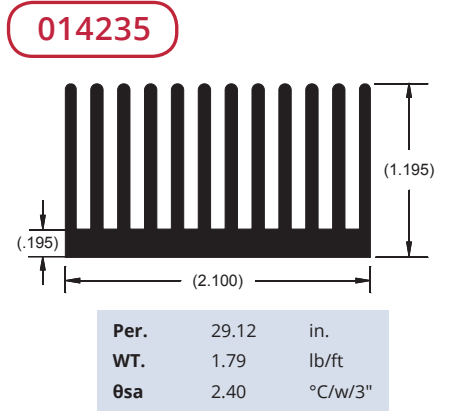
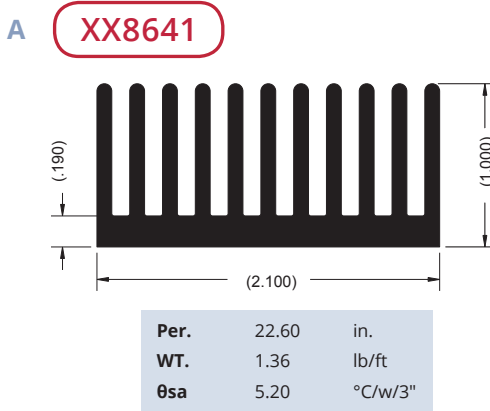
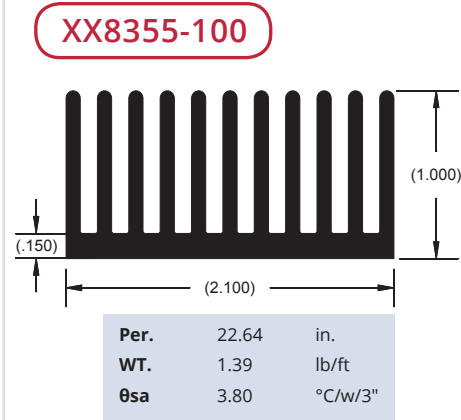
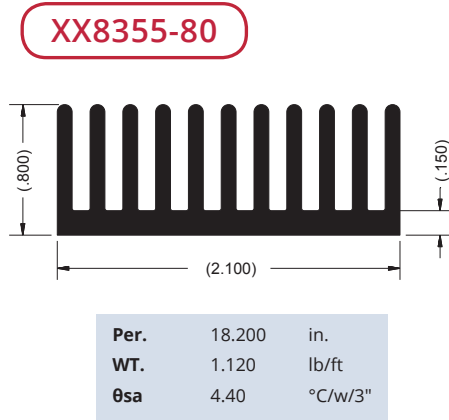
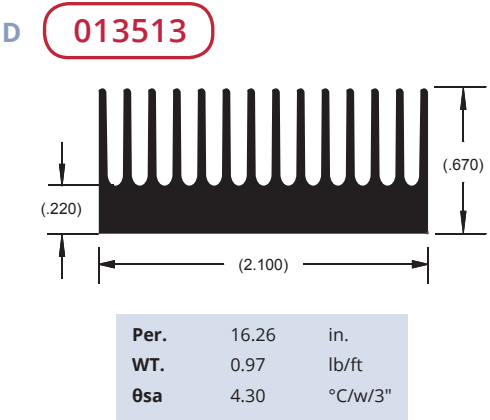
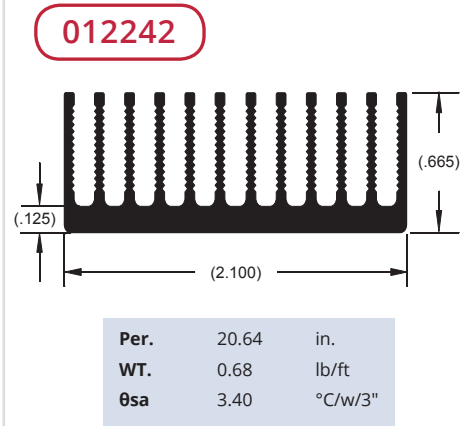
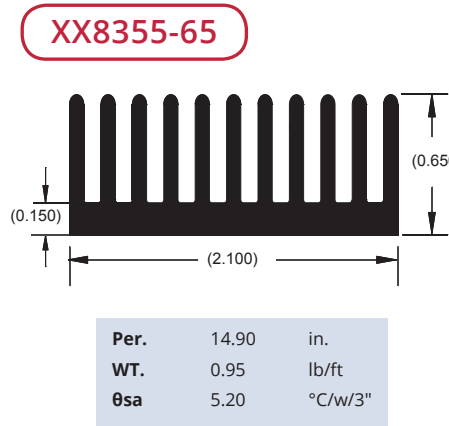
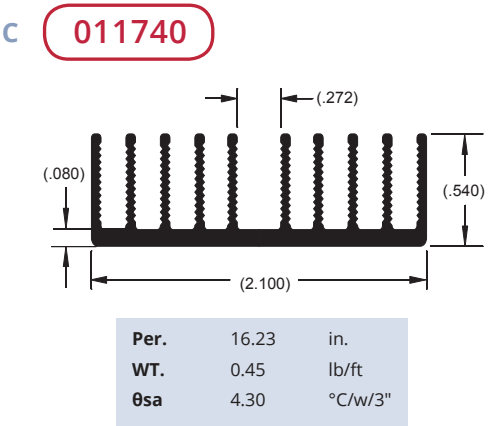
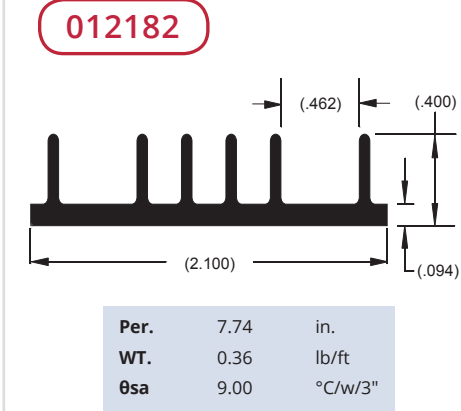
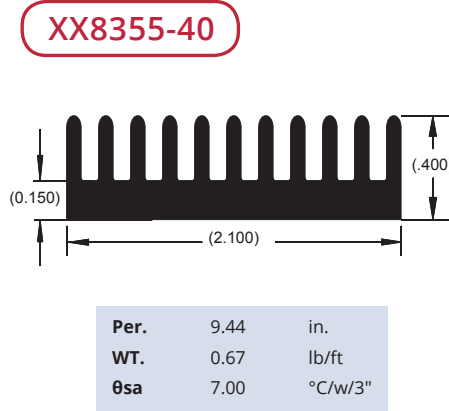
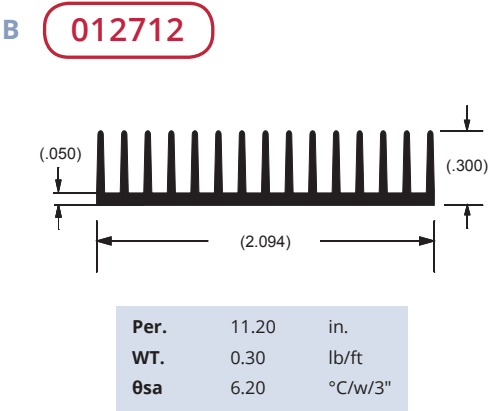
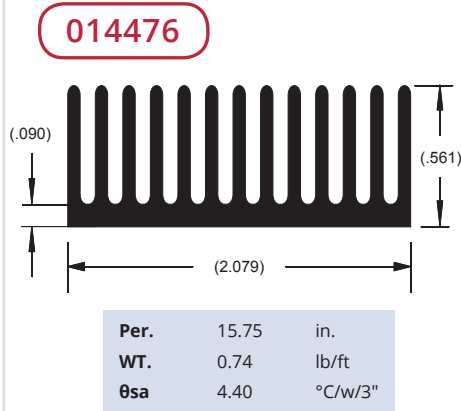
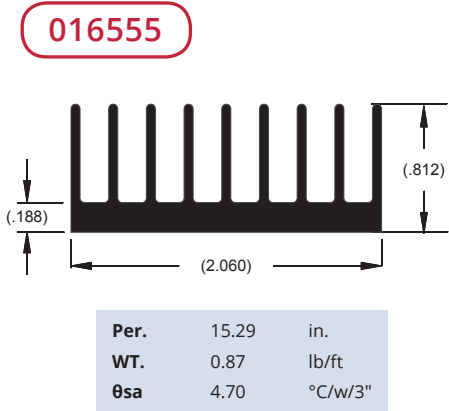
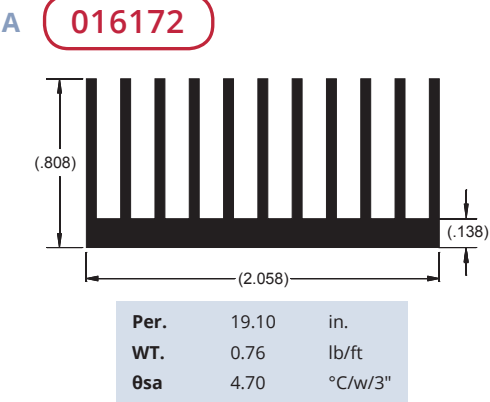
Per.	22.81	in.
WT.	1.33	lb/ft
θsa	3.10	°C/w/3"

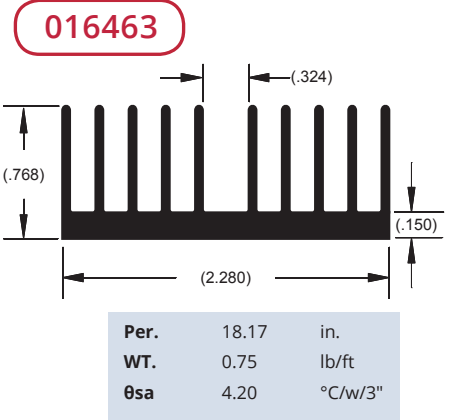
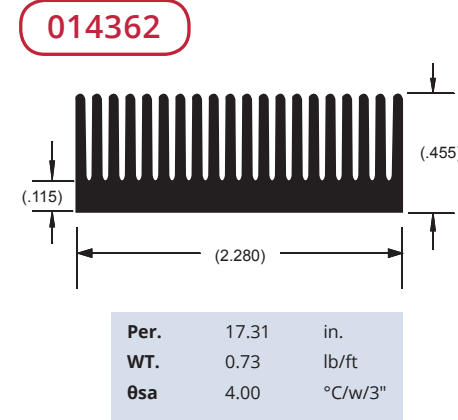
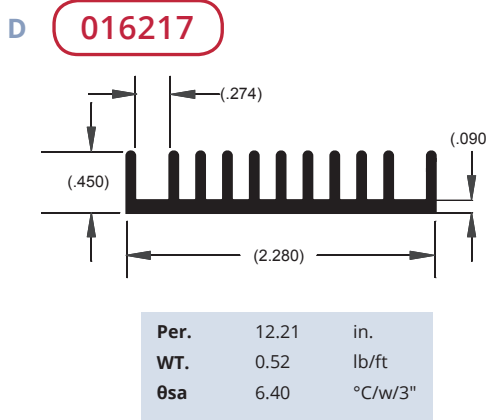
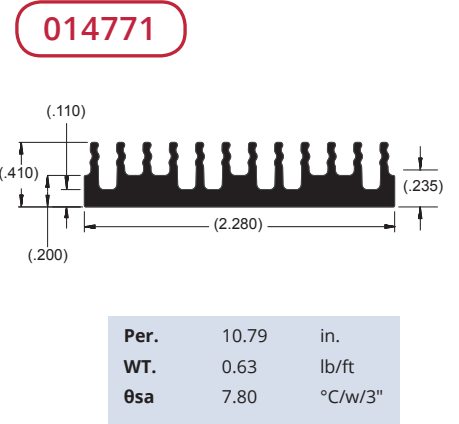
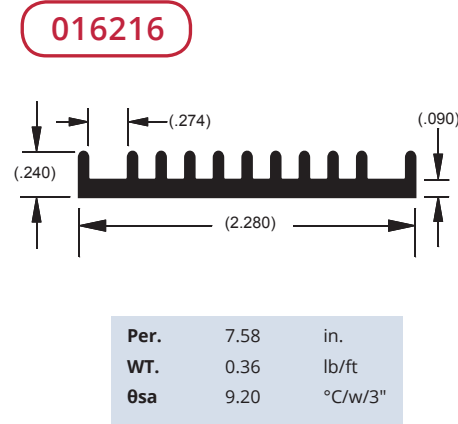
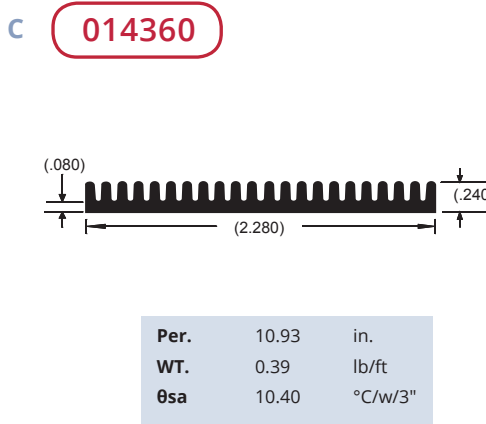
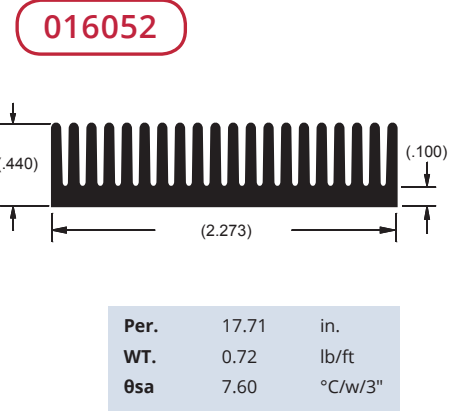
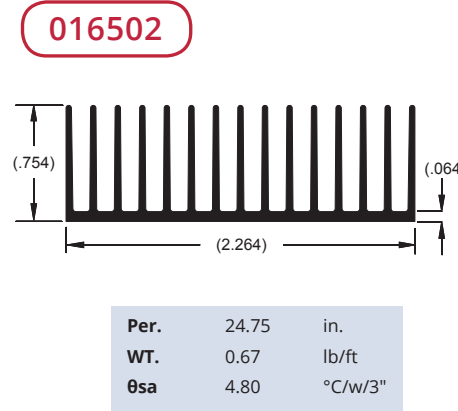
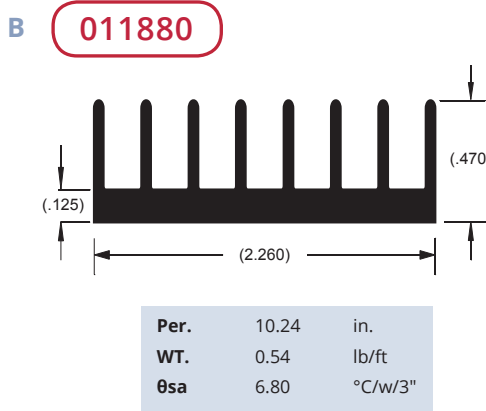
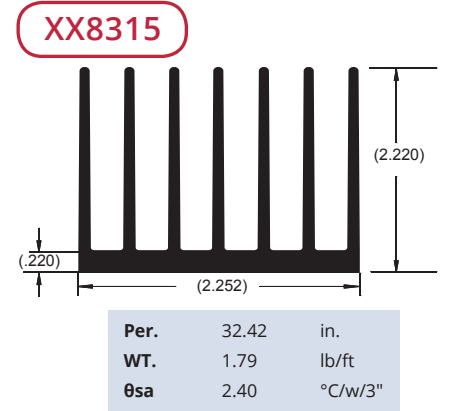
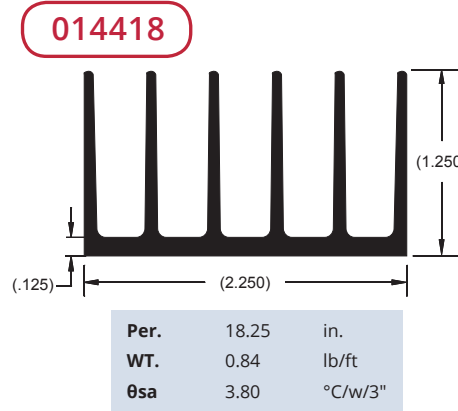
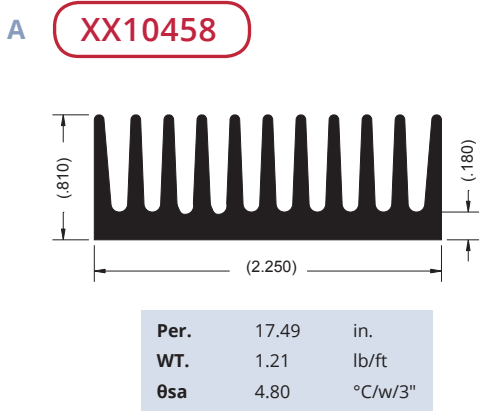
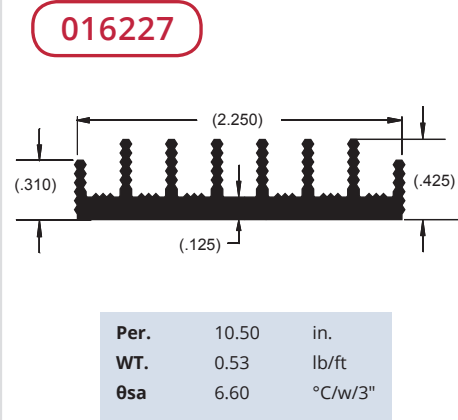
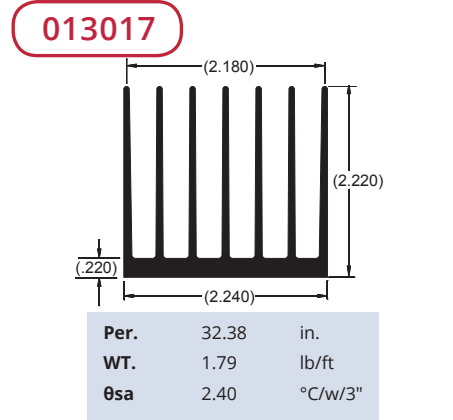
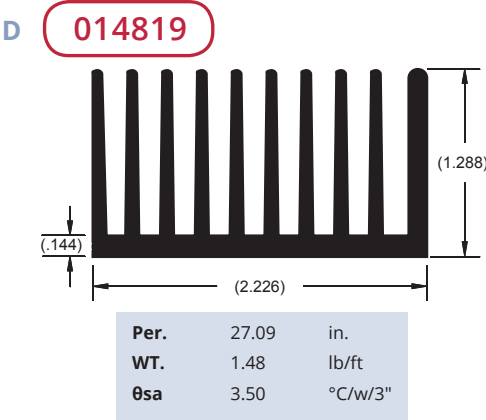
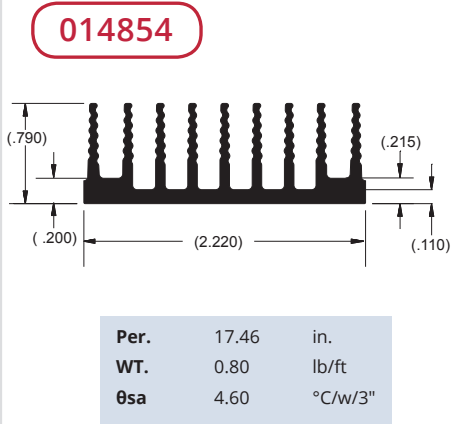
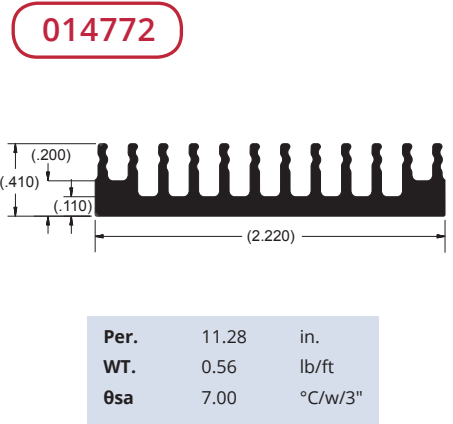
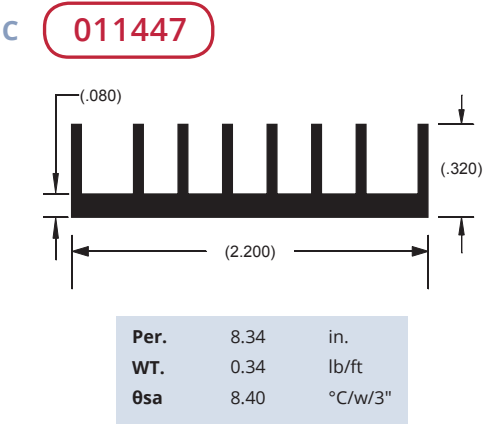
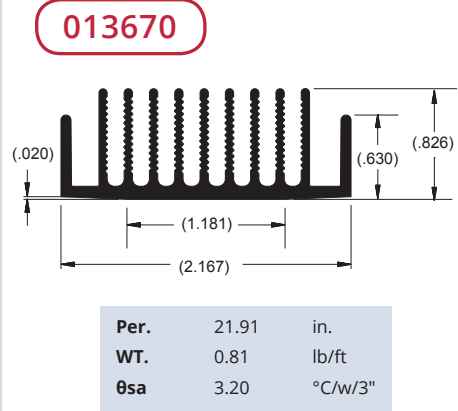
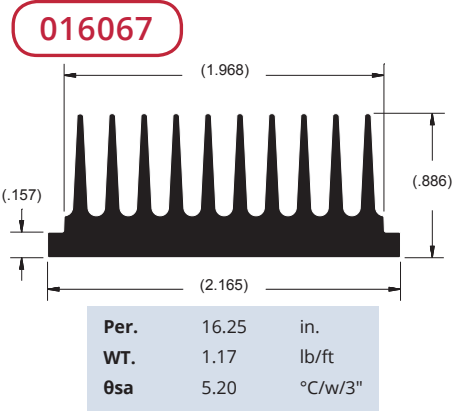
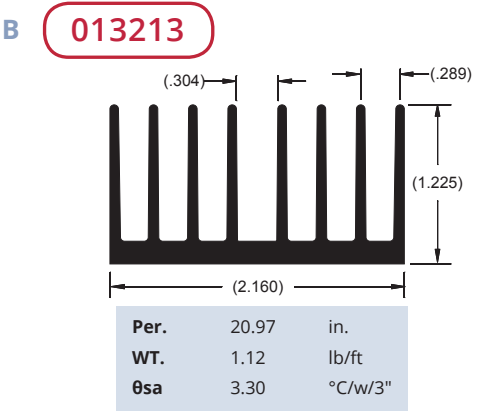
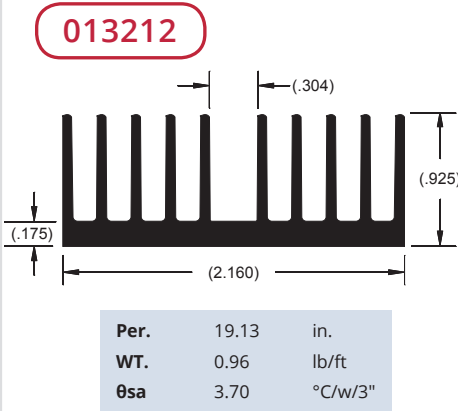
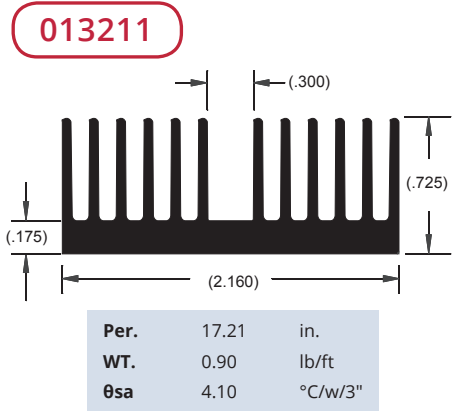
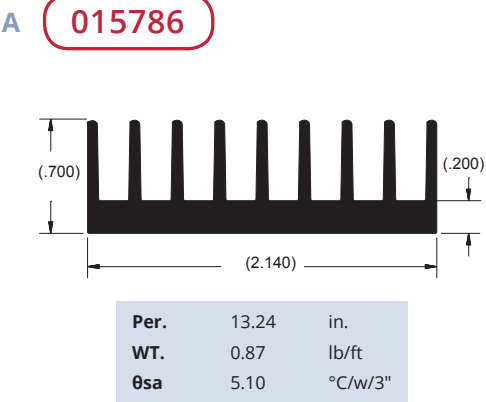


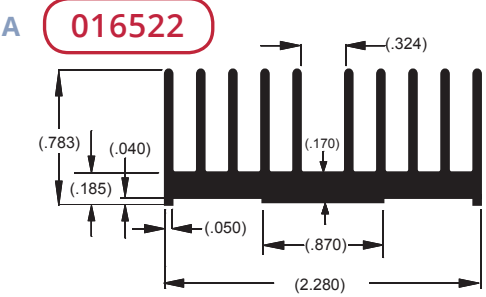
Per.	8.15	in.
WT.	0.36	lb/ft
θsa	8.60	°C/w/3"



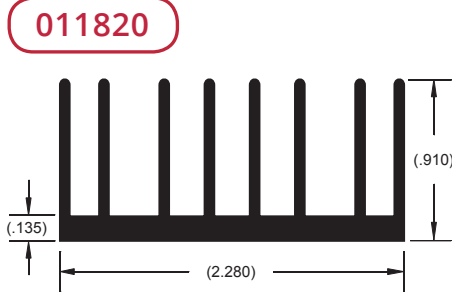
Per.	15.60	in.
WT.	0.65	lb/ft
θsa	4.50	°C/w/3"



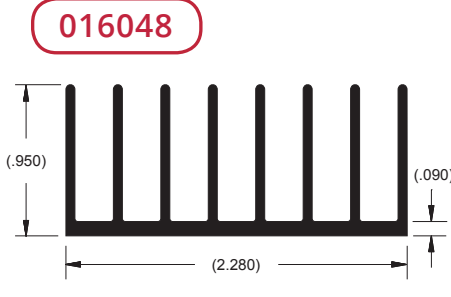




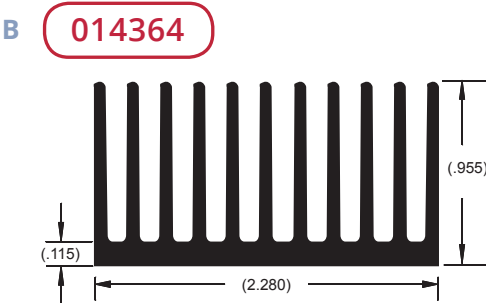
Per.	16.65	in.
WT.	0.79	lb/ft
θsa	4.80	°C/w/3"



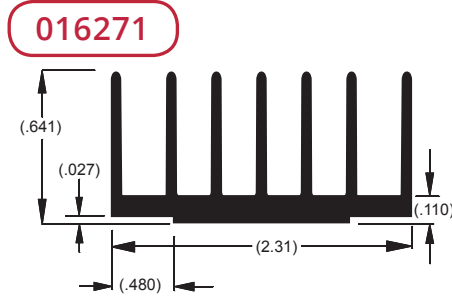
Per.	17.02	in.
WT.	0.81	lb/ft
θsa	4.10	°C/w/3"



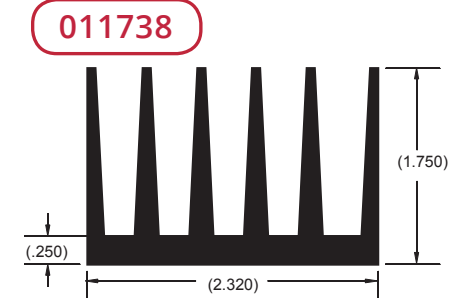
Per.	18.17	in.
WT.	0.75	lb/ft
θsa	4.20	°C/w/3"



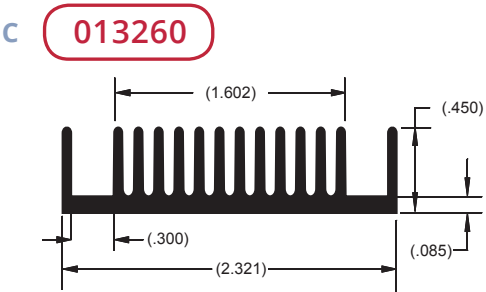
Per.	22.46	in.
WT.	1.03	lb/ft
θsa	3.10	°C/w/3"



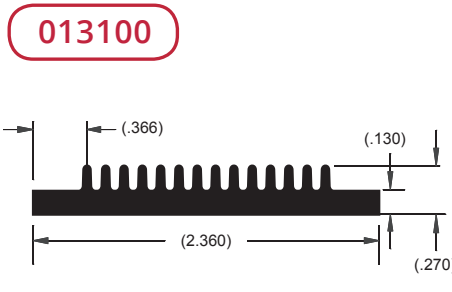
Per.	11.95	in.
WT.	0.56	lb/ft
θsa	5.10	°C/w/3"



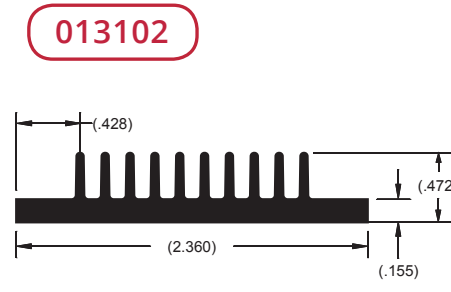
Per.	22.26	in.
WT.	1.88	lb/ft
θsa	3.10	°C/w/3"



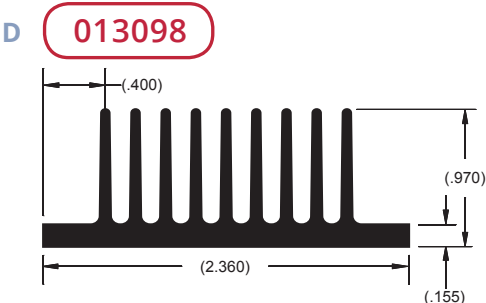
Per.	14.21	in.
WT.	0.58	lb/ft
θsa	4.90	°C/w/3"



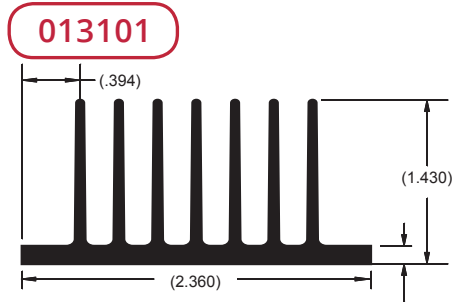
Per.	8.13	in.
WT.	0.48	lb/ft
θsa	8.60	°C/w/3"



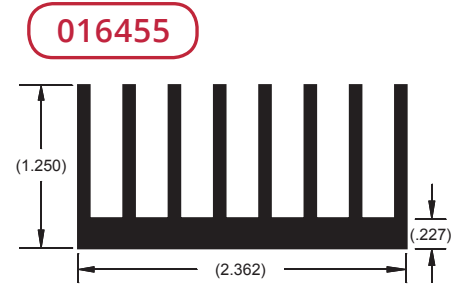
Per.	10.56	in.
WT.	0.63	lb/ft
θsa	6.60	°C/w/3"



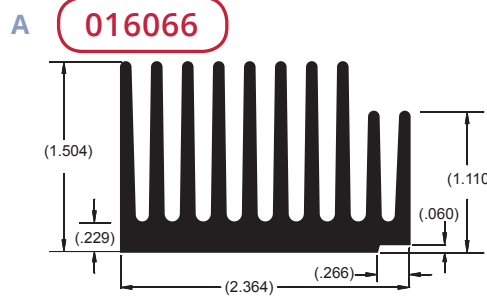
Per.	18.88	in.
WT.	0.95	lb/ft
θsa	3.70	°C/w/3"



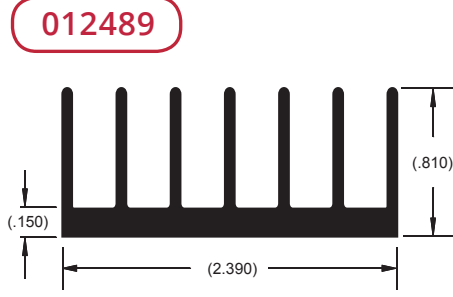
Per.	22.23	in.
WT.	1.07	lb/ft
θsa	3.10	°C/w/3"



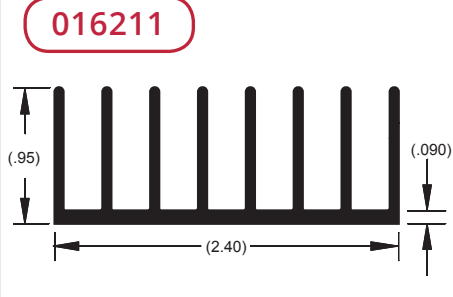
Per.	21.56	in.
WT.	1.42	lb/ft
θsa	3.30	°C/w/3"



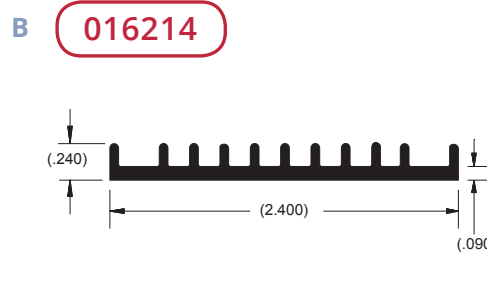
Per.	27.93	in.
WT.	1.95	lb/ft
θsa	3.20	°C/w/3"



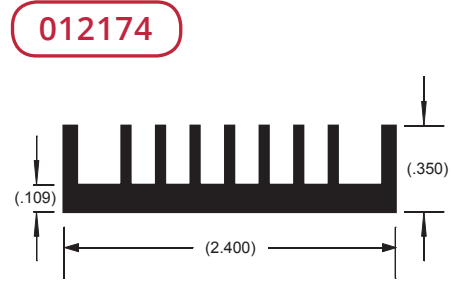
Per.	12.18	in.
WT.	0.79	lb/ft
θsa	5.70	°C/w/3"



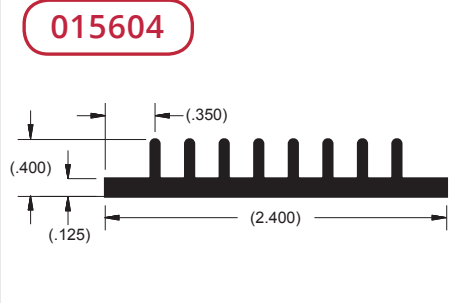
Per.	18.43	in.
WT.	0.75	lb/ft
θsa	3.80	°C/w/3"



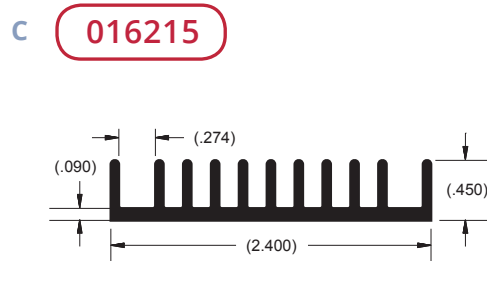
Per.	7.82	in.
WT.	0.37	lb/ft
θsa	9.10	°C/w/3"



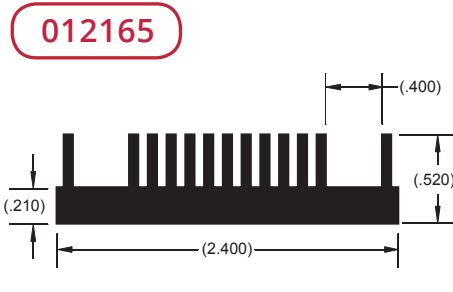
Per.	9.29	in.
WT.	0.48	lb/ft
θsa	7.50	°C/w/3"



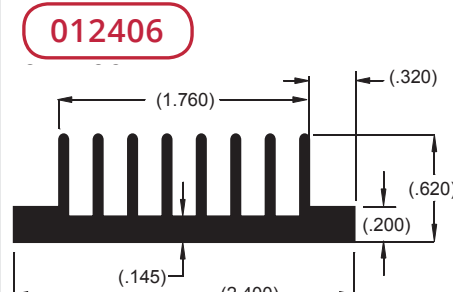
Per.	9.14	in.
WT.	0.51	lb/ft
θsa	8.00	°C/w/3"



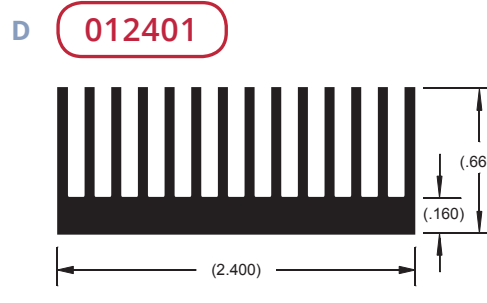
Per.	12.44	in.
WT.	0.54	lb/ft
θsa	6.30	°C/w/3"



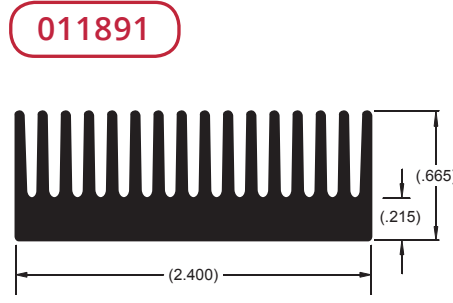
Per.	13.17	in.
WT.	0.87	lb/ft
θsa	5.30	°C/w/3"



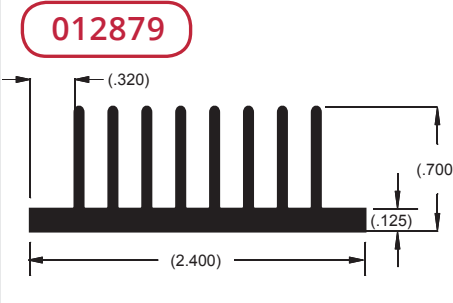
Per.	12.42	in.
WT.	0.71	lb/ft
θsa	5.60	°C/w/3"



Per.	18.95	in.
WT.	0.86	lb/ft
θsa	3.70	°C/w/3"



Per.	18.44	in.
WT.	1.25	lb/ft
θsa	3.80	°C/w/3"

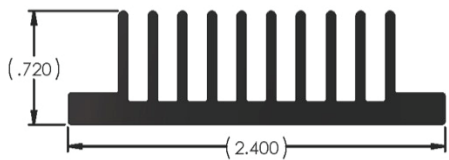


Per.	14.68	in.
WT.	0.70	lb/ft
θsa	4.80	°C/w/3"



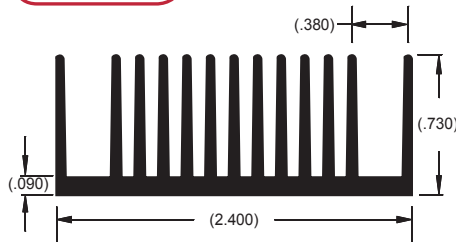
A

12540



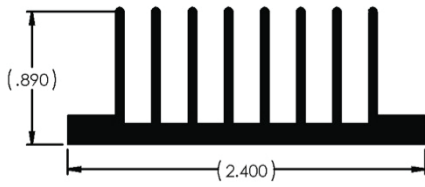
Per.	16.18	in.
WT.	0.87	lb/ft
θsa	4.32	°C/w/3"

014964



Per.	21.36	in.
WT.	0.79	lb/ft
θsa	3.30	°C/w/3"

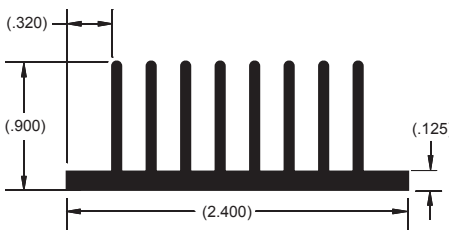
12407



Per.	12.41	in.
WT.	0.90	lb/ft
θsa	5.64	°C/w/3"

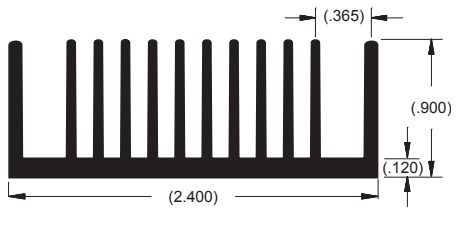
B

012613



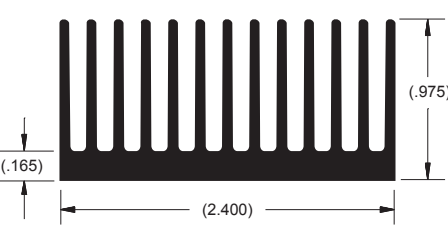
Per.	17.24	in.
WT.	0.80	lb/ft
θsa	4.10	°C/w/3"

014427



Per.	23.40	in.
WT.	0.89	lb/ft
θsa	3.00	°C/w/3"

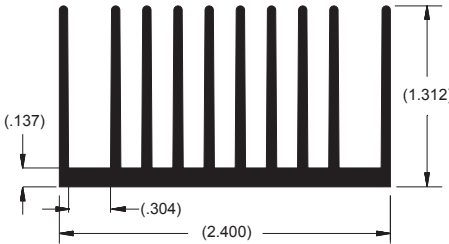
014373



Per.	25.35	in.
WT.	1.13	lb/ft
θsa	2.80	°C/w/3"

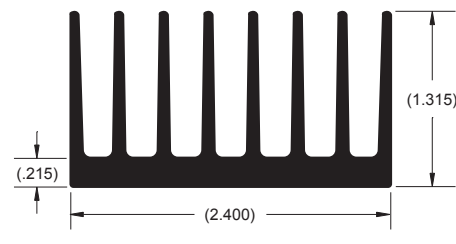
C

014960



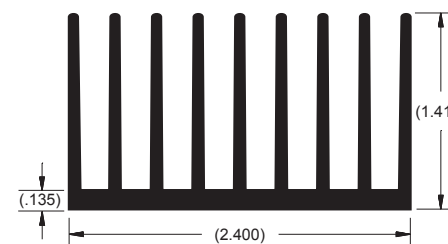
Per.	28.19	in.
WT.	1.29	lb/ft
θsa	2.50	°C/w/3"

011890



Per.	22.01	in.
WT.	1.41	lb/ft
θsa	3.20	°C/w/3"

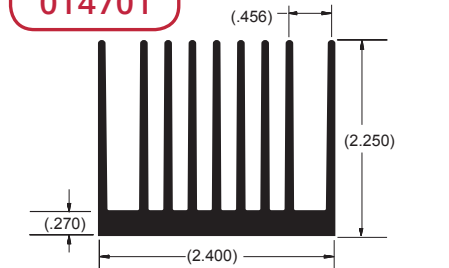
012661



Per.	27.57	in.
WT.	1.33	lb/ft
θsa	2.50	°C/w/3"

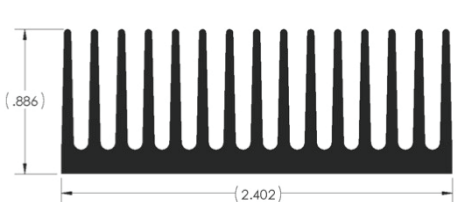
D

014701



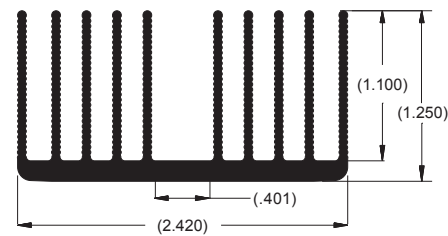
Per.	40.80	in.
WT.	2.09	lb/ft
θsa	1.70	°C/w/3"

19803



Per.	25.89	in.
WT.	1.25	lb/ft
θsa	2.70	°C/w/3"

013141

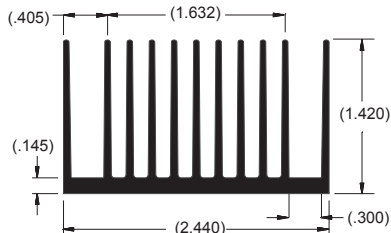


Per.	34.12	in.
WT.	1.33	lb/ft
θsa	2.10	°C/w/3"



A

014326



Per.	35.57	in.
WT.	1.30	lb/ft
θsa	2.00	°C/w/3"

12487



Per.	9.13	in.
WT.	0.48	lb/ft
θsa	7.66	°C/w/3"

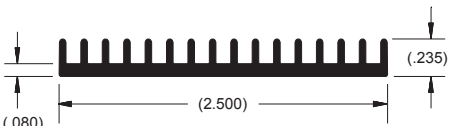
016618



Per.	11.47	in.
WT.	0.60	lb/ft
θsa	7.30	°C/w/3"

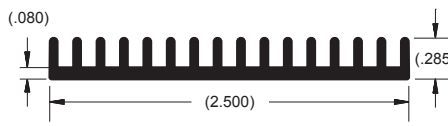
B

015941



Per.	9.77	in.
WT.	0.38	lb/ft
θsa	9.30	°C/w/3"

015920



Per.	11.43	in.
WT.	0.43	lb/ft
θsa	8.40	°C/w/3"

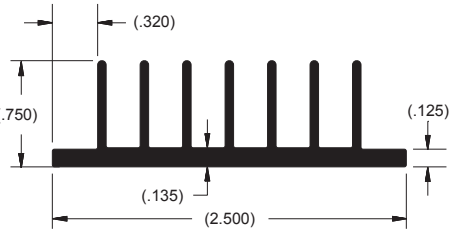
014269



Per.	18.21	in.
WT.	0.78	lb/ft
θsa	3.80	°C/w/3"

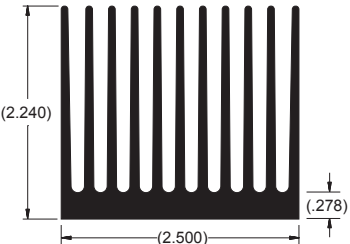
C

016010



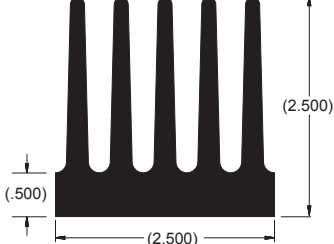
Per.	14.26	in.
WT.	0.71	lb/ft
θsa	5.00	°C/w/3"

015902



Per.	47.46	in.
WT.	3.06	lb/ft
θsa	4.10	°C/w/3"

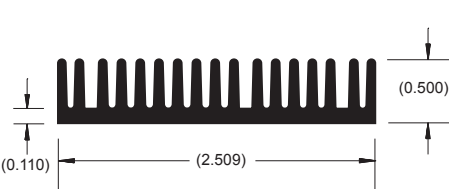
XX8410



Per.	24.67	in.
WT.	3.88	lb/ft
θsa	2.10	°C/w/3"

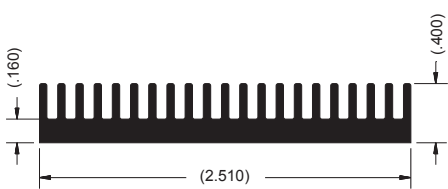
D

016225



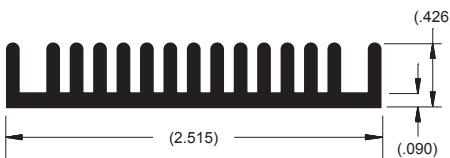
Per.	17.41	in.
WT.	0.85	lb/ft
θsa	7.10	°C/w/3"

XX8373

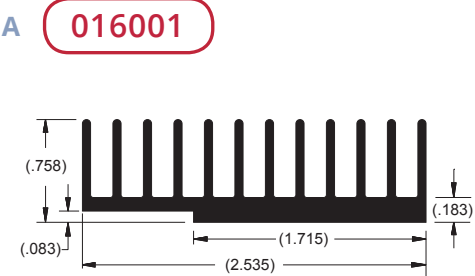


Per.	14.97	in.
WT.	0.76	lb/ft
θsa	6.00	°C/w/3"

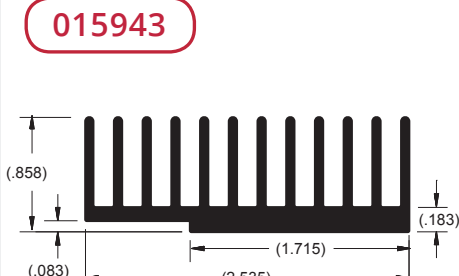
014762



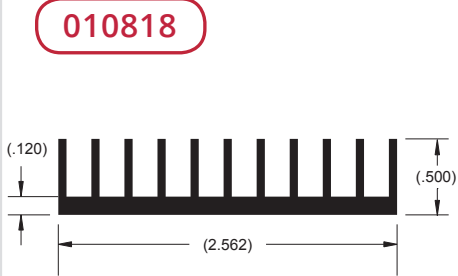
Per.	15.52	in.
WT.	0.70	lb/ft
θsa	4.50	°C/w/3"



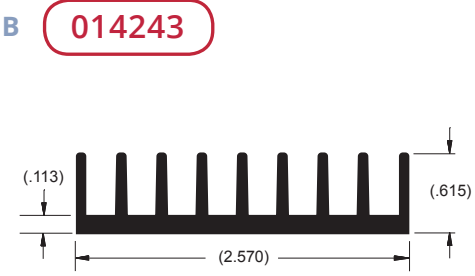
Per.	18.74	in.
WT.	0.97	lb/ft
Θsa	4.60	°C/w/3"



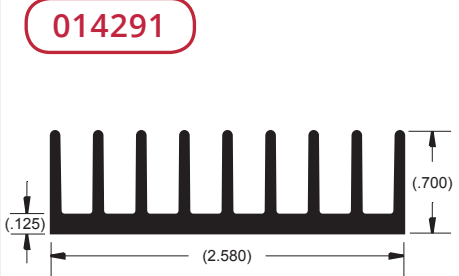
Per.	21.14	in.
WT.	1.14	lb/ft
Θsa	4.20	°C/w/3"



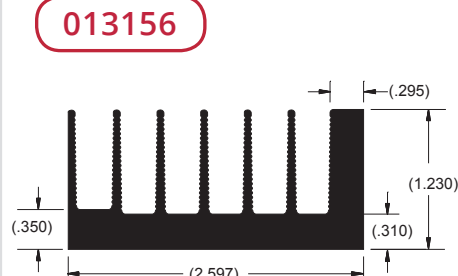
Per.	13.48	in.
WT.	0.68	lb/ft
Θsa	5.20	°C/w/3"



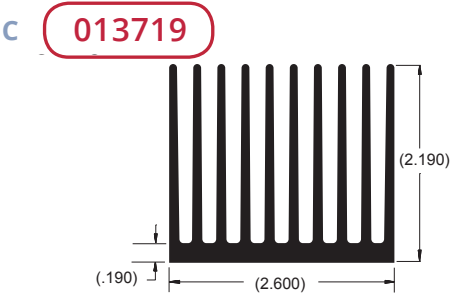
Per.	13.84	in.
WT.	0.76	lb/ft
Θsa	5.10	°C/w/3"



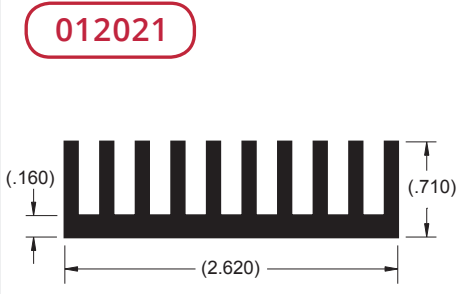
Per.	15.25	in.
WT.	0.79	lb/ft
Θsa	4.60	°C/w/3"



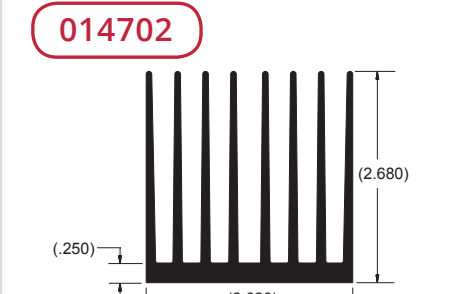
Per.	18.12	in.
WT.	1.74	lb/ft
Θsa	3.90	°C/w/3"



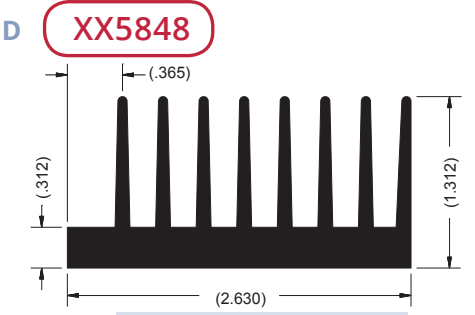
Per.	44.29	in.
WT.	2.58	lb/ft
Θsa	1.60	°C/w/3"



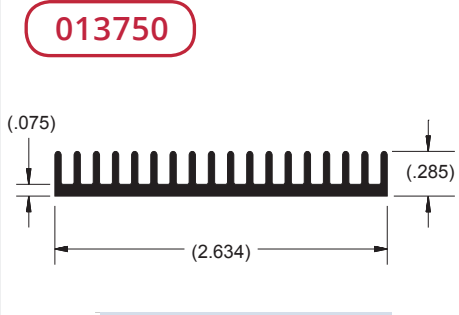
Per.	16.56	in.
WT.	1.16	lb/ft
Θsa	4.20	°C/w/3"



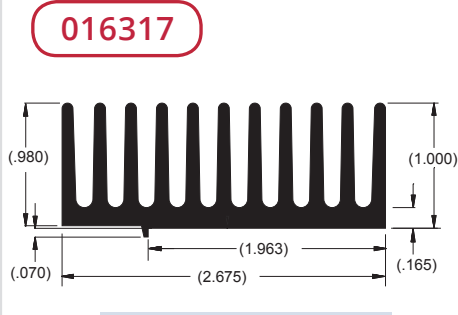
Per.	44.19	in.
WT.	2.91	lb/ft
Θsa	1.60	°C/w/3"



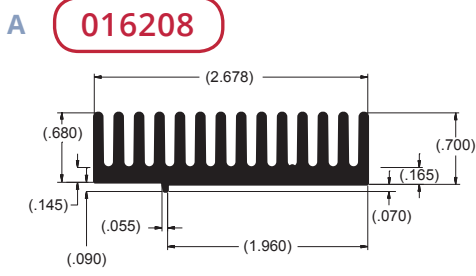
Per.	21.37	in.
WT.	1.63	lb/ft
Θsa	3.50	°C/w/3"



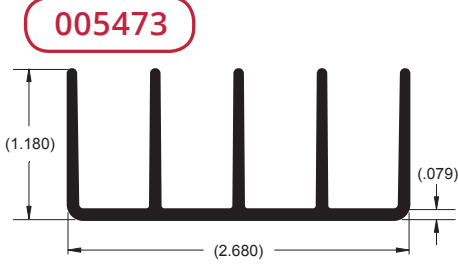
Per.	12.37	in.
WT.	0.47	lb/ft
Θsa	5.70	°C/w/3"



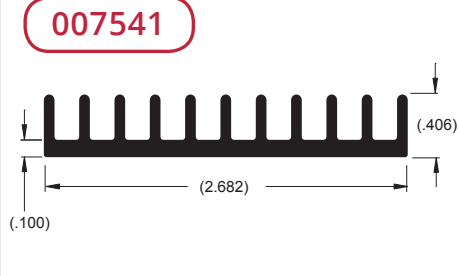
Per.	22.91	in.
WT.	1.67	lb/ft
Θsa	3.90	°C/w/3"



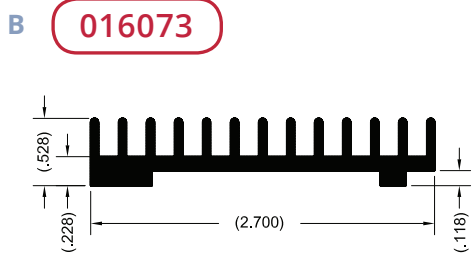
Per.	5.54	in.
WT.	0.03	lb/ft
Θsa	5.90	°C/w/3"



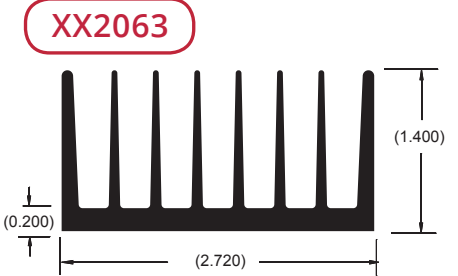
Per.	16.52	in.
WT.	0.70	lb/ft
Θsa	4.20	°C/w/3"



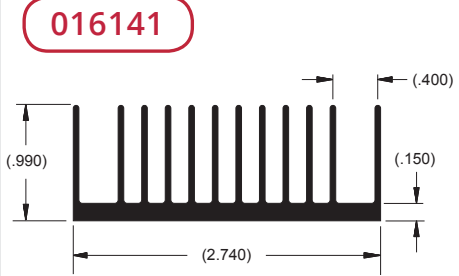
Per.	10.58	in.
WT.	0.50	lb/ft
Θsa	6.60	°C/w/3"



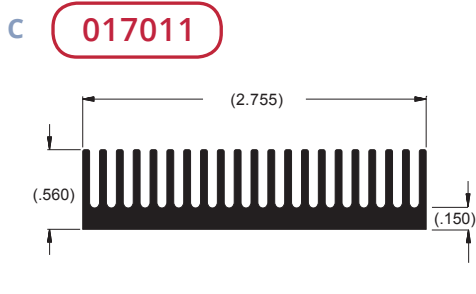
Per.	13.80	in.
WT.	0.71	lb/ft
Θsa	5.30	°C/w/3"



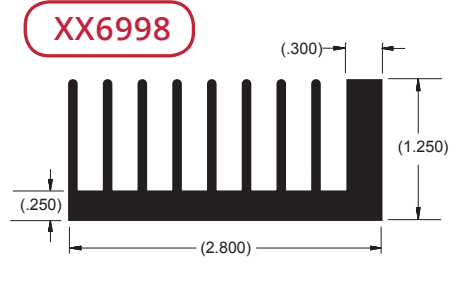
Per.	24.24	in.
WT.	1.65	lb/ft
Θsa	1.90	°C/w/3"



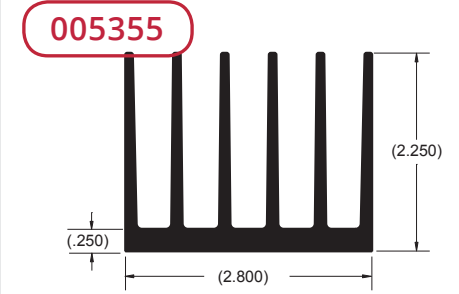
Per.	25.40	in.
WT.	1.10	lb/ft
Θsa	3.60	°C/w/3"



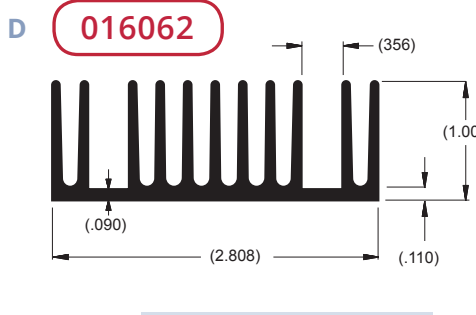
Per.	22.07	in.
WT.	1.07	lb/ft
Θsa	6.10	°C/w/3"



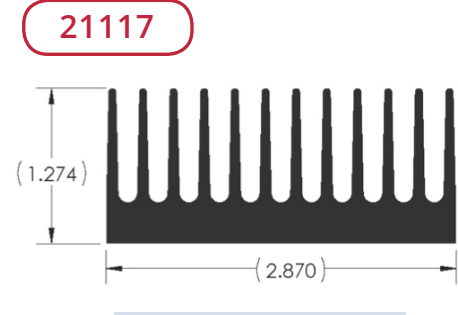
Per.	24.10	in.
WT.	1.80	lb/ft
Θsa	2.90	°C/w/3"



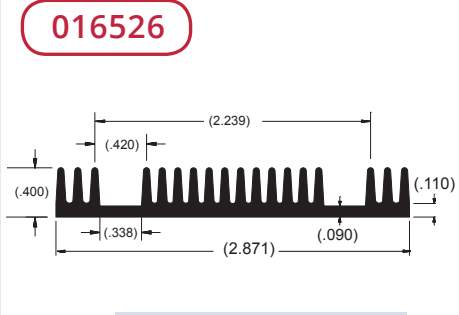
Per.	30.00	in.
WT.	2.33	lb/ft
Θsa	2.30	°C/w/3"



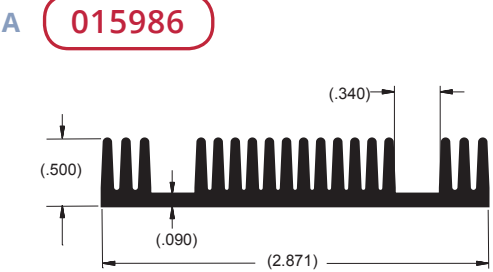
Per.	24.47	in.
WT.	1.20	lb/ft
Θsa	3.40	°C/w/3"



Per.	27.36	in.
WT.	2.32	lb/ft
Θsa	2.56	°C/w/3"



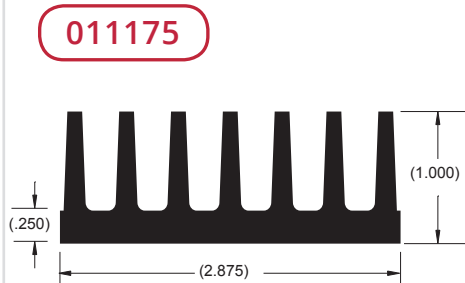
Per.	15.24	in.
WT.	0.77	lb/ft
Θsa	7.00	°C/w/3"



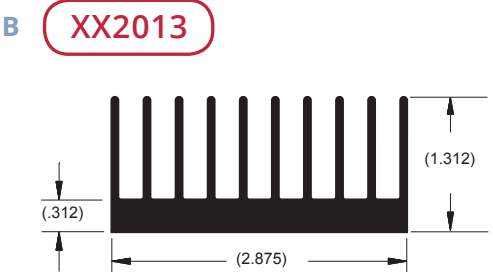
Per.	18.85	in.
WT.	0.88	lb/ft
Θsa	6.30	°C/w/3"



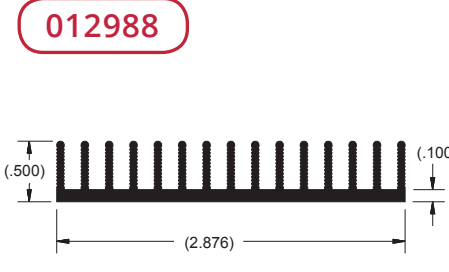
Per.	25.86	in.
WT.	1.81	lb/ft
Θsa	2.80	°C/w/3"



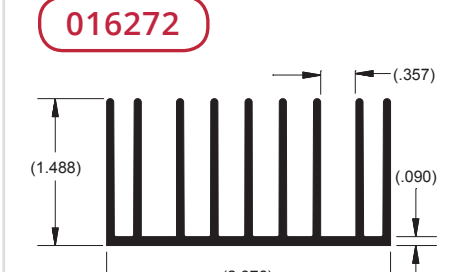
Per.	16.33	in.
WT.	1.86	lb/ft
Θsa	4.30	°C/w/3"



Per.	25.66	in.
WT.	1.76	lb/ft
Θsa	2.30	°C/w/3"



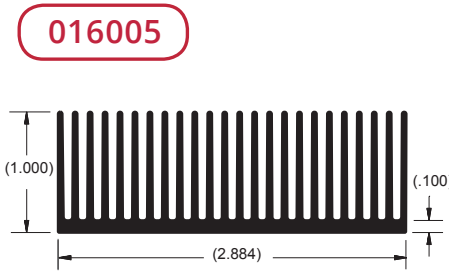
Per.	20.13	in.
WT.	0.72	lb/ft
Θsa	3.50	°C/w/3"



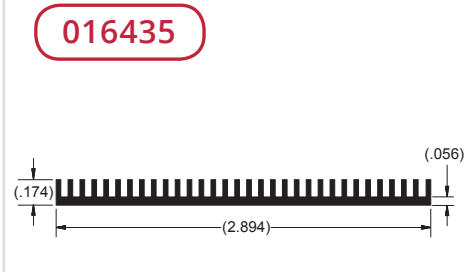
Per.	30.65	in.
WT.	1.44	lb/ft
Θsa	2.60	°C/w/3"



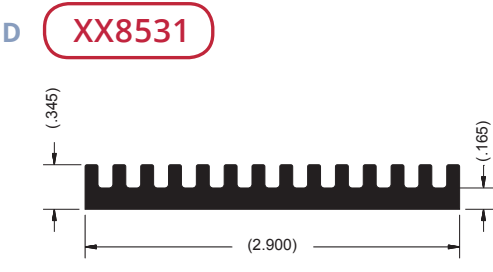
Per.	28.41	in.
WT.	1.91	lb/ft
Θsa	2.80	°C/w/3"



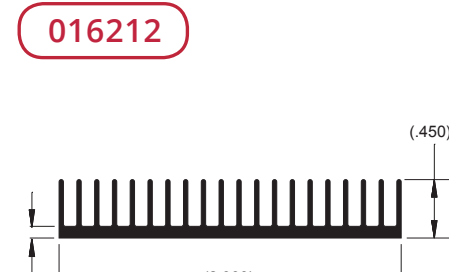
Per.	48.21	in.
WT.	1.23	lb/ft
Θsa	5.80	°C/w/3"



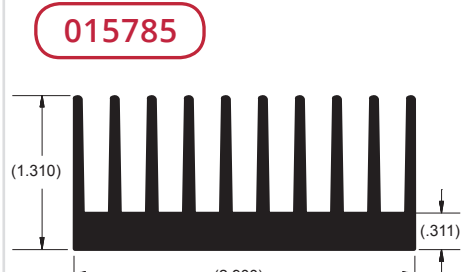
Per.	13.45	in.
WT.	0.36	lb/ft
Θsa	12.10	°C/w/3"



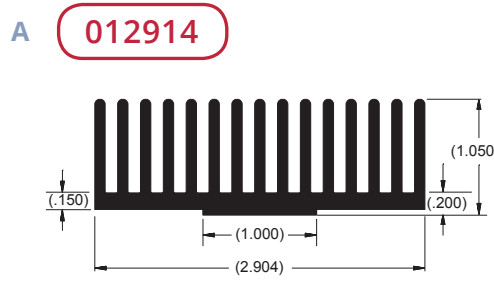
Per.	10.70	in.
WT.	0.83	lb/ft
Θsa	8.50	°C/w/3"



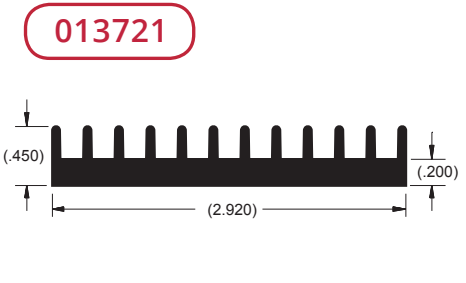
Per.	19.78	in.
WT.	0.63	lb/ft
Θsa	5.60	°C/w/3"



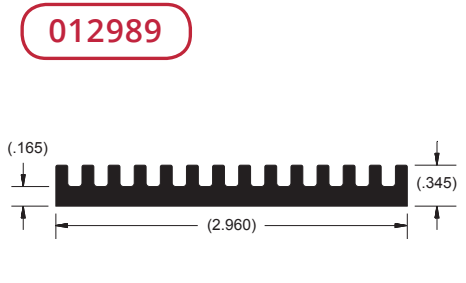
Per.	26.14	in.
WT.	1.82	lb/ft
Θsa	3.10	°C/w/3"



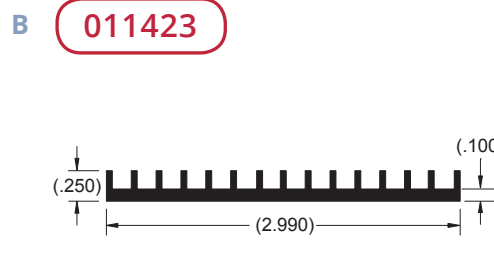
Per.	30.94	in.
WT.	1.86	lb/ft
Θsa	2.30	°C/w/3"



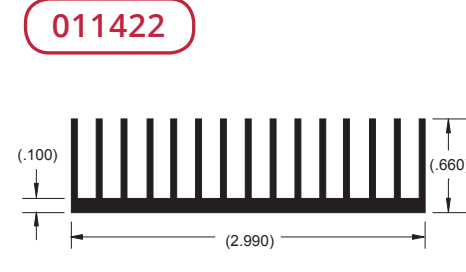
Per.	11.76	in.
WT.	0.91	lb/ft
Θsa	6.00	°C/w/3"



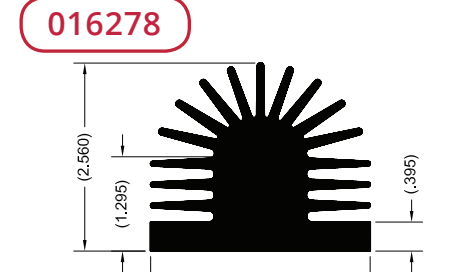
Per.	10.74	in.
WT.	0.89	lb/ft
Θsa	6.50	°C/w/3"



Per.	10.56	in.
WT.	0.48	lb/ft
Θsa	6.60	°C/w/3"



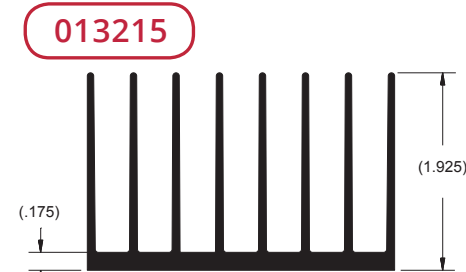
Per.	22.86	in.
WT.	0.84	lb/ft
Θsa	3.10	°C/w/3"



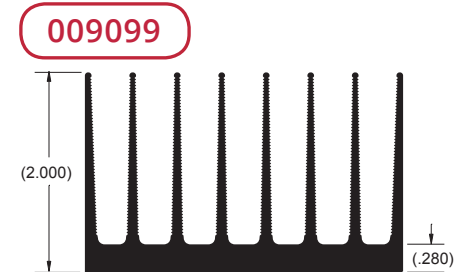
Per.	31.34	in.
WT.	4.84	lb/ft
Θsa	2.30	°C/w/3"



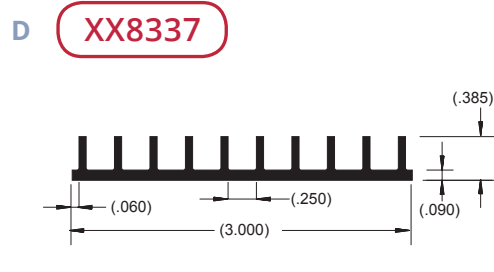
Per.	40.47	in.
WT.	2.32	lb/ft
Θsa	1.70	°C/w/3"



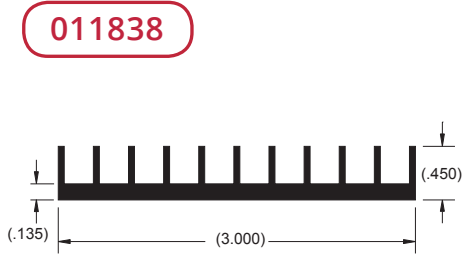
Per.	33.84	in.
WT.	1.80	lb/ft
Θsa	2.10	°C/w/3"



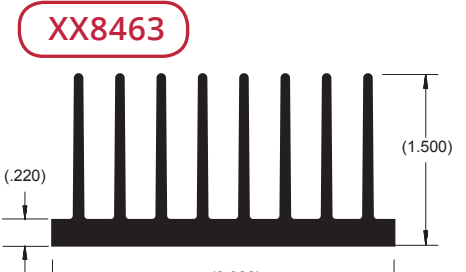
Per.	45.93	in.
WT.	2.56	lb/ft
Θsa	1.50	°C/w/3"



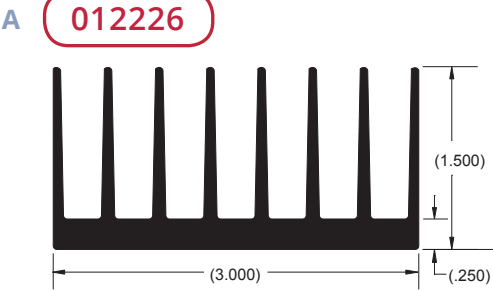
Per.	11.70	in.
WT.	0.51	lb/ft
Θsa	5.50	°C/w/3"



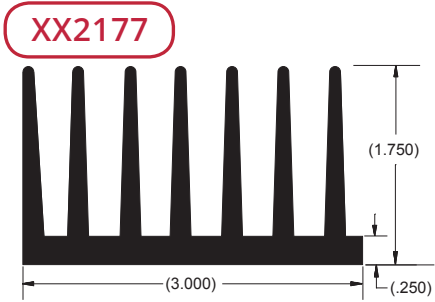
Per.	13.11	in.
WT.	0.67	lb/ft
Θsa	5.30	°C/w/3"



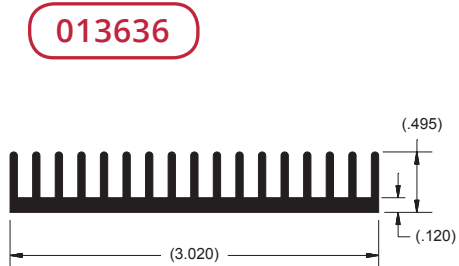
Per.	26.30	in.
WT.	1.54	lb/ft
Θsa	2.80	°C/w/3"



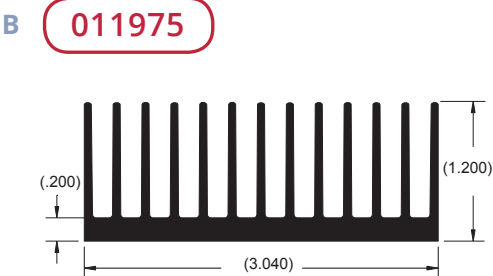
Per.	25.74	in.
WT.	1.83	lb/ft
Θsa	2.70	°C/w/3"



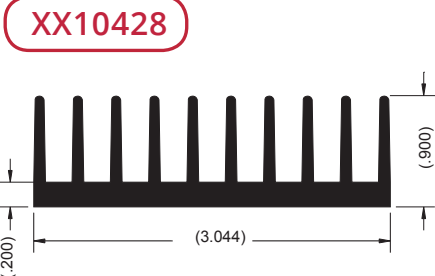
Per.	26.60	in.
WT.	2.64	lb/ft
Θsa	1.80	°C/w/3"



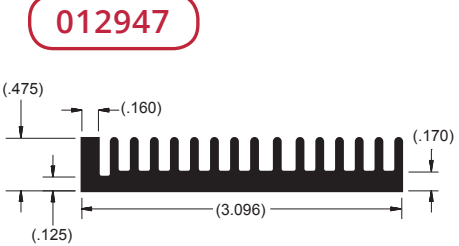
Per.	18.46	in.
WT.	0.86	lb/ft
Θsa	3.80	°C/w/3"



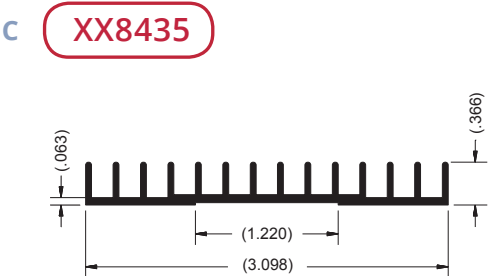
Per.	31.70	in.
WT.	1.75	lb/ft
Θsa	2.20	°C/w/3"



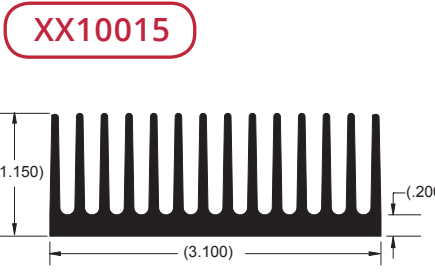
Per.	19.93	in.
WT.	1.46	lb/ft
Θsa	3.90	°C/w/3"



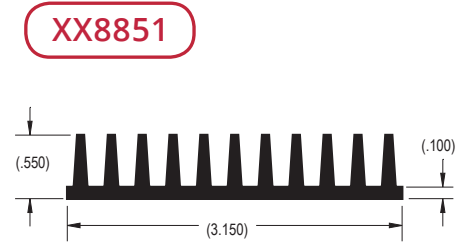
Per.	15.61	in.
WT.	1.01	lb/ft
Θsa	4.50	°C/w/3"



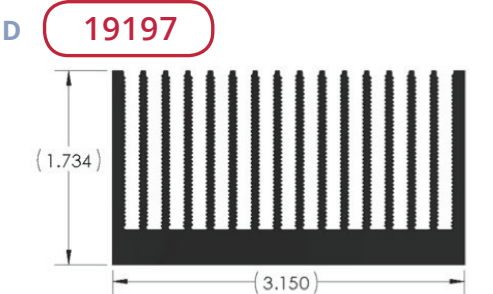
Per.	14.20	in.
WT.	0.49	lb/ft
Θsa	6.00	°C/w/3"



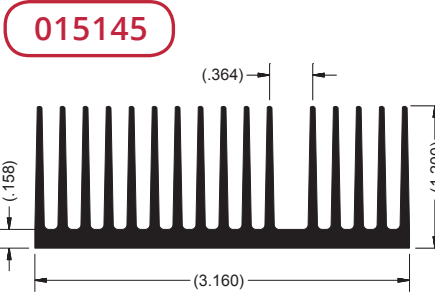
Per.	31.71	in.
WT.	1.91	lb/ft
Θsa	3.40	°C/w/3"



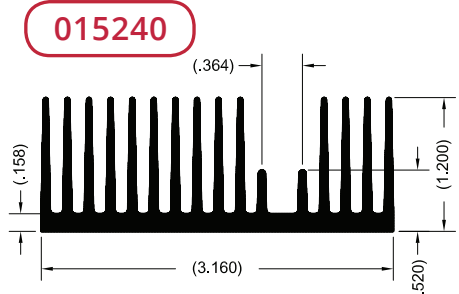
Per.	16.60	in.
WT.	0.93	lb/ft
Θsa	4.90	°C/w/3"



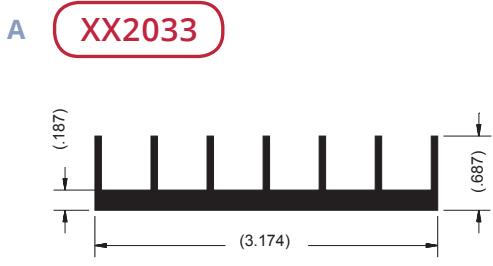
Per.	68.96	in.
WT.	2.88	lb/ft
Θsa	1.01	°C/w/3"



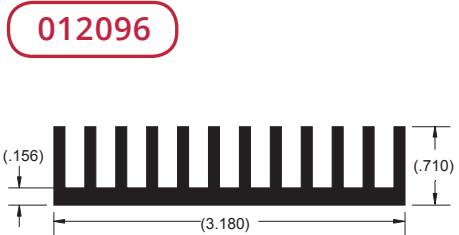
Per.	38.58	in.
WT.	1.80	lb/ft
Θsa	4.40	°C/w/3"



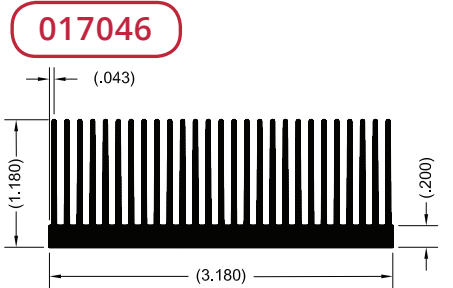
Per.	35.89	in.
WT.	1.72	lb/ft
Θsa	3.10	°C/w/3"



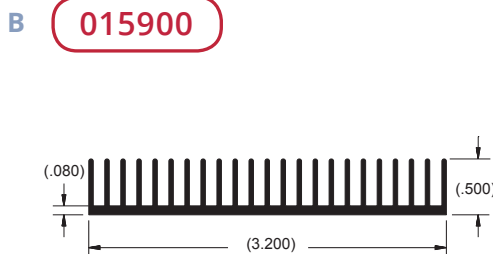
Per.	13.72	in.
WT.	0.97	lb/ft
Θsa	3.30	°C/w/3"



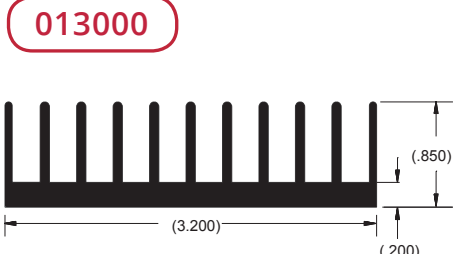
Per.	19.97	in.
WT.	1.39	lb/ft
Θsa	3.50	°C/w/3"



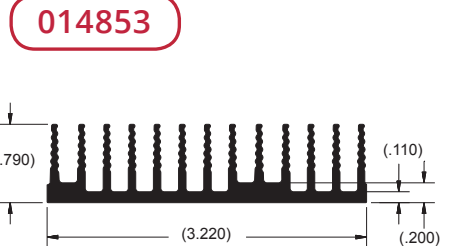
Per.	58.72	in.
WT.	1.87	lb/ft
Θsa	3.20	°C/w/3"



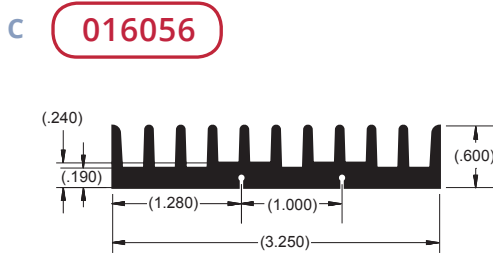
Per.	25.30	in.
WT.	0.77	lb/ft
Θsa	6.00	°C/w/3"



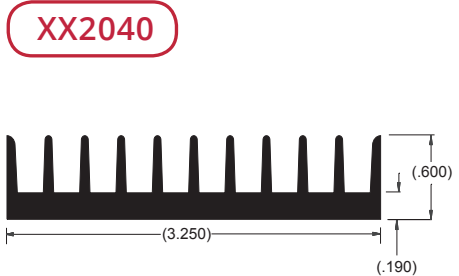
Per.	20.66	in.
WT.	1.41	lb/ft
Θsa	3.40	°C/w/3"



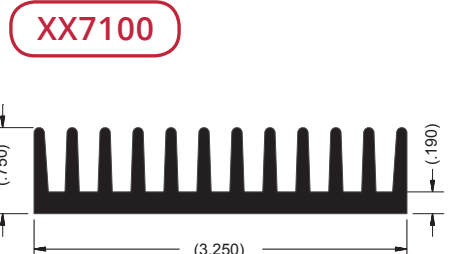
Per.	24.00	in.
WT.	1.17	lb/ft
Θsa	4.00	°C/w/3"



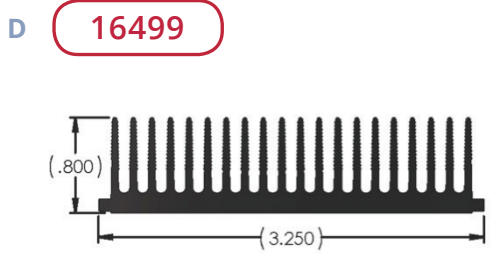
Per.	15.52	in.
WT.	1.20	lb/ft
Θsa	4.60	°C/w/3"



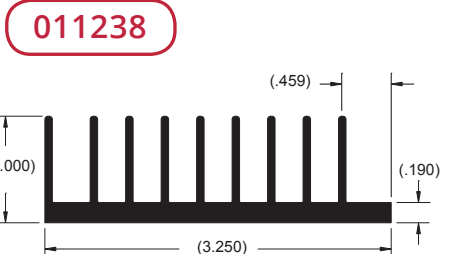
Per.	15.31	in.
WT.	1.14	lb/ft
Θsa	3.00	°C/w/3"



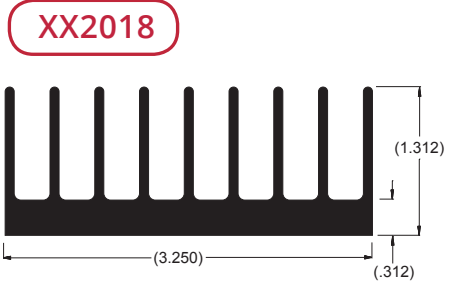
Per.	21.00	in.
WT.	1.35	lb/ft
Θsa	2.60	°C/w/3"



Per.	32.59	in.
WT.	1.46	lb/ft
Θsa	2.15	°C/w/3"



Per.	21.12	in.
WT.	1.35	lb/ft
Θsa	3.30	°C/w/3"



Per.	24.40	in.
WT.	2.09	lb/ft
Θsa	2.30	°C/w/3"



A

XX0387

Per.	15.10	in.
WT.	1.23	lb/ft
θsa	4.40	°C/w/3"

012518

Per.	10.89	in.
WT.	0.54	lb/ft
θsa	6.40	°C/w/3"

014262

Per.	16.94	in.
WT.	0.88	lb/ft
θsa	4.10	°C/w/3"

B

016064

Per.	15.71	in.
WT.	1.13	lb/ft
θsa	5.20	°C/w/3"

012680

Per.	27.96	in.
WT.	1.74	lb/ft
θsa	2.50	°C/w/3"

013293

Per.	17.07	in.
WT.	1.29	lb/ft
θsa	4.10	°C/w/3"

C

016655

Per.	47.29	in.
WT.	2.33	lb/ft
θsa	4.90	°C/w/3"

017026

Per.	75.51	in.
WT.	2.47	lb/ft
θsa	5.40	°C/w/3"

014966

Per.	33.25	in.
WT.	1.22	lb/ft
θsa	4.80	°C/w/3"

D

014844

Per.	44.42	in.
WT.	1.62	lb/ft
θsa	1.60	°C/w/3"

13457

Per.	28.99	in.
WT.	2.07	lb/ft
θsa	2.41	°C/w/3"

016531

Per.	64.12	in.
WT.	3.67	lb/ft
θsa	2.60	°C/w/3"



A

014801

Per.	19.65	in.
WT.	0.67	lb/ft
θsa	5.30	°C/w/3"

014803

Per.	26.23	in.
WT.	0.98	lb/ft
θsa	4.50	°C/w/3"

011457

Per.	22.48	in.
WT.	1.48	lb/ft
θsa	3.00	°C/w/3"

B

XX7116

Per.	31.33	in.
WT.	2.32	lb/ft
θsa	2.40	°C/w/3"

012443

Per.	27.76	in.
WT.	1.10	lb/ft
θsa	2.50	°C/w/3"

014367

Per.	31.04	in.
WT.	2.42	lb/ft
θsa	2.30	°C/w/3"

C

19492

Per.	51.76	in.
WT.	3.39	lb/ft
θsa	1.35	°C/w/3"

016438

Per.	25.08	in.
WT.	1.92	lb/ft
θsa	4.20	°C/w/3"

015045

Per.	15.01	in.
WT.	1.04	lb/ft
θsa	4.90	°C/w/3"

D

XX5582

Per.	20.71	in.
WT.	1.26	lb/ft
θsa	2.80	°C/w/3"

19843

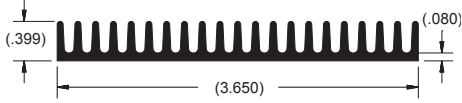
Per.	21.58	in.
WT.	1.67	lb/ft
θsa	3.24	°C/w/3"

016437

Per.	13.87	in.
WT.	0.38	lb/ft
θsa	12.00	°C/w/3"

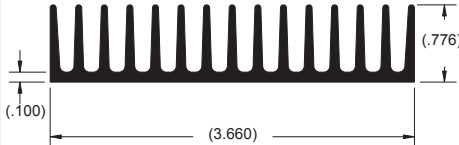


A XX2005



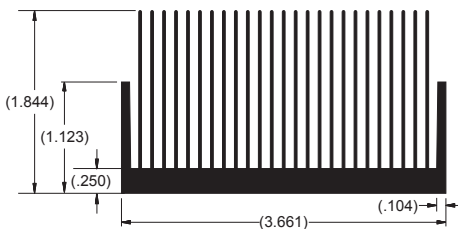
Per.	19.09	in.
WT.	0.93	lb/ft
Θsa	3.70	°C/w/3"

009797



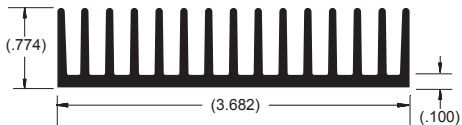
Per.	26.14	in.
WT.	1.42	lb/ft
Θsa	2.50	°C/w/3"

017030



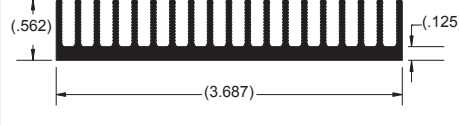
Per.	90.66	in.
WT.	2.75	lb/ft
Θsa	5.20	°C/w/3"

B XX2019



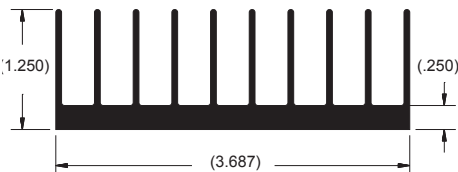
Per.	26.80	in.
WT.	1.17	lb/ft
Θsa	2.20	°C/w/3"

012108



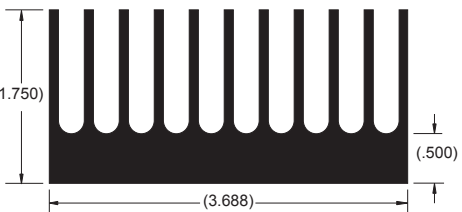
Per.	27.04	in.
WT.	0.92	lb/ft
Θsa	2.60	°C/w/3"

014284



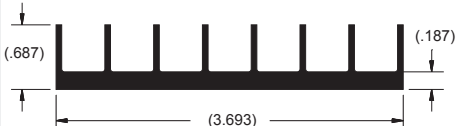
Per.	27.38	in.
WT.	1.83	lb/ft
Θsa	2.50	°C/w/3"

C 012423



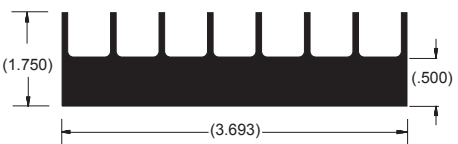
Per.	34.74	in.
WT.	3.74	lb/ft
Θsa	2.00	°C/w/3"

013542



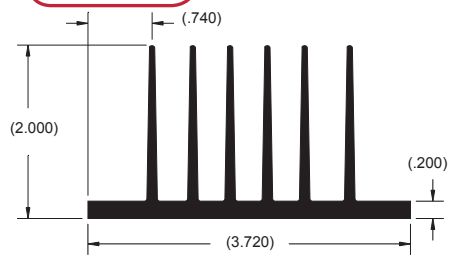
Per.	15.57	in.
WT.	1.12	lb/ft
Θsa	4.60	°C/w/3"

XX2052



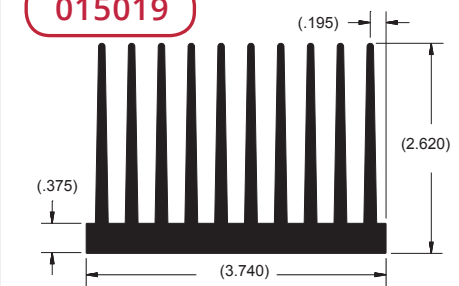
Per.	15.66	in.
WT.	2.61	lb/ft
Θsa	2.80	°C/w/3"

D 011758



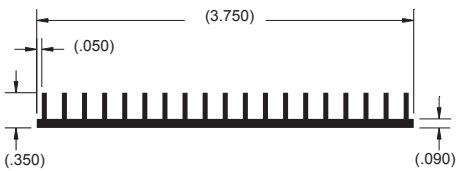
Per.	28.77	in.
WT.	2.06	lb/ft
Θsa	2.40	°C/w/3"

015019



Per.	51.89	in.
WT.	4.89	lb/ft
Θsa	2.50	°C/w/3"

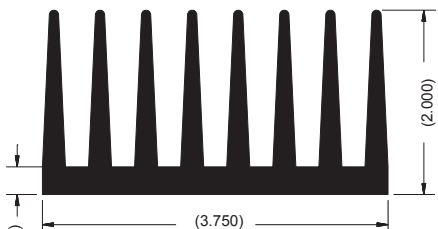
011077



Per.	17.56	in.
WT.	0.70	lb/ft
Θsa	4.00	°C/w/3"

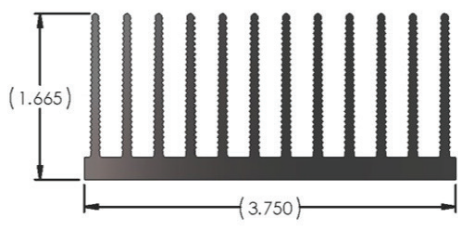


A XX2250



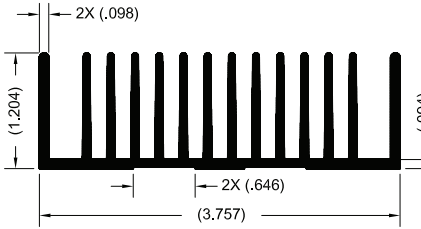
Per.	33.78	in.
WT.	4.16	lb/ft
Θsa	1.90	°C/w/3"

21295



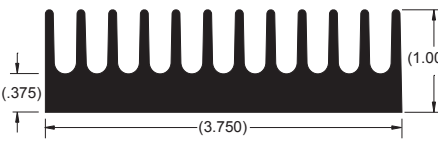
Per.	46.61	in.
WT.	2.67	lb/ft
Θsa	1.50	°C/w/3"

016270



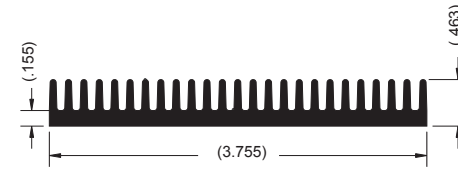
Per.	38.86	in.
WT.	1.84	lb/ft
Θsa	2.50	°C/w/3"

B 012396



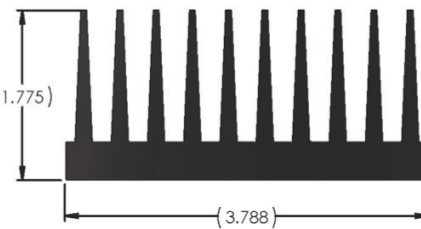
Per.	21.49	in.
WT.	2.53	lb/ft
Θsa	3.30	°C/w/3"

XX10192



Per.	21.60	in.
WT.	1.32	lb/ft
Θsa	3.61	°C/w/3"

17049



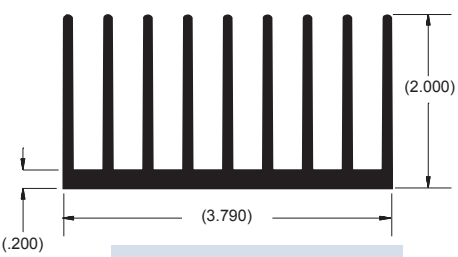
Per.	34.61	in.
WT.	3.83	lb/ft
Θsa	2.02	°C/w/3"

C XX5079



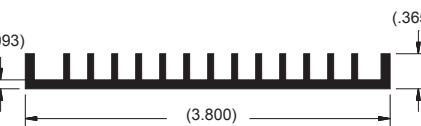
Per.	39.77	in.
WT.	2.66	lb/ft
Θsa	1.50	°C/w/3"

016304



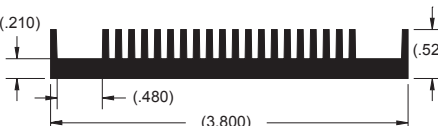
Per.	39.82	in.
WT.	2.57	lb/ft
Θsa	1.80	°C/w/3"

012932



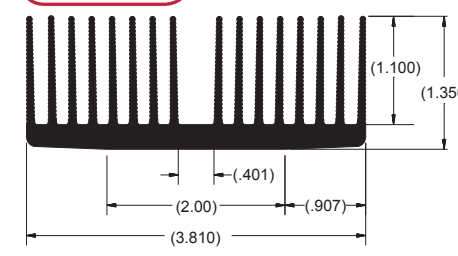
Per.	15.95	in.
WT.	0.75	lb/ft
Θsa	4.40	°C/w/3"

D 012166



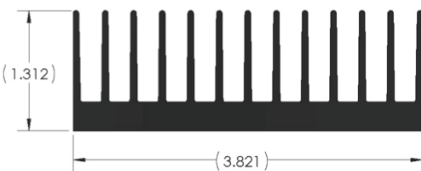
Per.	21.44	in.
WT.	1.49	lb/ft
Θsa	6.20	°C/w/3"

013143

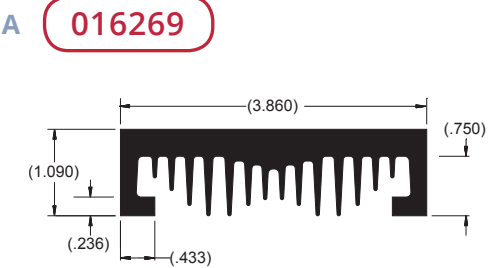


Per.	47.17	in.
WT.	2.66	lb/ft
Θsa	1.50	°C/w/3"

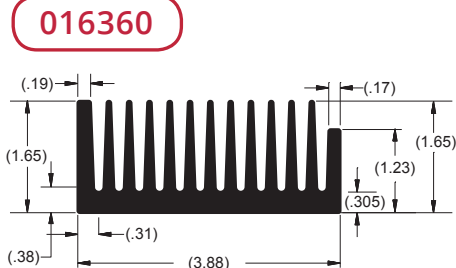
19457



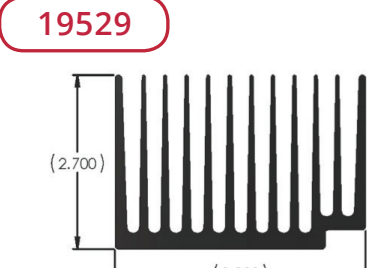
Per.	33.426	in.
WT.	2.51	lb/ft
Θsa	2.09	°C/w/3"



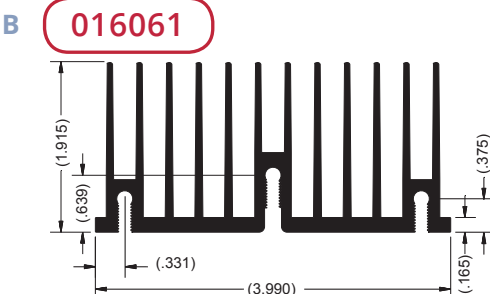
Per.	25.82	in.
WT.	2.93	lb/ft
θsa	3.30	°C/w/3"



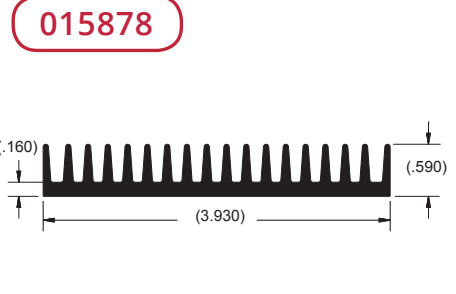
Per.	40.33	in.
WT.	3.89	lb/ft
θsa	2.90	°C/w/3"



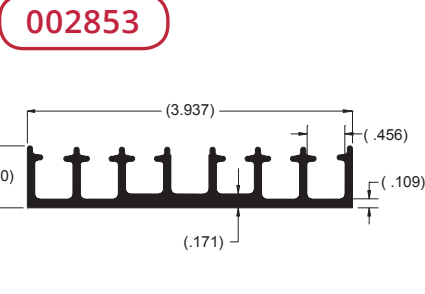
Per.	63.88	in.
WT.	4.66	lb/ft
θsa	1.09	°C/w/3"



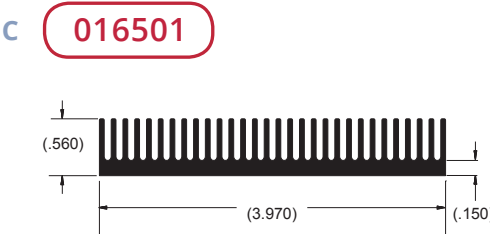
Per.	51.63	in.
WT.	2.81	lb/ft
θsa	2.30	°C/w/3"



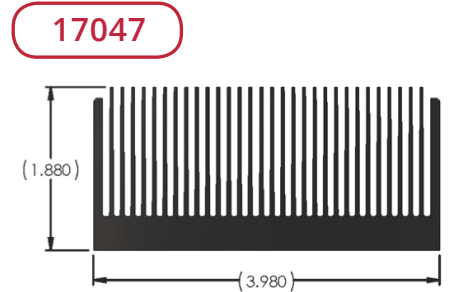
Per.	21.95	in.
WT.	1.54	lb/ft
θsa	9.70	°C/w/3"



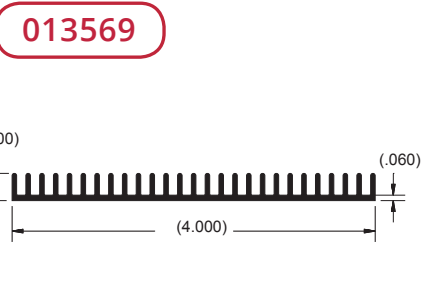
Per.	22.00	in.
WT.	1.20	lb/ft
θsa	3.20	°C/w/3"



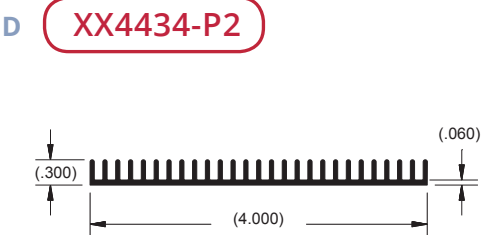
Per.	31.46	in.
WT.	1.55	lb/ft
θsa	6.10	°C/w/3"



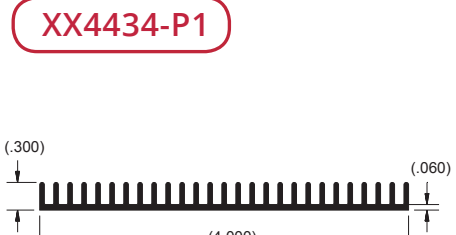
Per.	102.27	in.
WT.	4.33	lb/ft
θsa	0.68	°C/w/3"



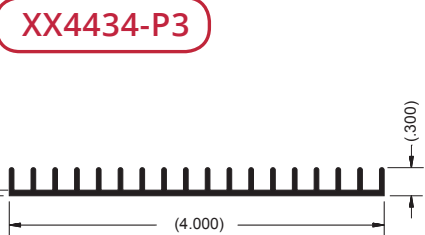
Per.	20.17	in.
WT.	0.67	lb/ft
θsa	7.20	°C/w/3"



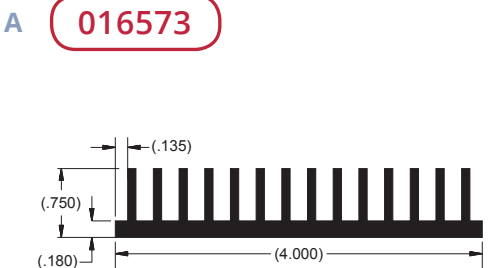
Per.	20.16	in.
WT.	0.67	lb/ft
θsa	2.70	°C/w/3"



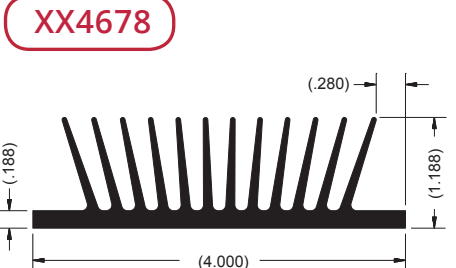
Per.	16.22	in.
WT.	0.55	lb/ft
θsa	3.00	°C/w/3"



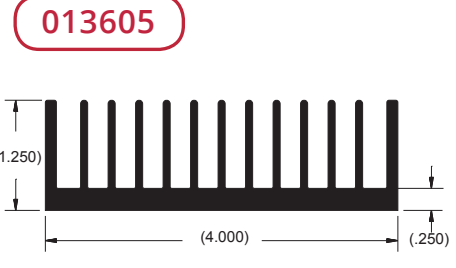
Per.	23.96	in.
WT.	0.76	lb/ft
θsa	7.00	°C/w/3"



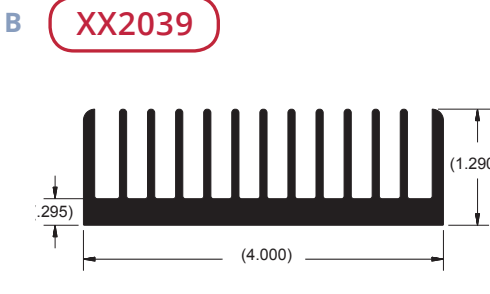
Per.	24.32	in.
WT.	1.73	lb/ft
θsa	3.70	°C/w/3"



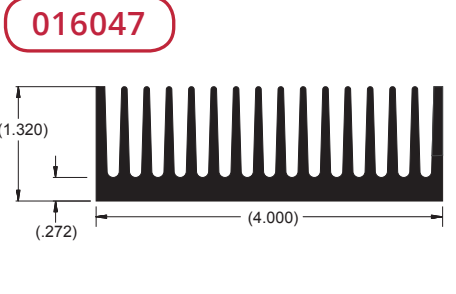
Per.	32.90	in.
WT.	1.93	lb/ft
θsa	2.30	°C/w/3"



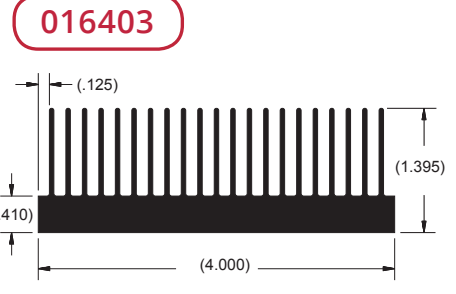
Per.	33.87	in.
WT.	2.55	lb/ft
θsa	2.10	°C/w/3"



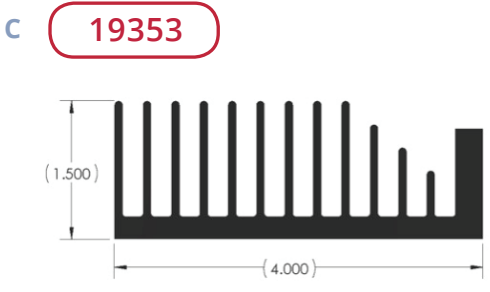
Per.	33.66	in.
WT.	2.75	lb/ft
θsa	1.90	°C/w/3"



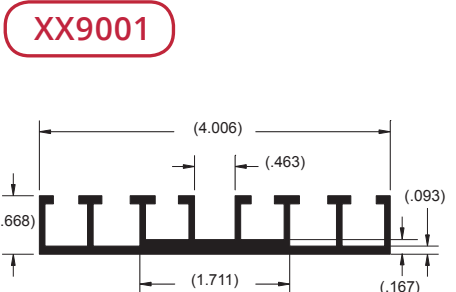
Per.	40.03	in.
WT.	3.15	lb/ft
θsa	2.70	°C/w/3"



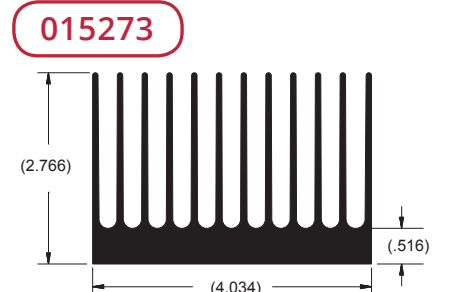
Per.	49.20	in.
WT.	3.21	lb/ft
θsa	3.40	°C/w/3"



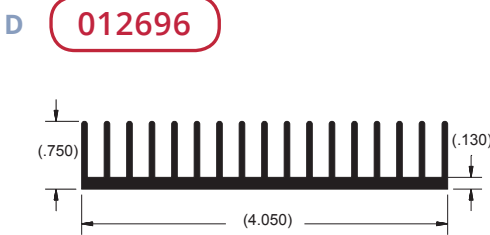
Per.	36.60	in.
WT.	2.99	lb/ft
θsa	1.91	°C/w/3"



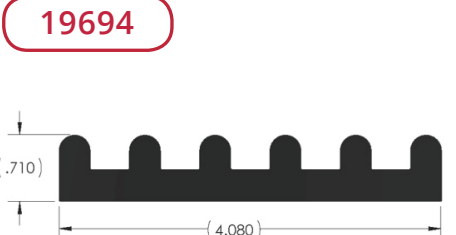
Per.	19.51	in.
WT.	1.08	lb/ft
θsa	2.40	°C/w/3"



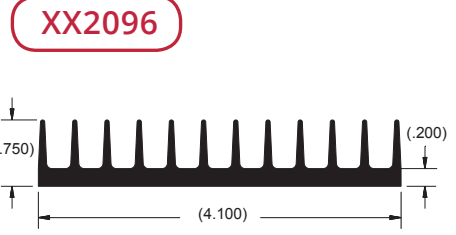
Per.	61.28	in.
WT.	5.37	lb/ft
θsa	1.80	°C/w/3"



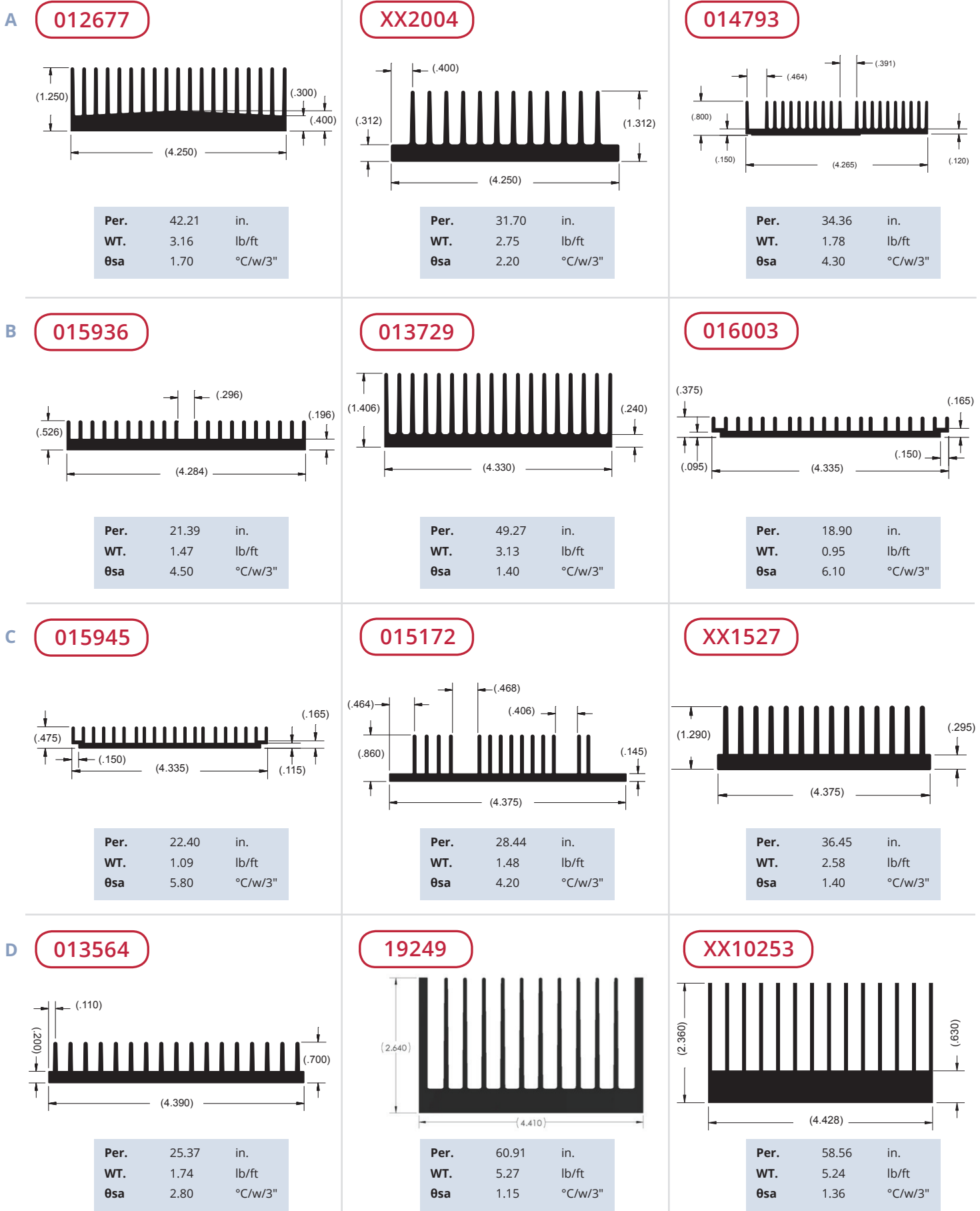
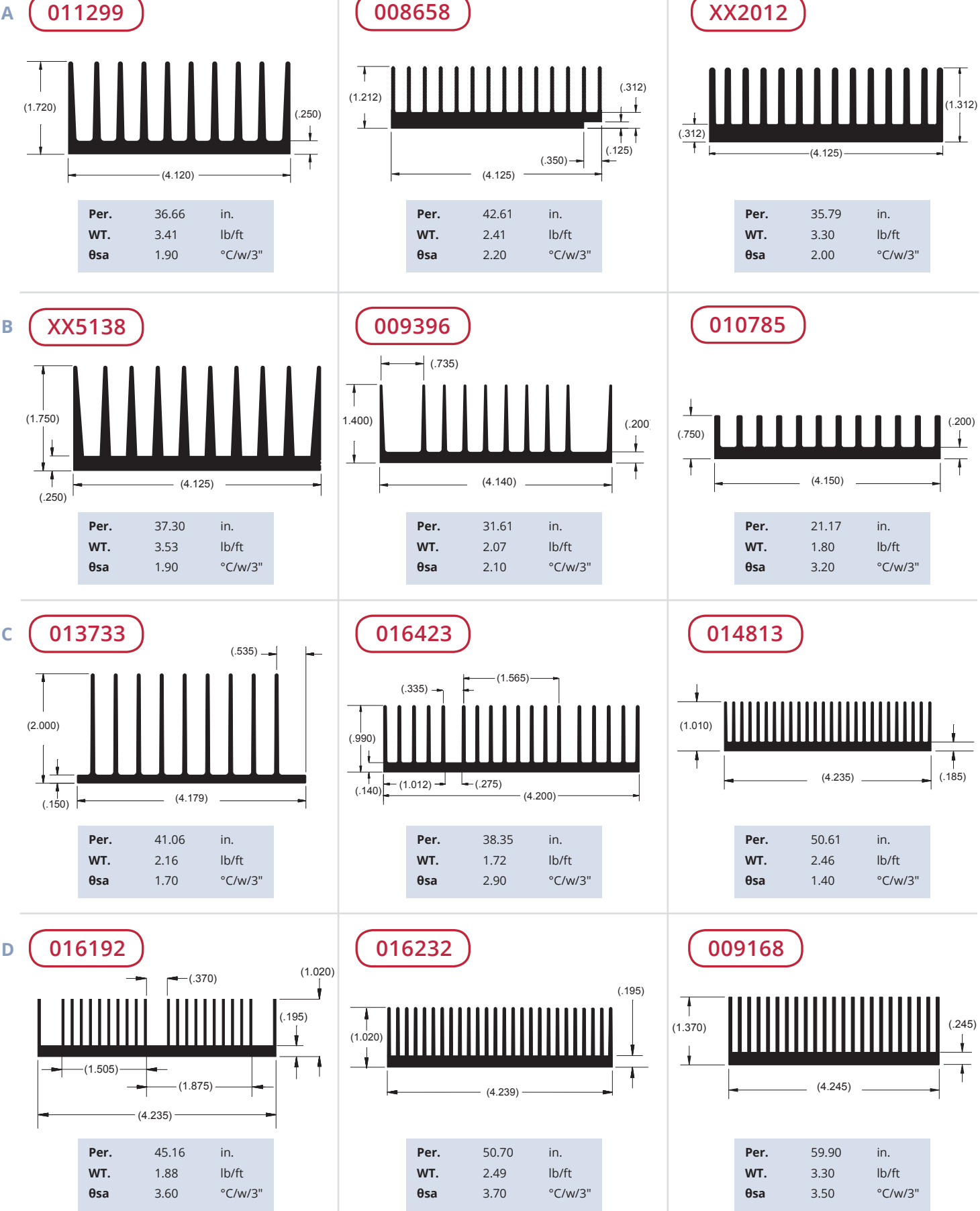
Per.	28.99	in.
WT.	1.41	lb/ft
θsa	2.40	°C/w/3"



Per.	12.34	in.
WT.	2.50	lb/ft
θsa	5.66	°C/w/3"



Per.	20.48	in.
WT.	1.56	lb/ft
θsa	2.50	°C/w/3"





A

17080

Per.	118.88	in.
WT.	6.34	lb/ft
θsa	0.59	°C/w/3"

012397

Per.	18.60	in.
WT.	1.52	lb/ft
θsa	3.80	°C/w/3"

XX2050

Per.	38.94	in.
WT.	3.32	lb/ft
θsa	2.20	°C/w/3"

B

017033

Per.	69.28	in.
WT.	3.57	lb/ft
θsa	3.60	°C/w/3"

012749

Per.	36.08	in.
WT.	3.14	lb/ft
θsa	1.90	°C/w/3"

19787

Per.	61.33	in.
WT.	2.97	lb/ft
θsa	1.14	°C/w/3"

C

010998

Per.	26.42	in.
WT.	1.78	lb/ft
θsa	2.60	°C/w/3"

XX4652

Per.	40.32	in.
WT.	2.37	lb/ft
θsa	1.80	°C/w/3"

015174

Per.	57.50	in.
WT.	4.19	lb/ft
θsa	1.20	°C/w/3"

D

XX0233

Per.	36.00	in.
WT.	3.15	lb/ft
θsa	1.90	°C/w/3"

19409

Per.	47.335	in.
WT.	3.37	lb/ft
θsa	1.48	°C/w/3"

013756

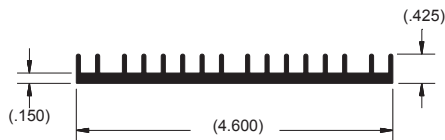
Per.	42.33	in.
WT.	2.61	lb/ft
θsa	1.70	°C/w/3"



A 013096 <table><tr><td>Per.</td><td>16.43</td><td>in.</td></tr><tr><td>WT.</td><td>0.97</td><td>lb/ft</td></tr><tr><td>θsa</td><td>4.30</td><td>°C/w/3"</td></tr></table>	Per.	16.43	in.	WT.	0.97	lb/ft	θsa	4.30	°C/w/3"	013099 <table><tr><td>Per.</td><td>22.70</td><td>in.</td></tr><tr><td>WT.</td><td>1.20</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.10</td><td>°C/w/3"</td></tr></table>	Per.	22.70	in.	WT.	1.20	lb/ft	θsa	3.10	°C/w/3"	012894 <table><tr><td>Per.</td><td>44.20</td><td>in.</td></tr><tr><td>WT.</td><td>2.13</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.60</td><td>°C/w/3"</td></tr></table>	Per.	44.20	in.	WT.	2.13	lb/ft	θsa	1.60	°C/w/3"
Per.	16.43	in.																											
WT.	0.97	lb/ft																											
θsa	4.30	°C/w/3"																											
Per.	22.70	in.																											
WT.	1.20	lb/ft																											
θsa	3.10	°C/w/3"																											
Per.	44.20	in.																											
WT.	2.13	lb/ft																											
θsa	1.60	°C/w/3"																											
B 016321 <table><tr><td>Per.</td><td>106.91</td><td>in.</td></tr><tr><td>WT.</td><td>6.57</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.40</td><td>°C/w/3"</td></tr></table>	Per.	106.91	in.	WT.	6.57	lb/ft	θsa	3.40	°C/w/3"	015712 <table><tr><td>Per.</td><td>149.60</td><td>in.</td></tr><tr><td>WT.</td><td>9.13</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.90</td><td>°C/w/3"</td></tr></table>	Per.	149.60	in.	WT.	9.13	lb/ft	θsa	2.90	°C/w/3"	003676 <table><tr><td>Per.</td><td>32.39</td><td>in.</td></tr><tr><td>WT.</td><td>1.56</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.20</td><td>°C/w/3"</td></tr></table>	Per.	32.39	in.	WT.	1.56	lb/ft	θsa	2.20	°C/w/3"
Per.	106.91	in.																											
WT.	6.57	lb/ft																											
θsa	3.40	°C/w/3"																											
Per.	149.60	in.																											
WT.	9.13	lb/ft																											
θsa	2.90	°C/w/3"																											
Per.	32.39	in.																											
WT.	1.56	lb/ft																											
θsa	2.20	°C/w/3"																											
C 007657 <table><tr><td>Per.</td><td>24.83</td><td>in.</td></tr><tr><td>WT.</td><td>1.27</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.40</td><td>°C/w/3"</td></tr></table>	Per.	24.83	in.	WT.	1.27	lb/ft	θsa	3.40	°C/w/3"	XX3286 <table><tr><td>Per.</td><td>24.92</td><td>in.</td></tr><tr><td>WT.</td><td>1.28</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.40</td><td>°C/w/3"</td></tr></table>	Per.	24.92	in.	WT.	1.28	lb/ft	θsa	2.40	°C/w/3"	012987 <table><tr><td>Per.</td><td>45.36</td><td>in.</td></tr><tr><td>WT.</td><td>3.07</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.50</td><td>°C/w/3"</td></tr></table>	Per.	45.36	in.	WT.	3.07	lb/ft	θsa	1.50	°C/w/3"
Per.	24.83	in.																											
WT.	1.27	lb/ft																											
θsa	3.40	°C/w/3"																											
Per.	24.92	in.																											
WT.	1.28	lb/ft																											
θsa	2.40	°C/w/3"																											
Per.	45.36	in.																											
WT.	3.07	lb/ft																											
θsa	1.50	°C/w/3"																											
D 015862 <table><tr><td>Per.</td><td>65.91</td><td>in.</td></tr><tr><td>WT.</td><td>2.55</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.80</td><td>°C/w/3"</td></tr></table>	Per.	65.91	in.	WT.	2.55	lb/ft	θsa	1.80	°C/w/3"	011944 <table><tr><td>Per.</td><td>19.85</td><td>in.</td></tr><tr><td>WT.</td><td>1.16</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.90</td><td>°C/w/3"</td></tr></table>	Per.	19.85	in.	WT.	1.16	lb/ft	θsa	3.90	°C/w/3"	014770 <table><tr><td>Per.</td><td>22.28</td><td>in.</td></tr><tr><td>WT.</td><td>1.18</td><td>lb/ft</td></tr><tr><td>θsa</td><td>6.20</td><td>°C/w/3"</td></tr></table>	Per.	22.28	in.	WT.	1.18	lb/ft	θsa	6.20	°C/w/3"
Per.	65.91	in.																											
WT.	2.55	lb/ft																											
θsa	1.80	°C/w/3"																											
Per.	19.85	in.																											
WT.	1.16	lb/ft																											
θsa	3.90	°C/w/3"																											
Per.	22.28	in.																											
WT.	1.18	lb/ft																											
θsa	6.20	°C/w/3"																											

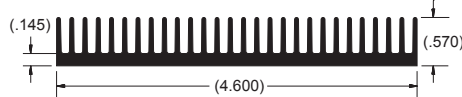


A 013618



Per.	17.69	in.
WT.	1.14	lb/ft
Θsa	4.00	°C/w/3"

013716



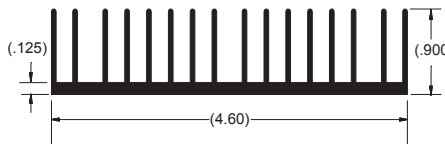
Per.	31.72	in.
WT.	1.54	lb/ft
Θsa	2.20	°C/w/3"

012823



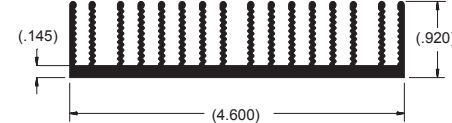
Per.	27.45	in.
WT.	1.40	lb/ft
Θsa	2.50	°C/w/3"

B 012614



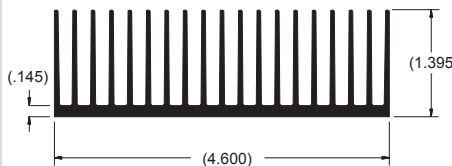
Per.	33.85	in.
WT.	1.63	lb/ft
Θsa	2.10	°C/w/3"

012777



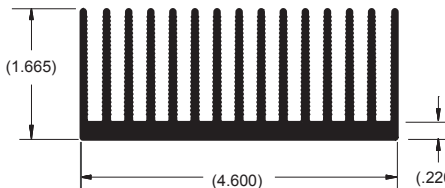
Per.	39.24	in.
WT.	1.77	lb/ft
Θsa	1.80	°C/w/3"

013717



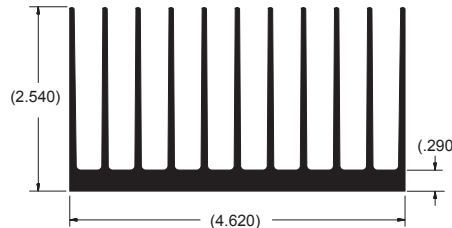
Per.	55.74	in.
WT.	2.44	lb/ft
Θsa	1.30	°C/w/3"

C 016374



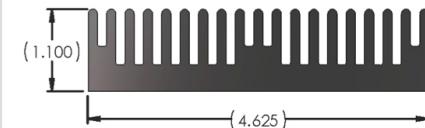
Per.	57.59	in.
WT.	3.29	lb/ft
Θsa	2.30	°C/w/3"

012918



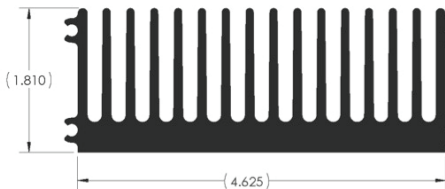
Per.	58.19	in.
WT.	3.74	lb/ft
Θsa	1.20	°C/w/3"

21105



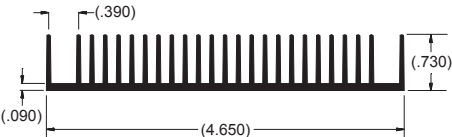
Per.	34.97	in.
WT.	4.20	lb/ft
Θsa	2.00	°C/w/3"

D 21139



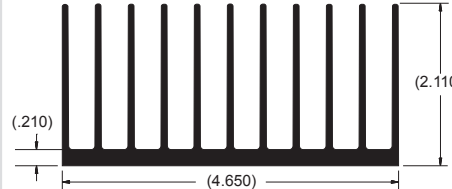
Per.	55.67	in.
WT.	5.45	lb/ft
Θsa	1.26	°C/w/3"

014965



Per.	40.63	in.
WT.	1.52	lb/ft
Θsa	1.70	°C/w/3"

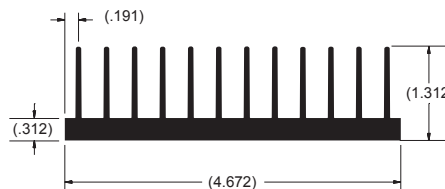
013203



Per.	50.60	in.
WT.	3.17	lb/ft
Θsa	1.40	°C/w/3"

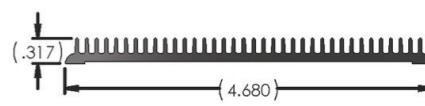


A 014320



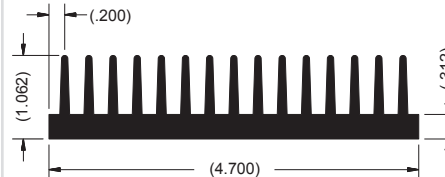
Per.	33.46	in.
WT.	2.81	lb/ft
Θsa	2.10	°C/w/3"

21153



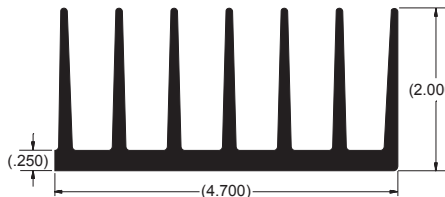
Per.	21.43	in.
WT.	0.89	lb/ft
Θsa	3.26	°C/w/3"

XX7150



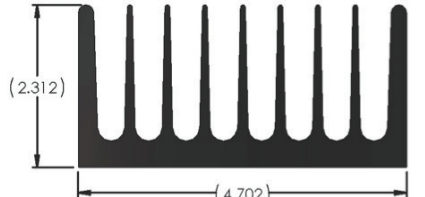
Per.	32.42	in.
WT.	2.85	lb/ft
Θsa	2.40	°C/w/3"

B 013664



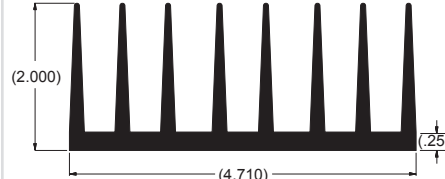
Per.	33.16	in.
WT.	3.45	lb/ft
Θsa	2.10	°C/w/3"

12447



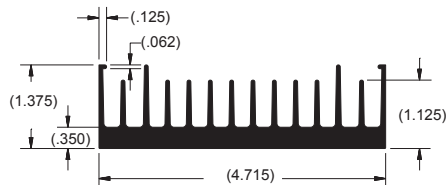
Per.	42.64	in.
WT.	5.23	lb/ft
Θsa	1.64	°C/w/3"

016652



Per.	36.63	in.
WT.	3.66	lb/ft
Θsa	1.70	°C/w/3"

C 016242



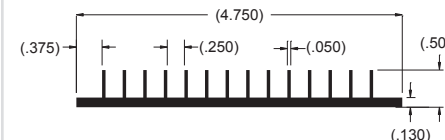
Per.	32.67	in.
WT.	3.07	lb/ft
Θsa	2.30	°C/w/3"

XX2030



Per.	19.68	in.
WT.	1.40	lb/ft
Θsa	2.40	°C/w/3"

011005



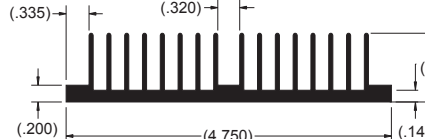
Per.	20.12	in.
WT.	1.05	lb/ft
Θsa	3.50	°C/w/3"

D 12405



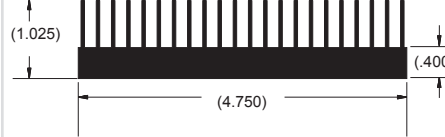
Per.	21.41	in.
WT.	1.30	lb/ft
Θsa	3.27	°C/w/3"

011942

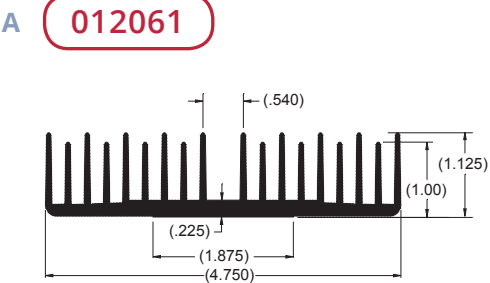


Per.	30.87	in.
WT.	1.60	lb/ft
Θsa	2.30	°C/w/3"

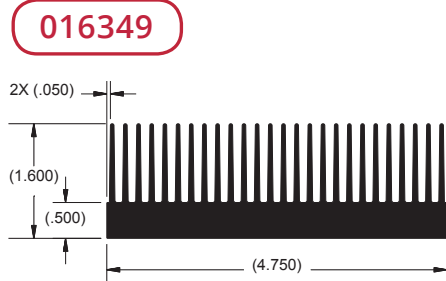
016123



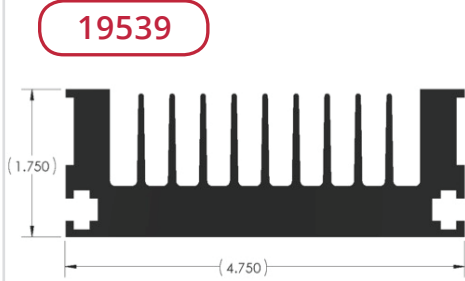
Per.	37.14	in.
WT.	3.09	lb/ft
Θsa	3.60	°C/w/3"



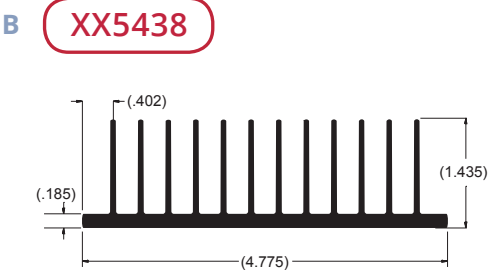
Per.	47.09	in.
WT.	2.40	lb/ft
Θsa	1.50	°C/w/3"



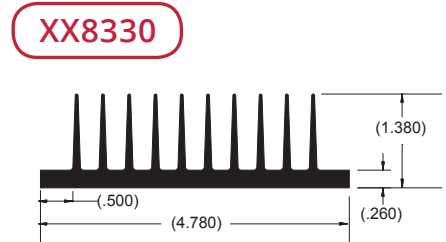
Per.	65.77	in.
WT.	5.04	lb/ft
Θsa	3.80	°C/w/3"



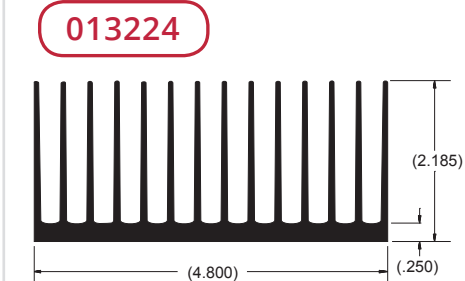
Per.	36.72	in.
WT.	5.37	lb/ft
Θsa	1.90	°C/w/3"



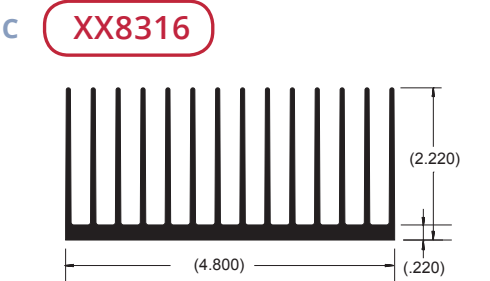
Per.	39.26	in.
WT.	2.41	lb/ft
Θsa	1.80	°C/w/3"



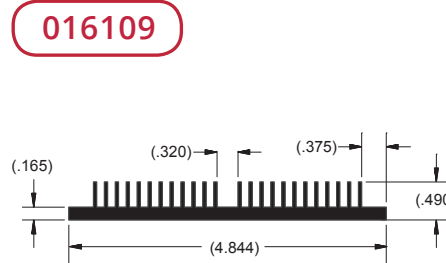
Per.	31.15	in.
WT.	2.50	lb/ft
Θsa	1.90	°C/w/3"



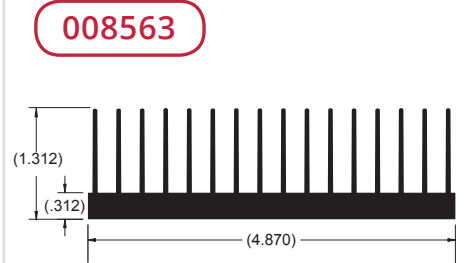
Per.	63.47	in.
WT.	3.88	lb/ft
Θsa	1.10	°C/w/3"



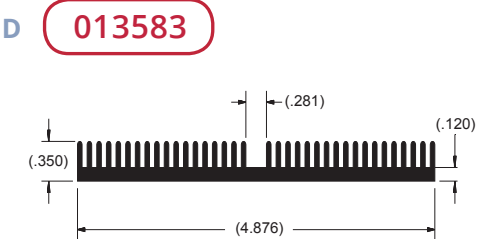
Per.	64.95	in.
WT.	3.52	lb/ft
Θsa	1.40	°C/w/3"



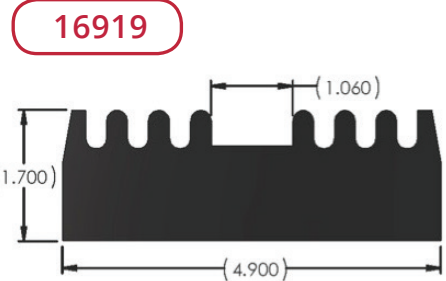
Per.	25.62	in.
WT.	1.43	lb/ft
Θsa	4.84	°C/w/3"



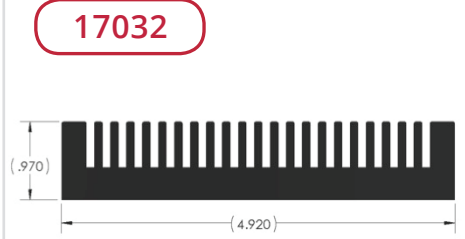
Per.	42.36	in.
WT.	3.07	lb/ft
Θsa	1.70	°C/w/3"



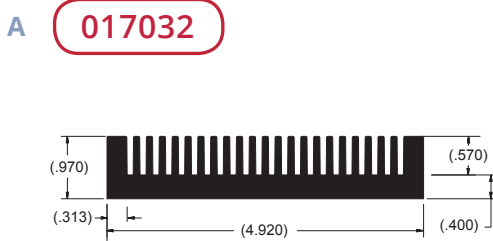
Per.	25.59	in.
WT.	1.30	lb/ft
Θsa	2.70	°C/w/3"



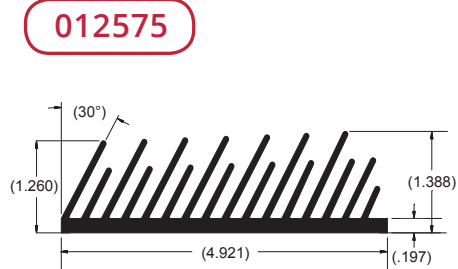
Per.	18.51	in.
WT.	8.34	lb/ft
Θsa	3.78	°C/w/3"



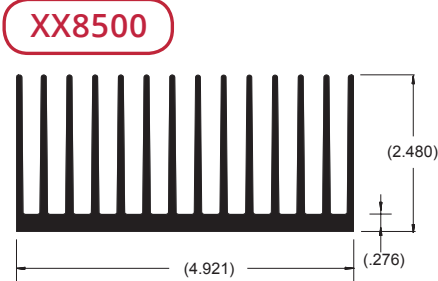
Per.	36.47	in.
WT.	4.31	lb/ft
Θsa	1.92	°C/w/3"



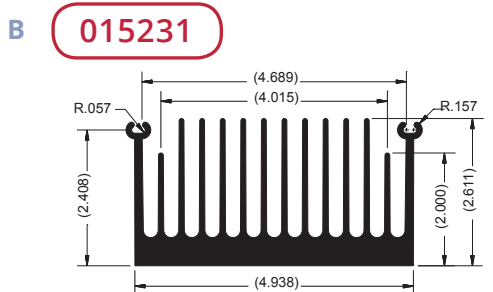
Per.	2.70	in.
WT.	4.11	lb/ft
Θsa	4.80	°C/w/3"



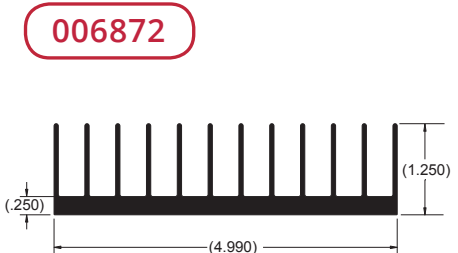
Per.	45.17	in.
WT.	2.92	lb/ft
Θsa	1.50	°C/w/3"



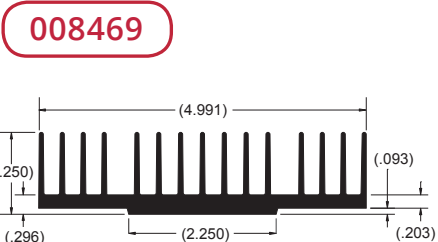
Per.	60.50	in.
WT.	6.47	lb/ft
Θsa	1.30	°C/w/3"



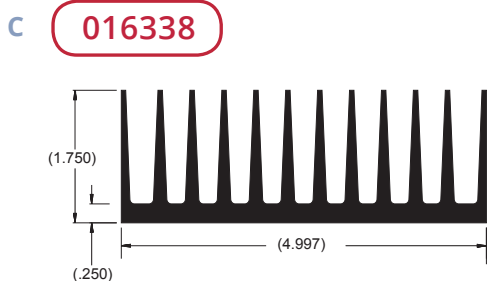
Per.	66.74	in.
WT.	6.52	lb/ft
Θsa	1.60	°C/w/3"



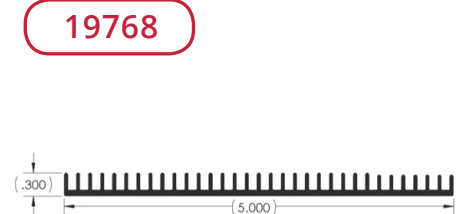
Per.	34.48	in.
WT.	2.39	lb/ft
Θsa	2.00	°C/w/3"



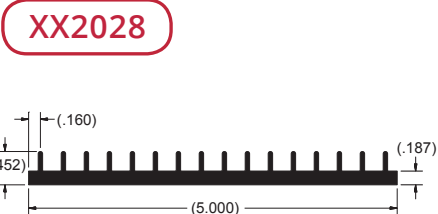
Per.	38.65	in.
WT.	2.74	lb/ft
Θsa	2.40	°C/w/3"



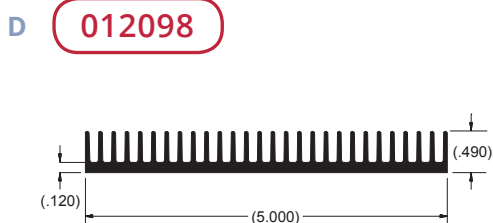
Per.	44.54	in.
WT.	4.08	lb/ft
Θsa	1.70	°C/w/3"



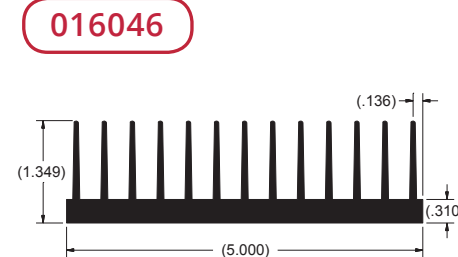
Per.	23.34	in.
WT.	0.89	lb/ft
Θsa	3.00	°C/w/3"



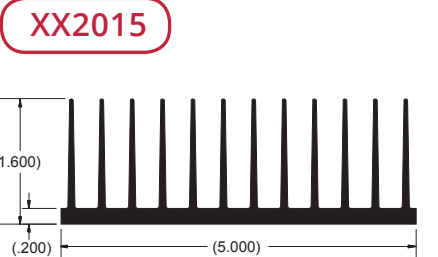
Per.	18.44	in.
WT.	1.42	lb/ft
Θsa	3.00	°C/w/3"



Per.	29.33	in.
WT.	1.38	lb/ft
Θsa	2.40	°C/w/3"



Per.	18.44	in.
WT.	1.42	lb/ft
Θsa	2.10	°C/w/3"

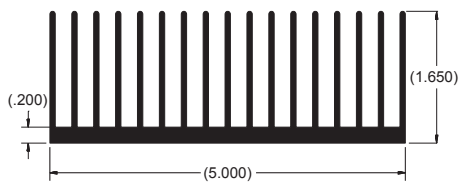


Per.	42.85	in.
WT.	2.75	lb/ft
Θsa	1.60	°C/w/3"



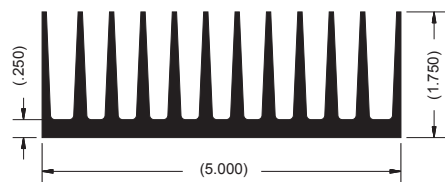
A

XX6957



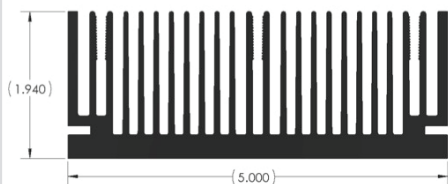
Per.	58.68	in.
WT.	3.32	lb/ft
Θsa	1.50	°C/w/3"

XX2065



Per.	44.59	in.
WT.	4.08	lb/ft
Θsa	1.60	°C/w/3"

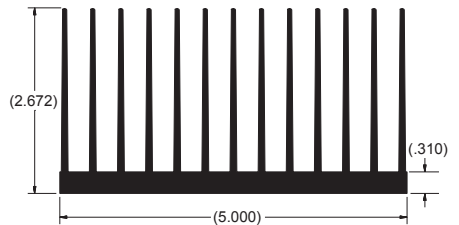
19260



Per.	87.86	in.
WT.	5.49	lb/ft
Θsa	0.80	°C/w/3"

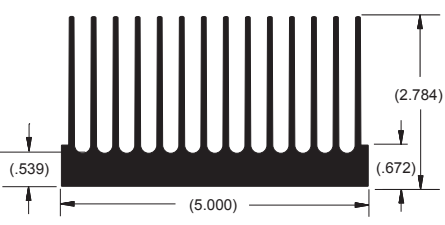
B

016049



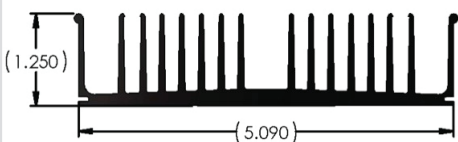
Per.	71.21	in.
WT.	4.76	lb/ft
Θsa	1.40	°C/w/3"

016069



Per.	71.73	in.
WT.	6.65	lb/ft
Θsa	1.50	°C/w/3"

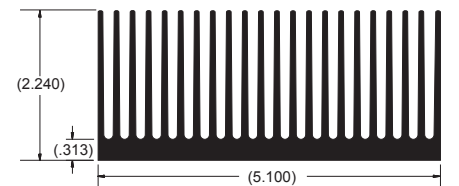
13505



Per.	43.60	in.
WT.	2.61	lb/ft
Θsa	1.60	°C/w/3"

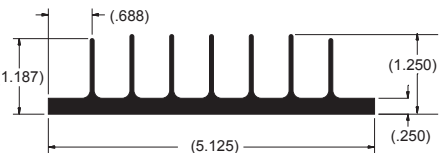
C

014984



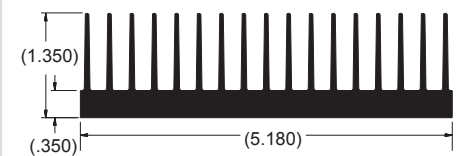
Per.	93.10	in.
WT.	5.28	lb/ft
Θsa	1.80	°C/w/3"

012331



Per.	23.69	in.
WT.	2.04	lb/ft
Θsa	3.00	°C/w/3"

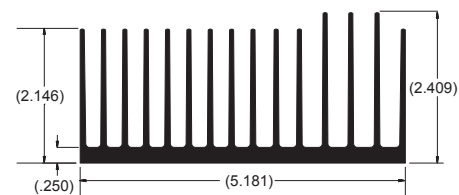
007264



Per.	45.06	in.
WT.	3.50	lb/ft
Θsa	1.60	°C/w/3"

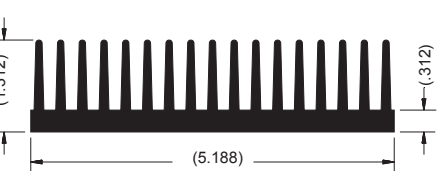
D

013570



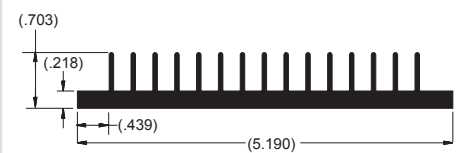
Per.	67.82	in.
WT.	4.28	lb/ft
Θsa	1.60	°C/w/3"

XX7034



Per.	43.85	in.
WT.	3.52	lb/ft
Θsa	1.70	°C/w/3"

XX2187

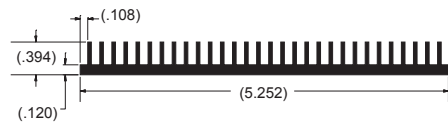


Per.	24.79	in.
WT.	1.90	lb/ft
Θsa	2.90	°C/w/3"



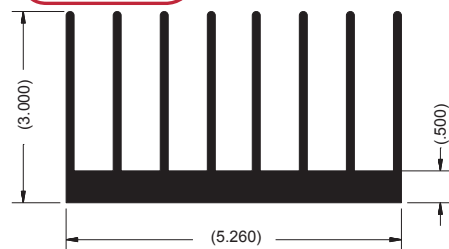
A

017016



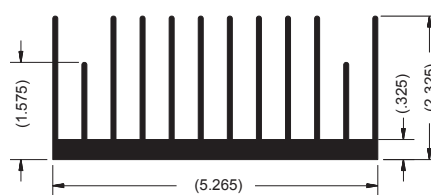
Per.	27.19	in.
WT.	1.26	lb/ft
Θsa	4.90	°C/w/3"

XX7113



Per.	51.00	in.
WT.	6.73	lb/ft
Θsa	1.10	°C/w/3"

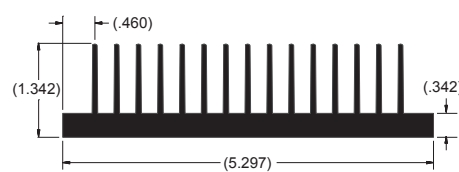
XX8026



Per.	55.37	in.
WT.	4.40	lb/ft
Θsa	1.30	°C/w/3"

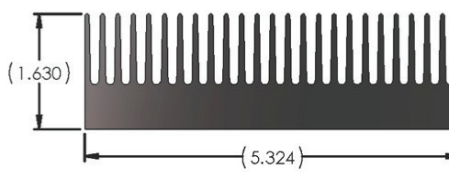
B

015887



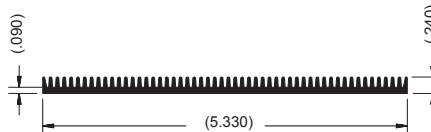
Per.	40.63	in.
WT.	3.46	lb/ft
Θsa	2.40	°C/w/3"

19671



Per.	59.37	in.
WT.	6.37	lb/ft
Θsa	1.18	°C/w/3"

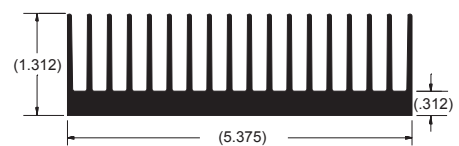
XX6843



Per.	23.00	in.
WT.	1.02	lb/ft
Θsa	1.02	°C/w/3"

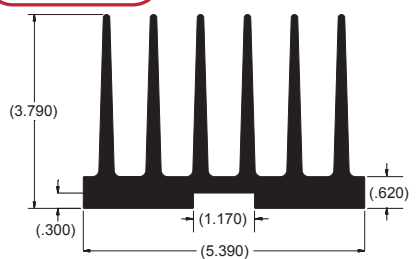
C

XX5045



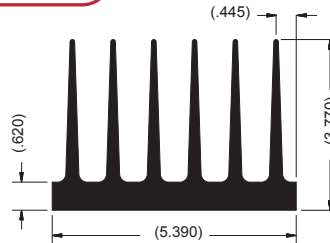
Per.	47.33	in.
WT.	3.55	lb/ft
Θsa	1.80	°C/w/3"

015840



Per.	49.36	in.
WT.	8.43	lb/ft
Θsa	1.10	°C/w/3"

XX6209



Per.	47.52	in.
WT.	8.60	lb/ft
Θsa	1.40	°C/w/3"

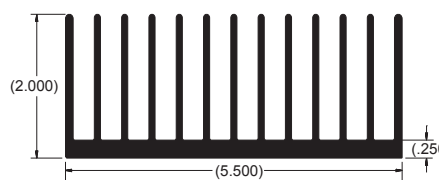
D

XX2246



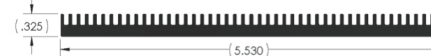
Per.	35.25	in.
WT.	3.02	lb/ft
Θsa	1.90	°C/w/3"

XX2199



Per.	57.00	in.
WT.	4.48	lb/ft
Θsa	1.20	°C/w/3"

19810

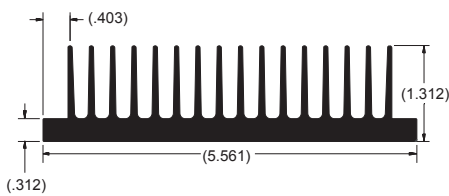


Per.	24.76	in.
WT.	1.60	lb/ft
Θsa	2.82	°C/w/3"



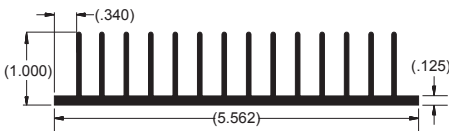
A

XX2002



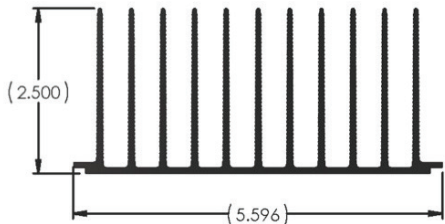
Per.	41.90	in.
WT.	3.67	lb/ft
Θsa	1.50	°C/w/3"

XX6933



Per.	35.45	in.
WT.	1.85	lb/ft
Θsa	1.80	°C/w/3"

19036



Per.	65.83	in.
WT.	3.26	lb/ft
Θsa	1.06	°C/w/3"

B

19350



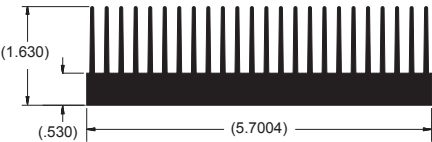
Per.	138.05	in.
WT.	7.10	lb/ft
Θsa	0.51	°C/w/3"

016253



Per.	41.36	in.
WT.	4.06	lb/ft
Θsa	2.00	°C/w/3"

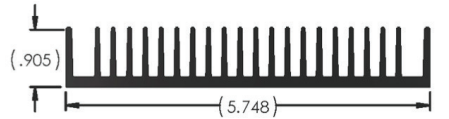
016138



Per.	64.08	in.
WT.	5.62	lb/ft
Θsa	2.20	°C/w/3"

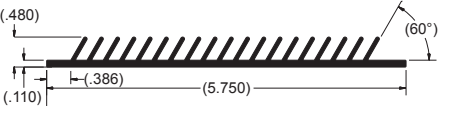
C

19155



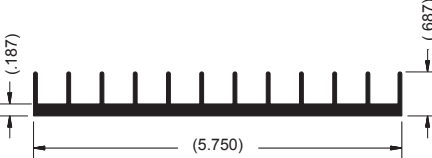
Per.	44.62	in.
WT.	2.73	lb/ft
Θsa	1.57	°C/w/3"

012671



Per.	26.67	in.
WT.	1.29	lb/ft
Θsa	2.60	°C/w/3"

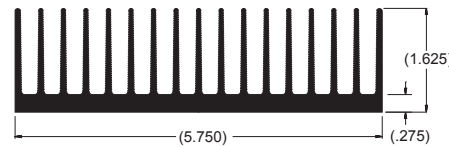
XX2903



Per.	23.87	in.
WT.	1.72	lb/ft
Θsa	2.80	°C/w/3"

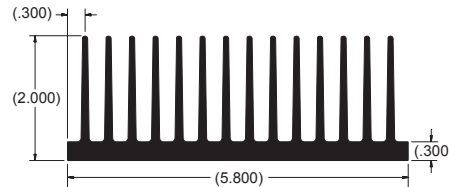
D

013532



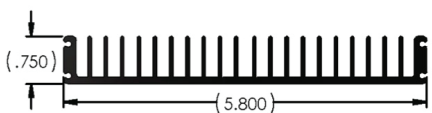
Per.	64.81	in.
WT.	4.02	lb/ft
Θsa	1.10	°C/w/3"

010248



Per.	59.80	in.
WT.	5.31	lb/ft
Θsa	1.20	°C/w/3"

15037

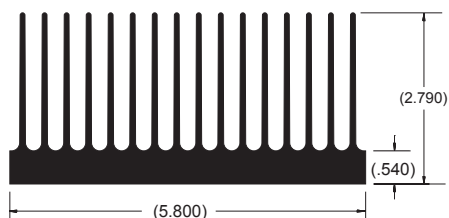


Per.	40.40	in.
WT.	1.89	lb/ft
Θsa	1.73	°C/w/3"



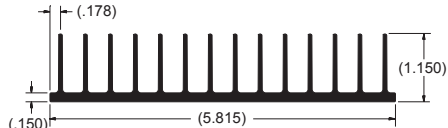
A

XX8415



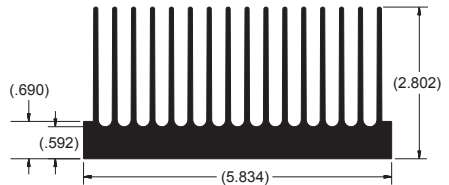
Per.	81.69	in.
WT.	7.37	lb/ft
Θsa	1.30	°C/w/3"

013237



Per.	38.67	in.
WT.	2.10	lb/ft
Θsa	1.80	°C/w/3"

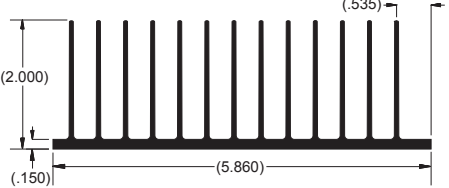
016060



Per.	81.06	in.
WT.	7.97	lb/ft
Θsa	1.30	°C/w/3"

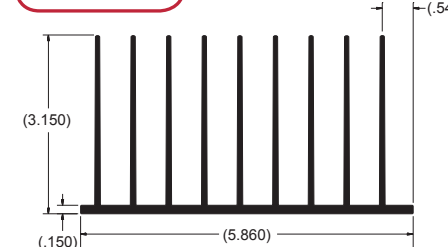
B

013601



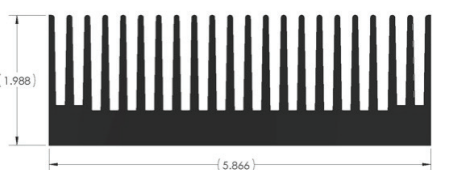
Per.	59.01	in.
WT.	2.86	lb/ft
Θsa	1.20	°C/w/3"

014462



Per.	65.25	in.
WT.	3.89	lb/ft
Θsa	1.10	°C/w/3"

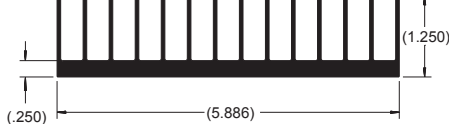
19343



Per.	74.30	in.
WT.	7.79	lb/ft
Θsa	0.94	°C/w/3"

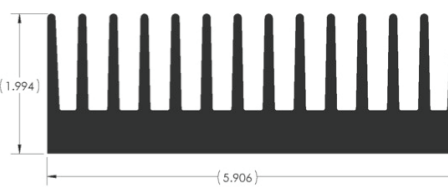
C

002981



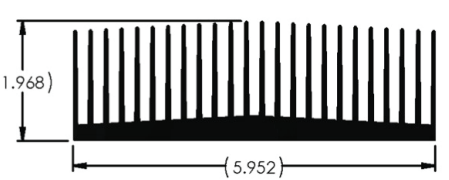
Per.	40.00	in.
WT.	2.90	lb/ft
Θsa	1.70	°C/w/3"

21257



Per.	49.78	in.
WT.	7.73	lb/ft
Θsa	1.40	°C/w/3"

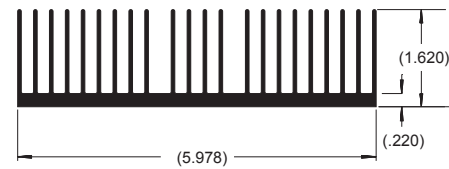
14407



Per.	85.79	in.
WT.	5.47	lb/ft
Θsa	0.81	°C/w/3"

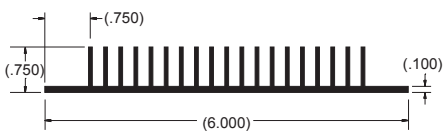
D

016168



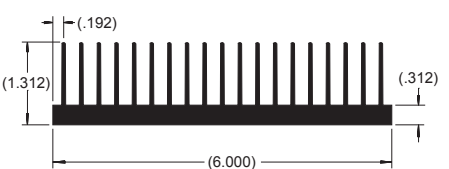
Per.	72.89	in.
WT.	3.78	lb/ft
Θsa	1.90	°C/w/3"

011743



Per.	36.74	in.
WT.	1.59	lb/ft
Θsa	1.90	°C/w/3"

012464

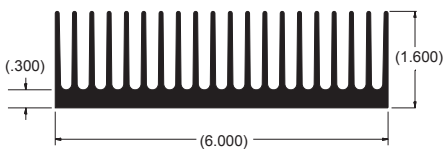


Per.	49.68	in.
WT.	3.61	lb/ft
Θsa	1.40	°C/w/3"



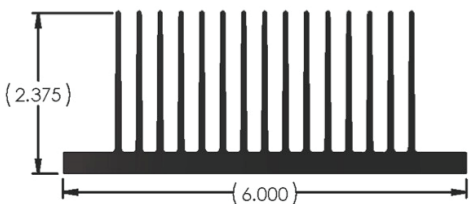
A

013796



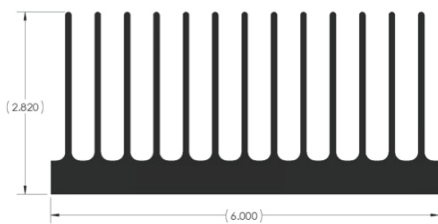
Per.	61.82	in.
WT.	4.76	lb/ft
θsa	1.10	°C/w/3"

19341



Per.	73.88	in.
WT.	5.07	lb/ft
θsa	0.95	°C/w/3"

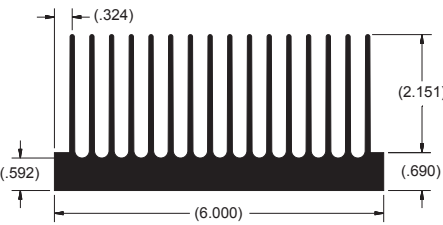
19864



Per.	70.81	in.
WT.	7.43	lb/ft
θsa	0.99	°C/w/3"

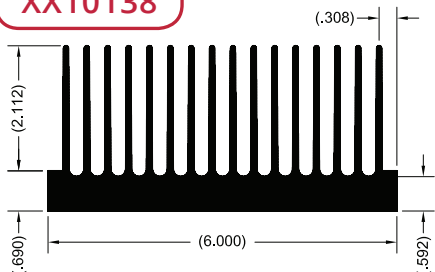
B

016070



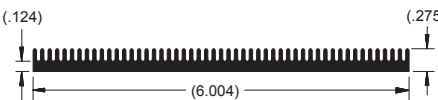
Per.	82.68	in.
WT.	8.16	lb/ft
θsa	1.60	°C/w/3"

XX10138



Per.	82.67	in.
WT.	8.17	lb/ft
θsa	0.97	°C/w/3"

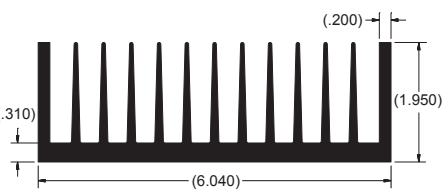
012054



Per.	25.08	in.
WT.	1.32	lb/ft
θsa	2.80	°C/w/3"

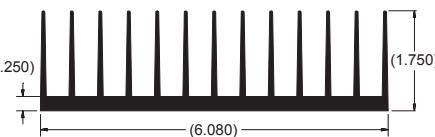
C

016250



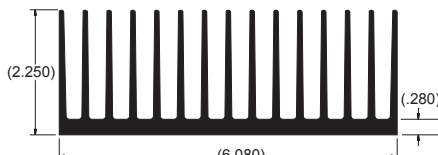
Per.	53.84	in.
WT.	5.27	lb/ft
θsa	1.40	°C/w/3"

XX6676



Per.	50.73	in.
WT.	3.56	lb/ft
θsa	1.30	°C/w/3"

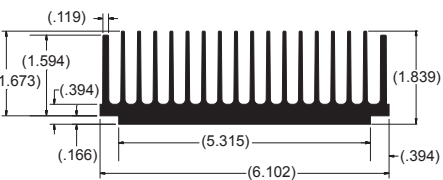
013277



Per.	69.93	in.
WT.	5.53	lb/ft
θsa	1.40	°C/w/3"

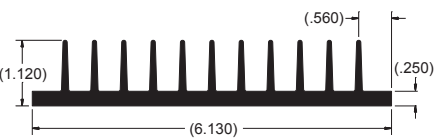
D

013512



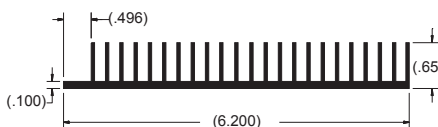
Per.	62.47	in.
WT.	5.21	lb/ft
θsa	1.10	°C/w/3"

XX2161



Per.	30.72	in.
WT.	2.96	lb/ft
θsa	1.80	°C/w/3"

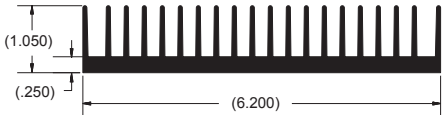
011425



Per.	37.71	in.
WT.	1.61	lb/ft
θsa	1.90	°C/w/3"

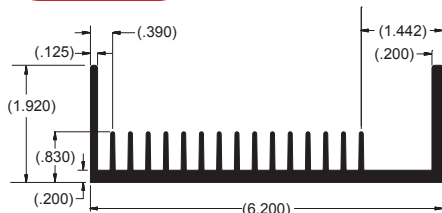
A

016188



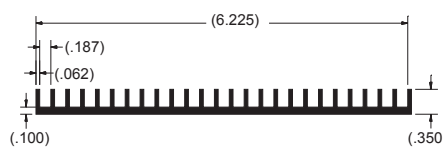
Per.	43.90	in.
WT.	3.38	lb/ft
θsa	2.50	°C/w/3"

016187



Per.	37.74	in.
WT.	3.05	lb/ft
θsa	2.70	°C/w/3"

012693



Per.	25.77	in.
WT.	1.24	lb/ft
θsa	2.70	°C/w/3"

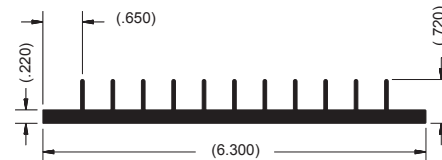
B

XX8144



Per.	61.81	in.
WT.	3.78	lb/ft
θsa	1.70	°C/w/3"

XX5067



Per.	23.76	in.
WT.	2.07	lb/ft
θsa	2.70	°C/w/3"

21848



Per.	40.03	in.
WT.	2.47	lb/ft
θsa	1.75	°C/w/3"

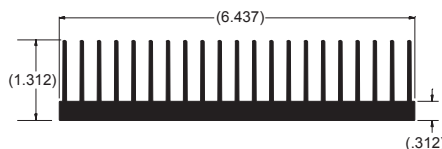
C

12382



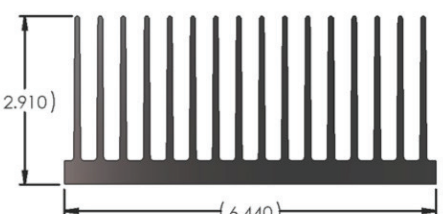
Per.	66.42	in.
WT.	3.81	lb/ft
θsa	1.05	°C/w/3"

003385



Per.	54.75	in.
WT.	4.03	lb/ft
θsa	1.30	°C/w/3"

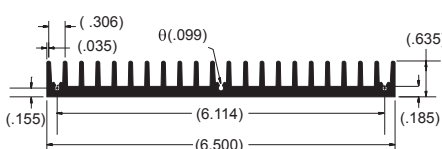
21107



Per.	91.72	in.
WT.	7.98	lb/ft
θsa	0.76	°C/w/3"

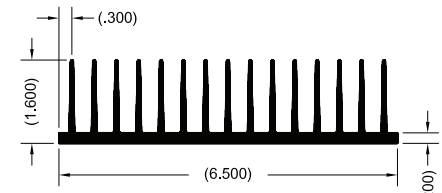
D

013266



Per.	32.29	in.
WT.	2.38	lb/ft
θsa	2.20	°C/w/3"

006664



Per.	56.00	in.
WT.	3.42	lb/ft
θsa	0.0	°C/w/3"

XX8403

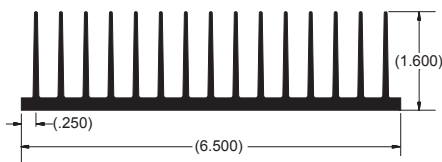


Per.	61.19	in.
WT.	5.49	lb/ft
θsa	1.30	°C/w/3"



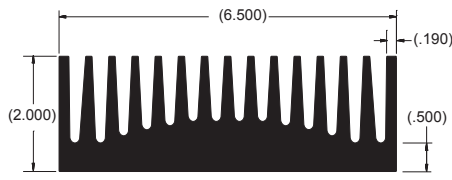
A

XX4509



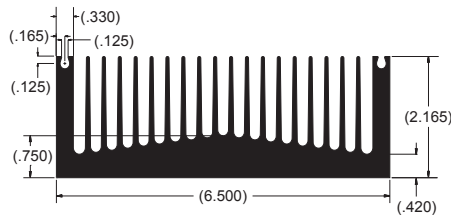
Per.	53.80	in.
WT.	3.45	lb/ft
Θsa	1.30	°C/w/3"

016593



Per.	50.24	in.
WT.	10.17	lb/ft
Θsa	1.60	°C/w/3"

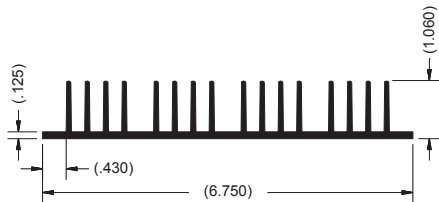
016607



Per.	75.67	in.
WT.	8.54	lb/ft
Θsa	1.40	°C/w/3"

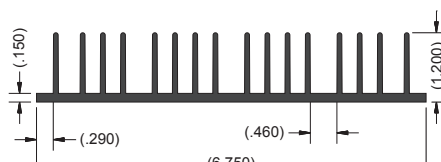
A

XX2494



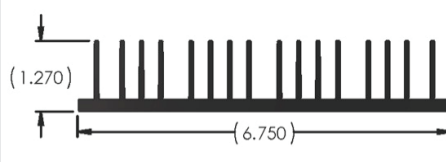
Per.	46.37	in.
WT.	2.65	lb/ft
Θsa	1.70	°C/w/3"

XX2027



Per.	46.69	in.
WT.	2.91	lb/ft
Θsa	1.40	°C/w/3"

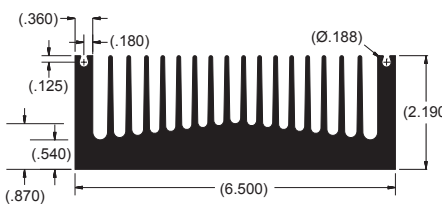
19596



Per.	47.01	in.
WT.	3.49	lb/ft
Θsa	1.49	°C/w/3"

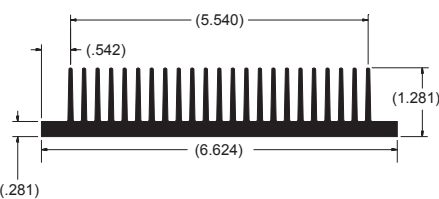
B

016222



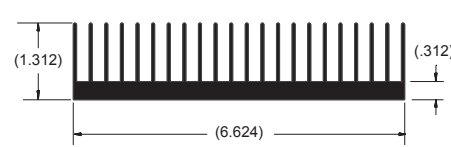
Per.	65.32	in.
WT.	9.66	lb/ft
Θsa	1.40	°C/w/3"

013621



Per.	57.72	in.
WT.	4.31	lb/ft
Θsa	2.70	°C/w/3"

XX7031



Per.	57.29	in.
WT.	4.12	lb/ft
Θsa	1.30	°C/w/3"

B

012116



Per.	56.90	in.
WT.	4.00	lb/ft
Θsa	1.60	°C/w/3"

015769



Per.	97.40	in.
WT.	6.53	lb/ft
Θsa	1.70	°C/w/3"

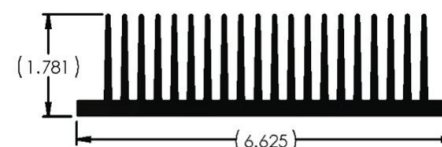
XX7029



Per.	57.28	in.
WT.	4.08	lb/ft
Θsa	1.30	°C/w/3"

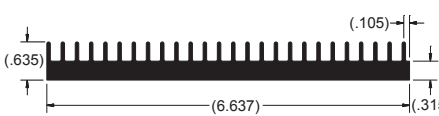
C

12714



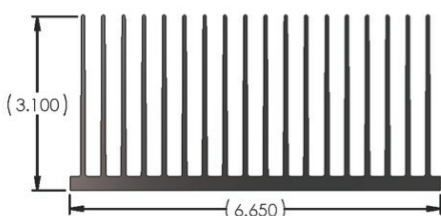
Per.	71.70	in.
WT.	5.99	lb/ft
Θsa	0.98	°C/w/3"

015906



Per.	29.17	in.
WT.	3.15	lb/ft
Θsa	3.30	°C/w/3"

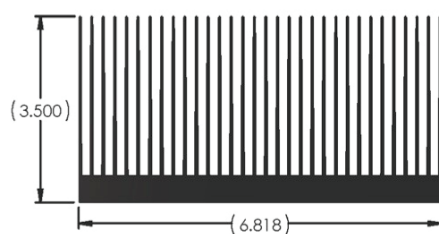
19679



Per.	116.00	in.
WT.	6.65	lb/ft
Θsa	0.60	°C/w/3"

C

19333



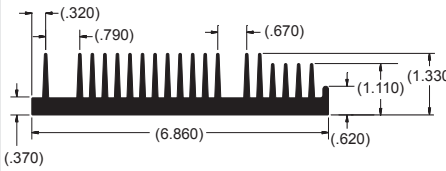
Per.	205.33	in.
WT.	9.80	lb/ft
Θsa	0.34	°C/w/3"

16335



Per.	53.53	in.
WT.	4.67	lb/ft
Θsa	1.31	°C/w/3"

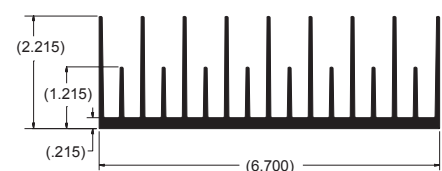
016362



Per.	47.30	in.
WT.	5.14	lb/ft
Θsa	2.50	°C/w/3"

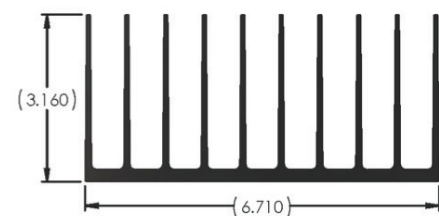
D

014746



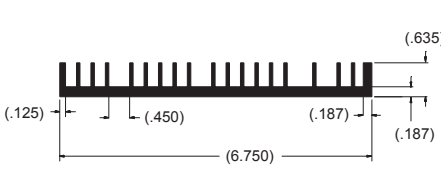
Per.	65.00	in.
WT.	3.80	lb/ft
Θsa	1.20	°C/w/3"

21081



Per.	70.97	in.
WT.	5.55	lb/ft
Θsa	0.99	°C/w/3"

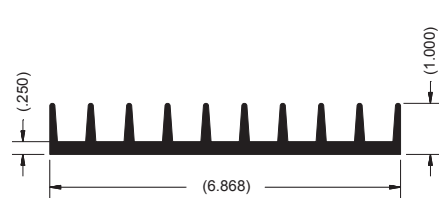
013659



Per.	31.75	in.
WT.	2.40	lb/ft
Θsa	2.20	°C/w/3"

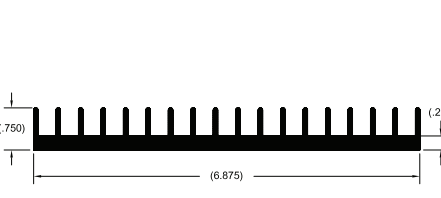
D

XX2071



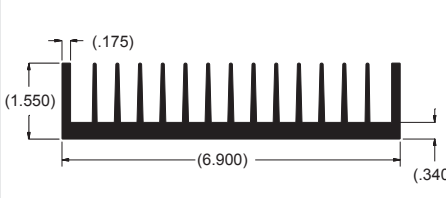
Per.	27.94	in.
WT.	3.33	lb/ft
Θsa	1.90	°C/w/3"

015633

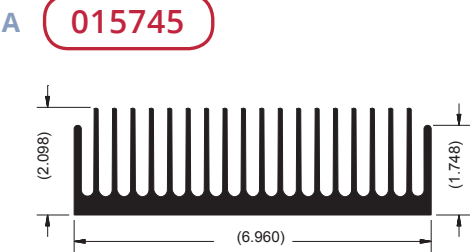


Per.	31.38	in.
WT.	2.86	lb/ft
Θsa	2.30	°C/w/3"

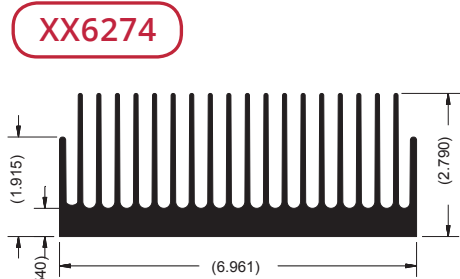
016290



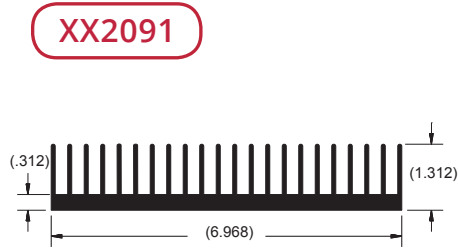
Per.	49.47	in.
WT.	5.04	lb/ft
Θsa	1.50	°C/w/3"



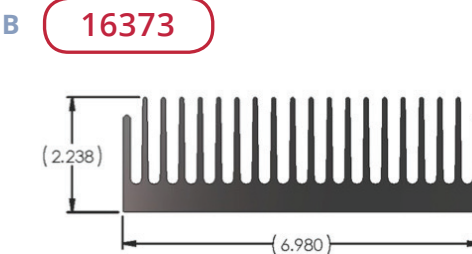
Per.	79.31	in.
WT.	6.91	lb/ft
θsa	1.40	°C/w/3"



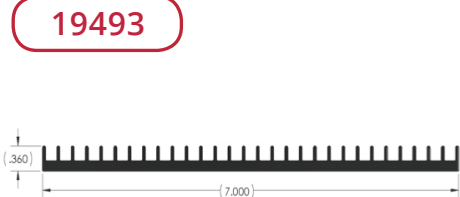
Per.	97.90	in.
WT.	9.15	lb/ft
θsa	0.80	°C/w/3"



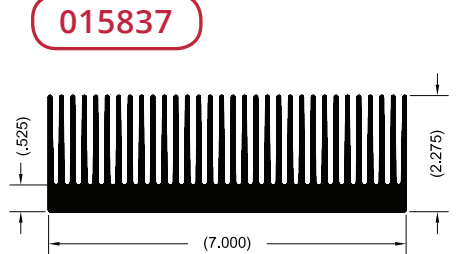
Per.	57.81	in.
WT.	4.70	lb/ft
θsa	1.20	°C/w/3"



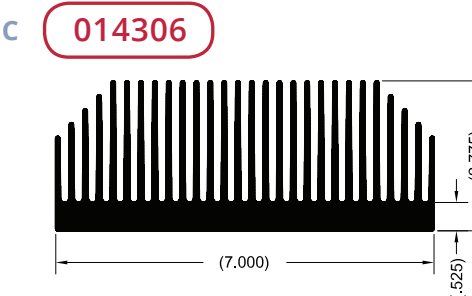
Per.	78.13	in.
WT.	8.87	lb/ft
θsa	0.89	°C/w/3"



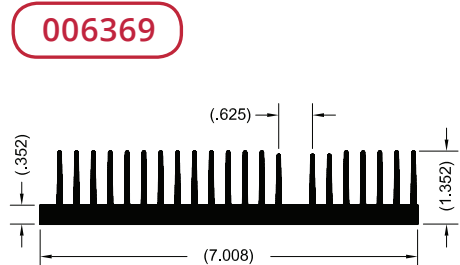
Per.	26.00	in.
WT.	1.63	lb/ft
θsa	2.69	°C/w/3"



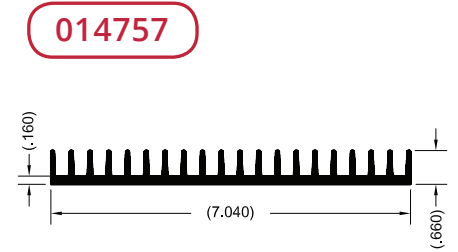
Per.	123.97	in.
WT.	9.16	lb/ft
θsa	1.30	°C/w/3"



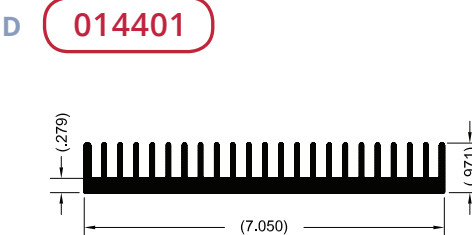
Per.	127.28	in.
WT.	10.34	lb/ft
θsa	0.90	°C/w/3"



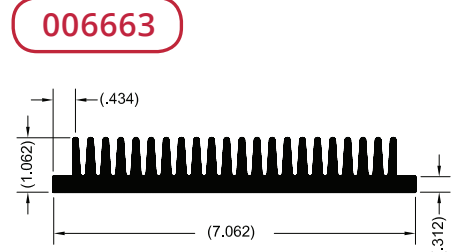
Per.	54.70	in.
WT.	4.57	lb/ft
θsa	1.70	°C/w/3"



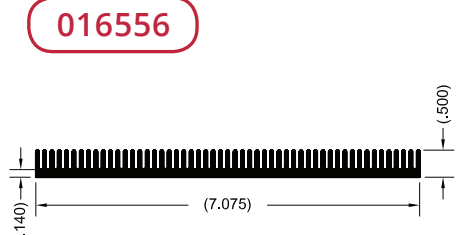
Per.	33.06	in.
WT.	2.34	lb/ft
θsa	2.10	°C/w/3"



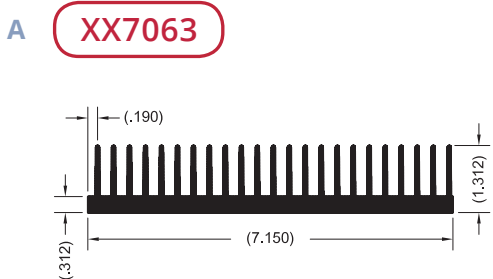
Per.	45.17	in.
WT.	3.79	lb/ft
θsa	1.60	°C/w/3"



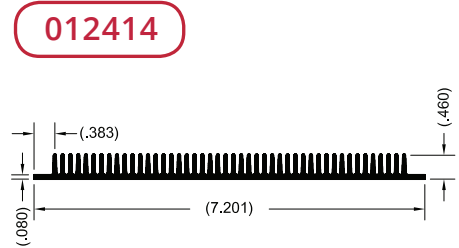
Per.	44.10	in.
WT.	5.28	lb/ft
θsa	2.50	°C/w/3"



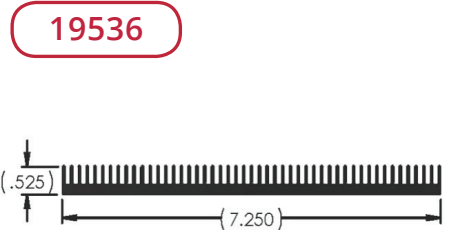
Per.	49.55	in.
WT.	2.47	lb/ft
θsa	5.30	°C/w/3"



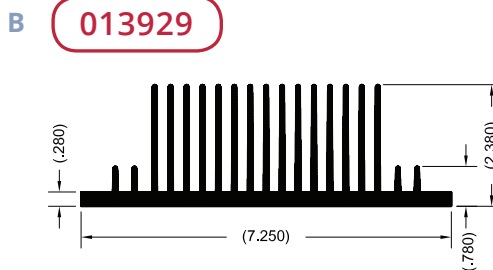
Per.	59.37	in.
WT.	4.74	lb/ft
θsa	1.20	°C/w/3"



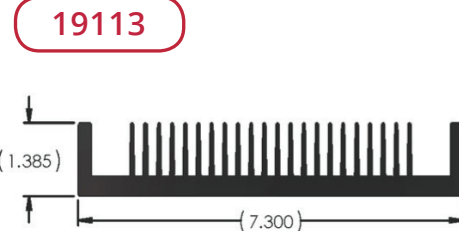
Per.	46.41	in.
WT.	1.77	lb/ft
θsa	1.50	°C/w/3"



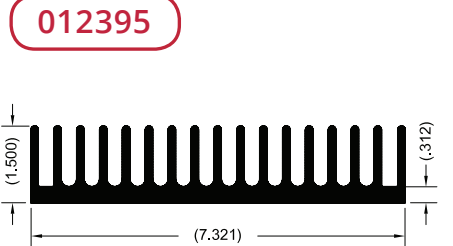
Per.	47.12	in.
WT.	2.77	lb/ft
θsa	1.48	°C/w/3"



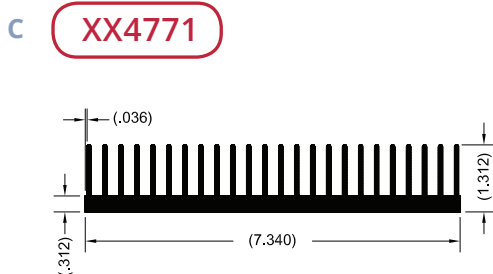
Per.	80.79	in.
WT.	6.03	lb/ft
θsa	0.90	°C/w/3"



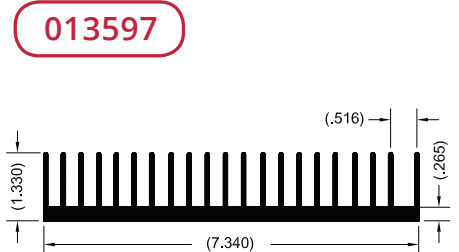
Per.	62.04	in.
WT.	5.99	lb/ft
θsa	1.13	°C/w/3"



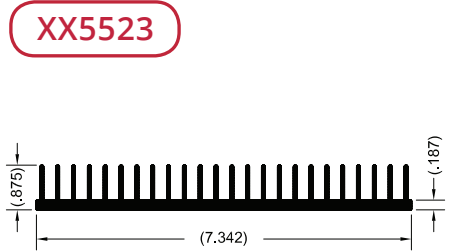
Per.	52.74	in.
WT.	6.18	lb/ft
θsa	1.30	°C/w/3"



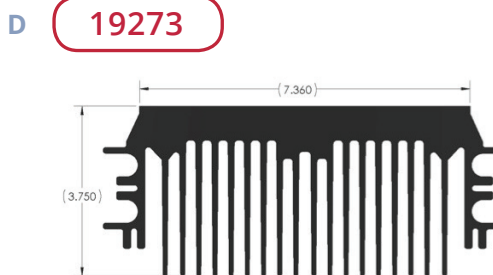
Per.	61.75	in.
WT.	4.54	lb/ft
θsa	1.10	°C/w/3"



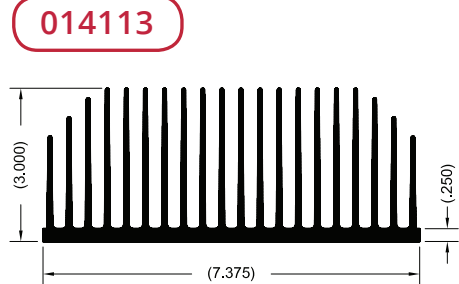
Per.	59.05	in.
WT.	4.20	lb/ft
θsa	1.20	°C/w/3"



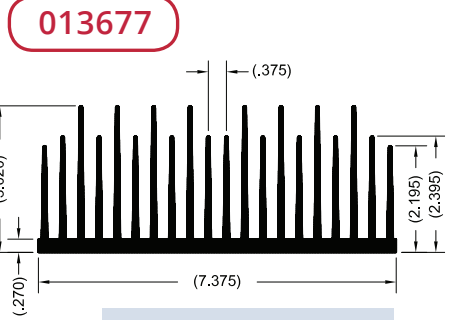
Per.	46.78	in.
WT.	2.88	lb/ft
θsa	1.80	°C/w/3"



Per.	136.54	in.
WT.	17.21	lb/ft
θsa	0.51	°C/w/3"



Per.	116.11	in.
WT.	7.30	lb/ft
θsa	0.60	°C/w/3"

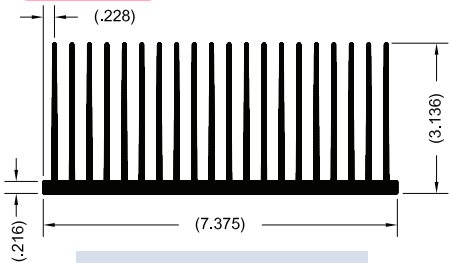


Per.	107.22	in.
WT.	7.68	lb/ft
θsa	0.60	°C/w/3"



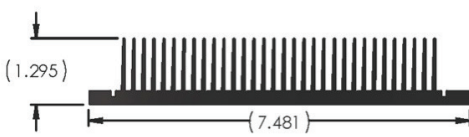
A

XX5113



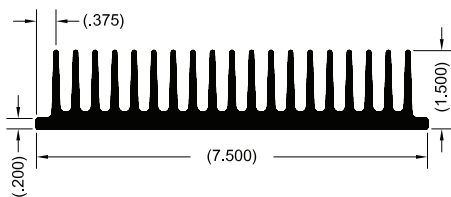
Per.	132.30	in.
WT.	6.56	lb/ft
θsa	0.68	°C/w/3"

21408



Per.	79.52	in.
WT.	4.99	lb/ft
θsa	0.88	°C/w/3"

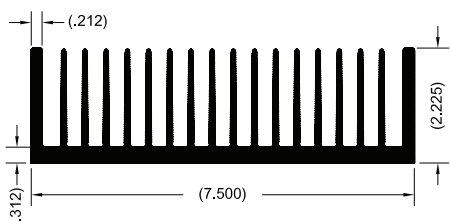
014468



Per.	56.88	in.
WT.	5.47	lb/ft
θsa	1.20	°C/w/3"

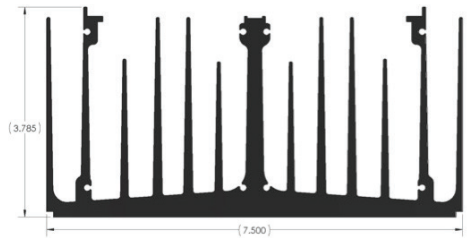
B

012504



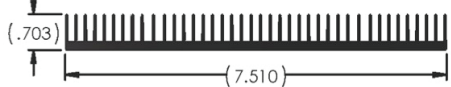
Per.	94.48	in.
WT.	6.95	lb/ft
θsa	0.70	°C/w/3"

19535



Per.	95.28	in.
WT.	9.50	lb/ft
θsa	0.73	°C/w/3"

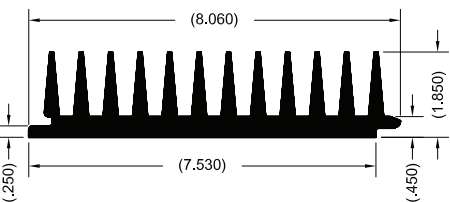
19721



Per.	56.67	in.
WT.	2.73	lb/ft
θsa	1.23	°C/w/3"

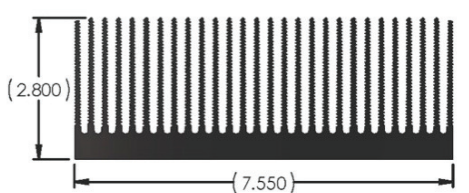
C

016133



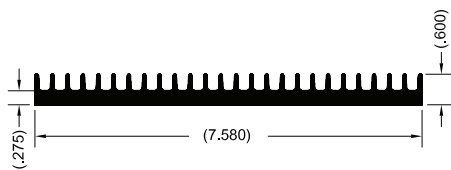
Per.	47.88	in.
WT.	8.12	lb/ft
θsa	1.30	°C/w/3"

19832



Per.	208.02	in.
WT.	10.93	lb/ft
θsa	0.34	°C/w/3"

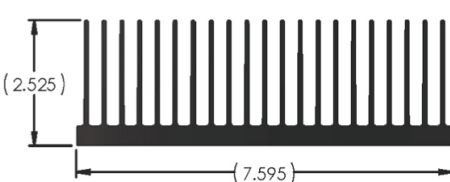
012843



Per.	30.40	in.
WT.	3.13	lb/ft
θsa	2.20	°C/w/3"

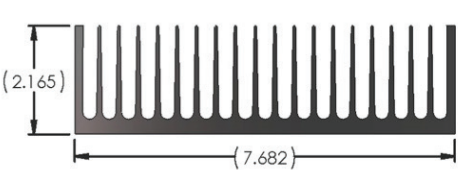
D

19700



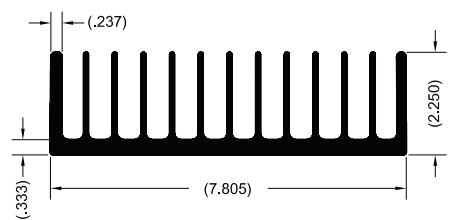
Per.	103.36	in.
WT.	8.22	lb/ft
θsa	0.68	°C/w/3"

19275



Per.	87.12	in.
WT.	6.94	lb/ft
θsa	0.80	°C/w/3"

XX8077

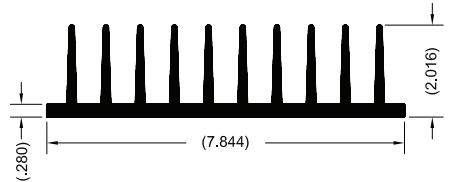


Per.	63.84	in.
WT.	6.56	lb/ft
θsa	1.00	°C/w/3"



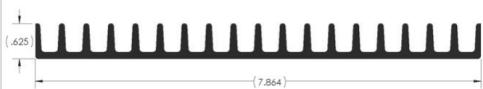
A

014085



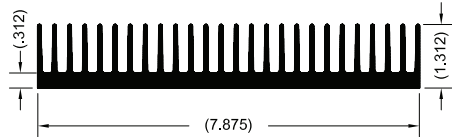
Per.	49.41	in.
WT.	5.72	lb/ft
θsa	1.40	°C/w/3"

19052



Per.	32.65	in.
WT.	2.58	lb/ft
θsa	2.14	°C/w/3"

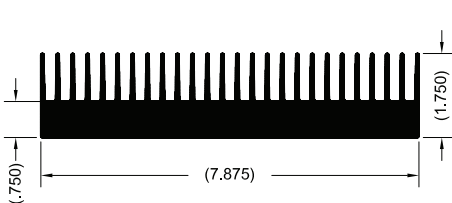
XX2009



Per.	65.91	in.
WT.	4.30	lb/ft
θsa	1.20	°C/w/3"

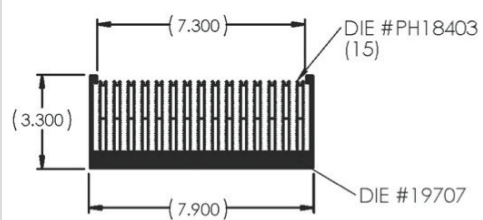
B

XX2074



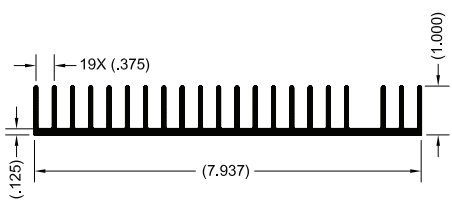
Per.	66.79	in.
WT.	9.30	lb/ft
θsa	1.10	°C/w/3"

19707 & PH18403



Per.	227.36	in.
WT.	45.85	lb/ft
θsa	0.31	°C/w/3"

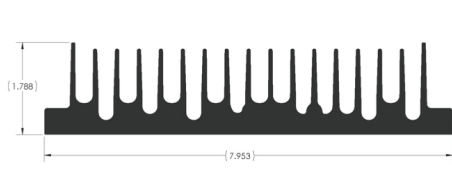
XX4483



Per.	51.78	in.
WT.	2.56	lb/ft
θsa	1.50	°C/w/3"

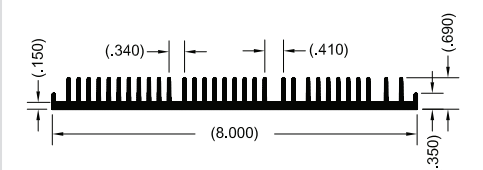
C

19902



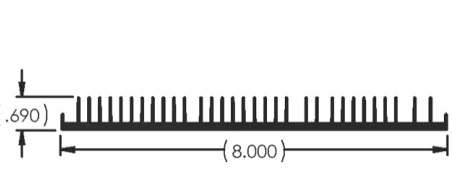
Per.	54.81	in.
WT.	7.33	lb/ft
θsa	1.28	°C/w/3"

013068



Per.	49.28	in.
WT.	2.56	lb/ft
θsa	1.40	°C/w/3"

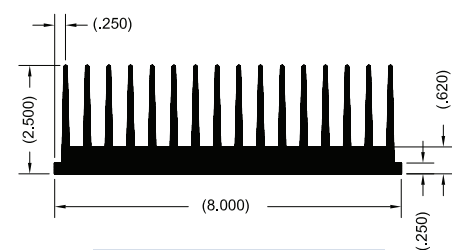
13068



Per.	49.30	in.
WT.	2.56	lb/ft
θsa	1.42	°C/w/3"

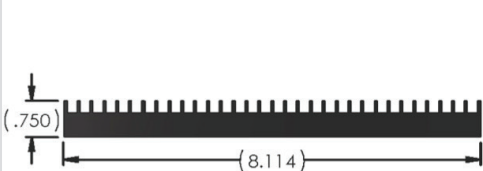
D

XX2095



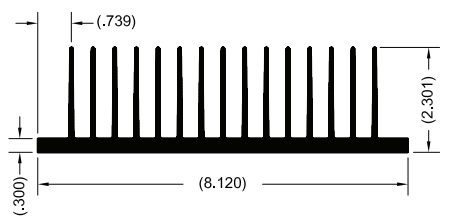
Per.	75.57	in.
WT.	9.53	lb/ft
θsa	0.96	°C/w/3"

16486

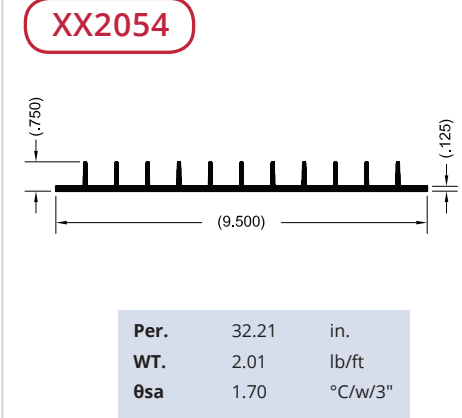
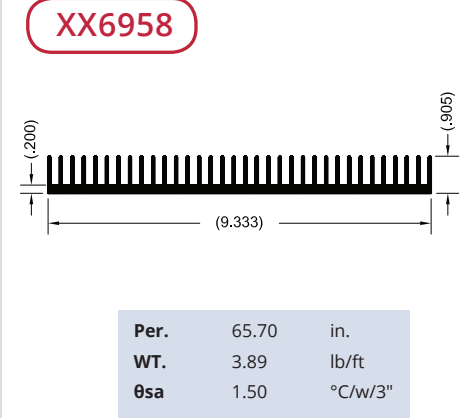
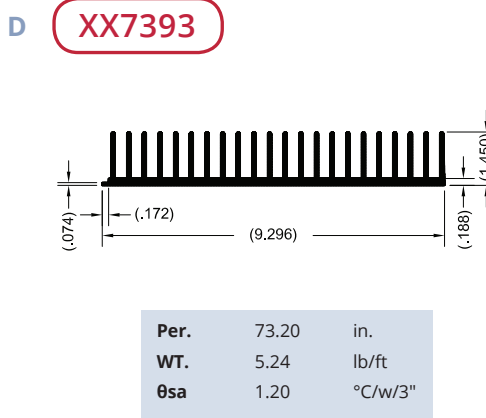
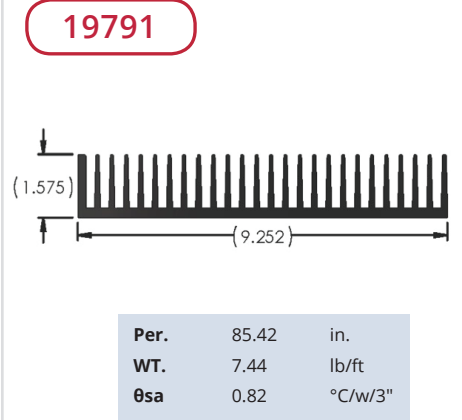
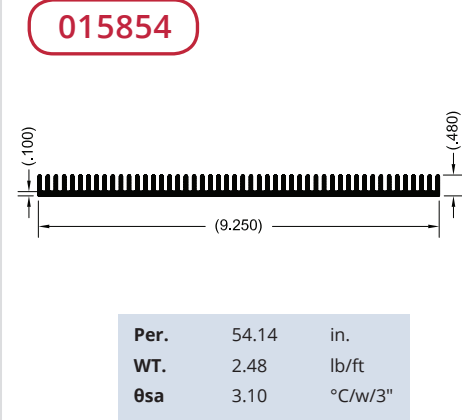
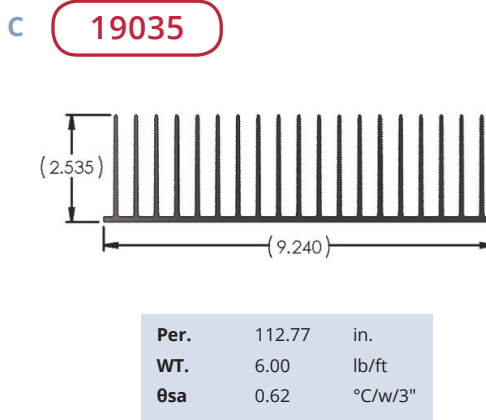
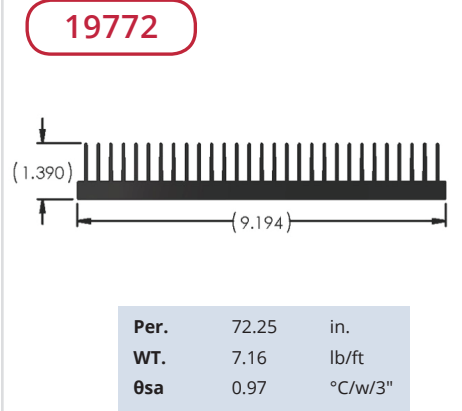
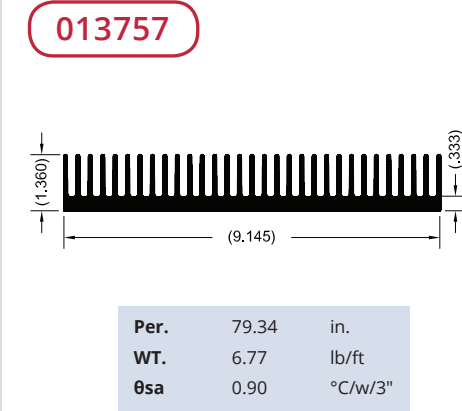
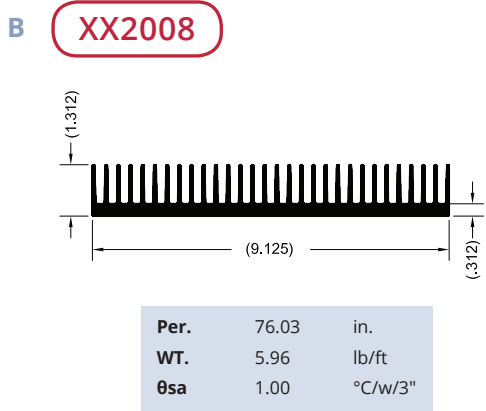
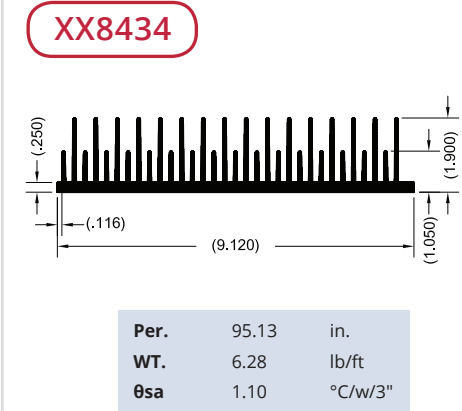
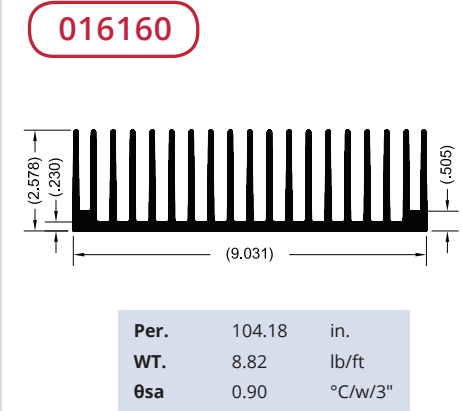
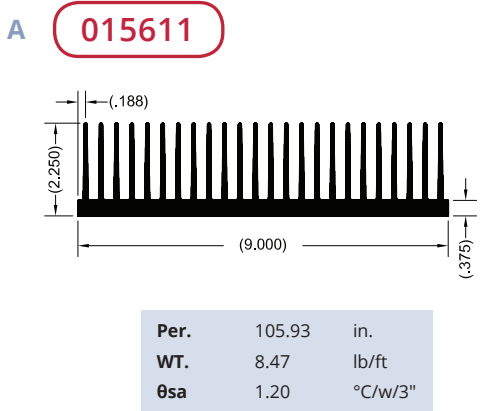
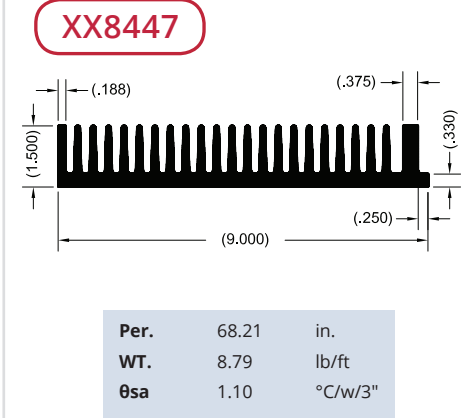
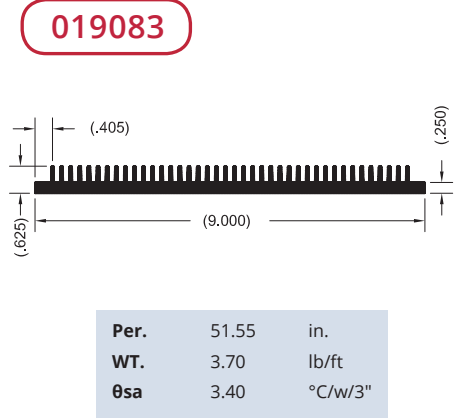
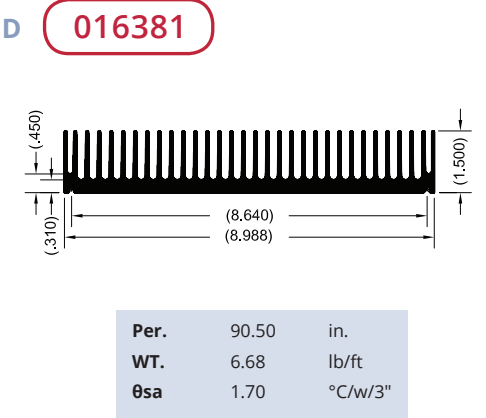
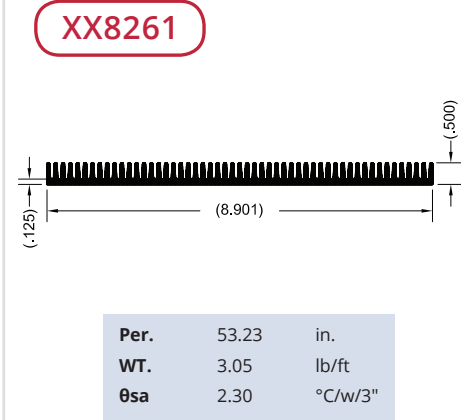
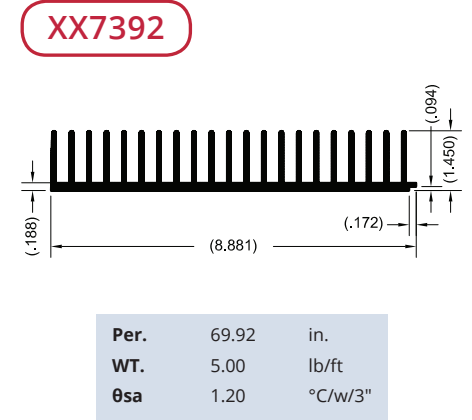
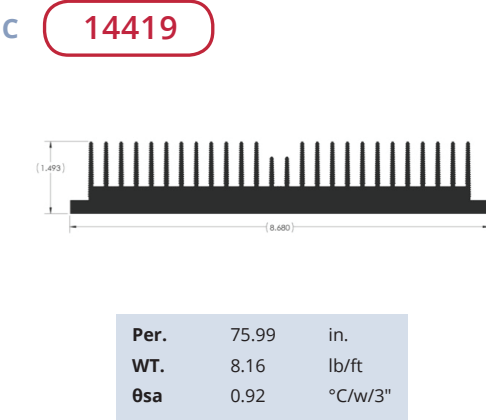
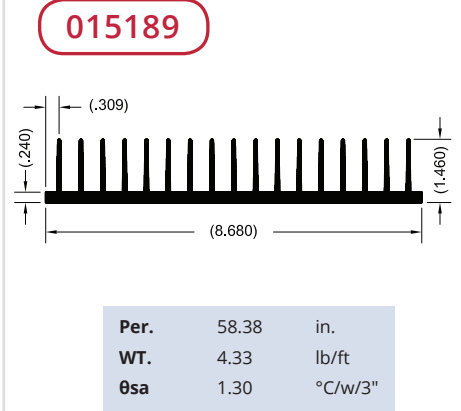
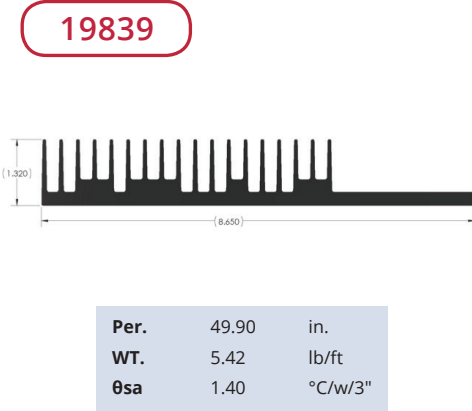
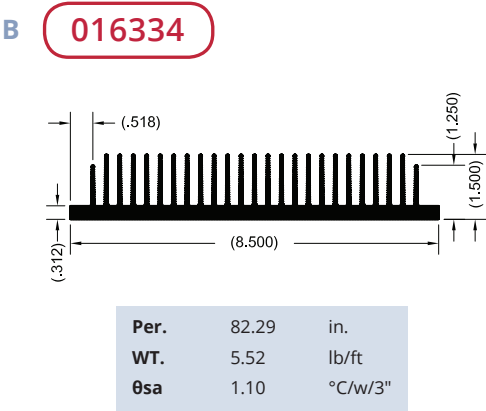
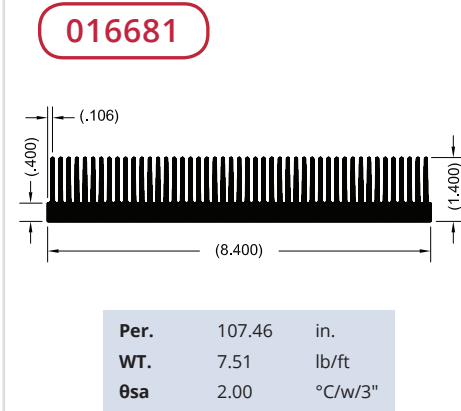
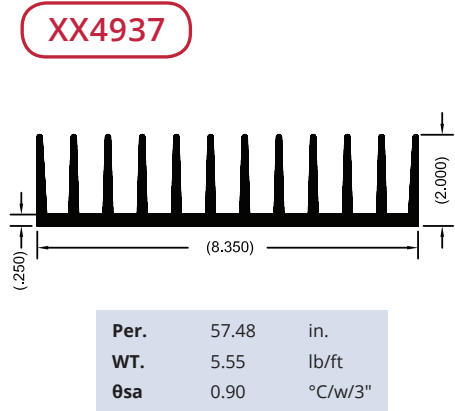
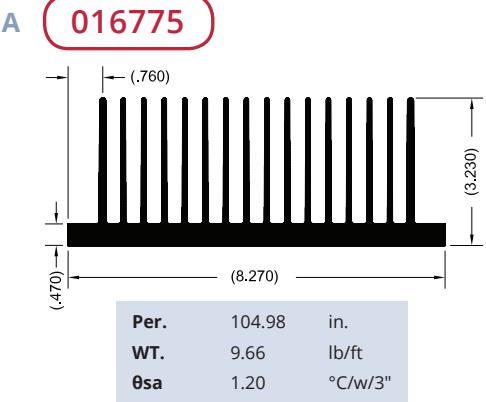


Per.	33.41	in.
WT.	5.52	lb/ft
θsa	2.09	°C/w/3"

016200

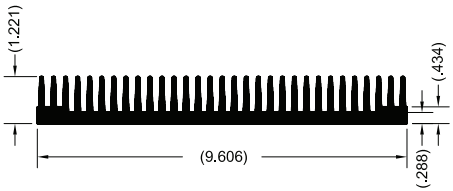


Per.	75.42	in.
WT.	5.67	lb/ft
θsa	1.30	°C/w/3"



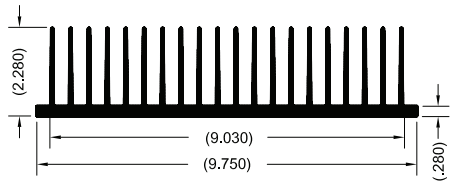
A

016789



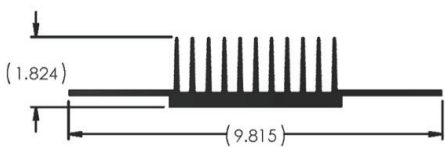
Per.	73.30	in.
WT.	7.25	lb/ft
θsa	2.10	°C/w/3"

XX5384



Per.	98.46	in.
WT.	7.40	lb/ft
θsa	0.75	°C/w/3"

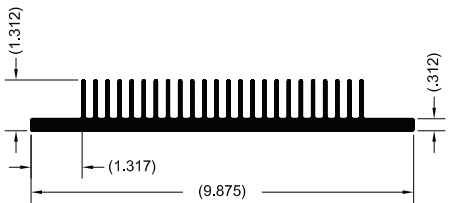
16758



Per.	55.45	in.
WT.	5.02	lb/ft
θsa	1.26	°C/w/3"

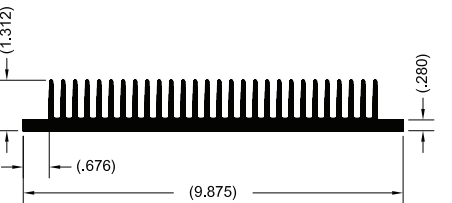
B

XX2021



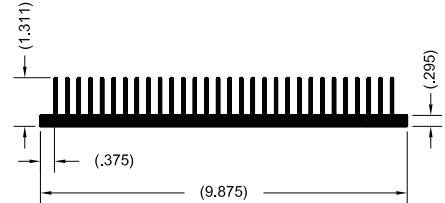
Per.	66.42	in.
WT.	5.58	lb/ft
θsa	1.20	°C/w/3"

XX2017



Per.	73.22	in.
WT.	6.38	lb/ft
θsa	1.10	°C/w/3"

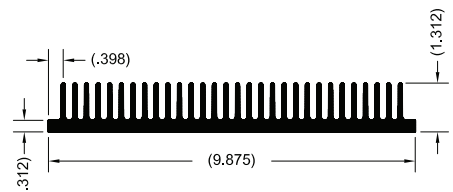
XX1703



Per.	78.03	in.
WT.	6.15	lb/ft
θsa	0.91	°C/w/3"

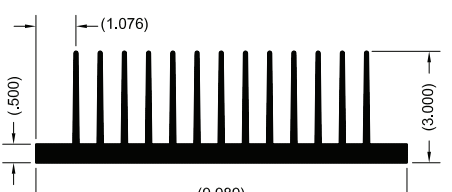
C

013849



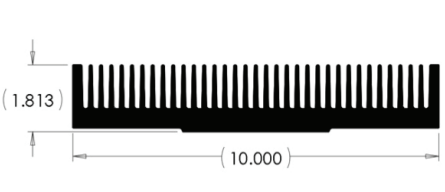
Per.	76.21	in.
WT.	7.25	lb/ft
θsa	1.00	°C/w/3"

015774



Per.	84.68	in.
WT.	10.74	lb/ft
θsa	0.90	°C/w/3"

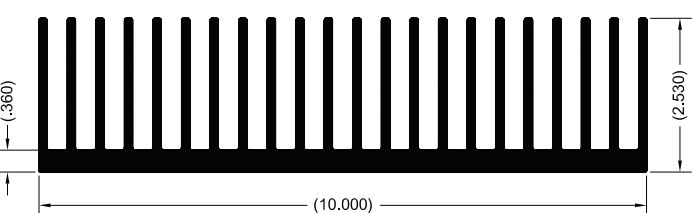
21265



Per.	100.37	in.
WT.	12.27	lb/ft
θsa	0.70	°C/w/3"

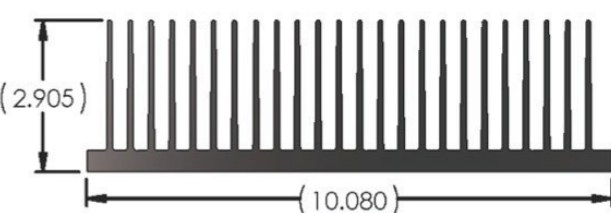
D

013953



Per.	114.78	in.
WT.	11.26	lb/ft
θsa	0.60	°C/w/3"

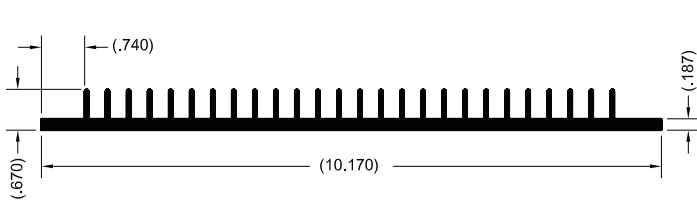
21052



Per.	137.98	in.
WT.	12.10	lb/ft
θsa	0.51	°C/w/3"

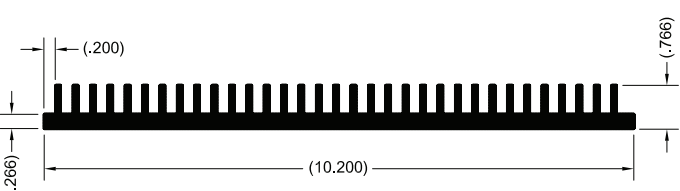
A

XX2194



Per.	45.13	in.
WT.	3.24	lb/ft
θsa	1.50	°C/w/3"

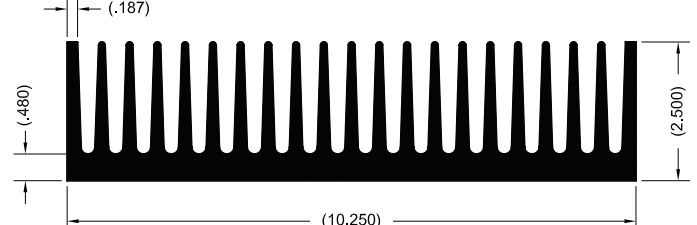
015138



Per.	53.93	in.
WT.	5.24	lb/ft
θsa	1.30	°C/w/3"

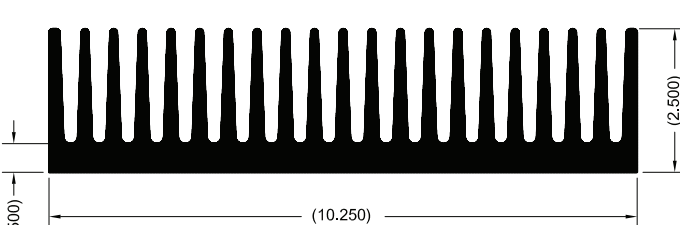
B

014236



Per.	100.80	in.
WT.	15.28	lb/ft
θsa	1.10	°C/w/3"

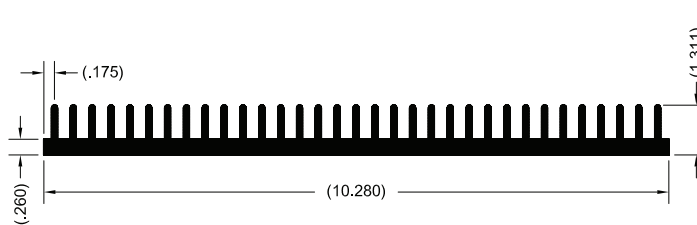
XX5772



Per.	99.79	in.
WT.	15.90	lb/ft
θsa	0.71	°C/w/3"

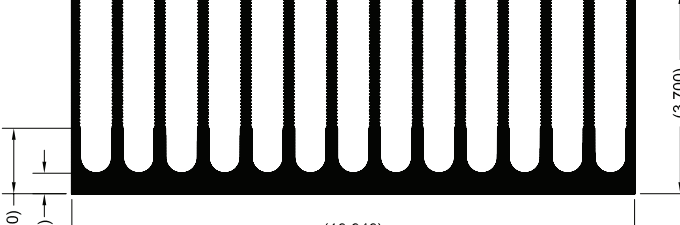
C

XX10087



Per.	56.77	in.
WT.	5.17	lb/ft
θsa	1.40	°C/w/3"

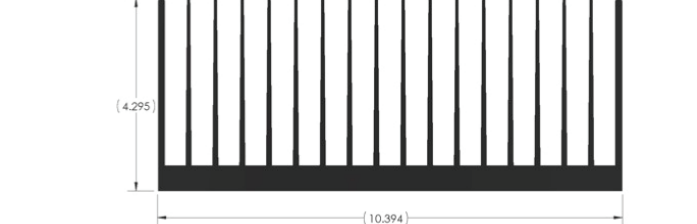
XX7253



Per.	151.74	in.
WT.	13.89	lb/ft
θsa	0.69	°C/w/3"

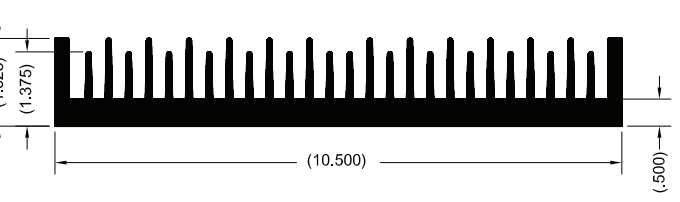
D

17096

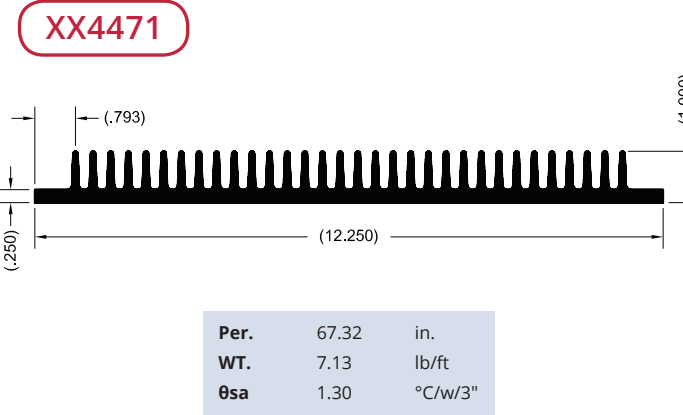
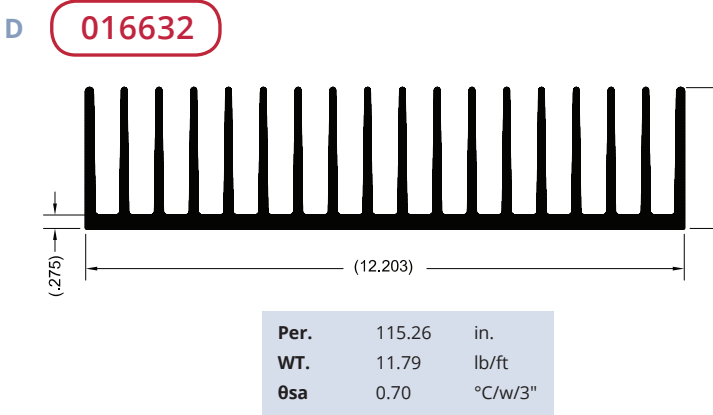
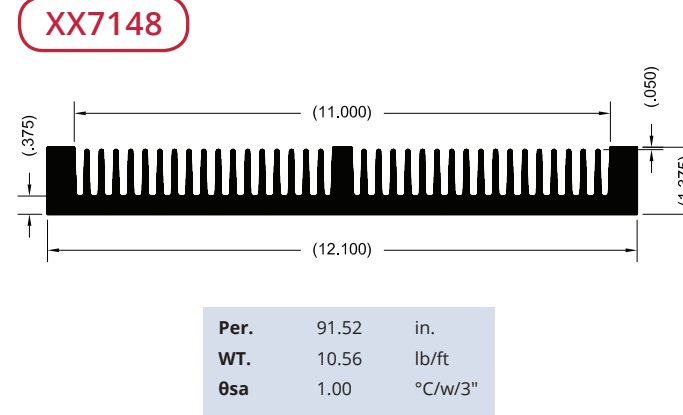
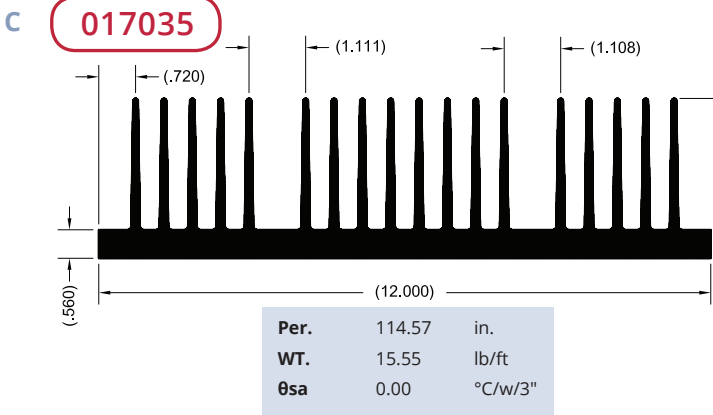
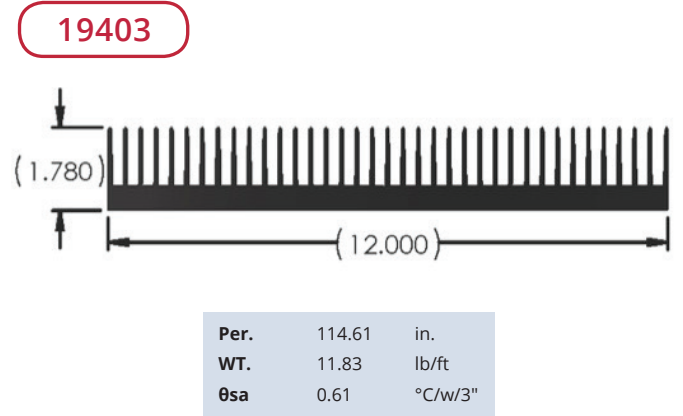
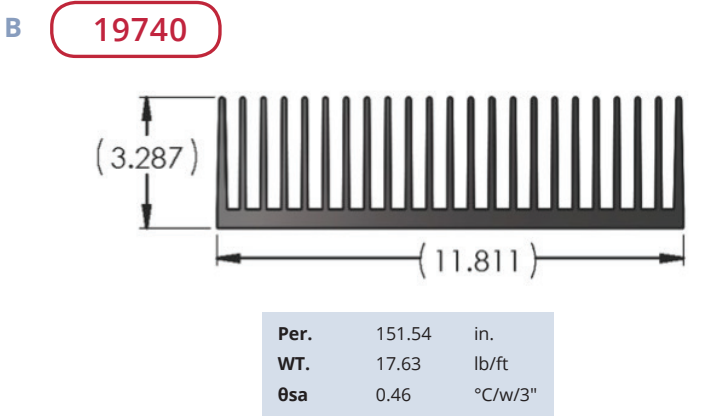
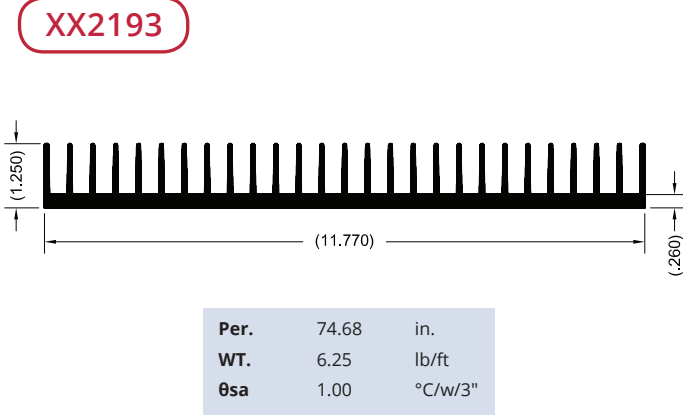
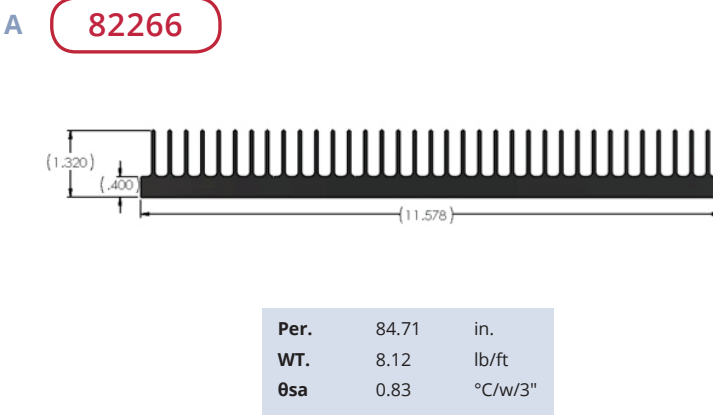
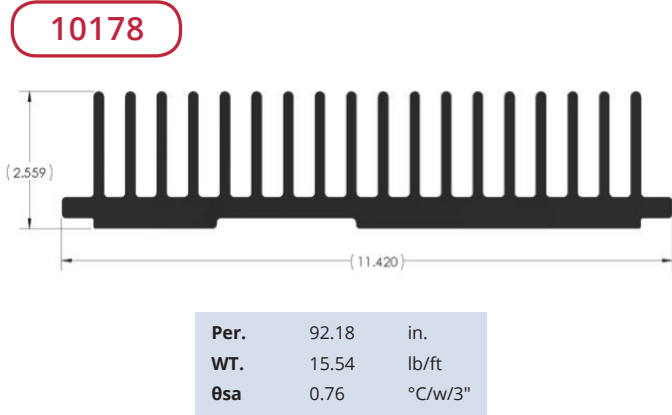
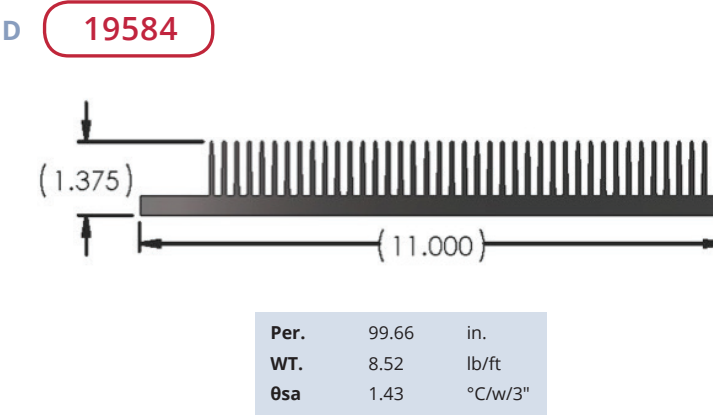
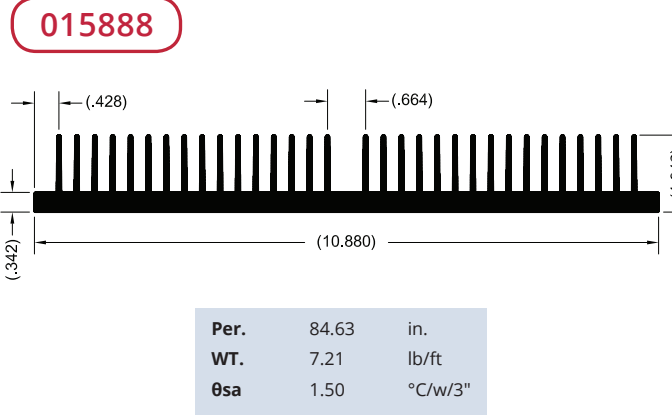
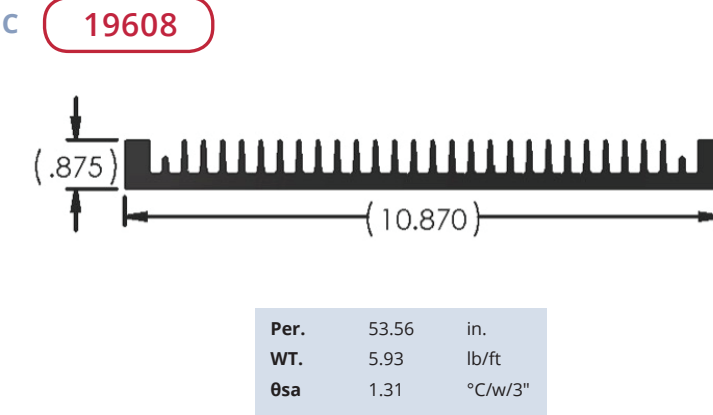
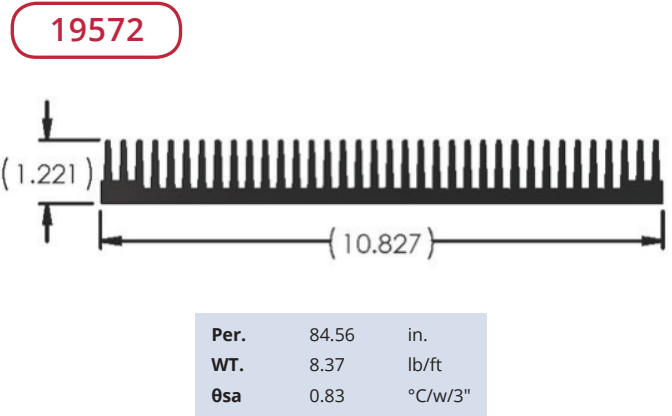
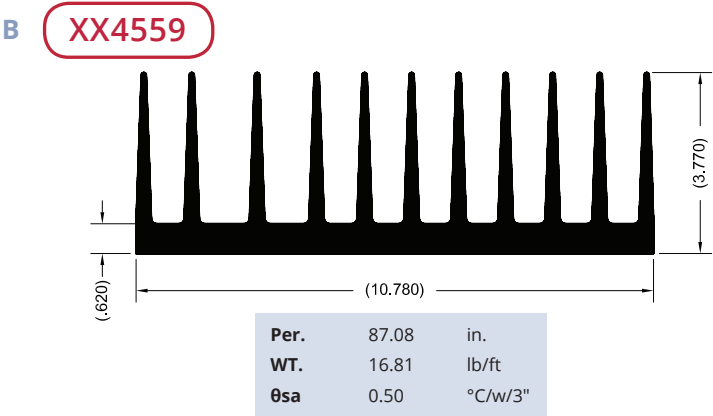
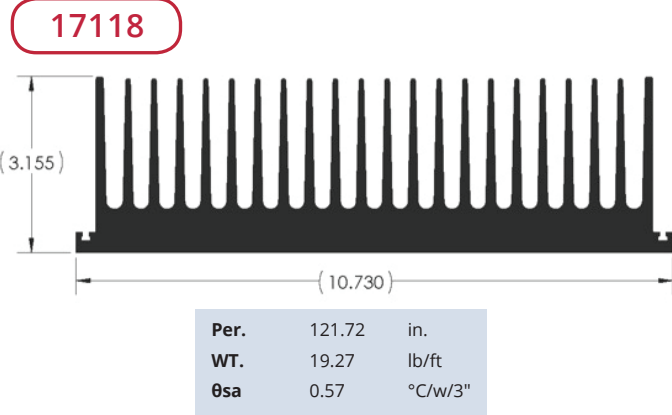
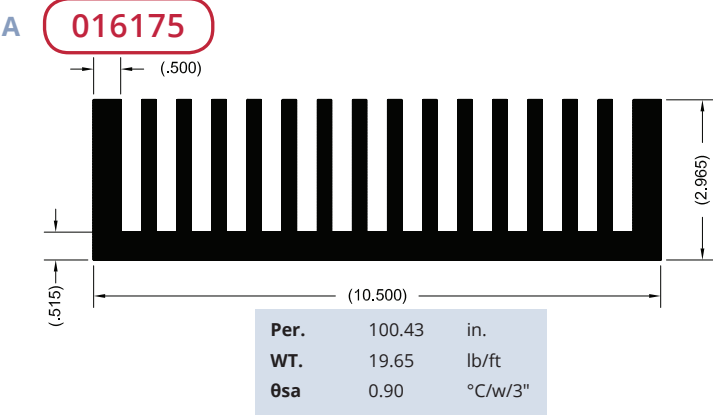


Per.	154.23	in.
WT.	15.86	lb/ft
θsa	0.45	°C/w/3"

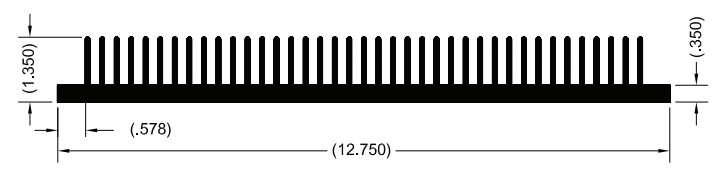
016990



Per.	75.47	in.
WT.	10.06	lb/ft
θsa	1.30	°C/w/3"

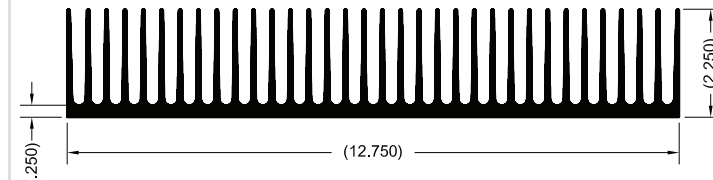


A XX2170



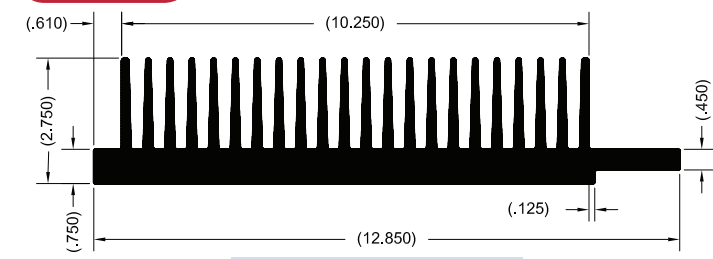
Per.	102.86	in.
WT.	9.07	lb/ft
θsa	0.60	°C/w/3"

XX2044



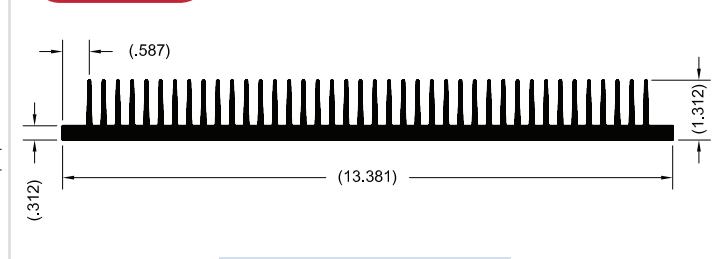
Per.	155.65	in.
WT.	11.00	lb/ft
θsa	0.56	°C/w/3"

B XX7214



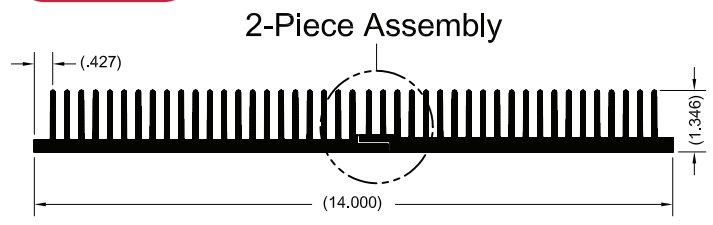
Per.	110.91	in.
WT.	18.71	lb/ft
θsa	0.65	°C/w/3"

XX5429



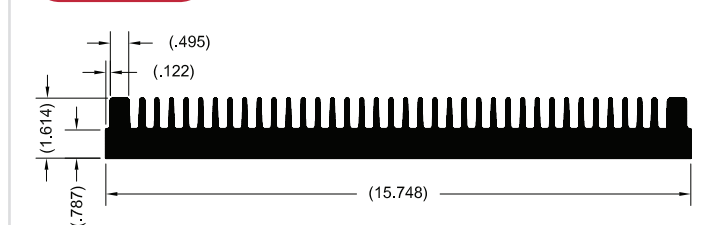
Per.	110.91	in.
WT.	18.71	lb/ft
θsa	0.65	°C/w/3"

C 013772



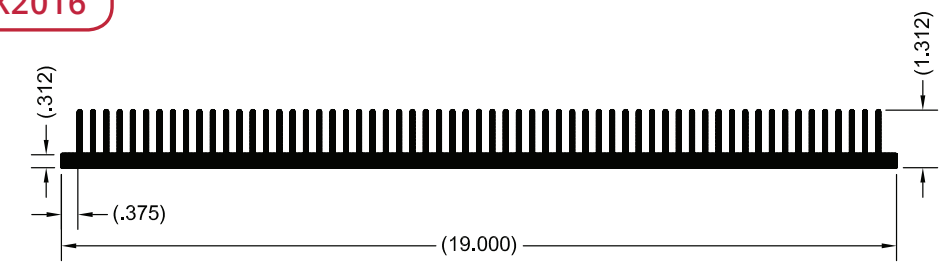
Per.	60.84	in.
WT.	5.08	lb/ft
θsa	0.60	°C/w/3"

016543



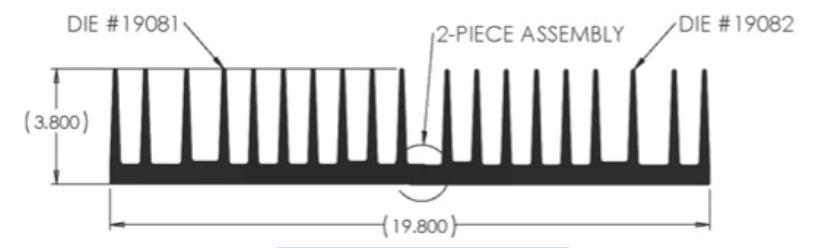
Per.	91.53	in.
WT.	19.20	lb/ft
θsa	1.10	°C/w/3"

D XX2016



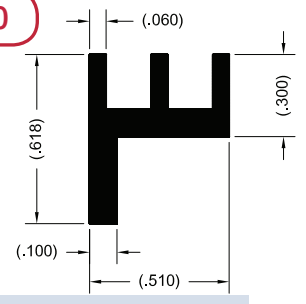
Per.	110.91	in.
WT.	18.71	lb/ft
θsa	0.65	°C/w/3"

A 19081 & 19082



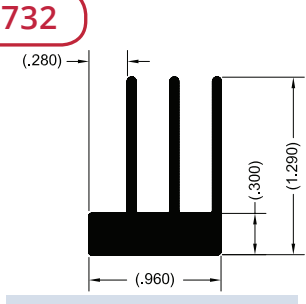
Per.	153.20	in.
WT.	30.19	lb/ft
θsa	0.46	°C/w/3"

B 009350



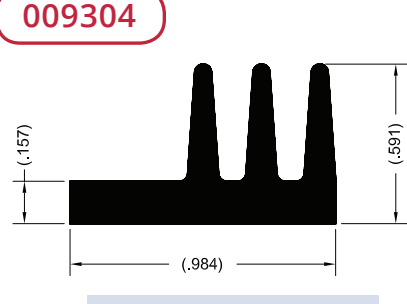
Per.	3.07	in.
WT.	0.14	lb/ft
θsa	22.80	°C/w/3"

012732



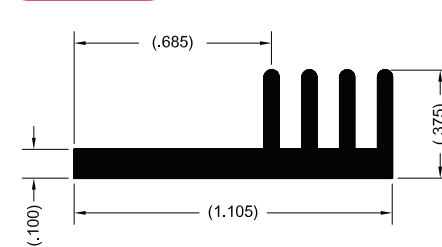
Per.	8.22	in.
WT.	0.56	lb/ft
θsa	6.50	°C/w/3"

009304



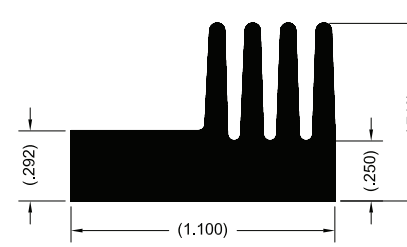
Per.	4.89	in.
WT.	0.33	lb/ft
θsa	14.30	°C/w/3"

C 009893



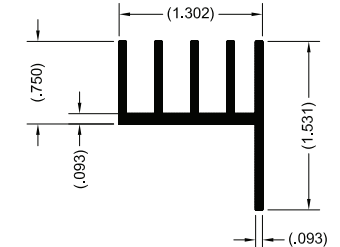
Per.	4.61	in.
WT.	0.20	lb/ft
θsa	15.20	°C/w/3"

013691



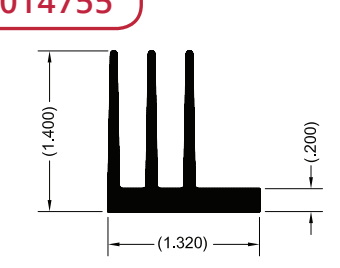
Per.	6.31	in.
WT.	0.52	lb/ft
θsa	11.10	°C/w/3"

XX5269



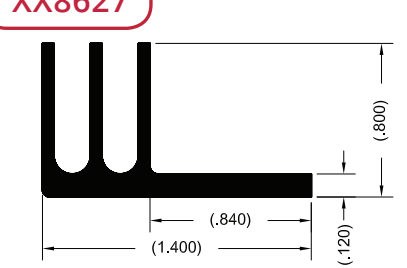
Per.	10.92	in.
WT.	0.48	lb/ft
θsa	7.30	°C/w/3"

D 014755



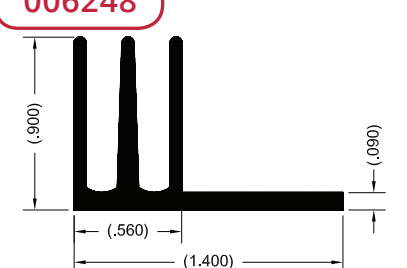
Per.	9.97	in.
WT.	0.63	lb/ft
θsa	5.70	°C/w/3"

XX8627

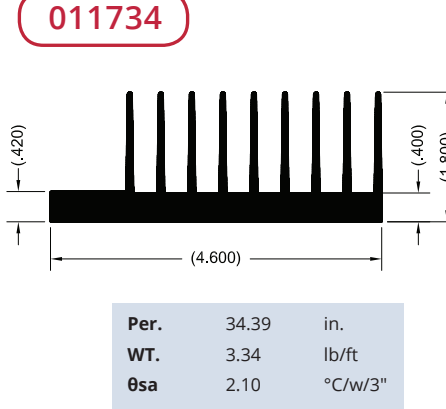
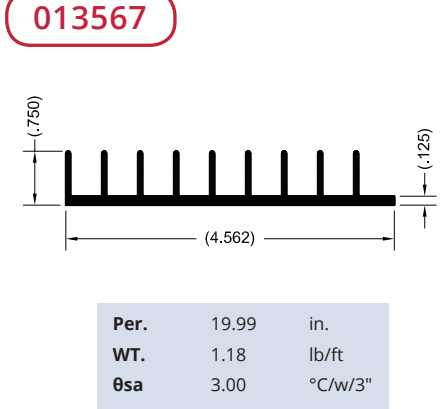
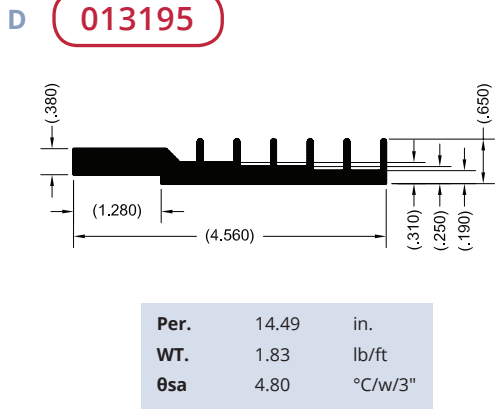
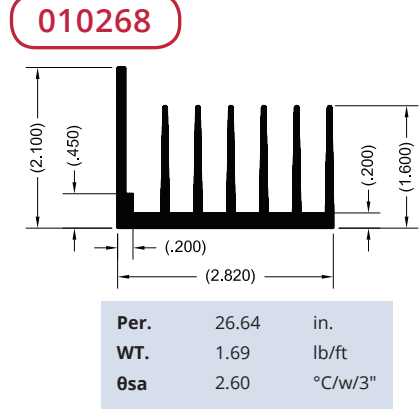
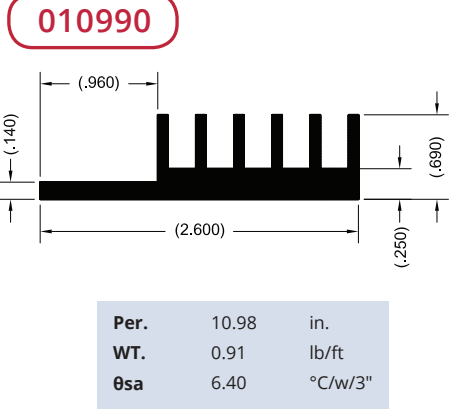
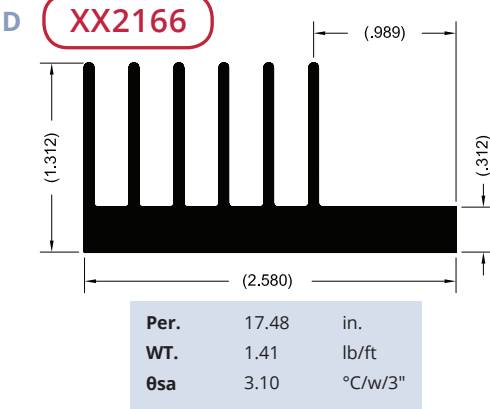
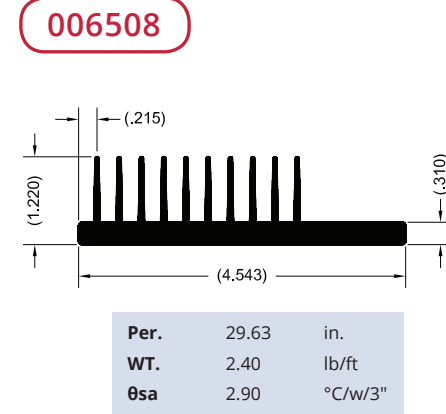
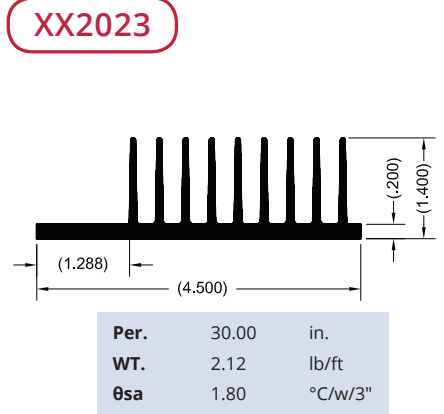
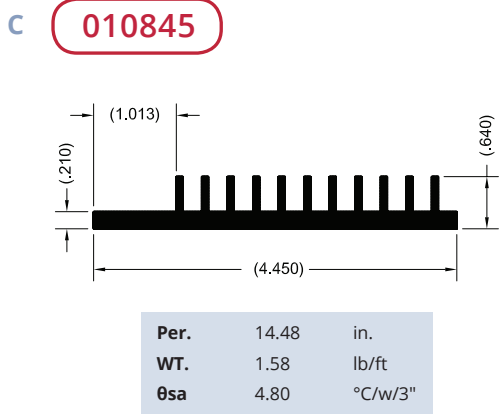
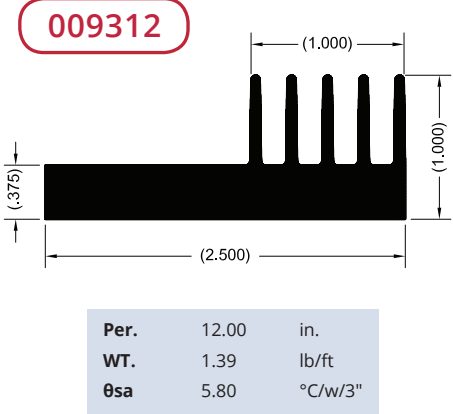
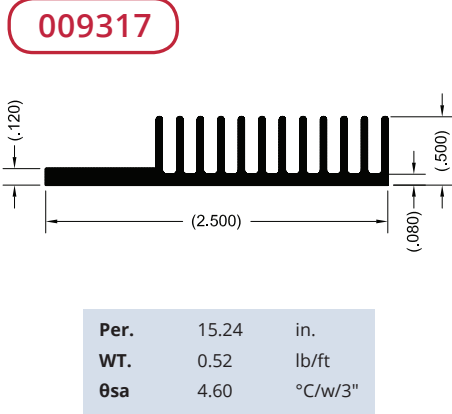
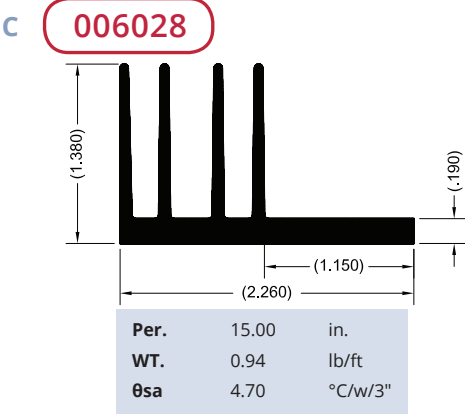
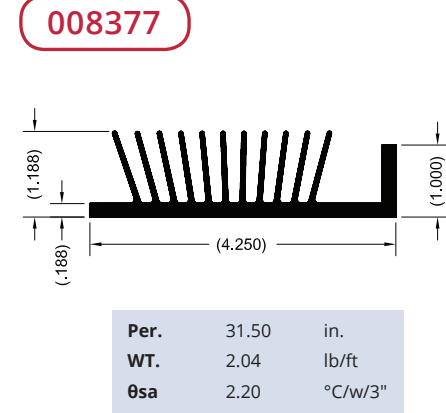
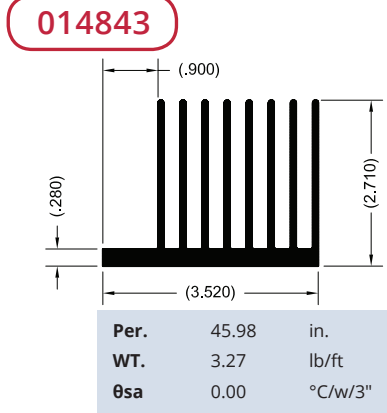
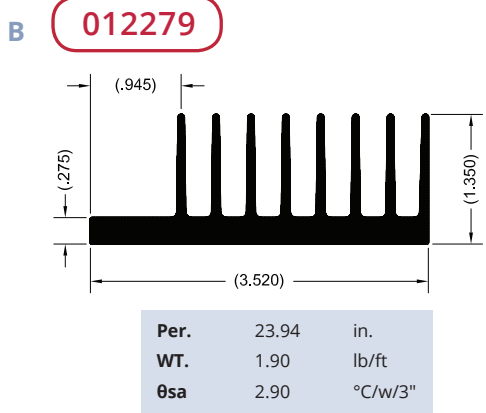
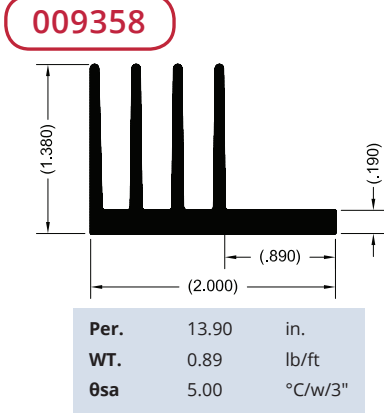
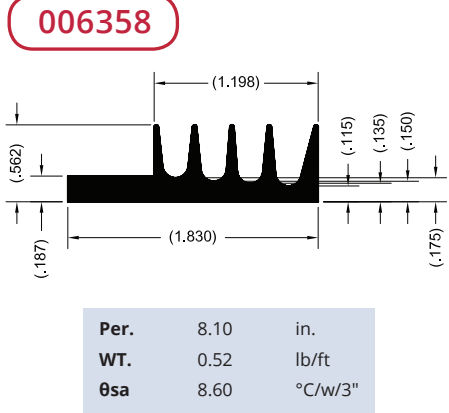
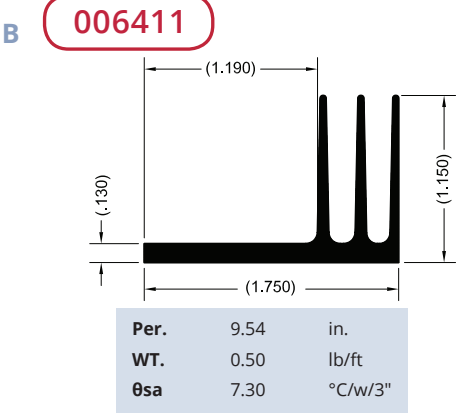
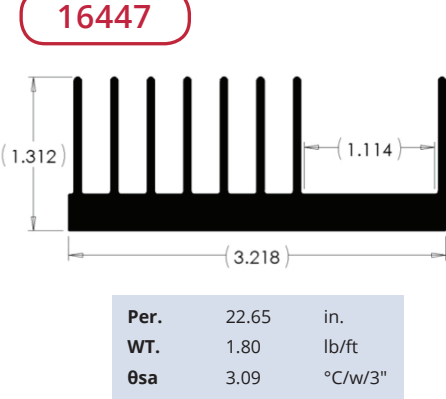
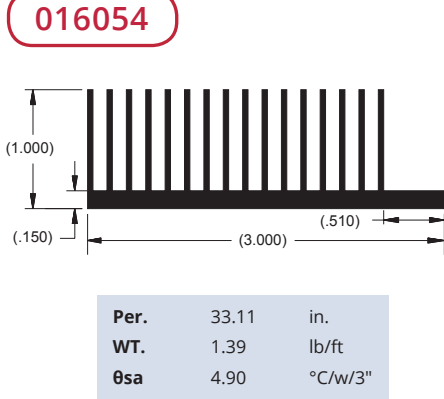
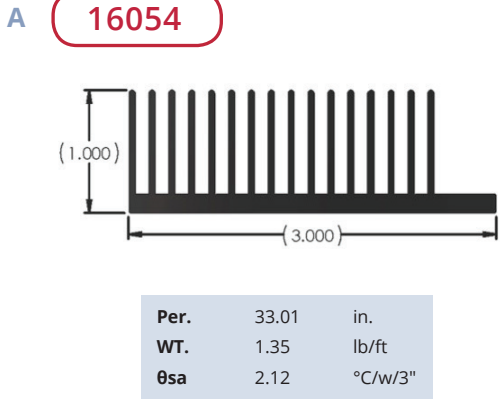
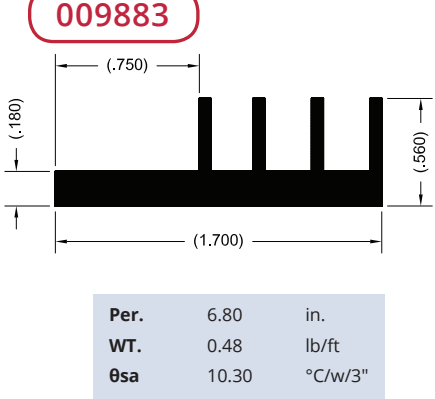
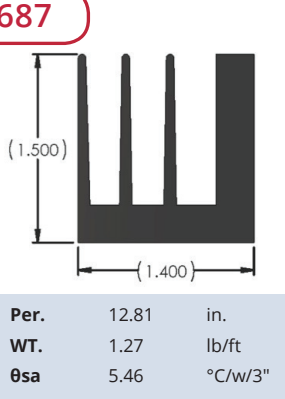
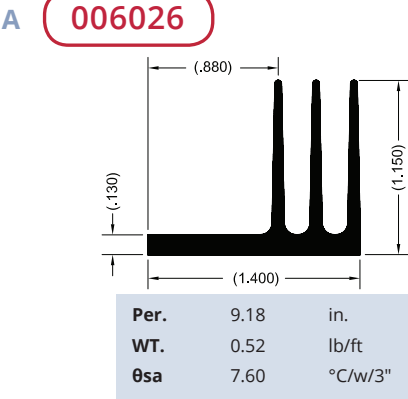


Per.	6.92	in.
WT.	0.36	lb/ft
θsa	7.00	°C/w/3"

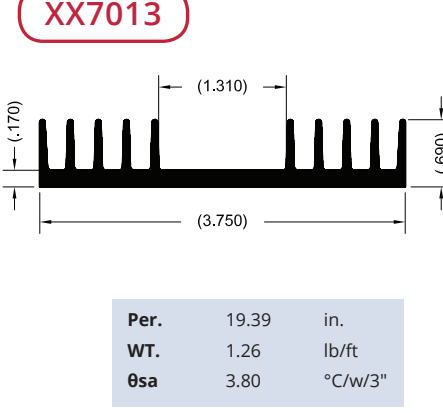
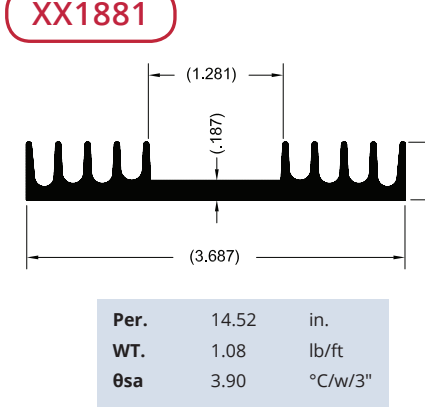
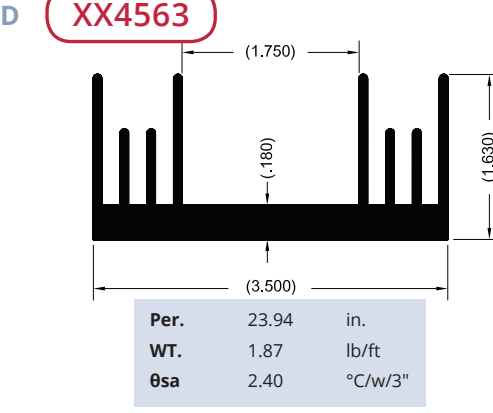
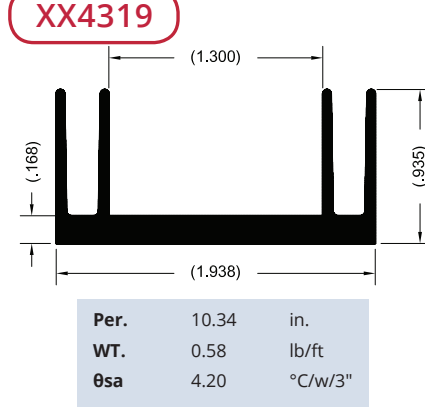
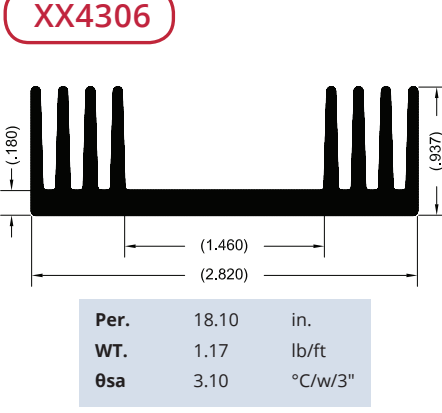
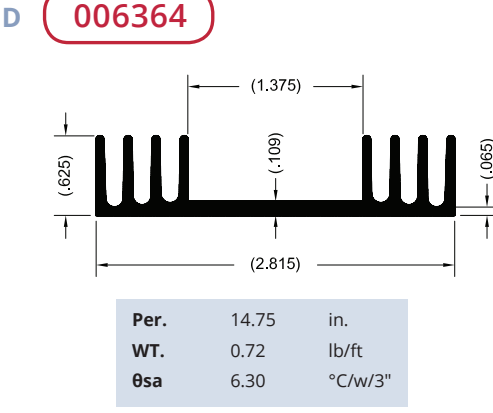
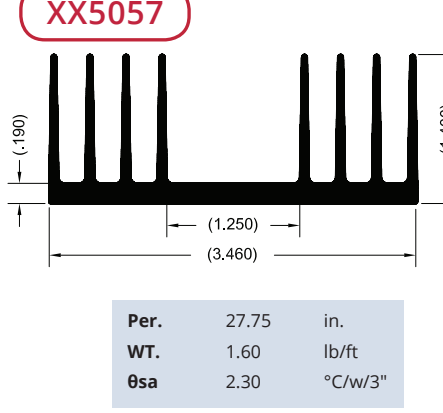
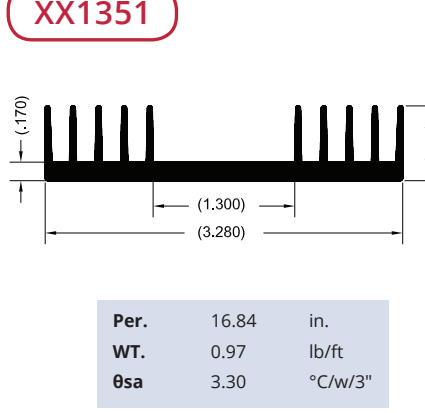
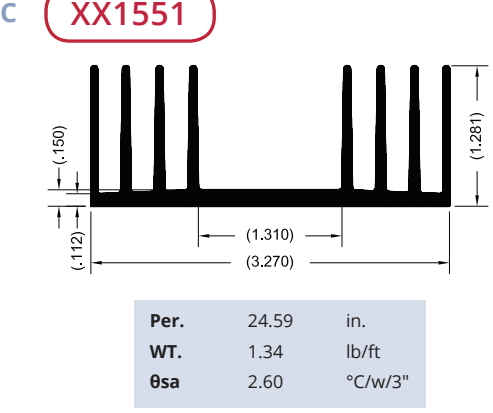
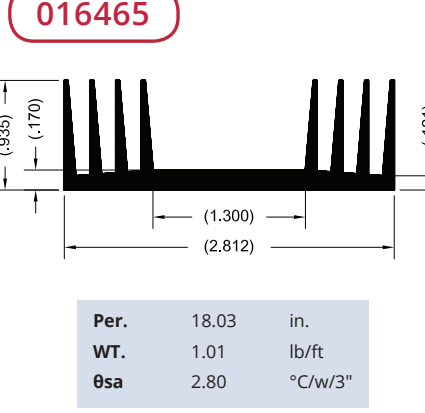
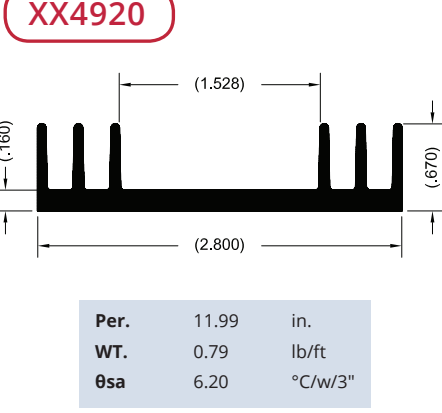
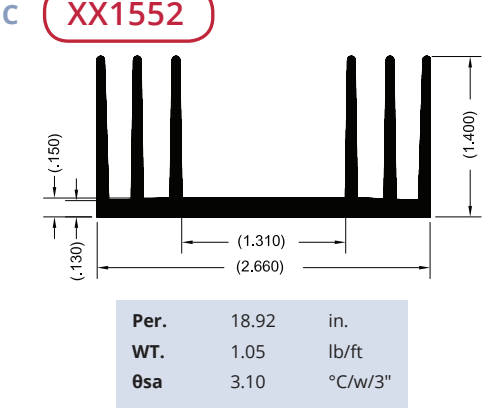
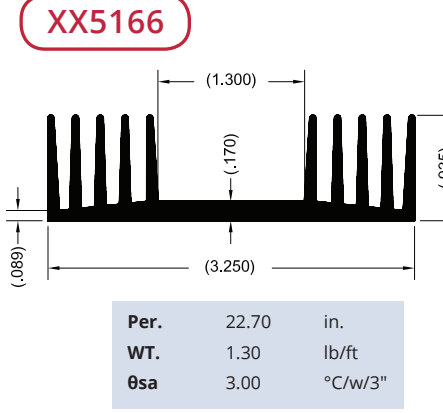
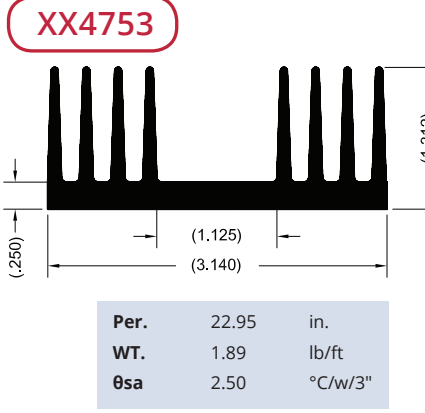
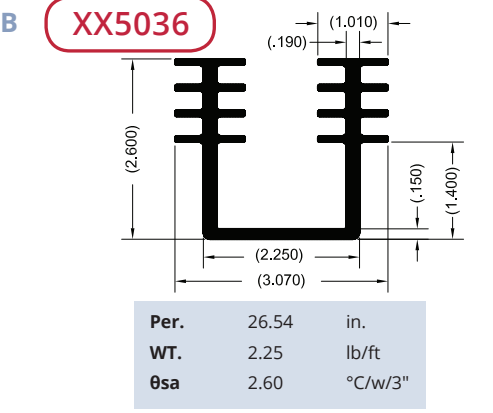
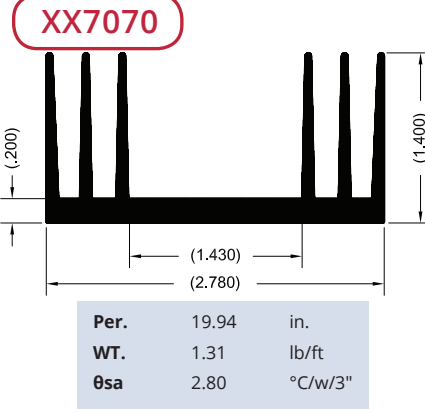
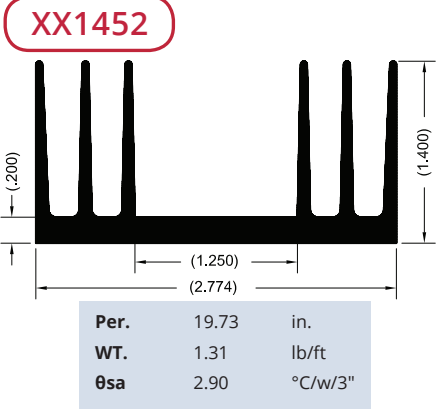
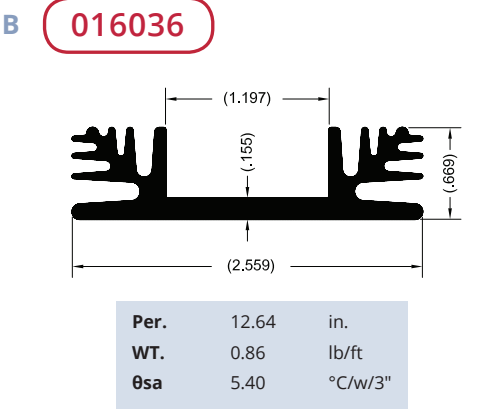
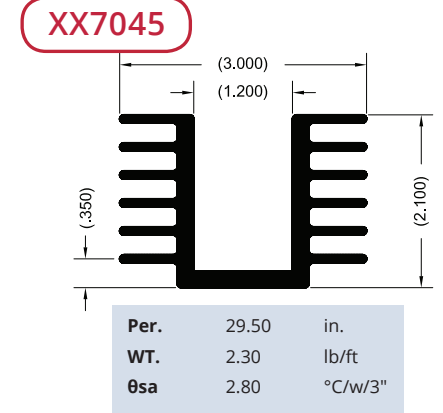
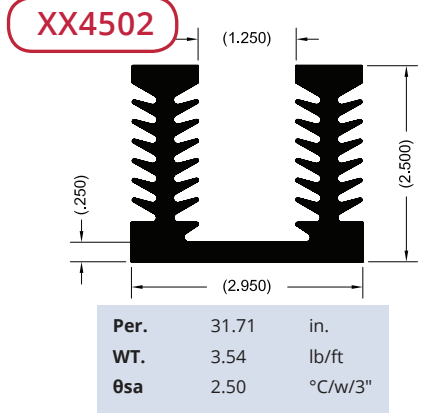
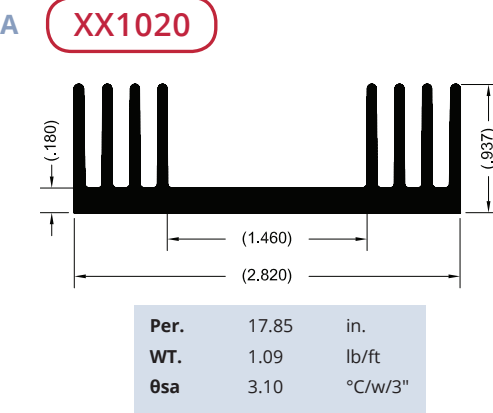
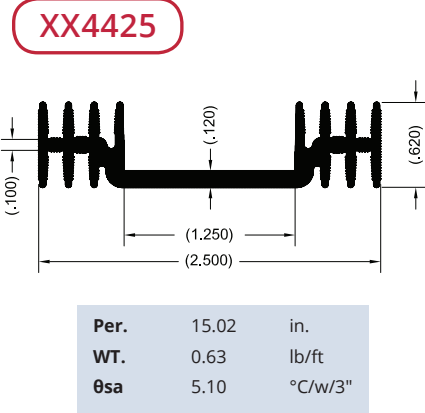
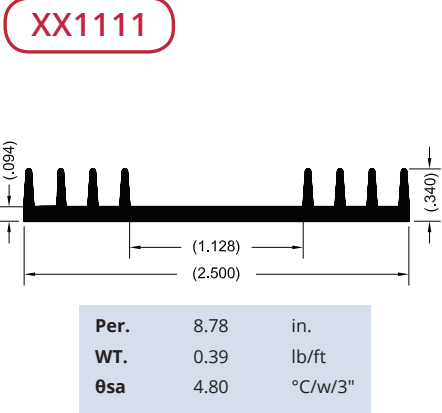
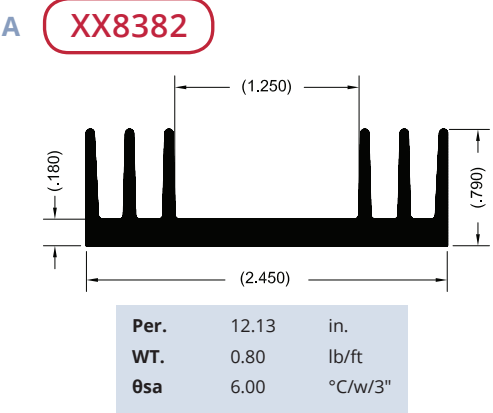
006248

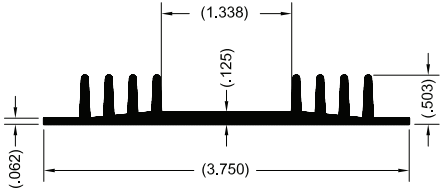
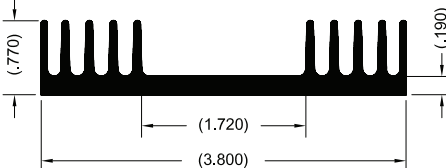
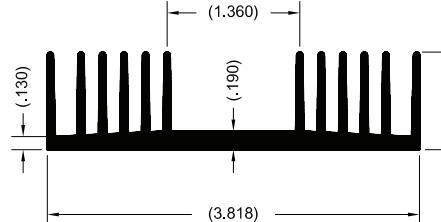
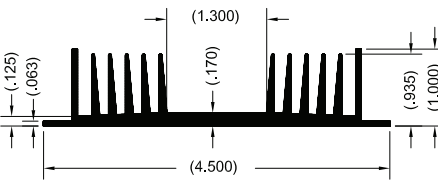
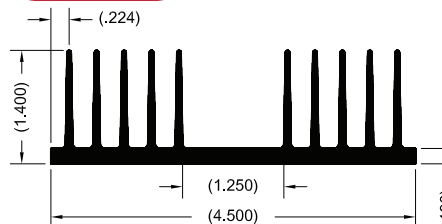
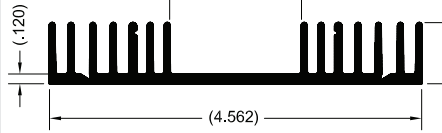
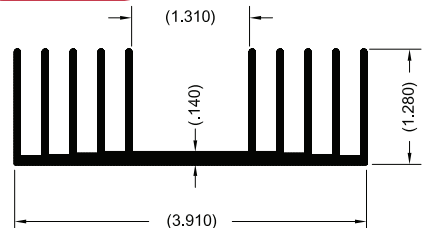
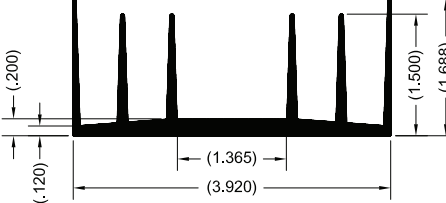
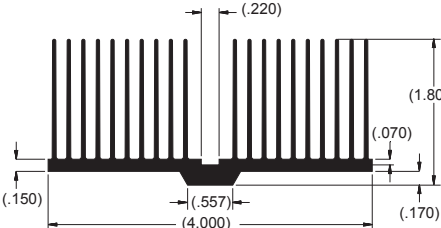
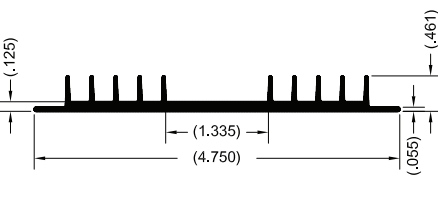
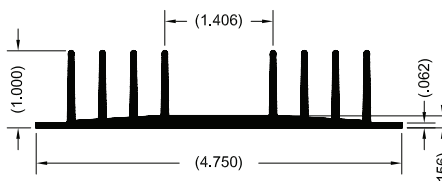
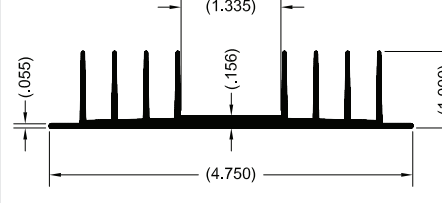
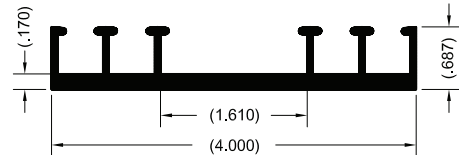
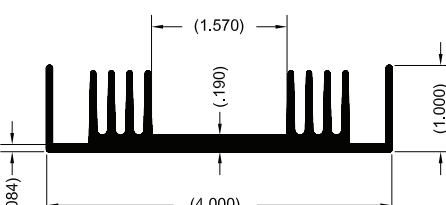
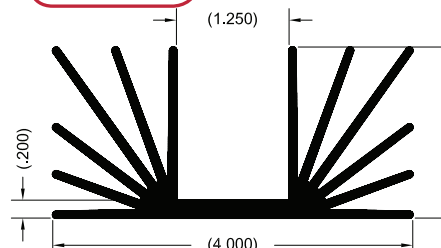
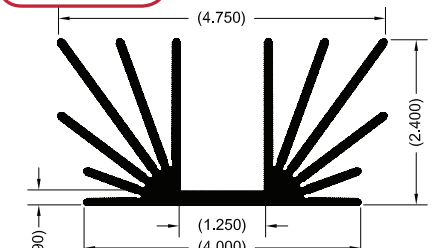
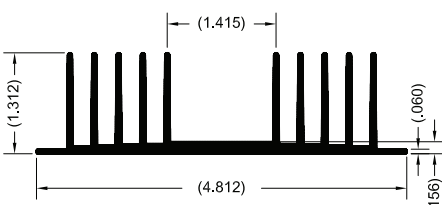
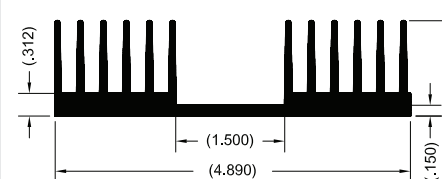
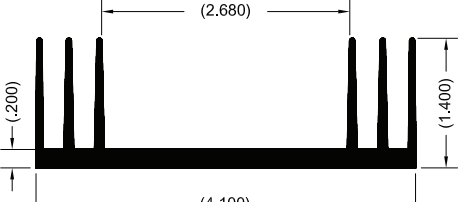
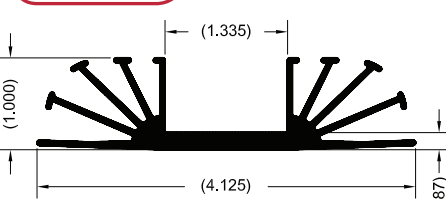
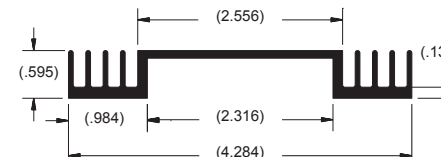
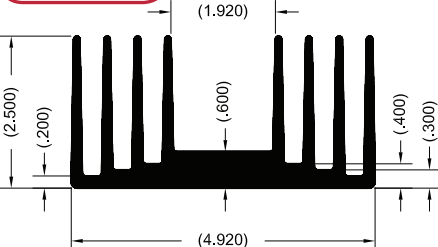
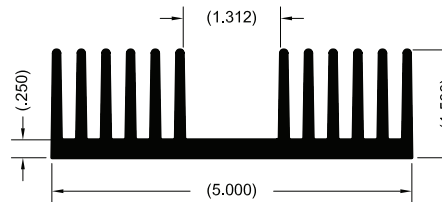
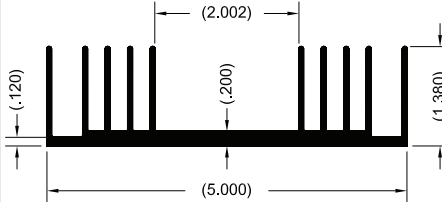


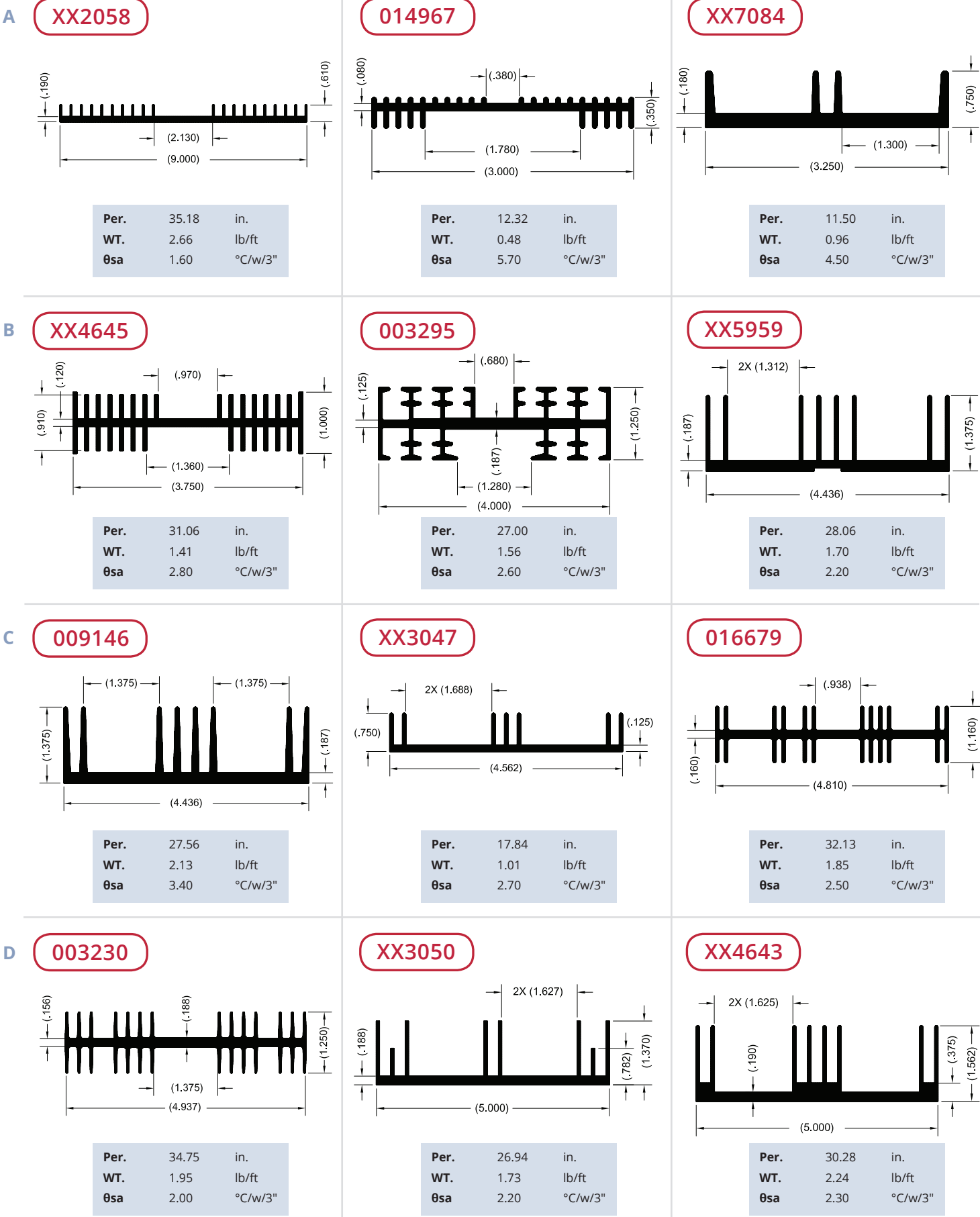
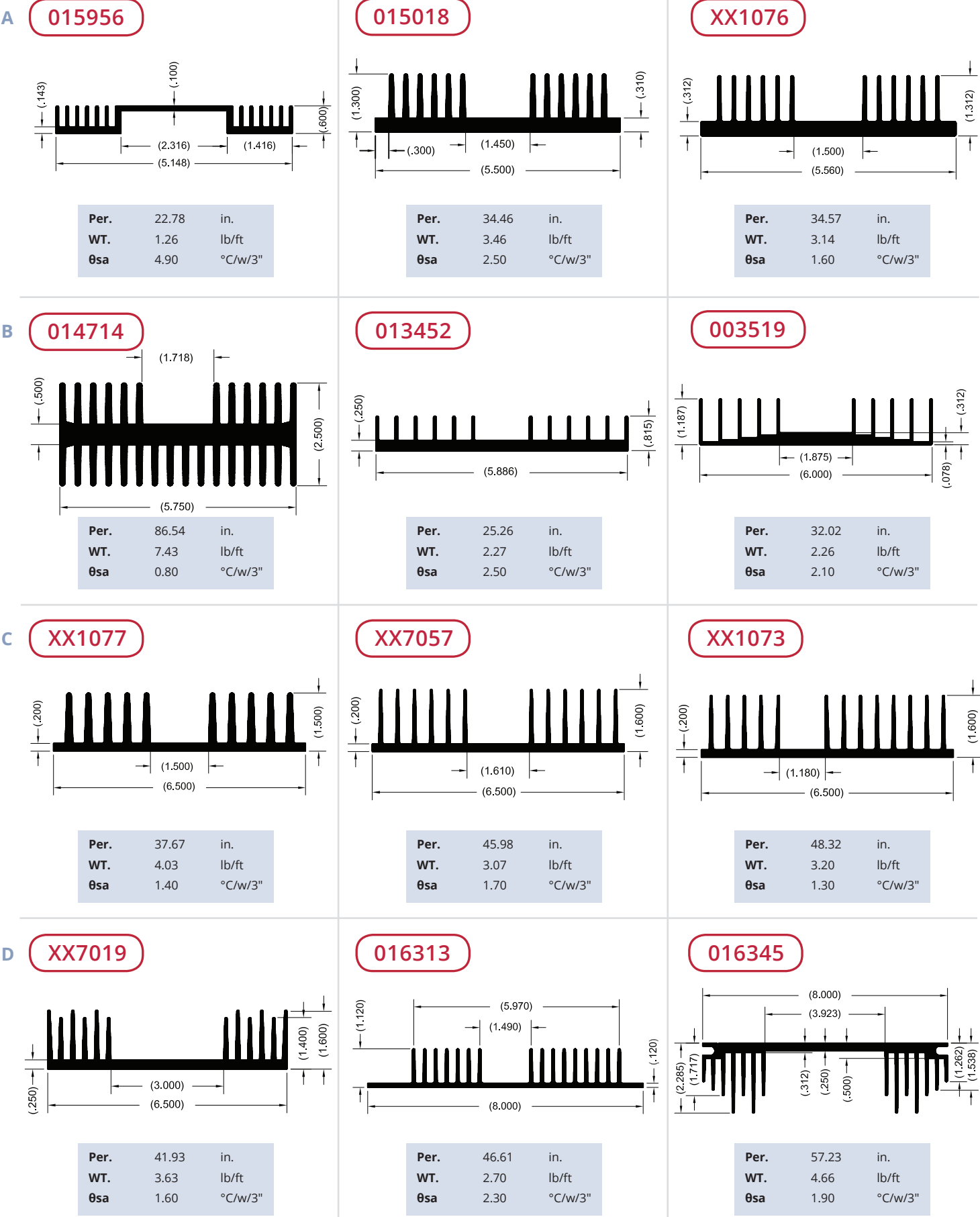
Per.	7.61	in.
WT.	0.37	lb/ft
θsa	9.20	°C/w/3"

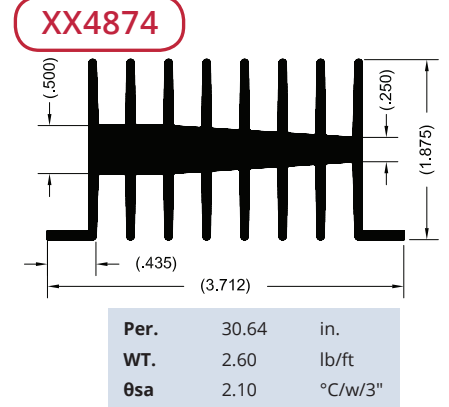
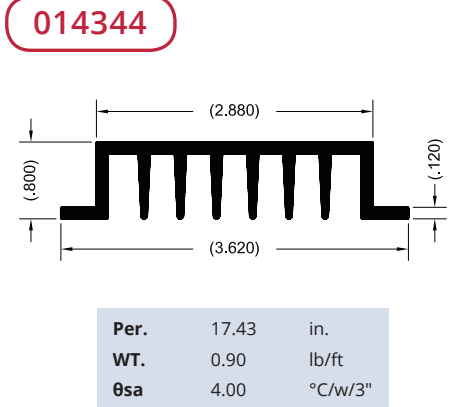
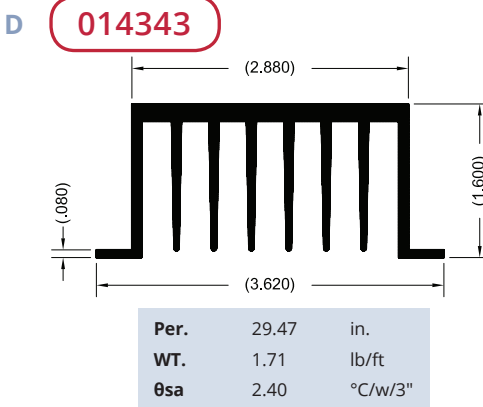
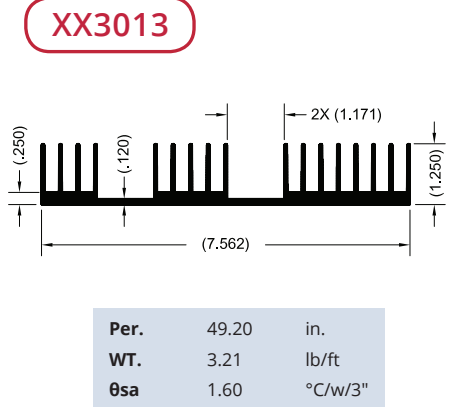
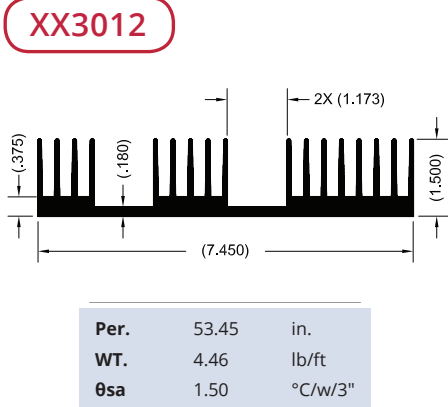
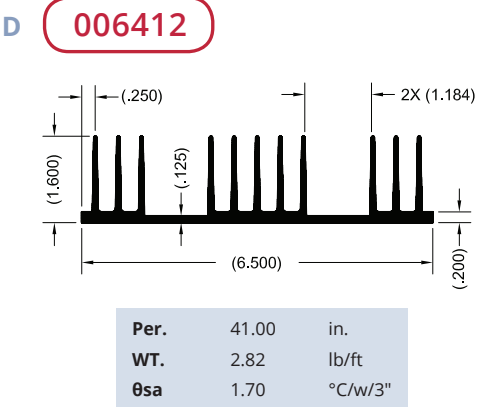
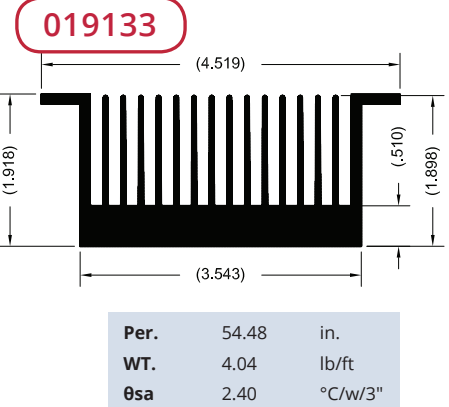
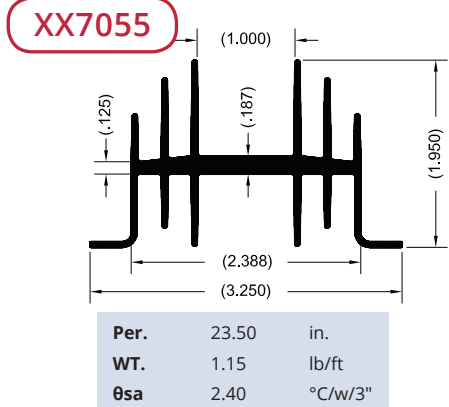
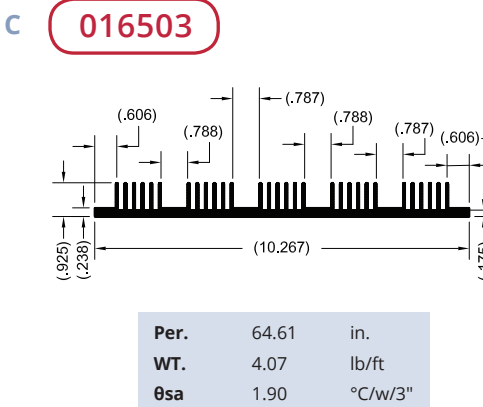
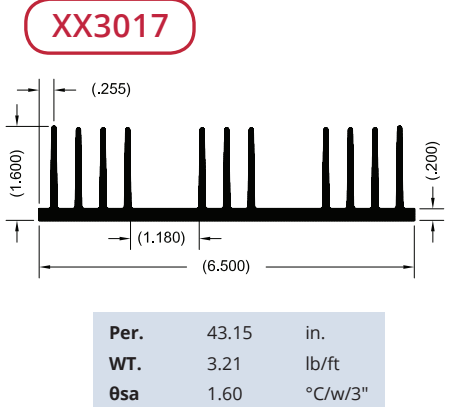
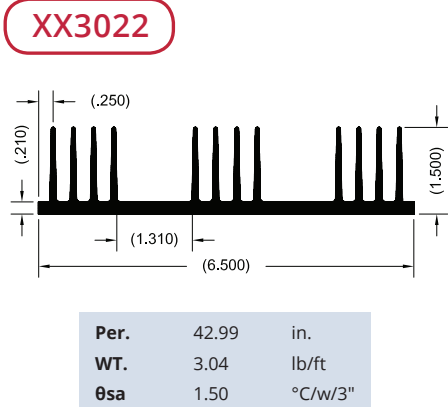
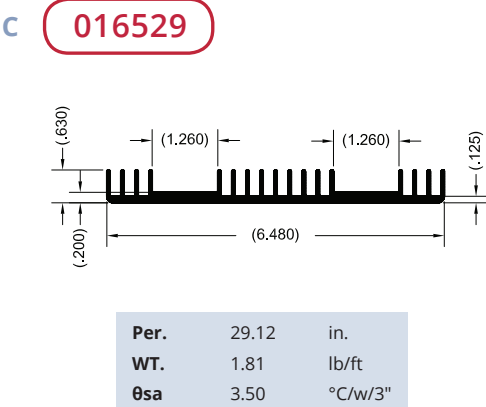
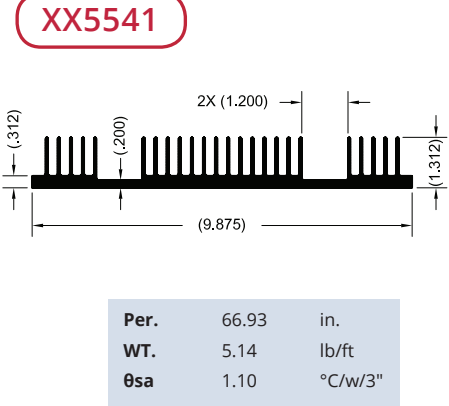
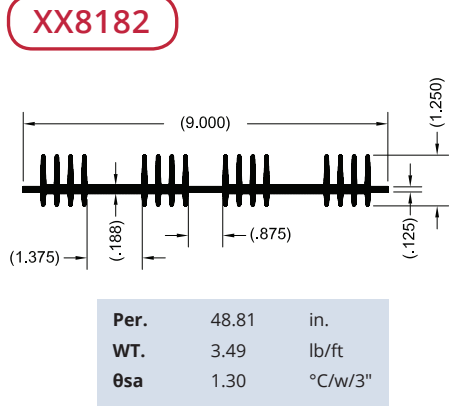
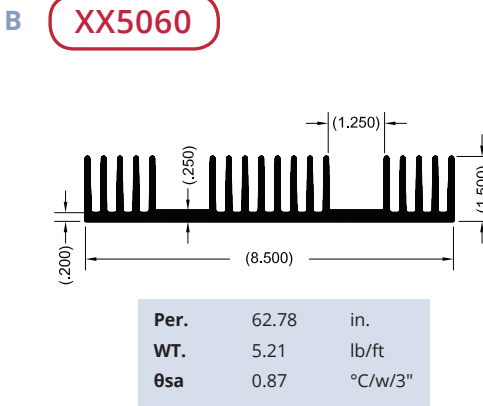
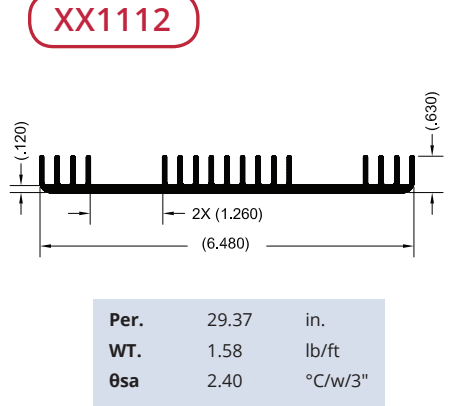
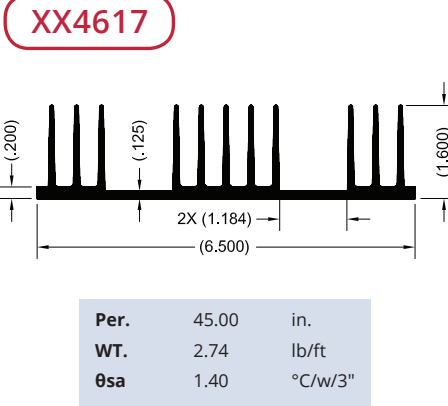
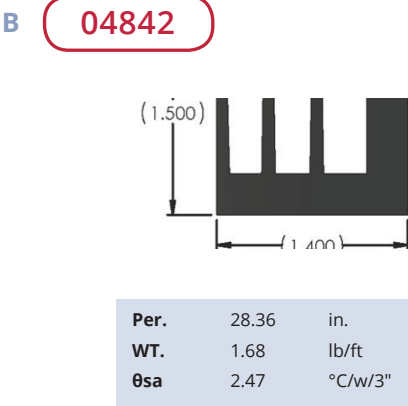
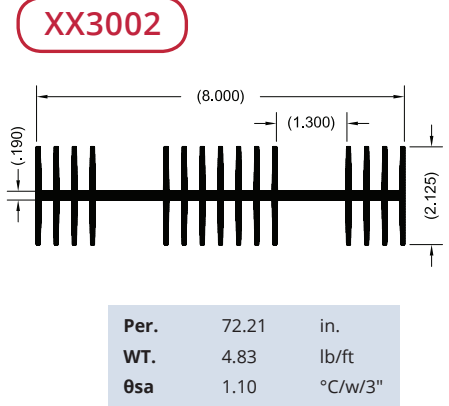
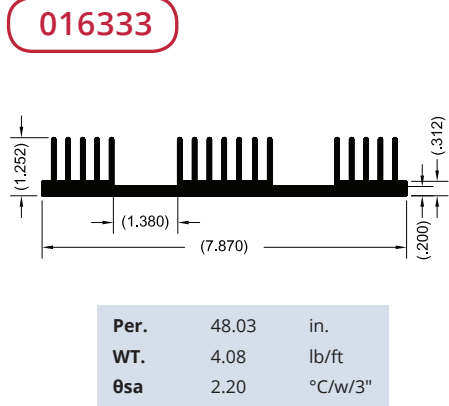
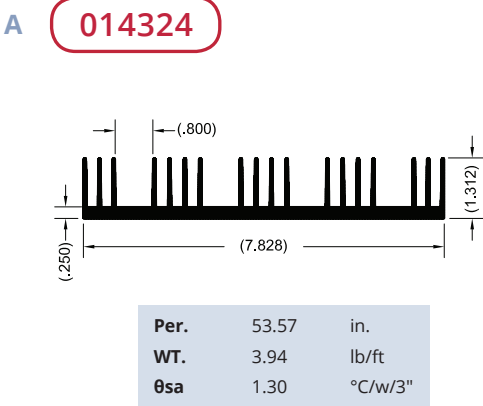
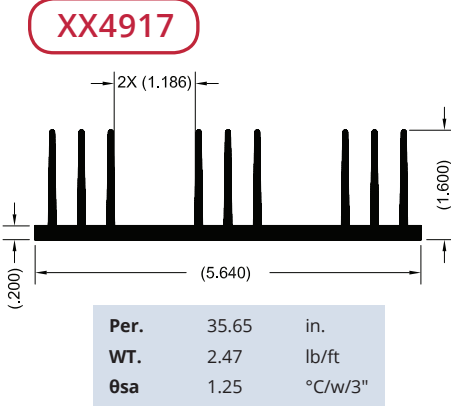
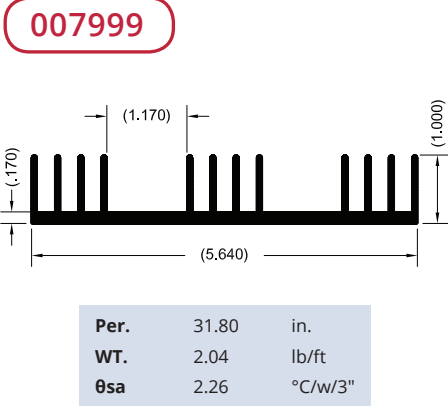
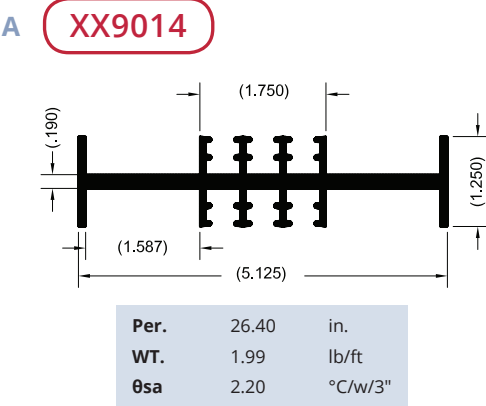


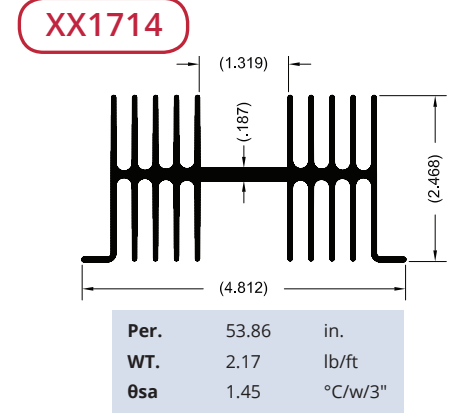
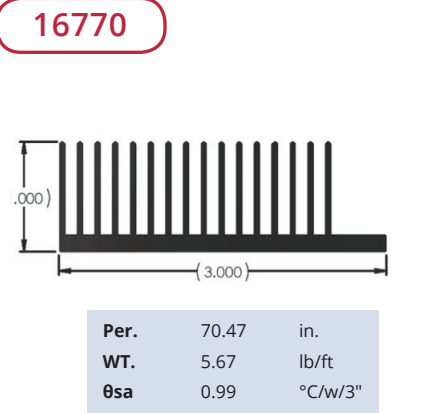
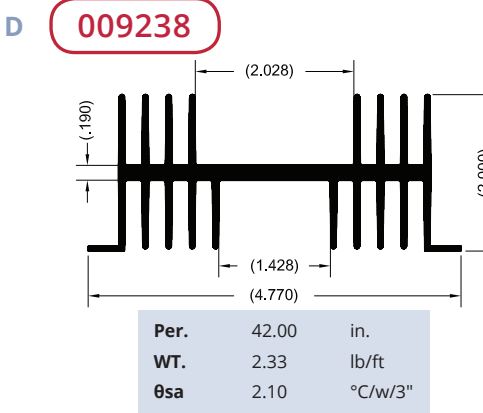
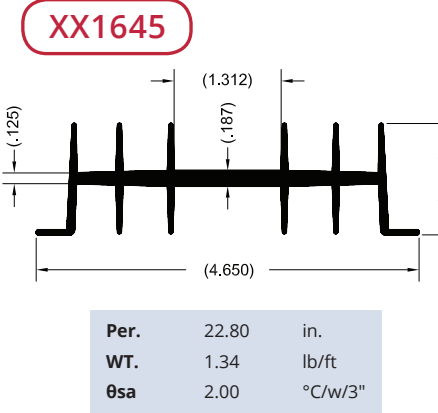
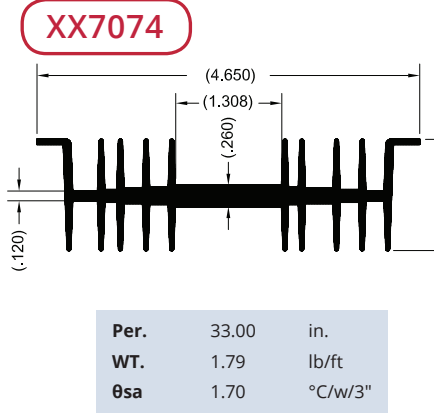
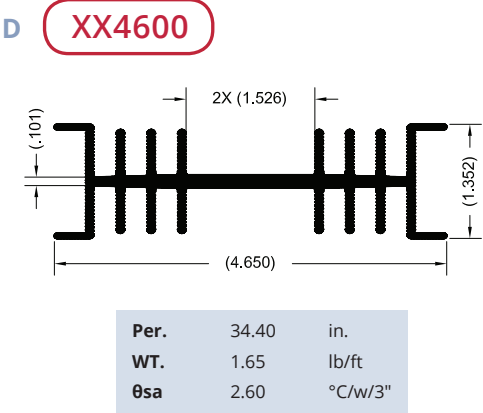
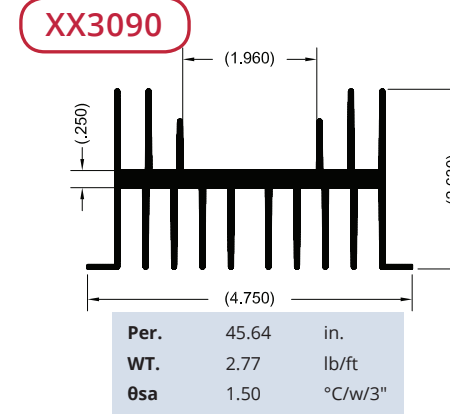
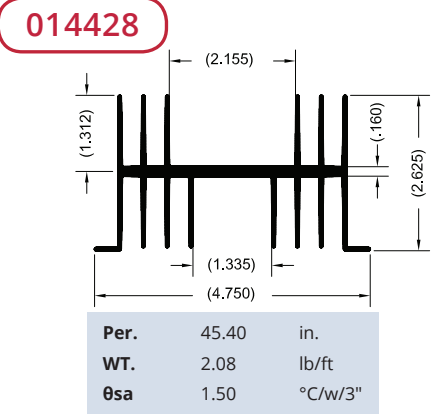
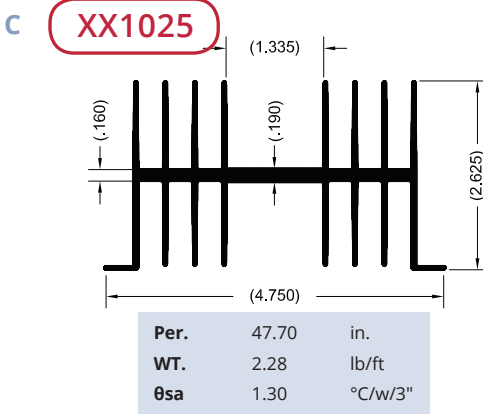
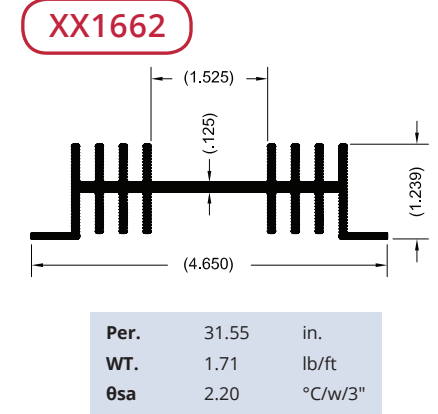
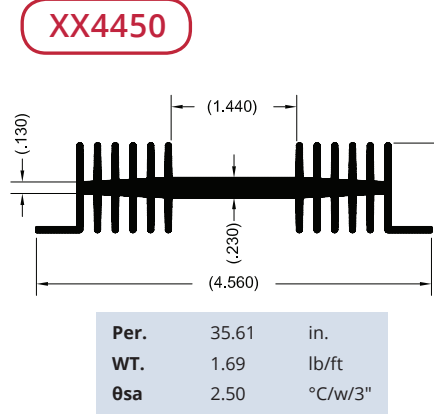
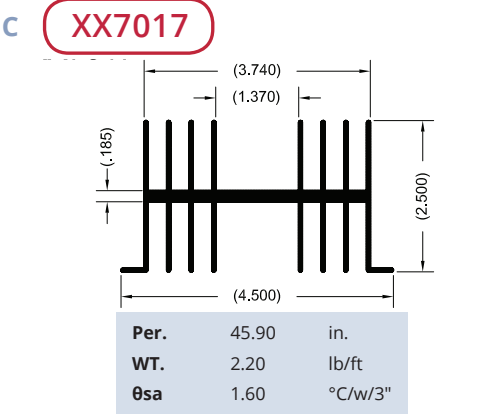
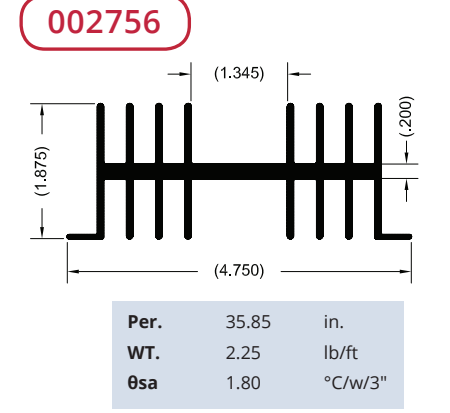
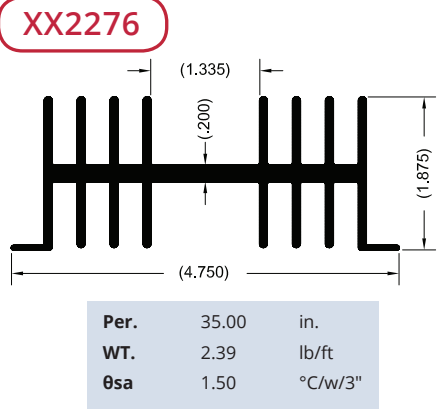
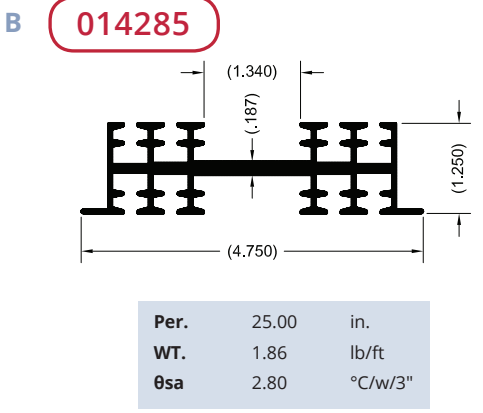
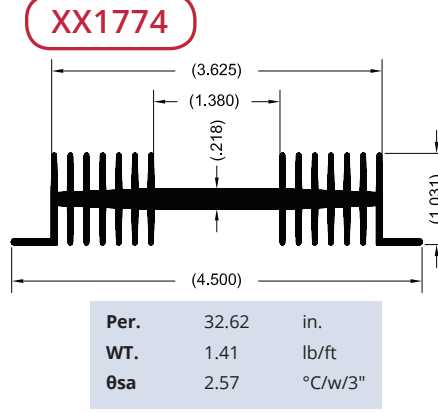
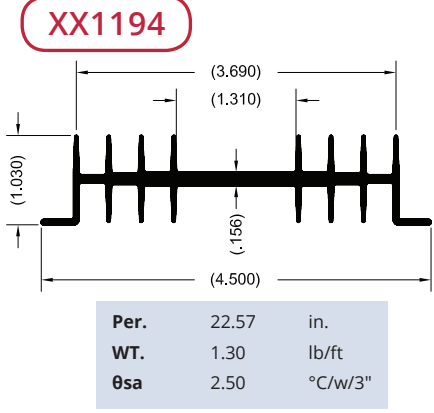
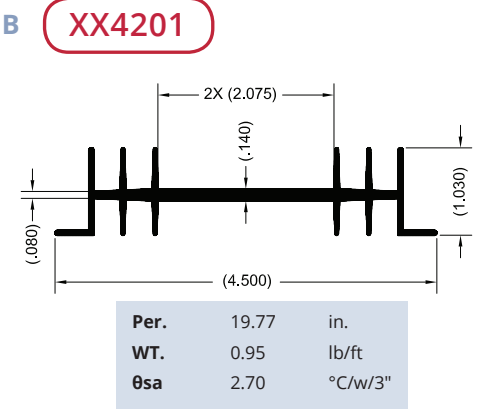
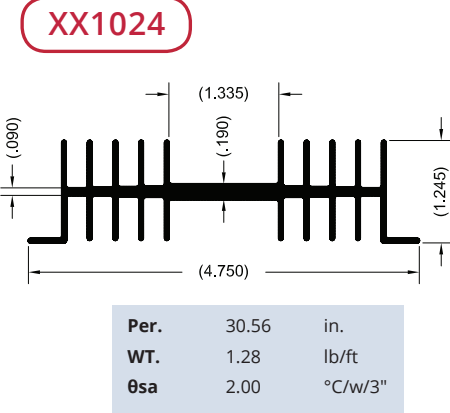
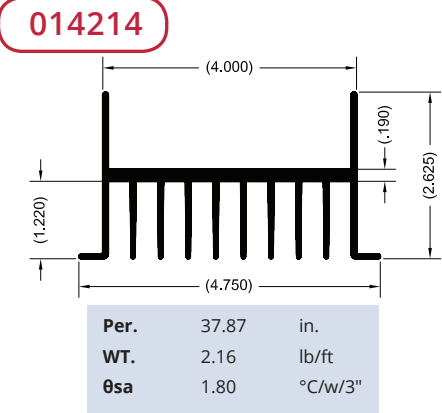
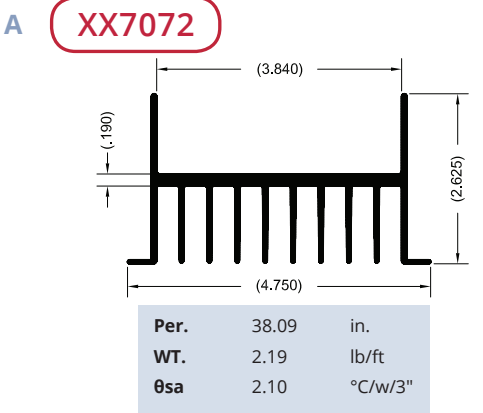
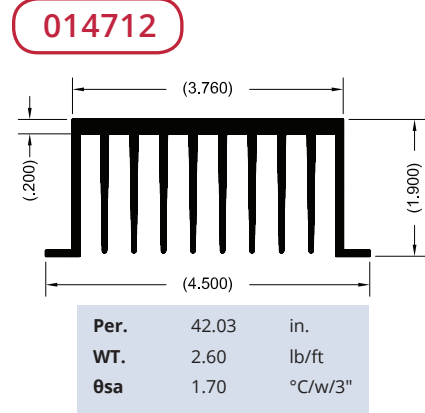
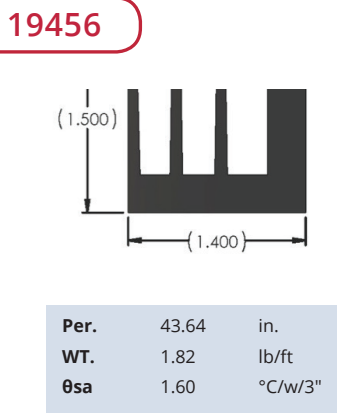
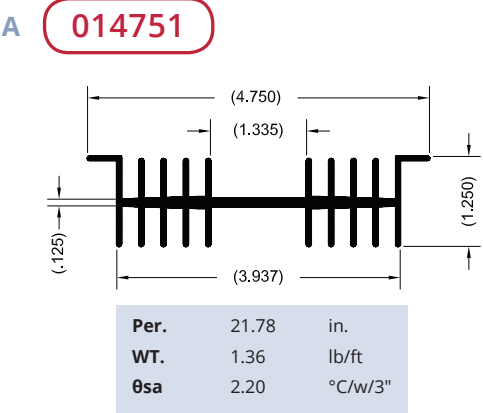
A	008770 <table><tr><td>Per.</td><td>32.75</td><td>in.</td></tr><tr><td>WT.</td><td>3.04</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.10</td><td>°C/w/3"</td></tr></table>	Per.	32.75	in.	WT.	3.04	lb/ft	θsa	2.10	°C/w/3"	008769 <table><tr><td>Per.</td><td>19.24</td><td>in.</td></tr><tr><td>WT.</td><td>1.65</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.60</td><td>°C/w/3"</td></tr></table>	Per.	19.24	in.	WT.	1.65	lb/ft	θsa	3.60	°C/w/3"	19496 <table><tr><td>Per.</td><td>12.75</td><td>in.</td></tr><tr><td>WT.</td><td>0.93</td><td>lb/ft</td></tr><tr><td>θsa</td><td>5.48</td><td>°C/w/3"</td></tr></table>	Per.	12.75	in.	WT.	0.93	lb/ft	θsa	5.48	°C/w/3"	A	XX1063 <table><tr><td>Per.</td><td>7.45</td><td>in.</td></tr><tr><td>WT.</td><td>0.46</td><td>lb/ft</td></tr><tr><td>θsa</td><td>5.10</td><td>°C/w/3"</td></tr></table>	Per.	7.45	in.	WT.	0.46	lb/ft	θsa	5.10	°C/w/3"	003542 <table><tr><td>Per.</td><td>8.95</td><td>in.</td></tr><tr><td>WT.</td><td>0.41</td><td>lb/ft</td></tr><tr><td>θsa</td><td>7.80</td><td>°C/w/3"</td></tr></table>	Per.	8.95	in.	WT.	0.41	lb/ft	θsa	7.80	°C/w/3"	XX1354 <table><tr><td>Per.</td><td>8.24</td><td>in.</td></tr><tr><td>WT.</td><td>0.52</td><td>lb/ft</td></tr><tr><td>θsa</td><td>4.30</td><td>°C/w/3"</td></tr></table>	Per.	8.24	in.	WT.	0.52	lb/ft	θsa	4.30	°C/w/3"
Per.	32.75	in.																																																											
WT.	3.04	lb/ft																																																											
θsa	2.10	°C/w/3"																																																											
Per.	19.24	in.																																																											
WT.	1.65	lb/ft																																																											
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WT.	0.93	lb/ft																																																											
θsa	5.48	°C/w/3"																																																											
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WT.	0.46	lb/ft																																																											
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WT.	0.41	lb/ft																																																											
θsa	7.80	°C/w/3"																																																											
Per.	8.24	in.																																																											
WT.	0.52	lb/ft																																																											
θsa	4.30	°C/w/3"																																																											
B	008465 <table><tr><td>Per.</td><td>19.54</td><td>in.</td></tr><tr><td>WT.</td><td>2.34</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.60</td><td>°C/w/3"</td></tr></table>	Per.	19.54	in.	WT.	2.34	lb/ft	θsa	3.60	°C/w/3"	008507 <table><tr><td>Per.</td><td>35.08</td><td>in.</td></tr><tr><td>WT.</td><td>2.43</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.60</td><td>°C/w/3"</td></tr></table>	Per.	35.08	in.	WT.	2.43	lb/ft	θsa	2.60	°C/w/3"	011304 <table><tr><td>Per.</td><td>34.60</td><td>in.</td></tr><tr><td>WT.</td><td>2.37</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.00</td><td>°C/w/3"</td></tr></table>	Per.	34.60	in.	WT.	2.37	lb/ft	θsa	2.00	°C/w/3"	B	XX1284 <table><tr><td>Per.</td><td>9.96</td><td>in.</td></tr><tr><td>WT.</td><td>0.37</td><td>lb/ft</td></tr><tr><td>θsa</td><td>6.50</td><td>°C/w/3"</td></tr></table>	Per.	9.96	in.	WT.	0.37	lb/ft	θsa	6.50	°C/w/3"	XX1453 <table><tr><td>Per.</td><td>13.86</td><td>in.</td></tr><tr><td>WT.</td><td>1.00</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.50</td><td>°C/w/3"</td></tr></table>	Per.	13.86	in.	WT.	1.00	lb/ft	θsa	3.50	°C/w/3"	014270 <table><tr><td>Per.</td><td>22.50</td><td>in.</td></tr><tr><td>WT.</td><td>1.07</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.10</td><td>°C/w/3"</td></tr></table>	Per.	22.50	in.	WT.	1.07	lb/ft	θsa	3.10	°C/w/3"
Per.	19.54	in.																																																											
WT.	2.34	lb/ft																																																											
θsa	3.60	°C/w/3"																																																											
Per.	35.08	in.																																																											
WT.	2.43	lb/ft																																																											
θsa	2.60	°C/w/3"																																																											
Per.	34.60	in.																																																											
WT.	2.37	lb/ft																																																											
θsa	2.00	°C/w/3"																																																											
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WT.	0.37	lb/ft																																																											
θsa	6.50	°C/w/3"																																																											
Per.	13.86	in.																																																											
WT.	1.00	lb/ft																																																											
θsa	3.50	°C/w/3"																																																											
Per.	22.50	in.																																																											
WT.	1.07	lb/ft																																																											
θsa	3.10	°C/w/3"																																																											
C	012535 <table><tr><td>Per.</td><td>39.12</td><td>in.</td></tr><tr><td>WT.</td><td>2.54</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.80</td><td>°C/w/3"</td></tr></table>	Per.	39.12	in.	WT.	2.54	lb/ft	θsa	1.80	°C/w/3"	015771 <table><tr><td>Per.</td><td>64.44</td><td>in.</td></tr><tr><td>WT.</td><td>6.35</td><td>lb/ft</td></tr><tr><td>θsa</td><td>0.00</td><td>°C/w/3"</td></tr></table>	Per.	64.44	in.	WT.	6.35	lb/ft	θsa	0.00	°C/w/3"	XX2558 <table><tr><td>Per.</td><td>7.46</td><td>in.</td></tr><tr><td>WT.</td><td>0.27</td><td>lb/ft</td></tr><tr><td>θsa</td><td>8.00</td><td>°C/w/3"</td></tr></table>	Per.	7.46	in.	WT.	0.27	lb/ft	θsa	8.00	°C/w/3"	C	XX1409 <table><tr><td>Per.</td><td>13.05</td><td>in.</td></tr><tr><td>WT.</td><td>0.81</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.80</td><td>°C/w/3"</td></tr></table>	Per.	13.05	in.	WT.	0.81	lb/ft	θsa	3.80	°C/w/3"	XX4865 <table><tr><td>Per.</td><td>20.15</td><td>in.</td></tr><tr><td>WT.</td><td>1.02</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.50</td><td>°C/w/3"</td></tr></table>	Per.	20.15	in.	WT.	1.02	lb/ft	θsa	3.50	°C/w/3"	016145 <table><tr><td>Per.</td><td>16.17</td><td>in.</td></tr><tr><td>WT.</td><td>1.01</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.70</td><td>°C/w/3"</td></tr></table>	Per.	16.17	in.	WT.	1.01	lb/ft	θsa	3.70	°C/w/3"
Per.	39.12	in.																																																											
WT.	2.54	lb/ft																																																											
θsa	1.80	°C/w/3"																																																											
Per.	64.44	in.																																																											
WT.	6.35	lb/ft																																																											
θsa	0.00	°C/w/3"																																																											
Per.	7.46	in.																																																											
WT.	0.27	lb/ft																																																											
θsa	8.00	°C/w/3"																																																											
Per.	13.05	in.																																																											
WT.	0.81	lb/ft																																																											
θsa	3.80	°C/w/3"																																																											
Per.	20.15	in.																																																											
WT.	1.02	lb/ft																																																											
θsa	3.50	°C/w/3"																																																											
Per.	16.17	in.																																																											
WT.	1.01	lb/ft																																																											
θsa	3.70	°C/w/3"																																																											
D	XX10222 <table><tr><td>Per.</td><td>5.15</td><td>in.</td></tr><tr><td>WT.</td><td>0.99</td><td>lb/ft</td></tr><tr><td>θsa</td><td>10.00</td><td>°C/w/3"</td></tr></table>	Per.	5.15	in.	WT.	0.99	lb/ft	θsa	10.00	°C/w/3"	XX1007 <table><tr><td>Per.</td><td>8.88</td><td>in.</td></tr><tr><td>WT.</td><td>0.29</td><td>lb/ft</td></tr><tr><td>θsa</td><td>6.40</td><td>°C/w/3"</td></tr></table>	Per.	8.88	in.	WT.	0.29	lb/ft	θsa	6.40	°C/w/3"	XX4721 <table><tr><td>Per.</td><td>7.23</td><td>in.</td></tr><tr><td>WT.</td><td>0.39</td><td>lb/ft</td></tr><tr><td>θsa</td><td>10.30</td><td>°C/w/3"</td></tr></table>	Per.	7.23	in.	WT.	0.39	lb/ft	θsa	10.30	°C/w/3"	D	XX1546 <table><tr><td>Per.</td><td>17.49</td><td>in.</td></tr><tr><td>WT.</td><td>1.61</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.70</td><td>°C/w/3"</td></tr></table>	Per.	17.49	in.	WT.	1.61	lb/ft	θsa	3.70	°C/w/3"	XX7134 <table><tr><td>Per.</td><td>17.32</td><td>in.</td></tr><tr><td>WT.</td><td>1.76</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.00</td><td>°C/w/3"</td></tr></table>	Per.	17.32	in.	WT.	1.76	lb/ft	θsa	2.00	°C/w/3"	XX1353 <table><tr><td>Per.</td><td>11.16</td><td>in.</td></tr><tr><td>WT.</td><td>0.68</td><td>lb/ft</td></tr><tr><td>θsa</td><td>4.00</td><td>°C/w/3"</td></tr></table>	Per.	11.16	in.	WT.	0.68	lb/ft	θsa	4.00	°C/w/3"
Per.	5.15	in.																																																											
WT.	0.99	lb/ft																																																											
θsa	10.00	°C/w/3"																																																											
Per.	8.88	in.																																																											
WT.	0.29	lb/ft																																																											
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θsa	10.30	°C/w/3"																																																											
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Per.	17.32	in.																																																											
WT.	1.76	lb/ft																																																											
θsa	2.00	°C/w/3"																																																											
Per.	11.16	in.																																																											
WT.	0.68	lb/ft																																																											
θsa	4.00	°C/w/3"																																																											

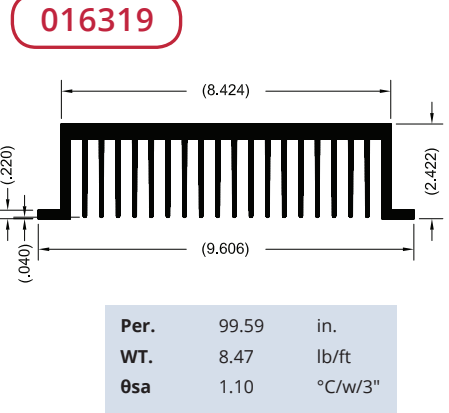
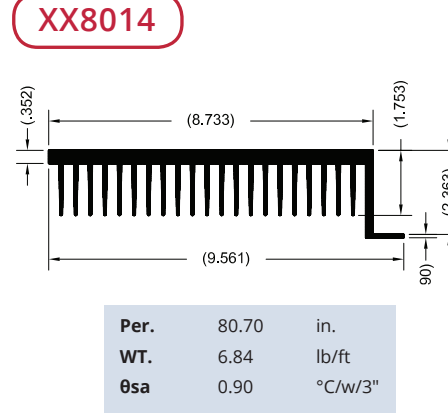
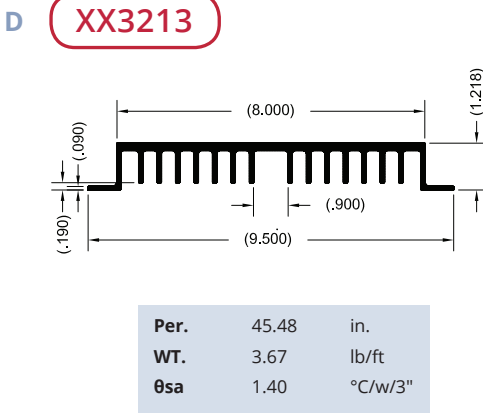
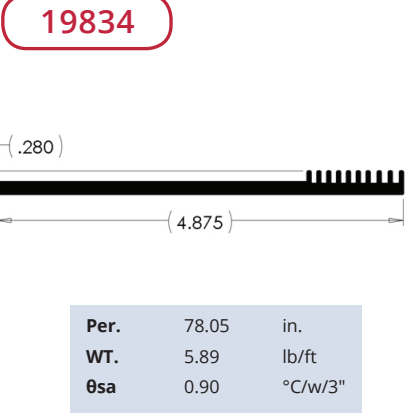
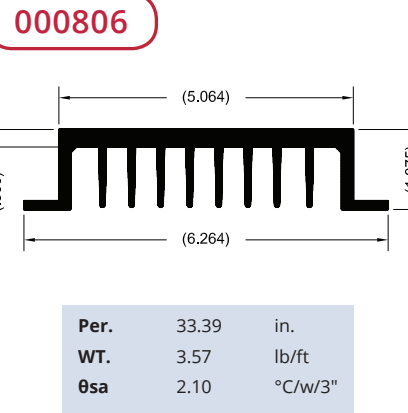
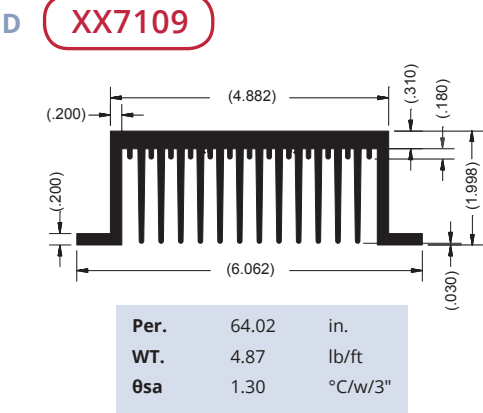
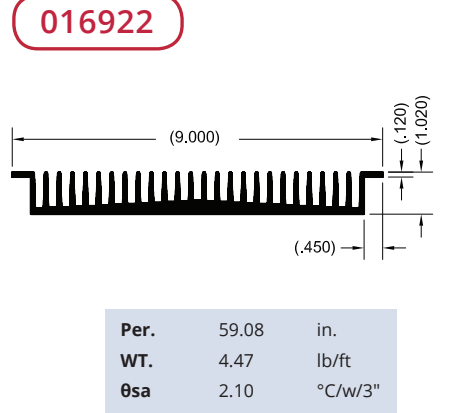
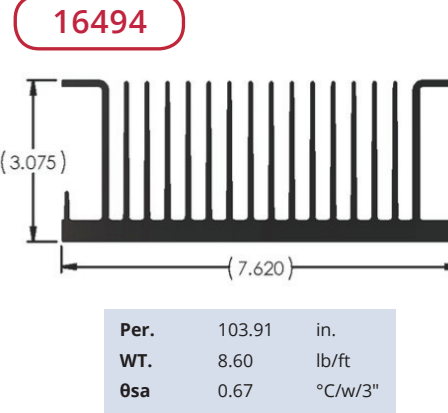
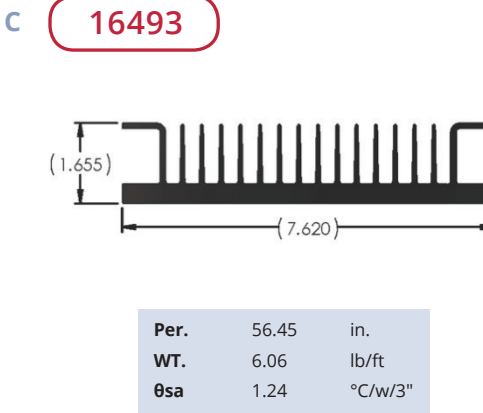
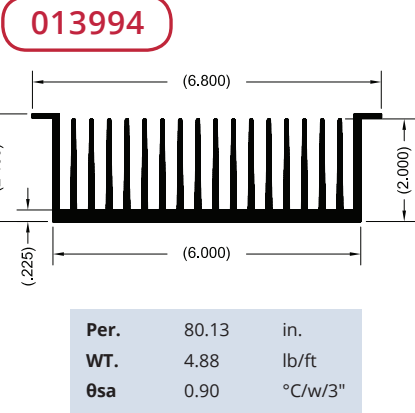
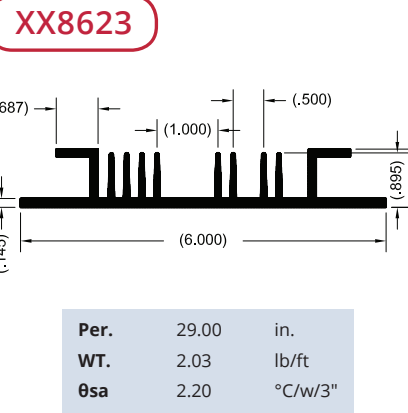
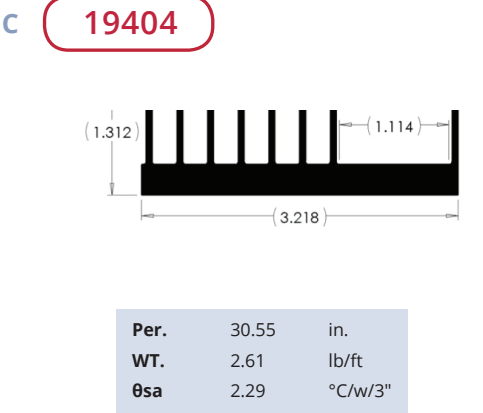
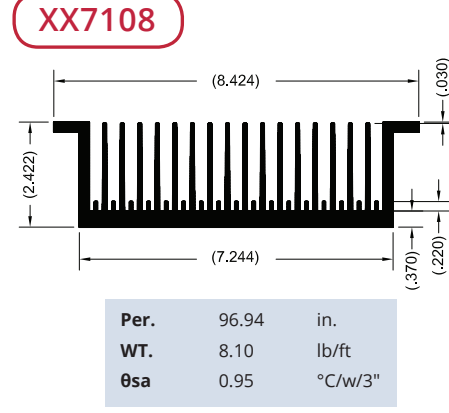
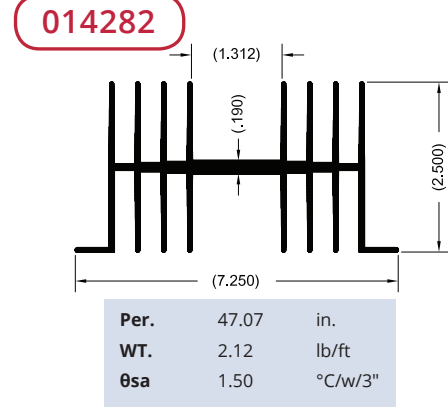
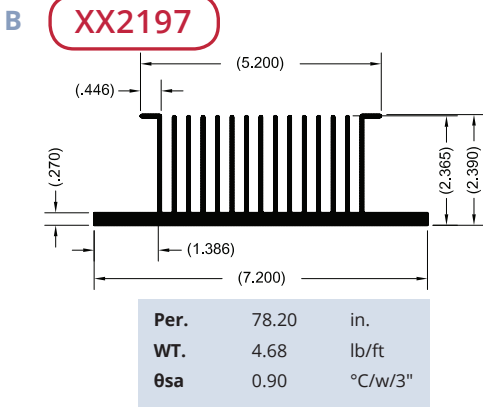
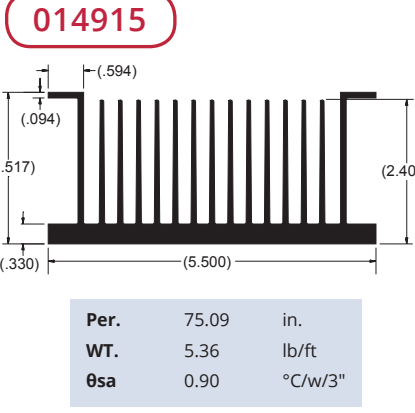
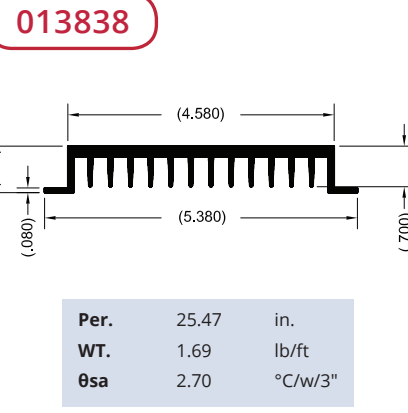
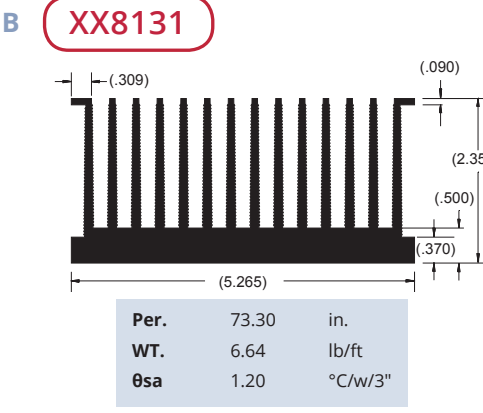
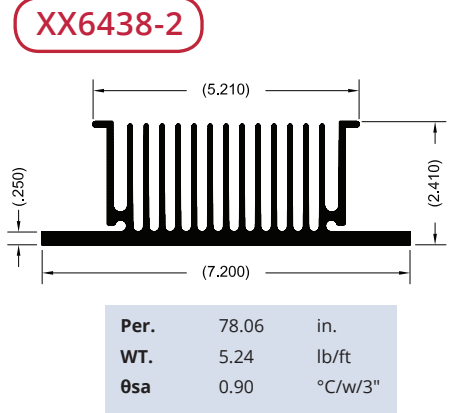
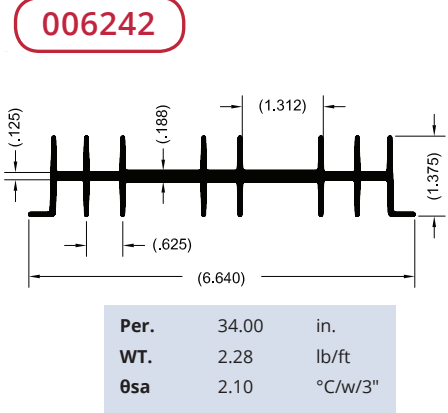
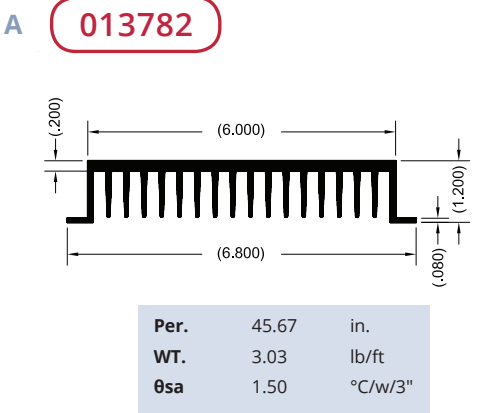
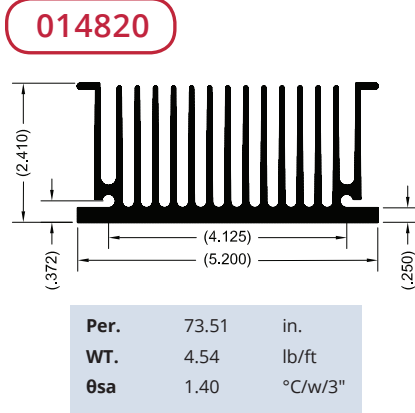
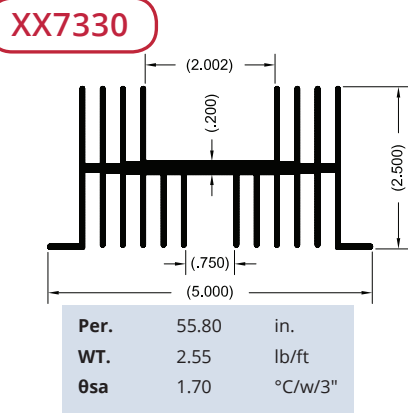
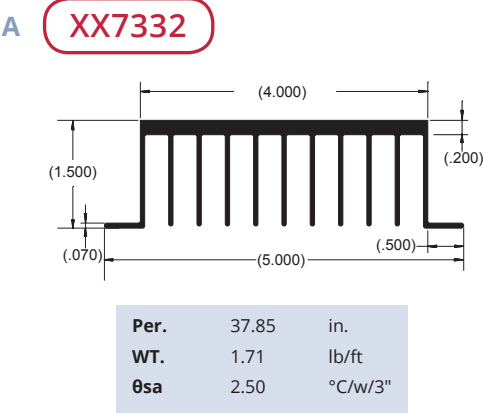


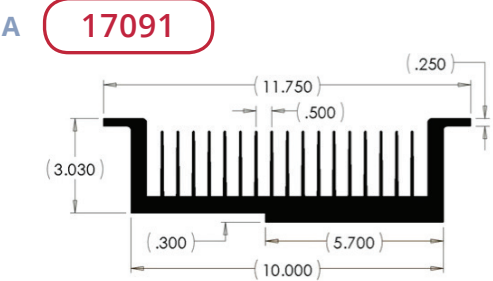
A XX6520  <table><tr><td>Per.</td><td>13.50</td><td>in.</td></tr><tr><td>WT.</td><td>0.74</td><td>lb/ft</td></tr><tr><td>θsa</td><td>4.00</td><td>°C/w/3"</td></tr></table>	Per.	13.50	in.	WT.	0.74	lb/ft	θsa	4.00	°C/w/3"	XX0236  <table><tr><td>Per.</td><td>19.58</td><td>in.</td></tr><tr><td>WT.</td><td>1.39</td><td>lb/ft</td></tr><tr><td>θsa</td><td>4.50</td><td>°C/w/3"</td></tr></table>	Per.	19.58	in.	WT.	1.39	lb/ft	θsa	4.50	°C/w/3"	XX4562  <table><tr><td>Per.</td><td>28.00</td><td>in.</td></tr><tr><td>WT.</td><td>1.62</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.50</td><td>°C/w/3"</td></tr></table>	Per.	28.00	in.	WT.	1.62	lb/ft	θsa	2.50	°C/w/3"	A XX7051  <table><tr><td>Per.</td><td>27.77</td><td>in.</td></tr><tr><td>WT.</td><td>1.54</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.80</td><td>°C/w/3"</td></tr></table>	Per.	27.77	in.	WT.	1.54	lb/ft	θsa	2.80	°C/w/3"	XX4618  <table><tr><td>Per.</td><td>32.22</td><td>in.</td></tr><tr><td>WT.</td><td>2.05</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.80</td><td>°C/w/3"</td></tr></table>	Per.	32.22	in.	WT.	2.05	lb/ft	θsa	1.80	°C/w/3"	XX6980  <table><tr><td>Per.</td><td>26.46</td><td>in.</td></tr><tr><td>WT.</td><td>1.36</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.50</td><td>°C/w/3"</td></tr></table>	Per.	26.46	in.	WT.	1.36	lb/ft	θsa	3.50	°C/w/3"
Per.	13.50	in.																																																									
WT.	0.74	lb/ft																																																									
θsa	4.00	°C/w/3"																																																									
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Per.	26.46	in.																																																									
WT.	1.36	lb/ft																																																									
θsa	3.50	°C/w/3"																																																									
B XX5052  <table><tr><td>Per.</td><td>31.02</td><td>in.</td></tr><tr><td>WT.</td><td>1.39</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.30</td><td>°C/w/3"</td></tr></table>	Per.	31.02	in.	WT.	1.39	lb/ft	θsa	2.30	°C/w/3"	XX5061  <table><tr><td>Per.</td><td>22.14</td><td>in.</td></tr><tr><td>WT.</td><td>1.85</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.00</td><td>°C/w/3"</td></tr></table>	Per.	22.14	in.	WT.	1.85	lb/ft	θsa	2.00	°C/w/3"	016582  <table><tr><td>Per.</td><td>66.79</td><td>in.</td></tr><tr><td>WT.</td><td>2.44</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.50</td><td>°C/w/3"</td></tr></table>	Per.	66.79	in.	WT.	2.44	lb/ft	θsa	3.50	°C/w/3"	B XX1327  <table><tr><td>Per.</td><td>15.98</td><td>in.</td></tr><tr><td>WT.</td><td>0.81</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.30</td><td>°C/w/3"</td></tr></table>	Per.	15.98	in.	WT.	0.81	lb/ft	θsa	3.30	°C/w/3"	003979  <table><tr><td>Per.</td><td>43.78</td><td>in.</td></tr><tr><td>WT.</td><td>1.19</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.10</td><td>°C/w/3"</td></tr></table>	Per.	43.78	in.	WT.	1.19	lb/ft	θsa	3.10	°C/w/3"	XX4670  <table><tr><td>Per.</td><td>23.42</td><td>in.</td></tr><tr><td>WT.</td><td>1.02</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.20</td><td>°C/w/3"</td></tr></table>	Per.	23.42	in.	WT.	1.02	lb/ft	θsa	3.20	°C/w/3"
Per.	31.02	in.																																																									
WT.	1.39	lb/ft																																																									
θsa	2.30	°C/w/3"																																																									
Per.	22.14	in.																																																									
WT.	1.85	lb/ft																																																									
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Per.	23.42	in.																																																									
WT.	1.02	lb/ft																																																									
θsa	3.20	°C/w/3"																																																									
C XX9004  <table><tr><td>Per.</td><td>15.97</td><td>in.</td></tr><tr><td>WT.</td><td>1.14</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.90</td><td>°C/w/3"</td></tr></table>	Per.	15.97	in.	WT.	1.14	lb/ft	θsa	2.90	°C/w/3"	XX1055  <table><tr><td>Per.</td><td>23.13</td><td>in.</td></tr><tr><td>WT.</td><td>1.43</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.80</td><td>°C/w/3"</td></tr></table>	Per.	23.13	in.	WT.	1.43	lb/ft	θsa	2.80	°C/w/3"	XX8340  <table><tr><td>Per.</td><td>37.80</td><td>in.</td></tr><tr><td>WT.</td><td>2.27</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.60</td><td>°C/w/3"</td></tr></table>	Per.	37.80	in.	WT.	2.27	lb/ft	θsa	1.60	°C/w/3"	C XX1502  <table><tr><td>Per.</td><td>58.23</td><td>in.</td></tr><tr><td>WT.</td><td>3.06</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.80</td><td>°C/w/3"</td></tr></table>	Per.	58.23	in.	WT.	3.06	lb/ft	θsa	1.80	°C/w/3"	XX4671  <table><tr><td>Per.</td><td>30.25</td><td>in.</td></tr><tr><td>WT.</td><td>1.67</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.80</td><td>°C/w/3"</td></tr></table>	Per.	30.25	in.	WT.	1.67	lb/ft	θsa	1.80	°C/w/3"	XX1026  <table><tr><td>Per.</td><td>33.86</td><td>in.</td></tr><tr><td>WT.</td><td>2.67</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.10</td><td>°C/w/3"</td></tr></table>	Per.	33.86	in.	WT.	2.67	lb/ft	θsa	2.10	°C/w/3"
Per.	15.97	in.																																																									
WT.	1.14	lb/ft																																																									
θsa	2.90	°C/w/3"																																																									
Per.	23.13	in.																																																									
WT.	1.43	lb/ft																																																									
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WT.	2.67	lb/ft																																																									
θsa	2.10	°C/w/3"																																																									
D XX1459  <table><tr><td>Per.</td><td>22.62</td><td>in.</td></tr><tr><td>WT.</td><td>1.59</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.70</td><td>°C/w/3"</td></tr></table>	Per.	22.62	in.	WT.	1.59	lb/ft	θsa	2.70	°C/w/3"	XX1371  <table><tr><td>Per.</td><td>23.82</td><td>in.</td></tr><tr><td>WT.</td><td>1.10</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.20</td><td>°C/w/3"</td></tr></table>	Per.	23.82	in.	WT.	1.10	lb/ft	θsa	2.20	°C/w/3"	015935  <table><tr><td>Per.</td><td>17.66</td><td>in.</td></tr><tr><td>WT.</td><td>0.98</td><td>lb/ft</td></tr><tr><td>θsa</td><td>5.90</td><td>°C/w/3"</td></tr></table>	Per.	17.66	in.	WT.	0.98	lb/ft	θsa	5.90	°C/w/3"	D 016314  <table><tr><td>Per.</td><td>43.85</td><td>in.</td></tr><tr><td>WT.</td><td>5.33</td><td>lb/ft</td></tr><tr><td>θsa</td><td>1.60</td><td>°C/w/3"</td></tr></table>	Per.	43.85	in.	WT.	5.33	lb/ft	θsa	1.60	°C/w/3"	016372  <table><tr><td>Per.</td><td>39.30</td><td>in.</td></tr><tr><td>WT.</td><td>3.46</td><td>lb/ft</td></tr><tr><td>θsa</td><td>2.50</td><td>°C/w/3"</td></tr></table>	Per.	39.30	in.	WT.	3.46	lb/ft	θsa	2.50	°C/w/3"	XX7331  <table><tr><td>Per.</td><td>33.80</td><td>in.</td></tr><tr><td>WT.</td><td>1.90</td><td>lb/ft</td></tr><tr><td>θsa</td><td>3.00</td><td>°C/w/3"</td></tr></table>	Per.	33.80	in.	WT.	1.90	lb/ft	θsa	3.00	°C/w/3"
Per.	22.62	in.																																																									
WT.	1.59	lb/ft																																																									
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θsa	3.00	°C/w/3"																																																									



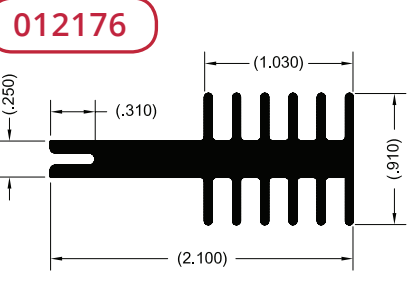




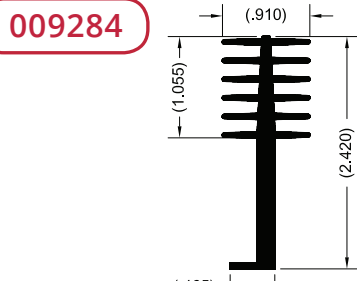




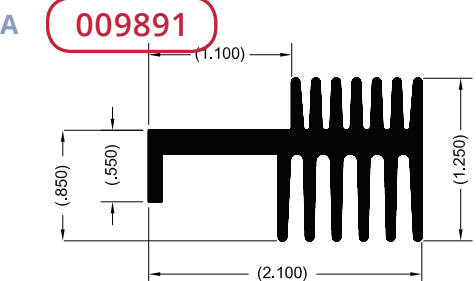
Per.	105.27	in.
WT.	15.43	lb/ft
θsa	0.66	°C/w/3"



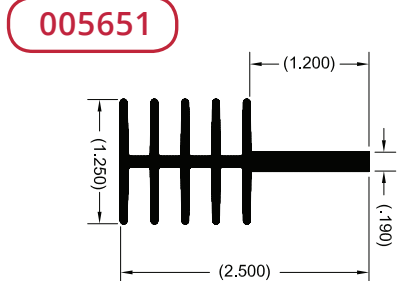
Per.	12.65	in.
WT.	0.81	lb/ft
θsa	5.50	°C/w/3"



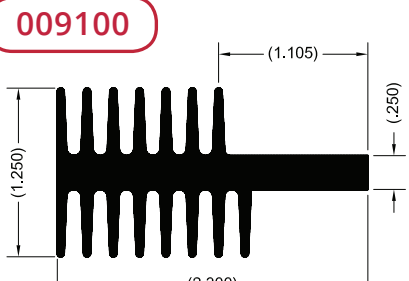
Per.	15.24	in.
WT.	0.80	lb/ft
θsa	4.60	°C/w/3"



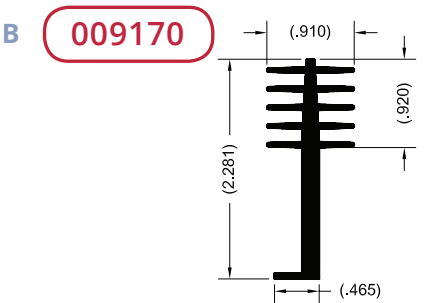
Per.	14.74	in.
WT.	1.11	lb/ft
θsa	4.70	°C/w/3"



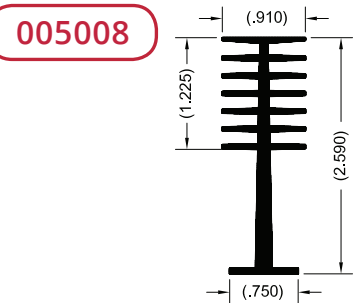
Per.	18.00	in.
WT.	0.88	lb/ft
θsa	3.90	°C/w/3"



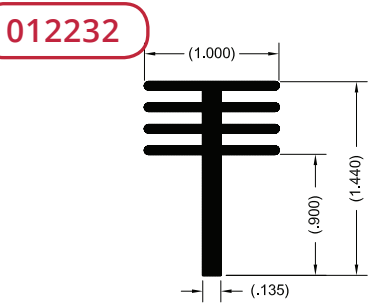
Per.	20.10	in.
WT.	1.23	lb/ft
θsa	3.50	°C/w/3"



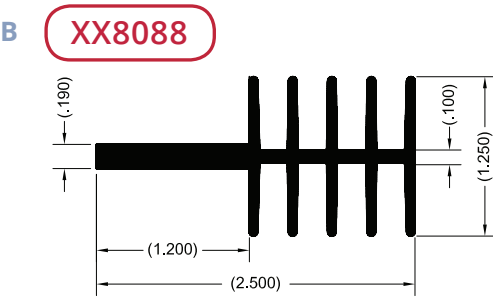
Per.	13.50	in.
WT.	0.73	lb/ft
θsa	5.20	°C/w/3"



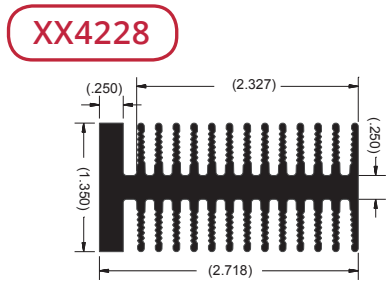
Per.	20.00	in.
WT.	0.81	lb/ft
θsa	3.50	°C/w/3"



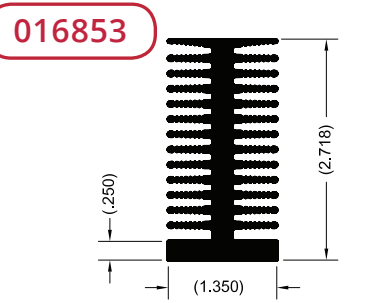
Per.	9.80	in.
WT.	0.47	lb/ft
θsa	7.10	°C/w/3"



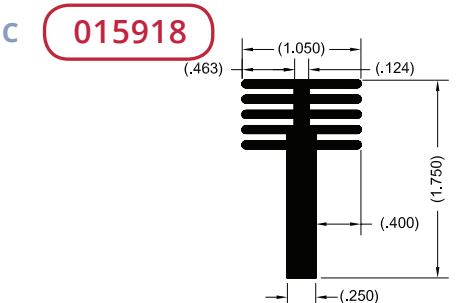
Per.	14.65	in.
WT.	0.93	lb/ft
θsa	4.20	°C/w/3"



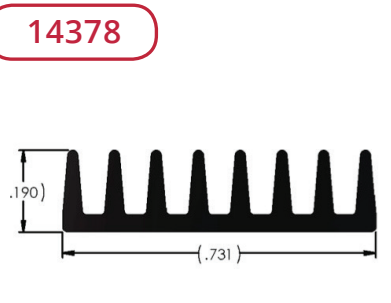
Per.	38.93	in.
WT.	2.29	lb/ft
θsa	1.90	°C/w/3"



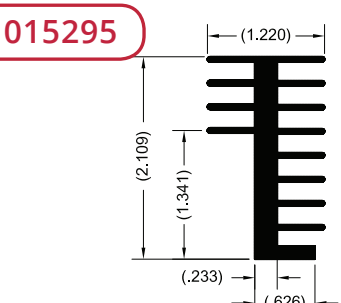
Per.	39.17	in.
WT.	2.28	lb/ft
θsa	3.10	°C/w/3"



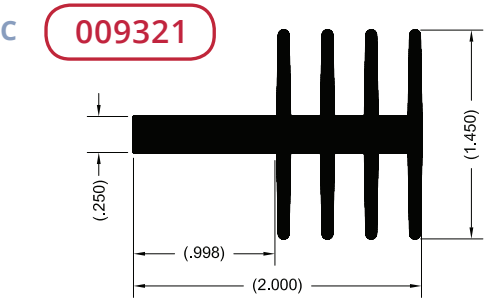
Per.	13.22	in.
WT.	0.78	lb/ft
θsa	0.00	°C/w/3"



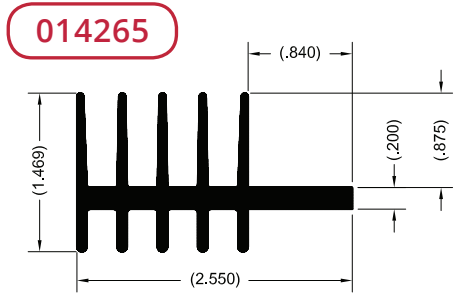
Per.	13.90	in.
WT.	0.72	lb/ft
θsa	5.03	°C/w/3"



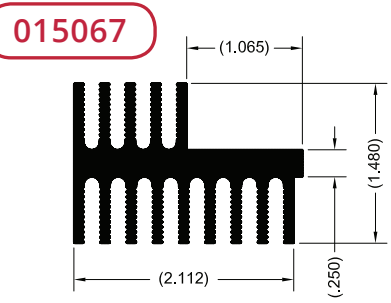
Per.	17.15	in.
WT.	1.04	lb/ft
θsa	0.00	°C/w/3"



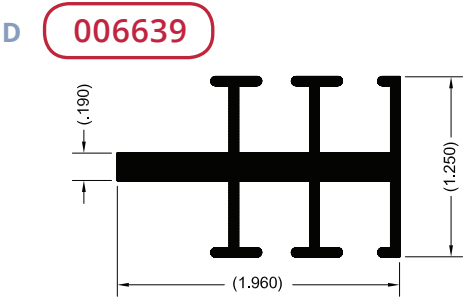
Per.	14.83	in.
WT.	1.02	lb/ft
θsa	4.70	°C/w/3"



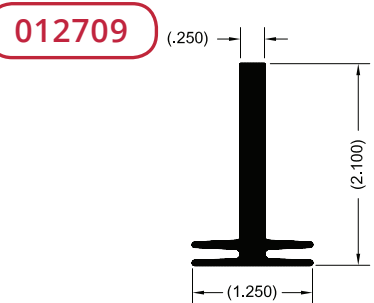
Per.	17.37	in.
WT.	1.33	lb/ft
θsa	4.00	°C/w/3"



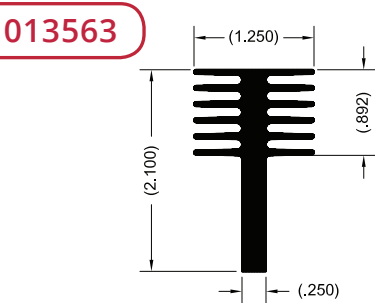
Per.	24.06	in.
WT.	1.50	lb/ft
θsa	2.90	°C/w/3"



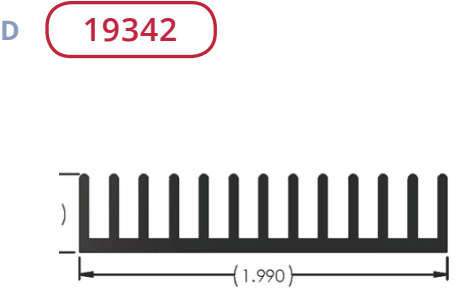
Per.	16.00	in.
WT.	0.73	lb/ft
θsa	4.40	°C/w/3"



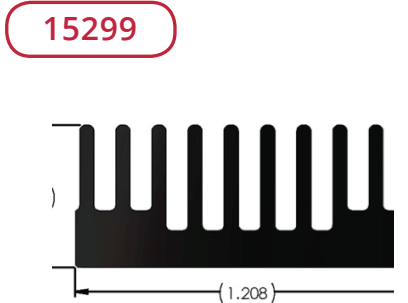
Per.	8.40	in.
WT.	0.76	lb/ft
θsa	8.30	°C/w/3"



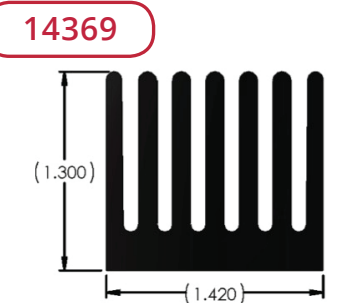
Per.	15.81	in.
WT.	1.02	lb/ft
θsa	4.40	°C/w/3"



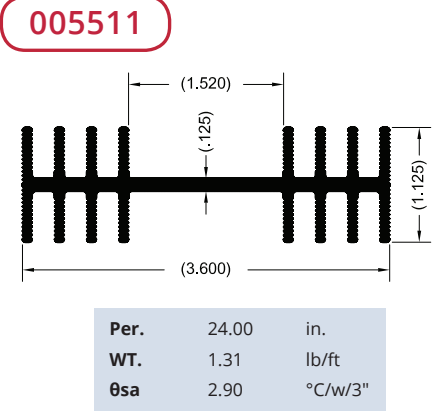
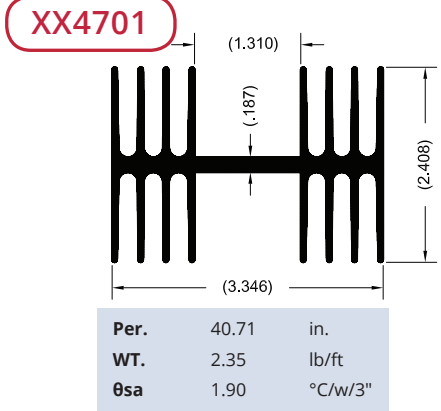
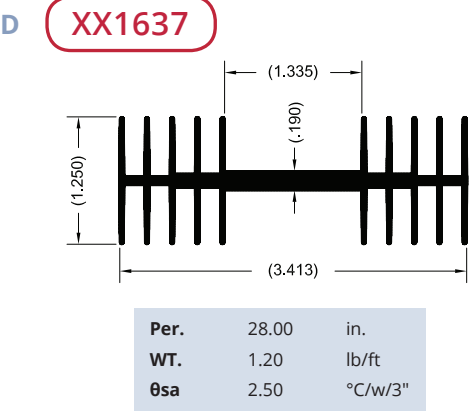
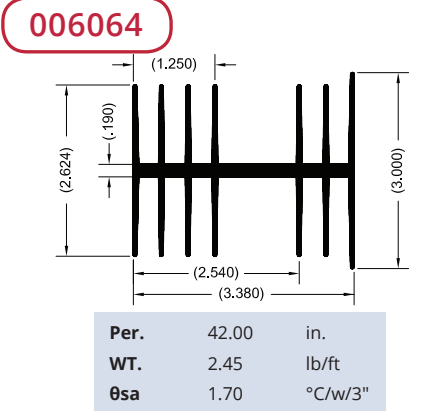
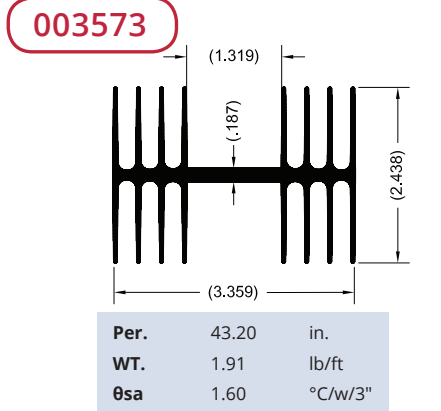
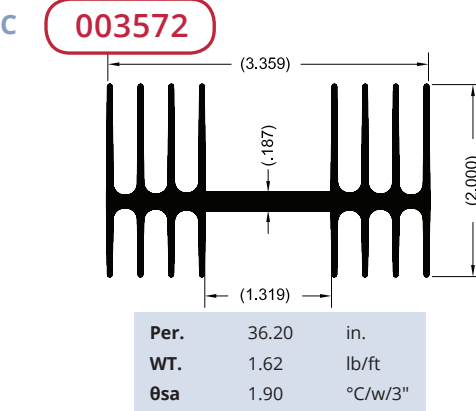
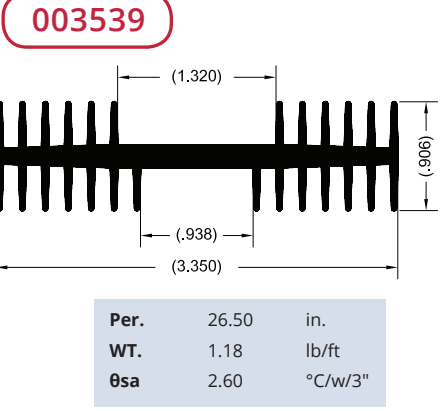
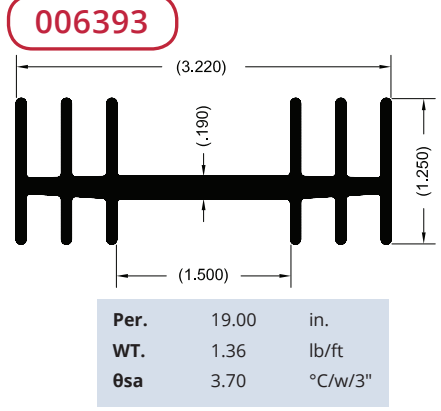
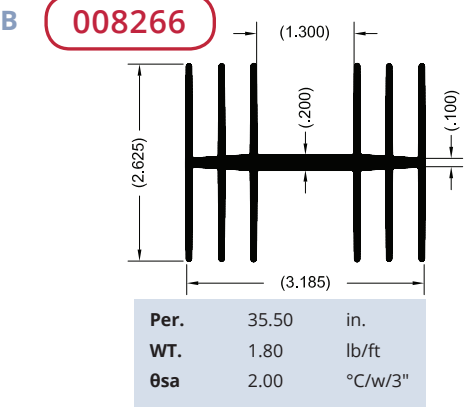
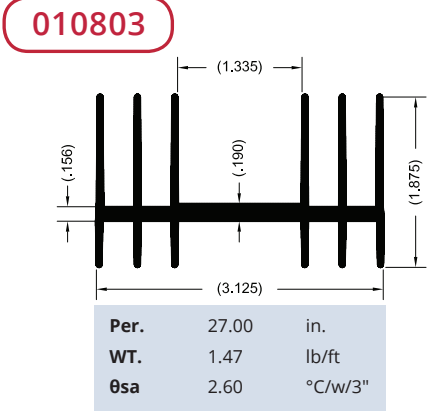
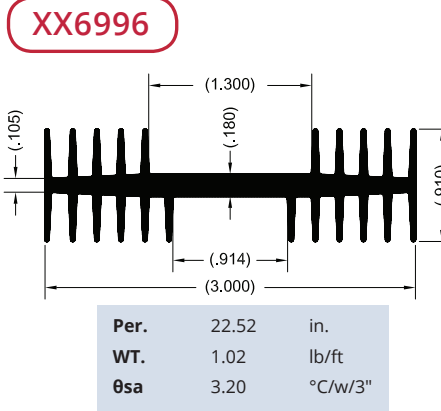
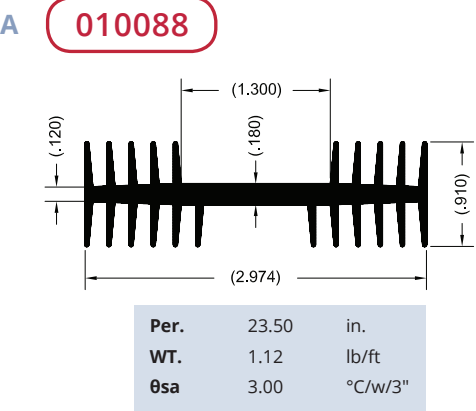
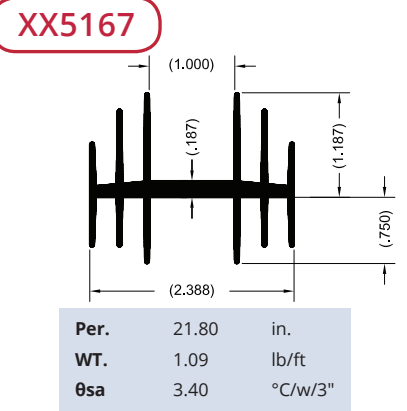
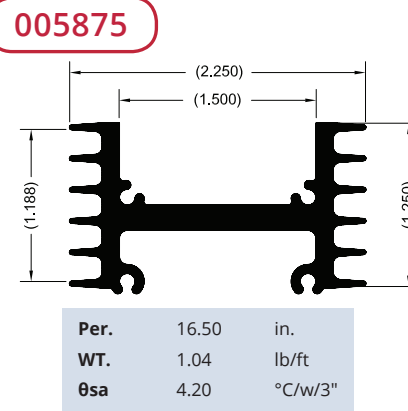
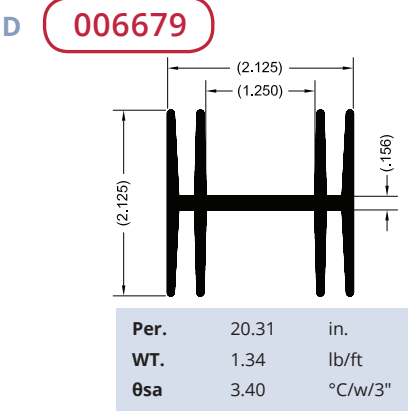
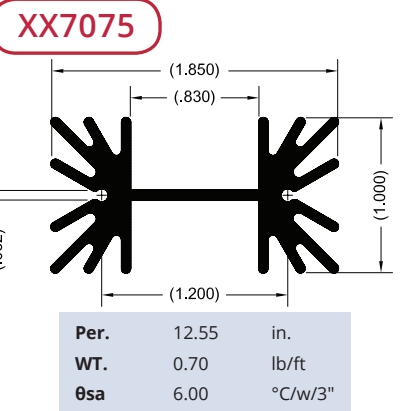
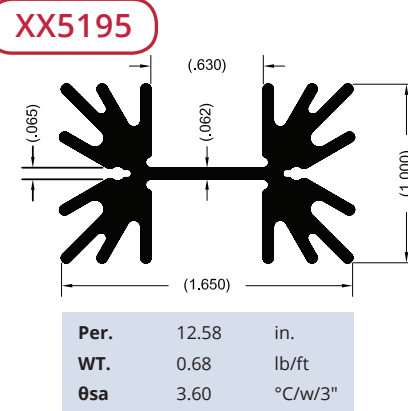
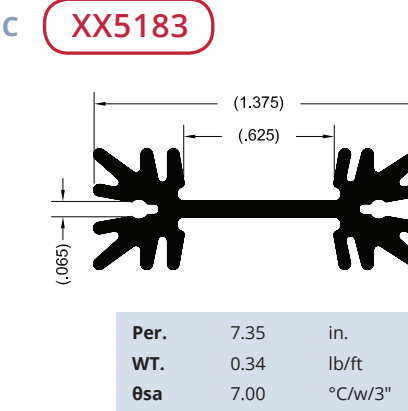
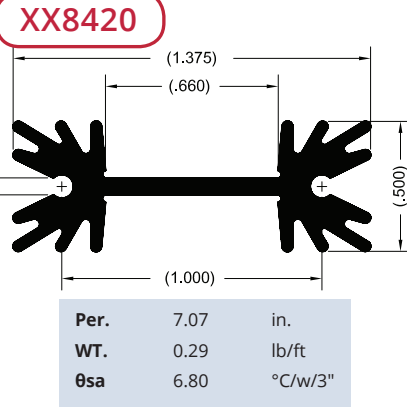
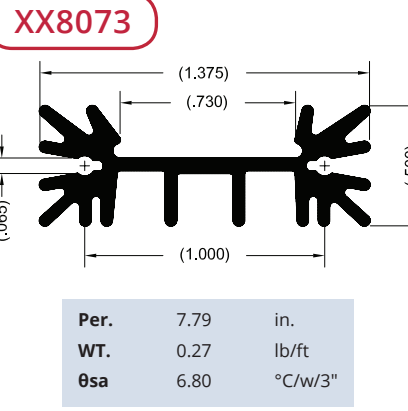
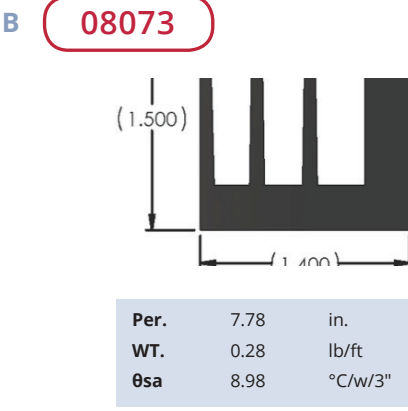
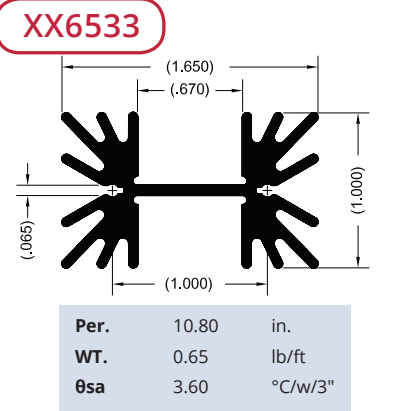
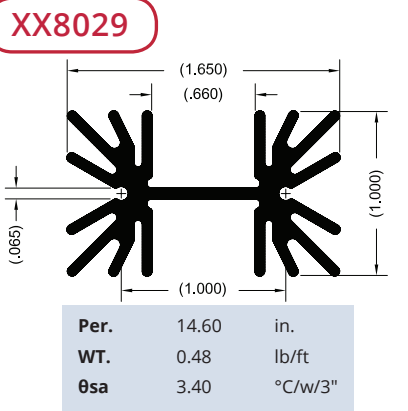
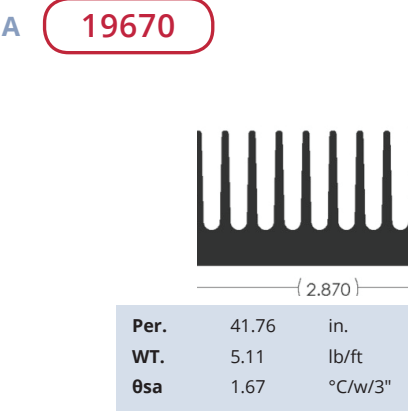
Per.	19.99	in.
WT.	1.32	lb/ft
θsa	3.50	°C/w/3"

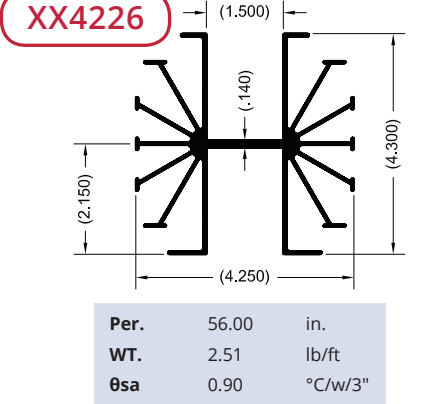
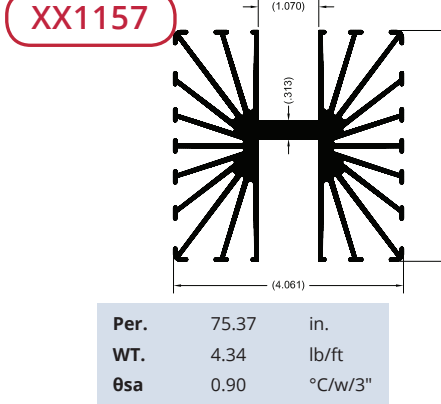
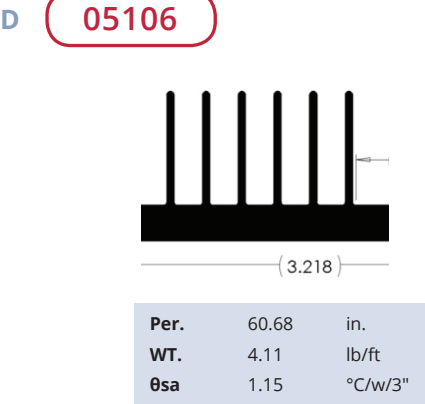
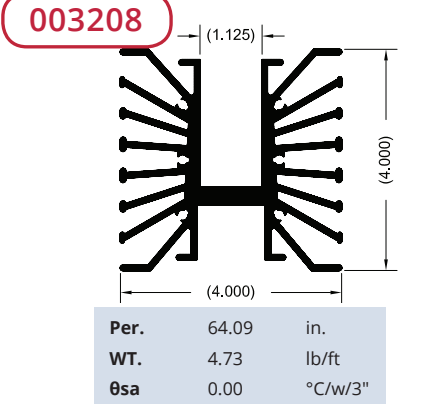
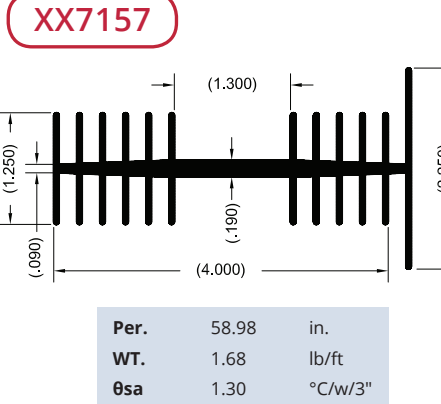
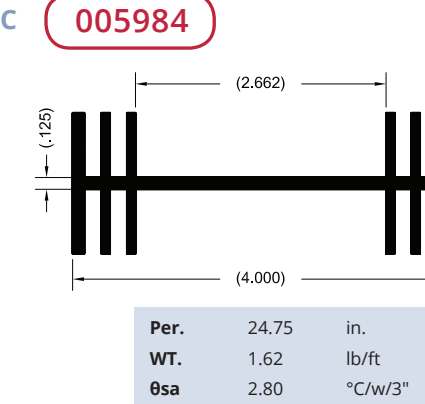
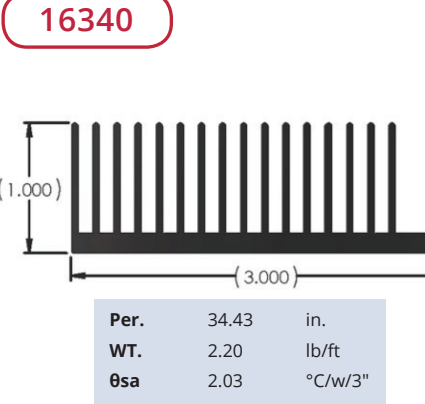
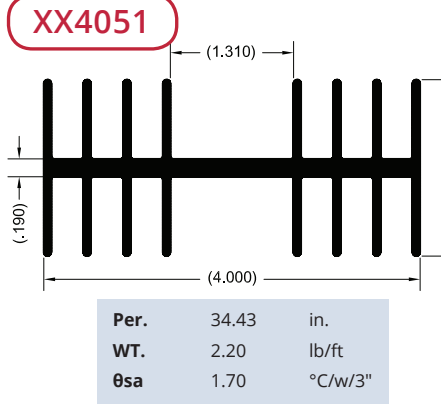
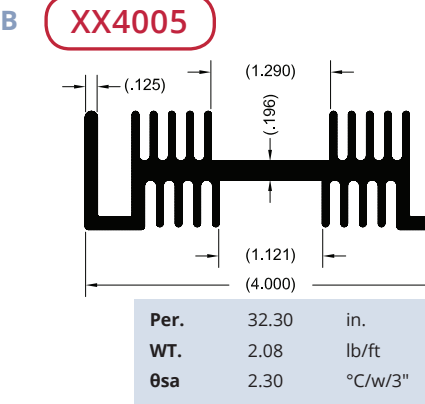
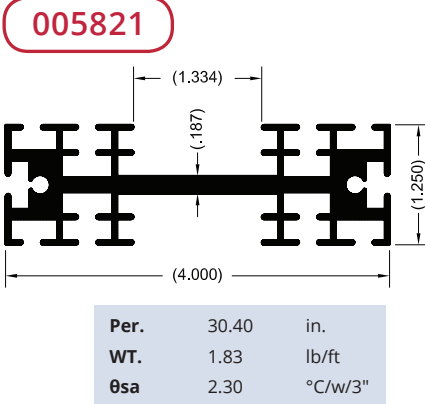
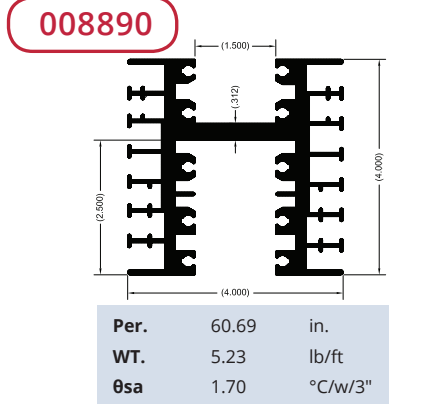
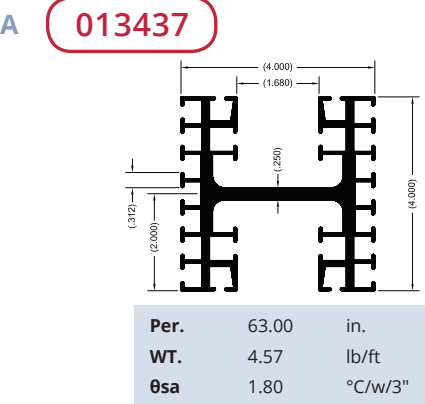
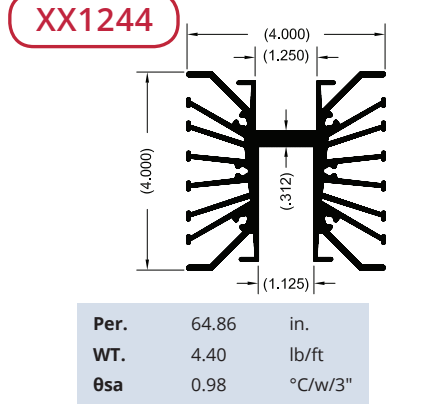
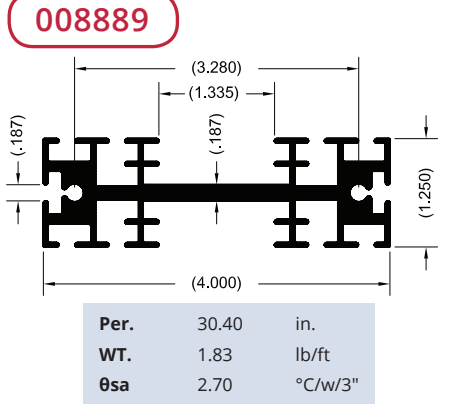
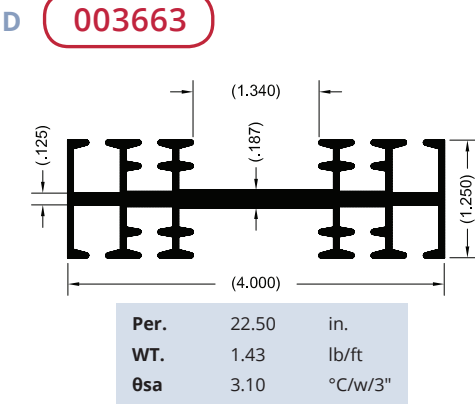
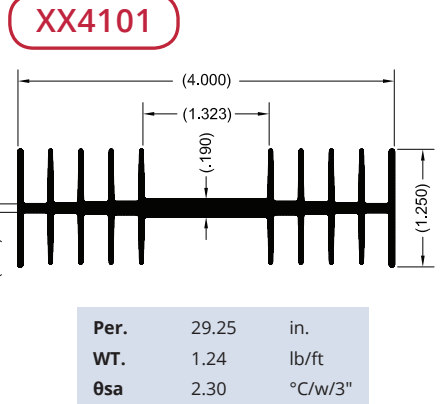
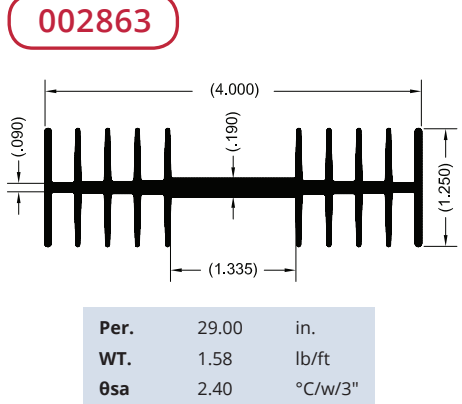
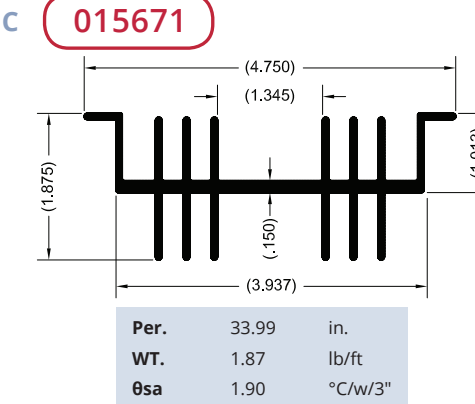
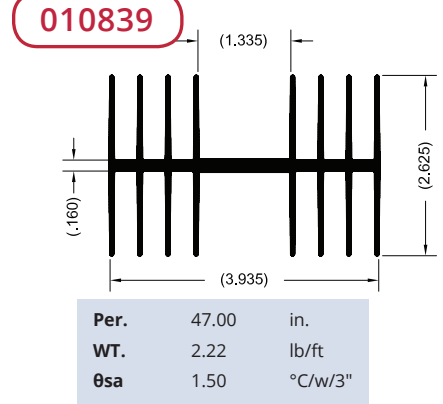
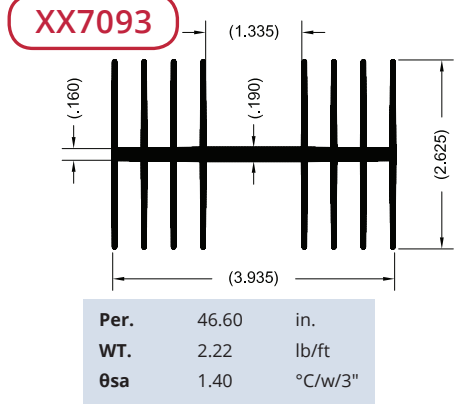
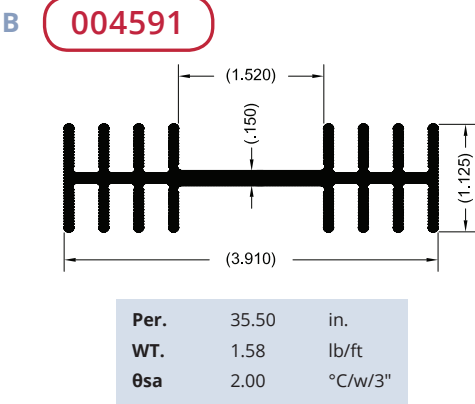
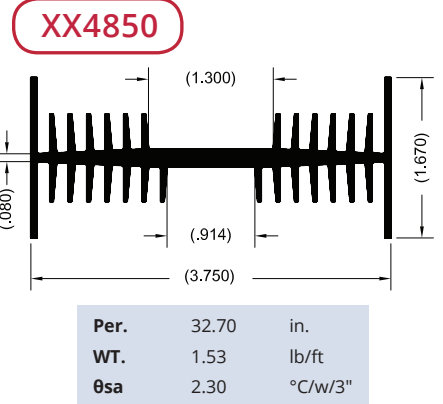
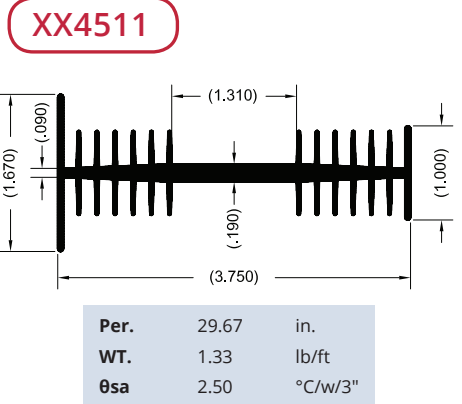
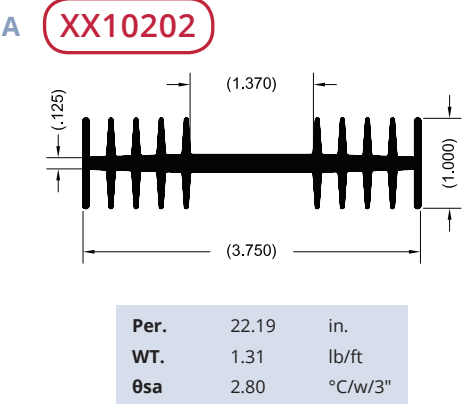


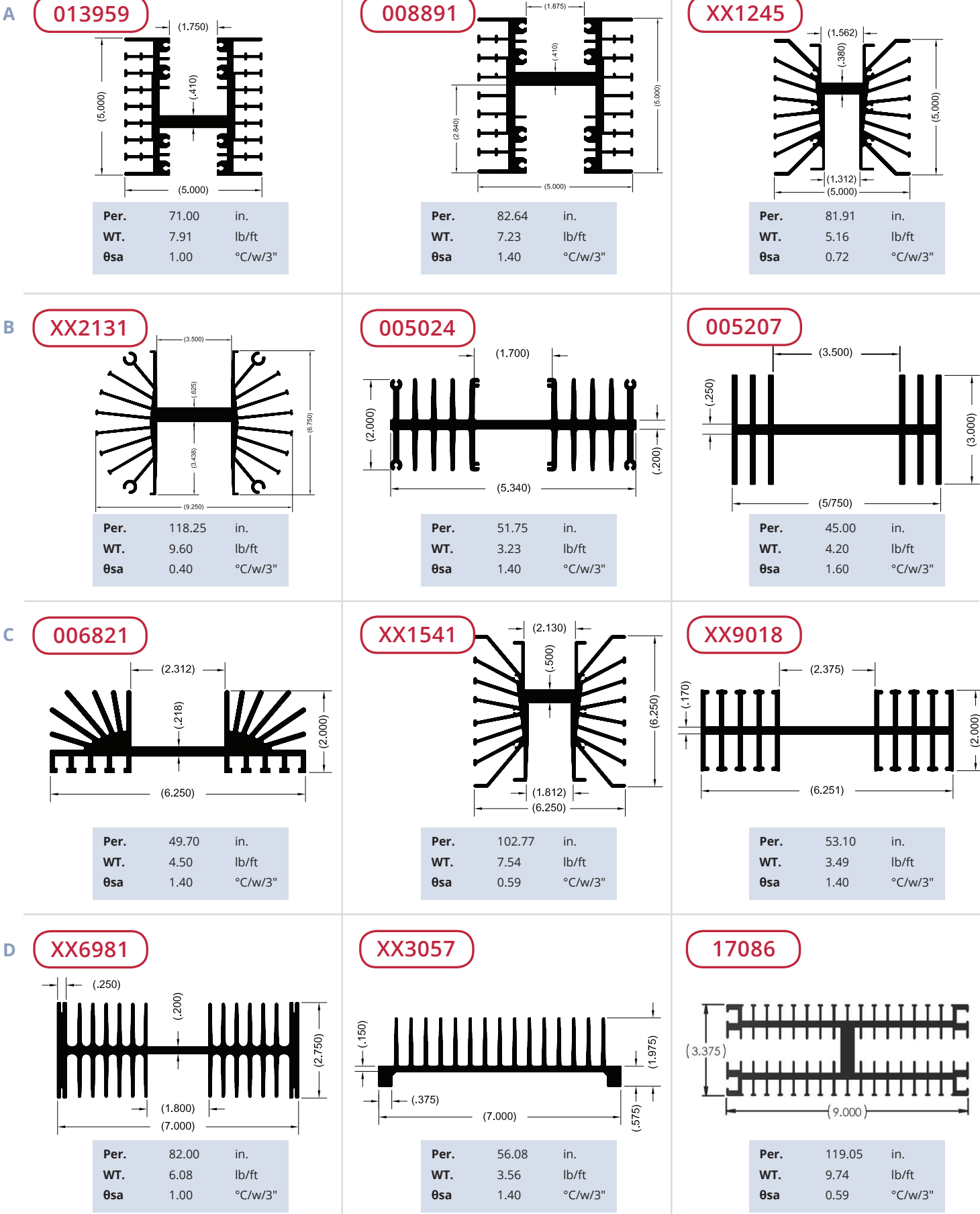
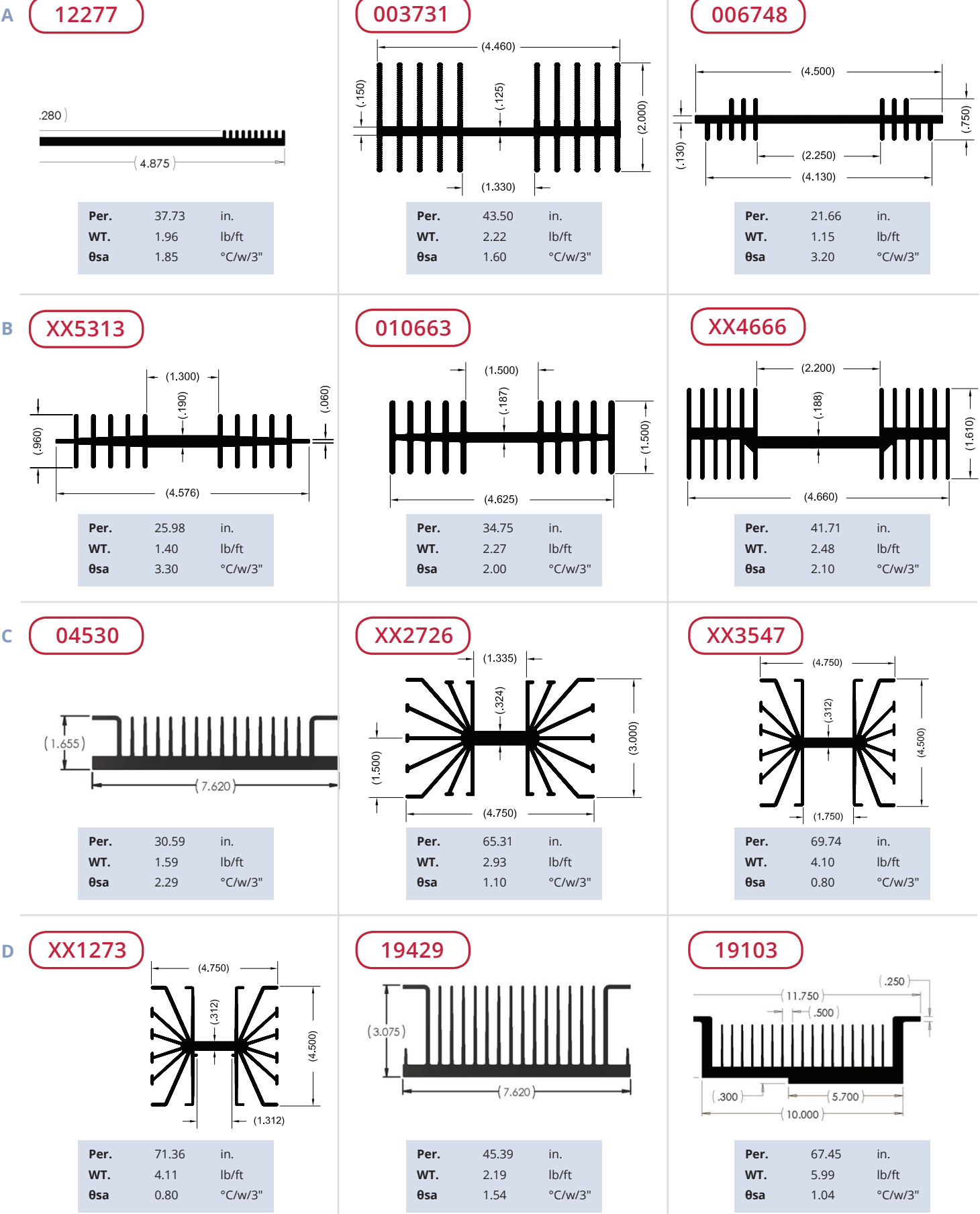
Per.	18.01	in.
WT.	1.14	lb/ft
θsa	3.88	°C/w/3"

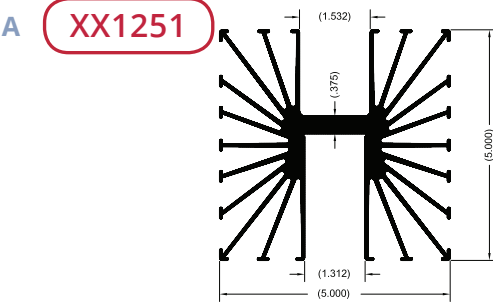


Per.	21.10	in.
WT.	1.23	lb/ft
θsa	3.31	°C/w/3"

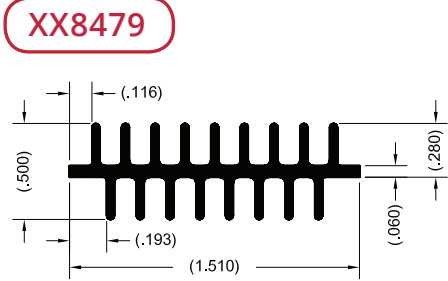




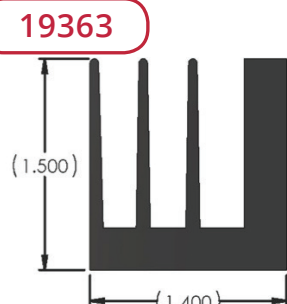




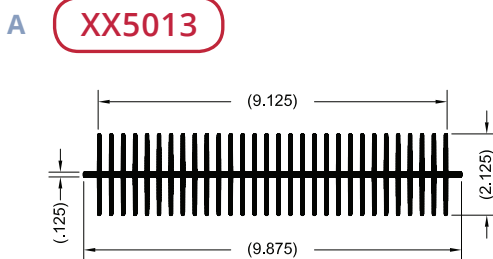
Per.	89.93	in.
WT.	5.74	lb/ft
θsa	0.70	°C/w/3"



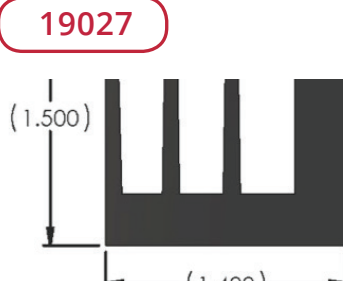
Per.	9.90	in.
WT.	0.27	lb/ft
θsa	7.80	°C/w/3"



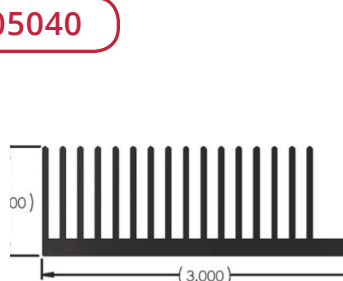
Per.	43.93	in.
WT.	1.78	lb/ft
θsa	1.59	°C/w/3"



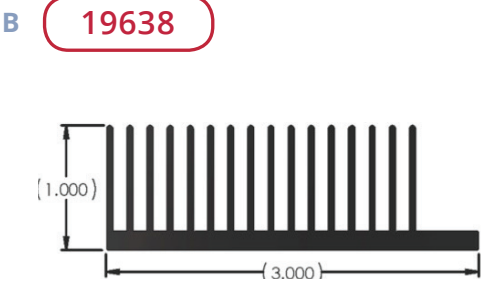
Per.	139.22	in.
WT.	6.41	lb/ft
θsa	0.96	°C/w/3"



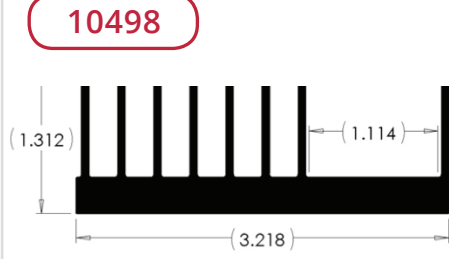
Per.	4.65	in.
WT.	0.09	lb/ft
θsa	15.05	°C/w/3"



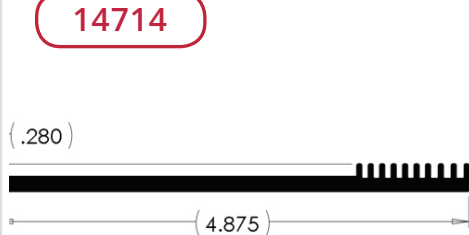
Per.	27.74	in.
WT.	2.05	lb/ft
θsa	2.52	°C/w/3"



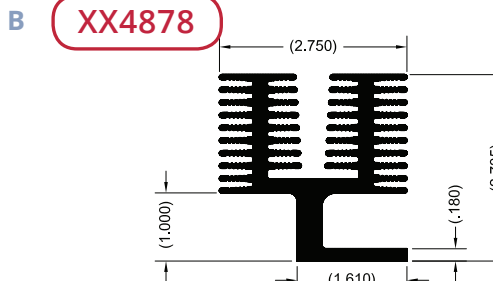
Per.	34.70	in.
WT.	3.72	lb/ft
θsa	2.02	°C/w/3"



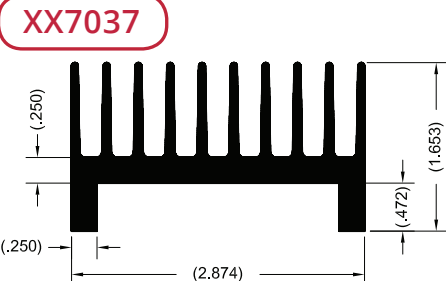
Per.	46.35	in.
WT.	2.32	lb/ft
θsa	1.51	°C/w/3"



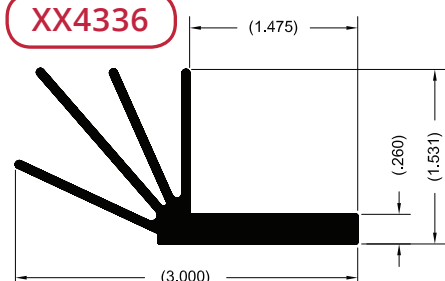
Per.	84.15	in.
WT.	7.71	lb/ft
θsa	0.83	°C/w/3"



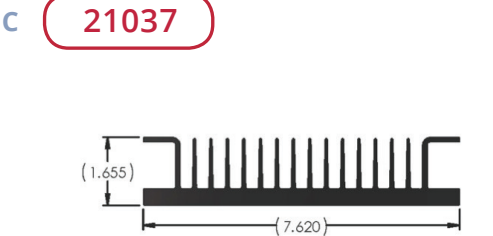
Per.	50.88	in.
WT.	3.30	lb/ft
θsa	1.80	°C/w/3"



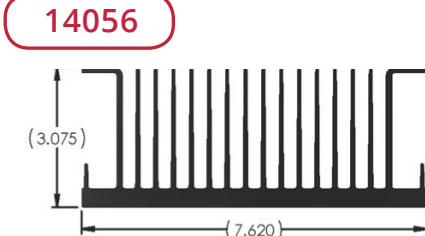
Per.	26.00	in.
WT.	2.03	lb/ft
θsa	2.80	°C/w/3"



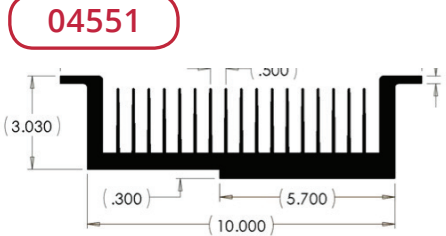
Per.	14.66	in.
WT.	1.02	lb/ft
θsa	5.10	°C/w/3"



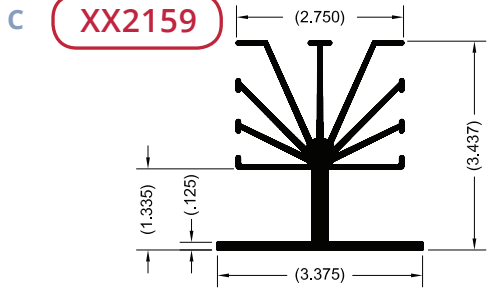
Per.	42.34	in.
WT.	2.46	lb/ft
θsa	1.65	°C/w/3"



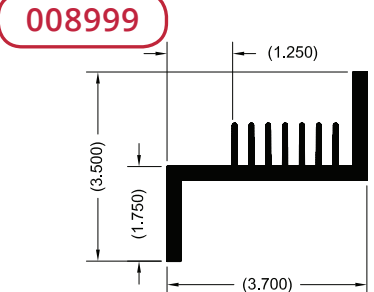
Per.	62.77	in.
WT.	4.48	lb/ft
θsa	1.11	°C/w/3"



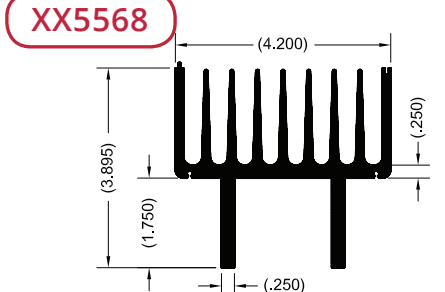
Per.	46.76	in.
WT.	3.57	lb/ft
θsa	1.50	°C/w/3"



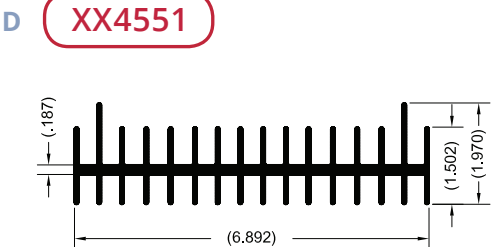
Per.	40.23	in.
WT.	2.47	lb/ft
θsa	1.90	°C/w/3"



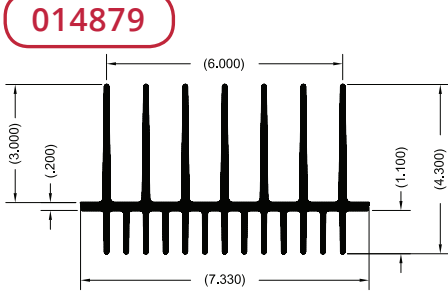
Per.	25.60	in.
WT.	2.59	lb/ft
θsa	2.70	°C/w/3"



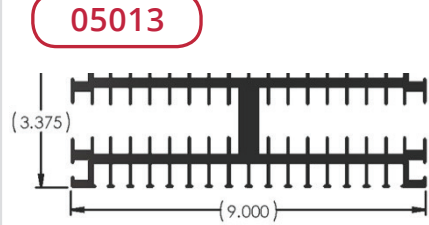
Per.	48.40	in.
WT.	5.01	lb/ft
θsa	1.50	°C/w/3"



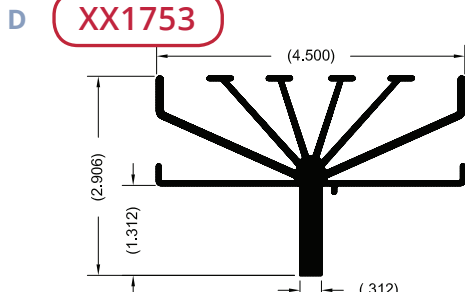
Per.	57.73	in.
WT.	3.59	lb/ft
θsa	1.26	°C/w/3"



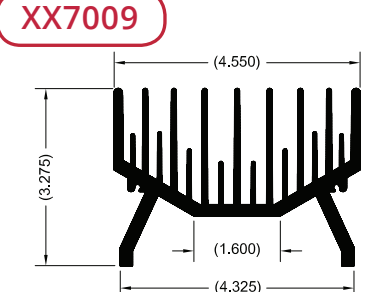
Per.	82.26	in.
WT.	7.16	lb/ft
θsa	0.85	°C/w/3"



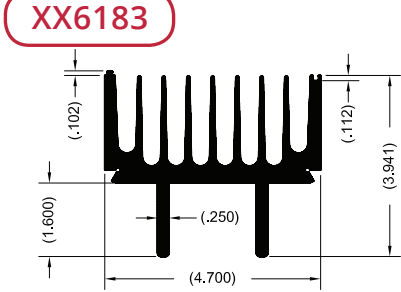
Per.	136.05	in.
WT.	6.40	lb/ft
θsa	0.51	°C/w/3"



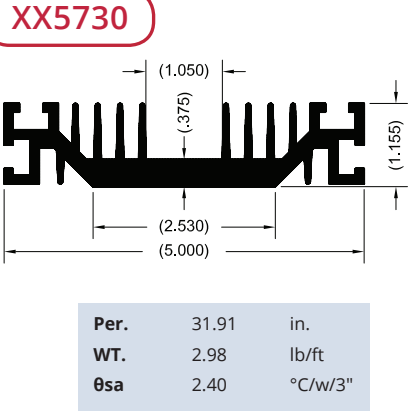
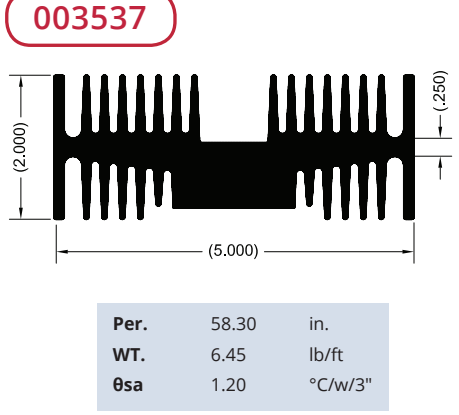
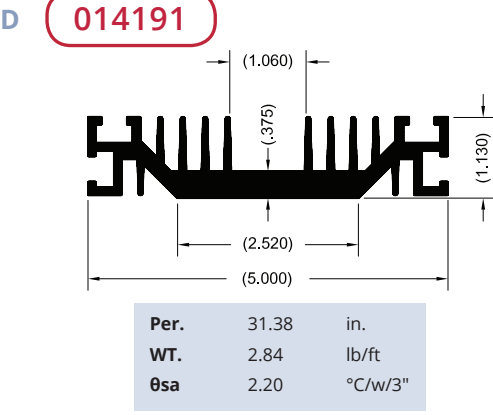
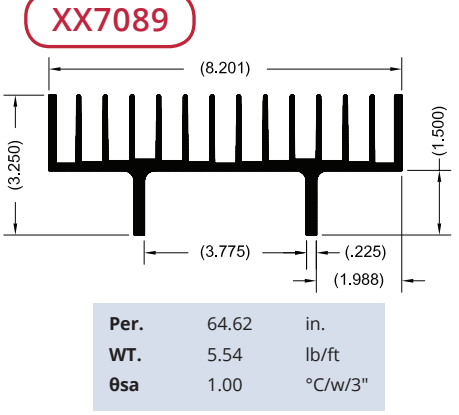
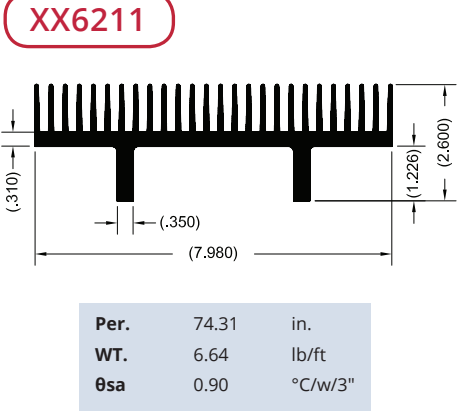
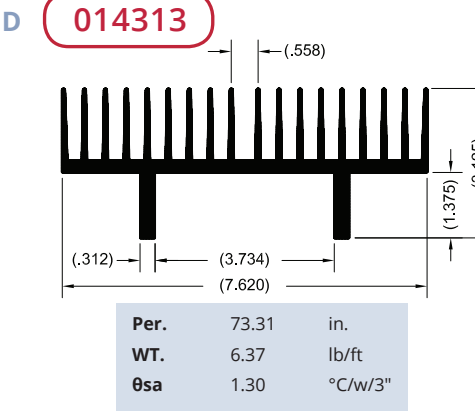
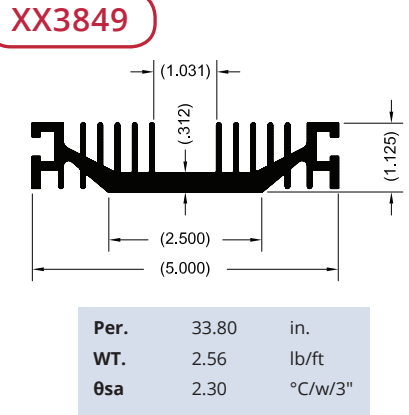
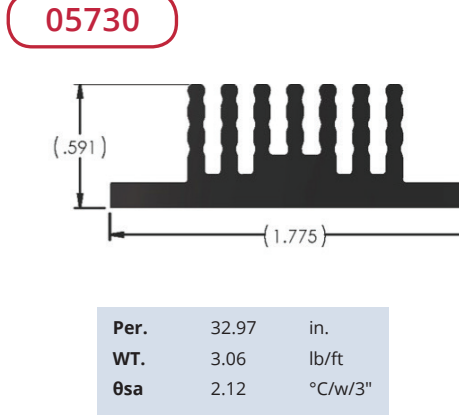
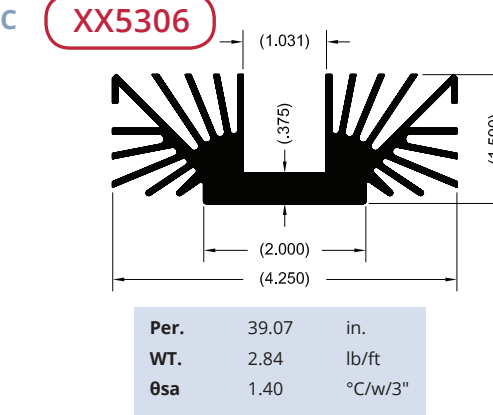
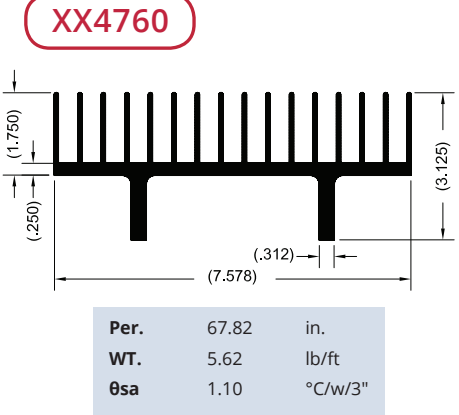
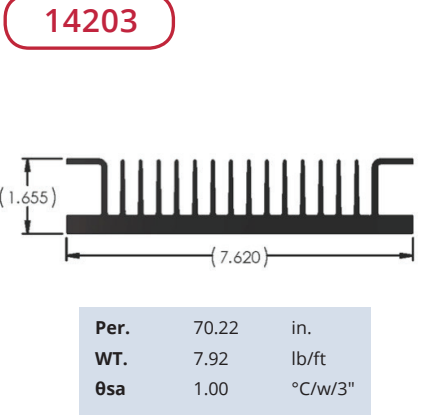
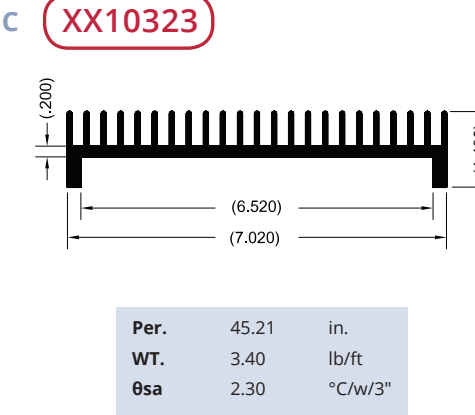
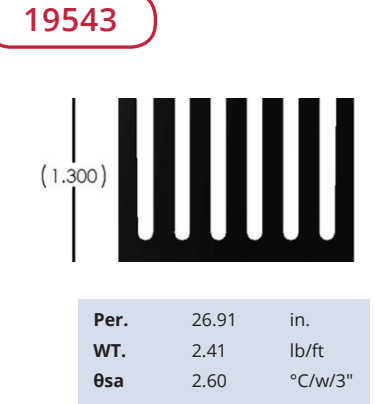
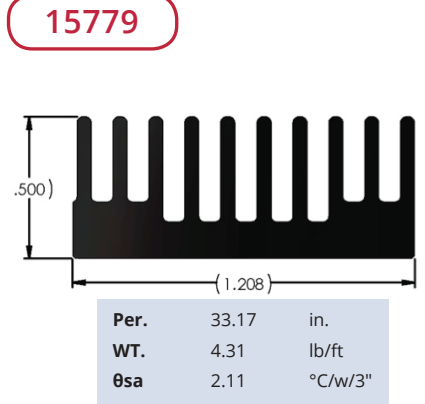
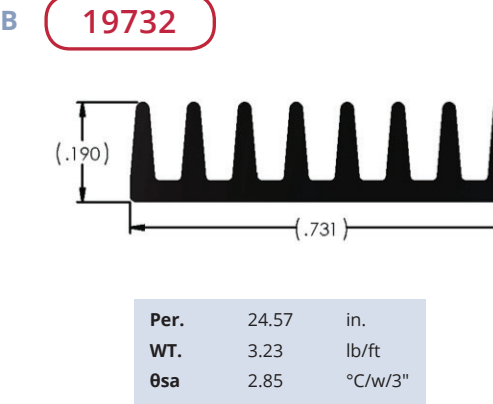
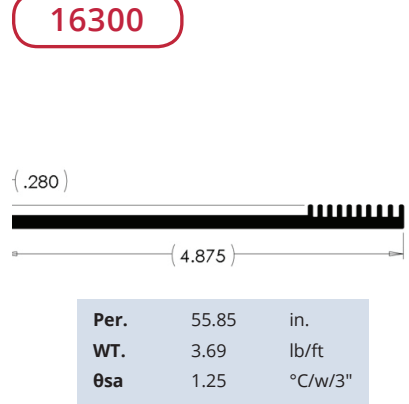
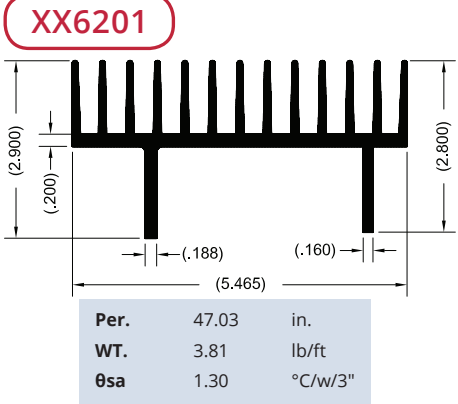
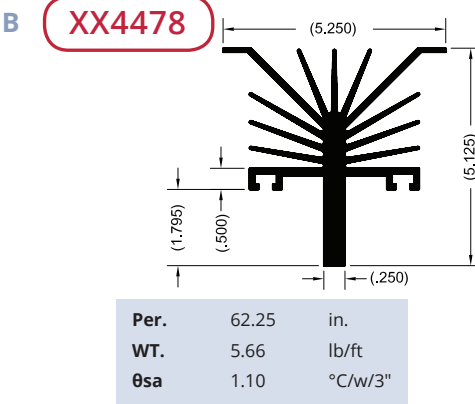
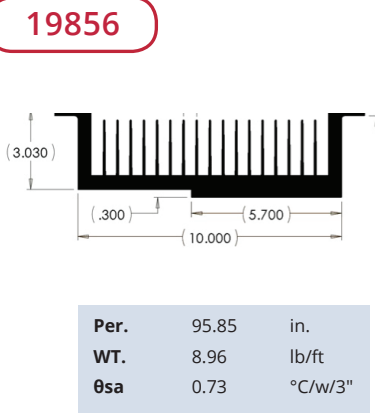
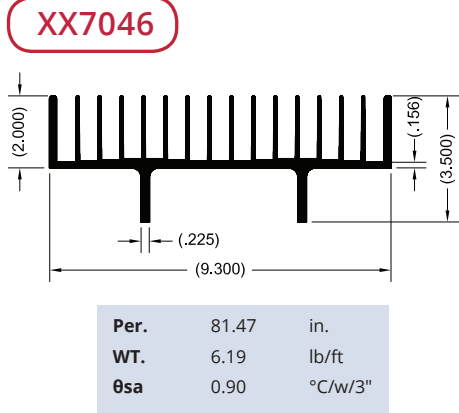
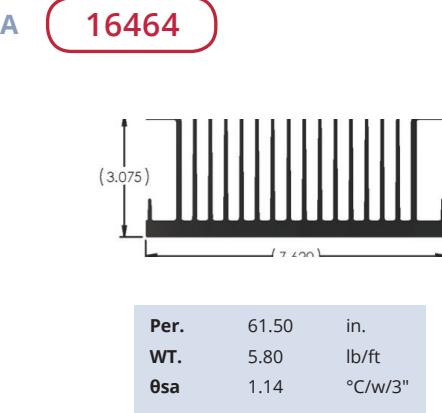
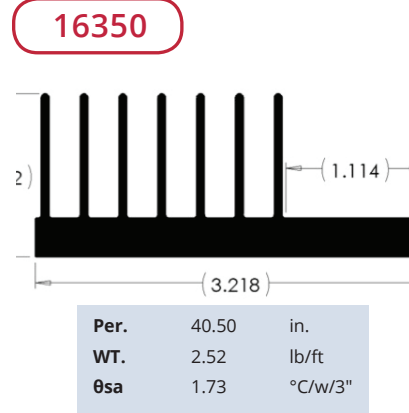
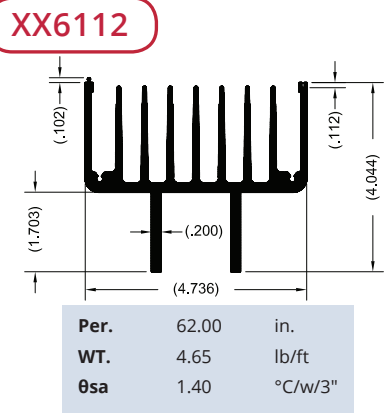
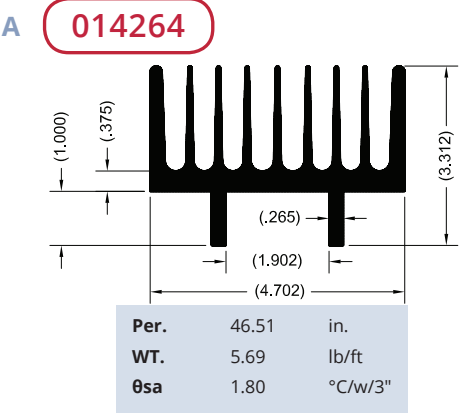
Per.	36.88	in.
WT.	2.16	lb/ft
θsa	1.70	°C/w/3"

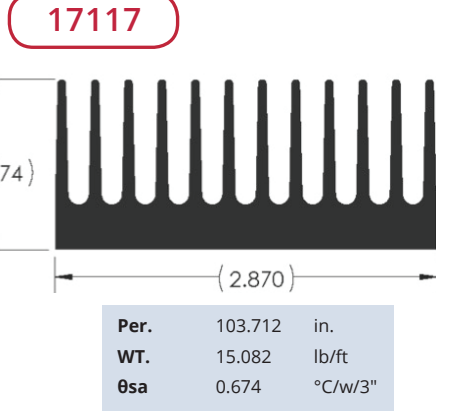
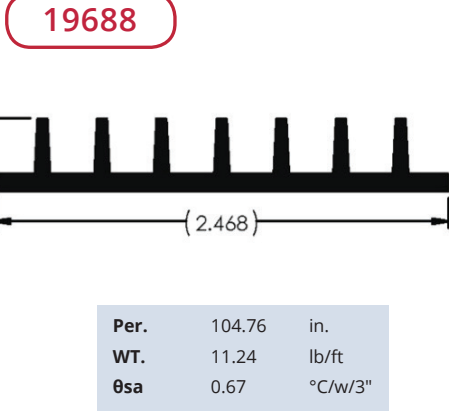
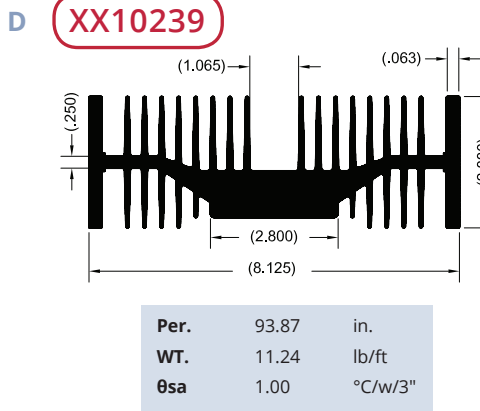
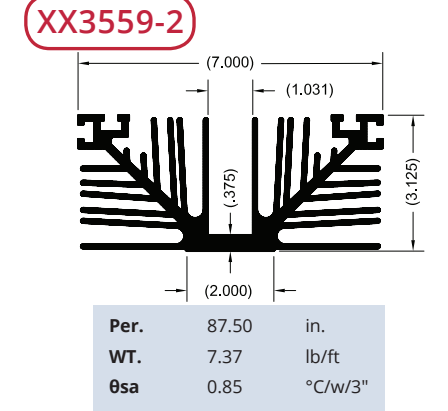
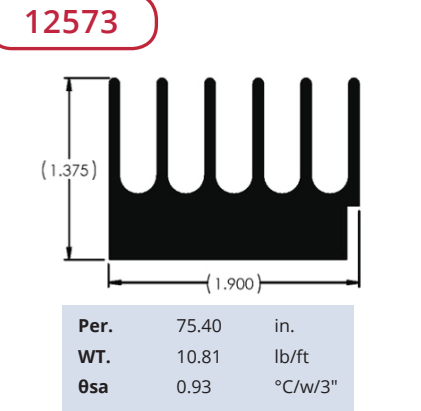
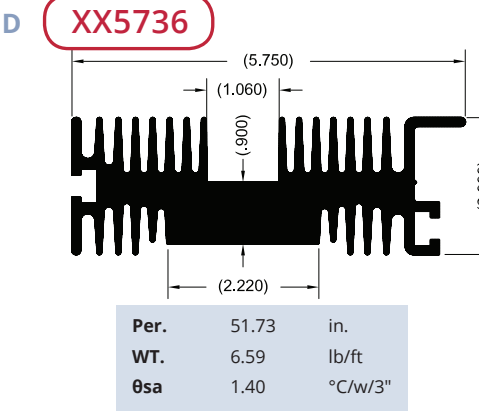
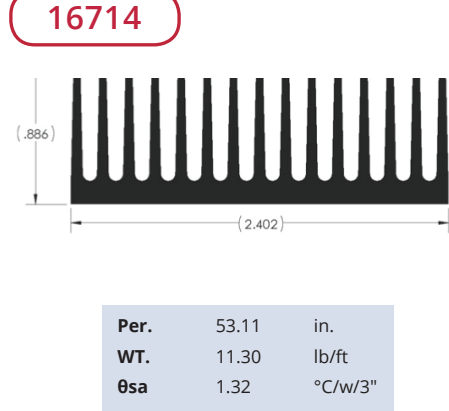
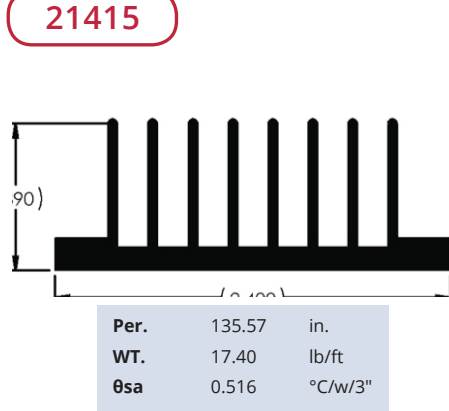
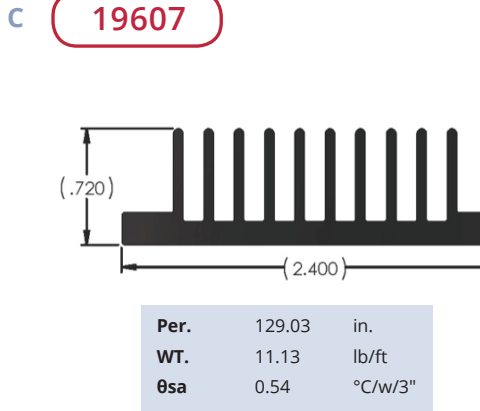
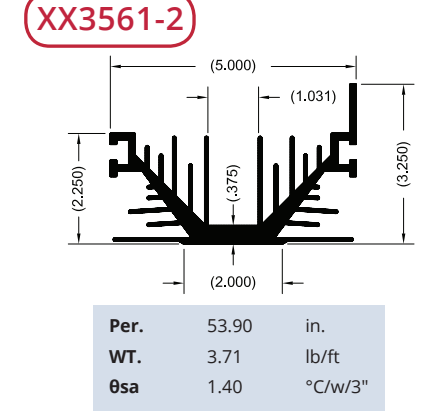
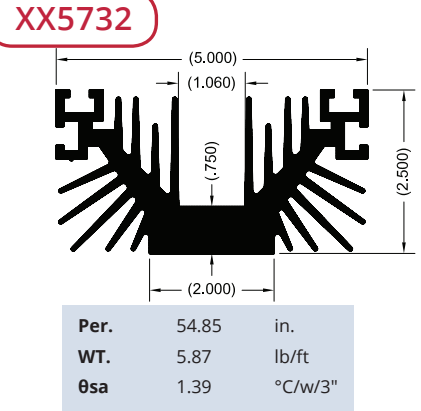
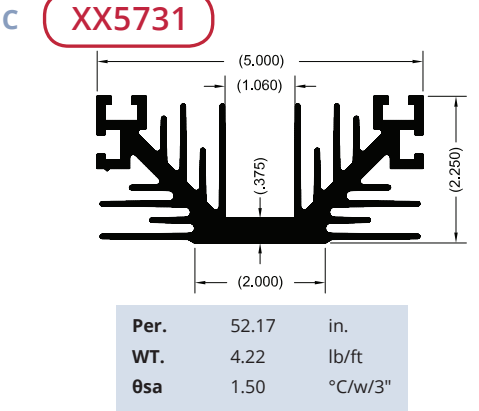
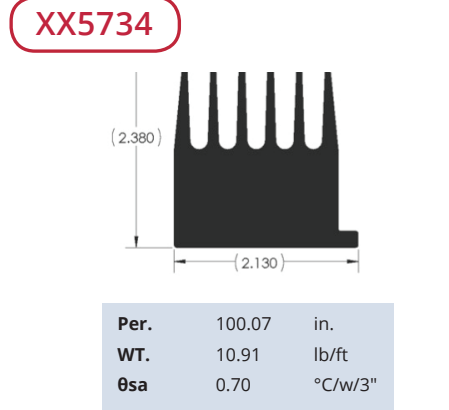
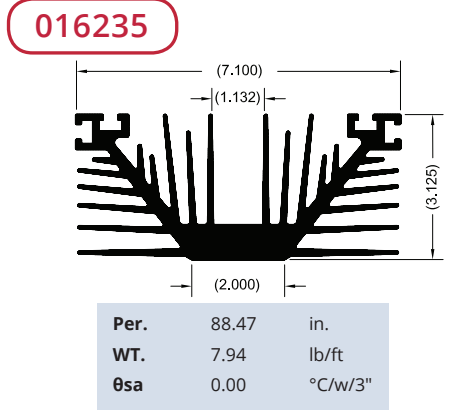
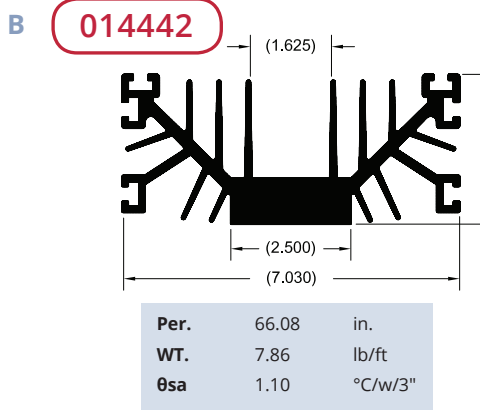
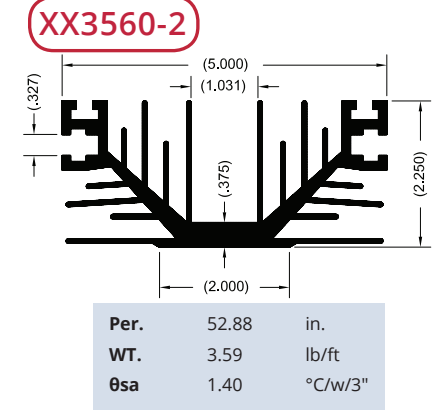
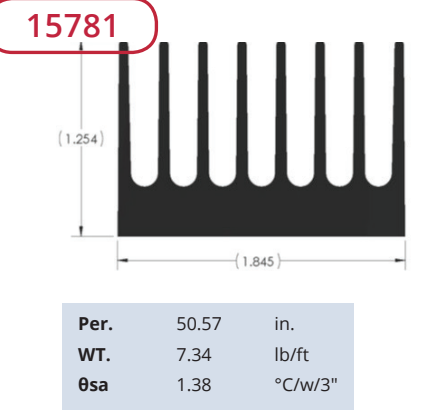
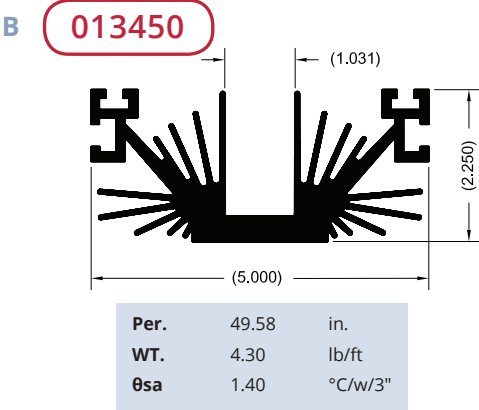
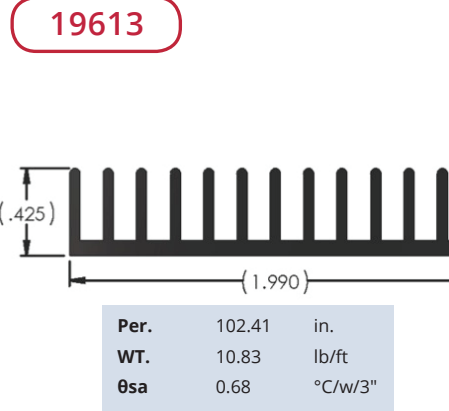
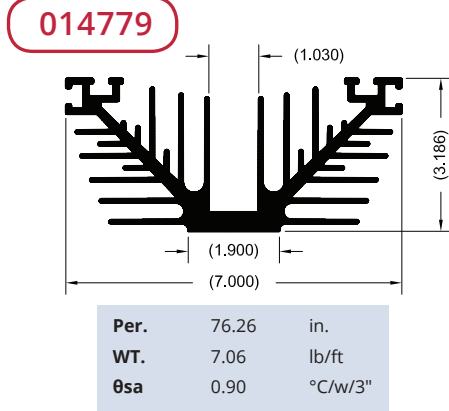
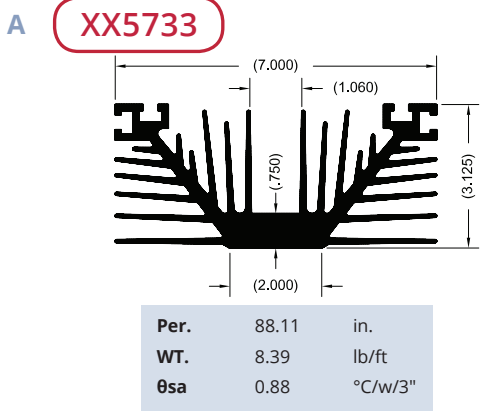
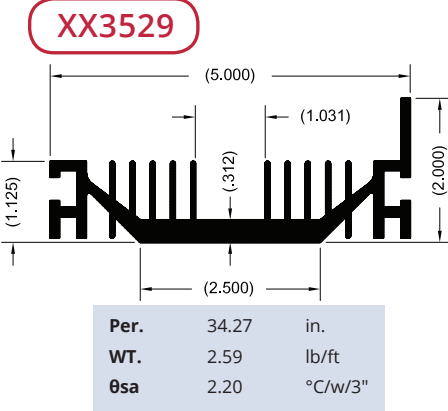
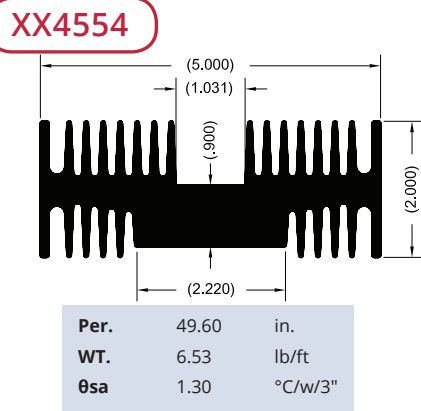
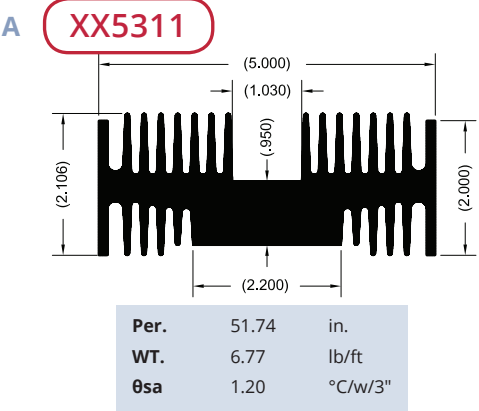


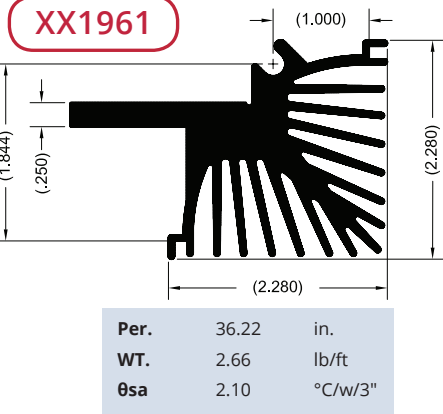
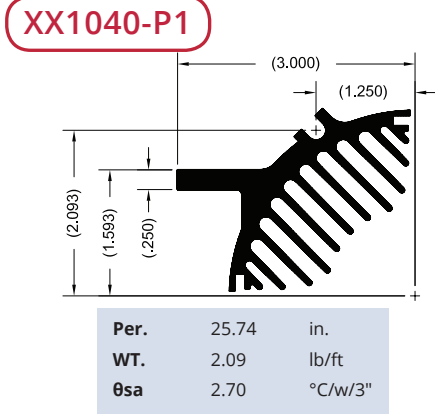
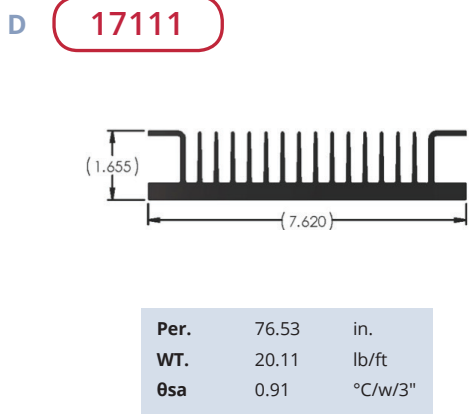
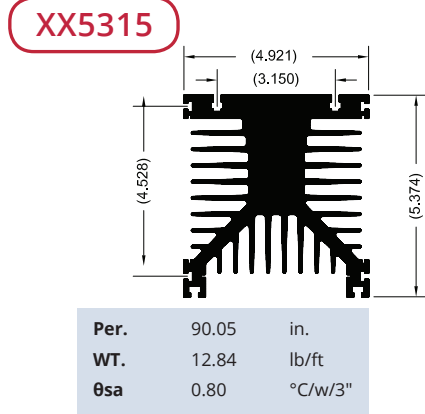
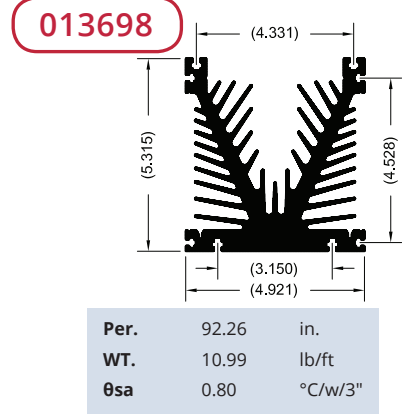
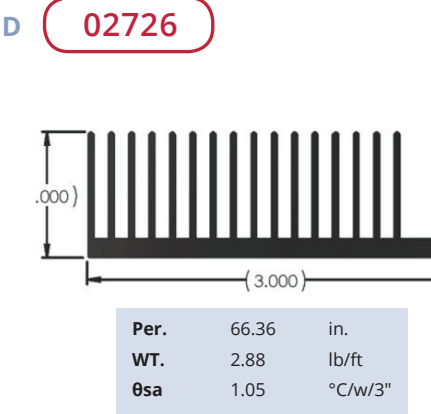
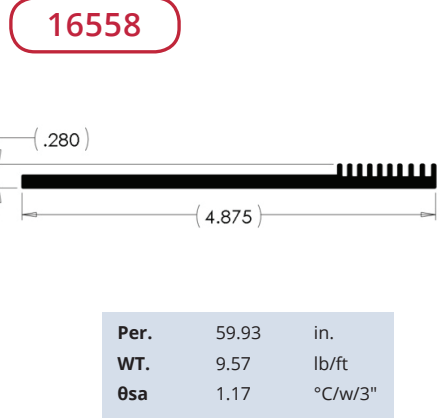
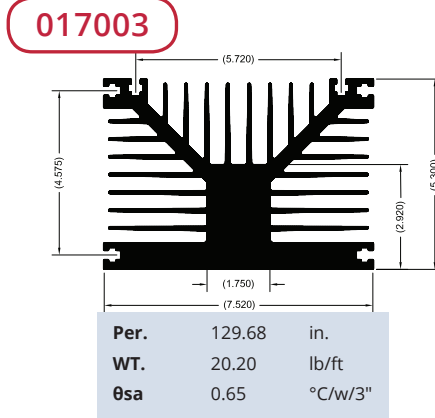
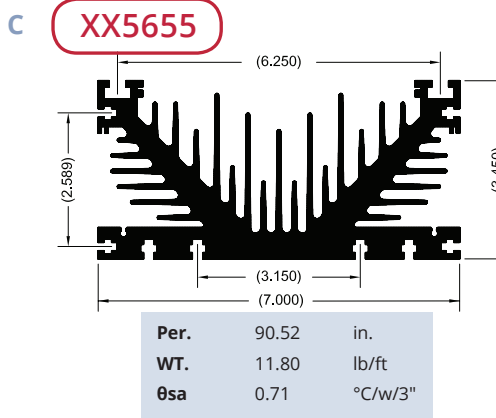
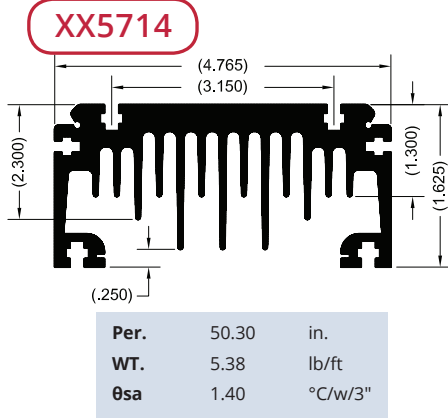
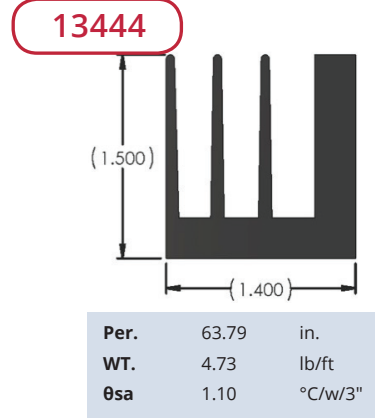
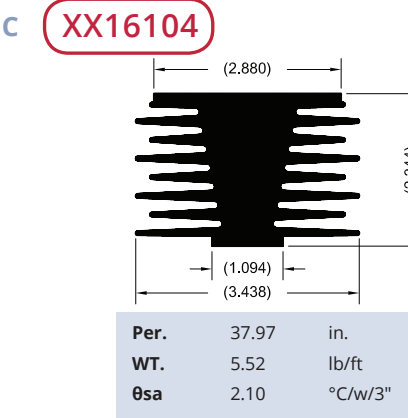
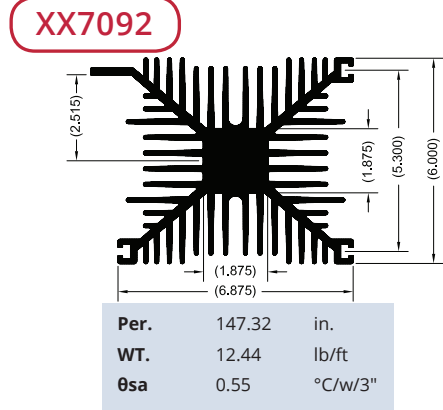
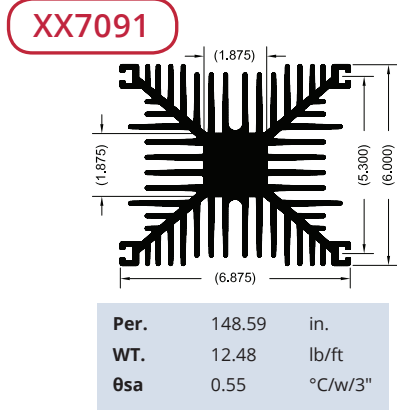
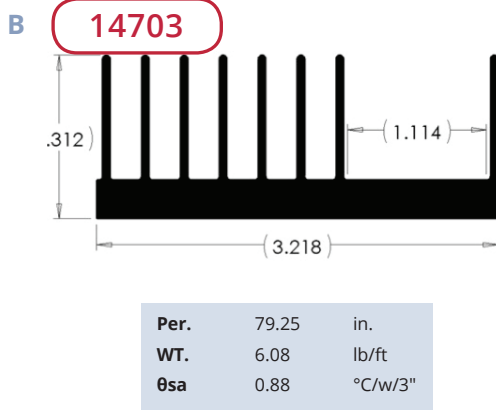
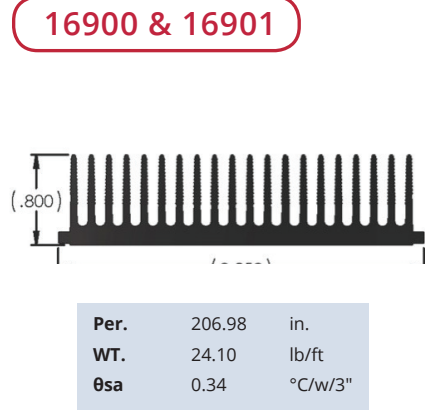
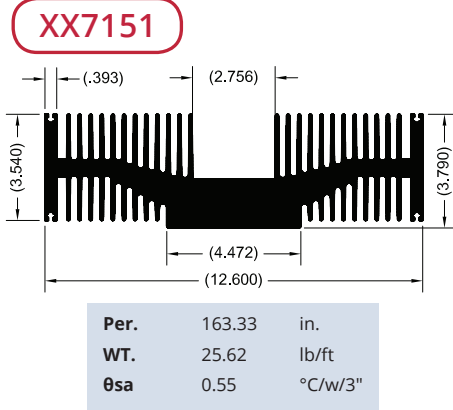
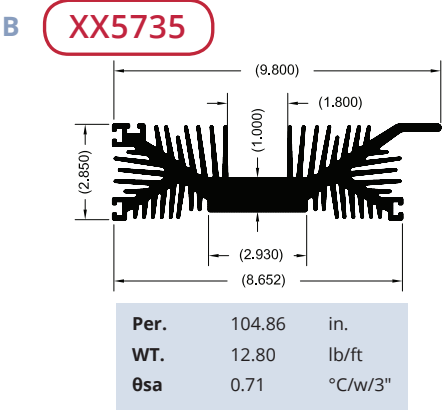
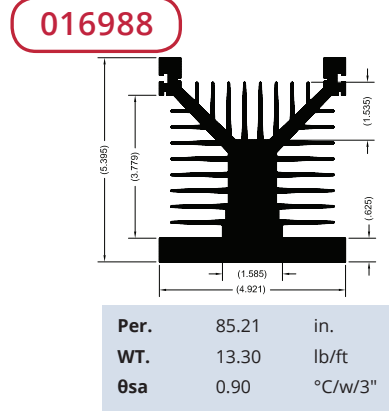
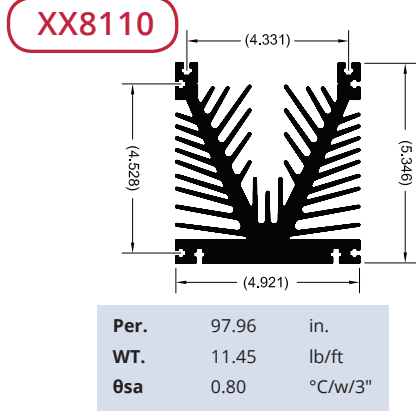
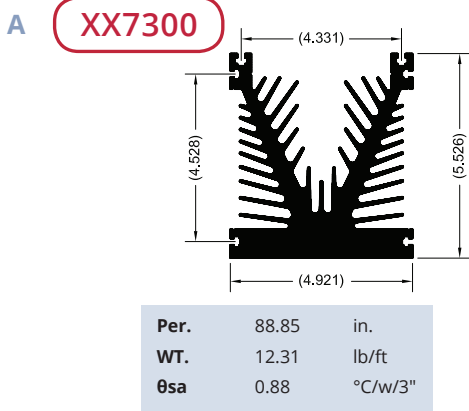
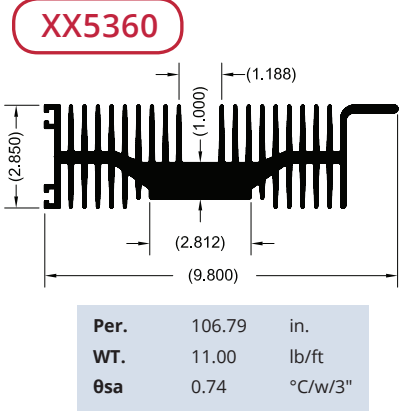
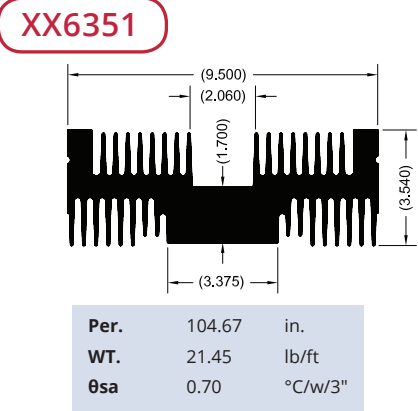
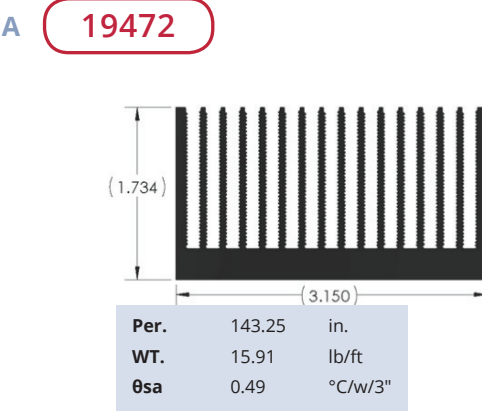
Per.	59.68	in.
WT.	4.57	lb/ft
θsa	1.30	°C/w/3"

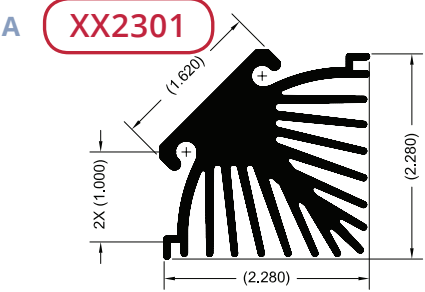


Per.	49.44	in.
WT.	6.18	lb/ft
θsa	1.50	°C/w/3"

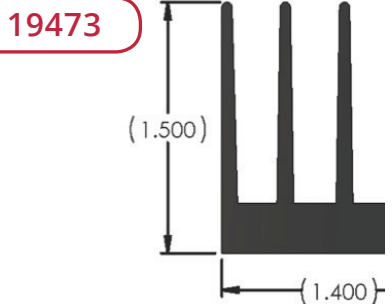




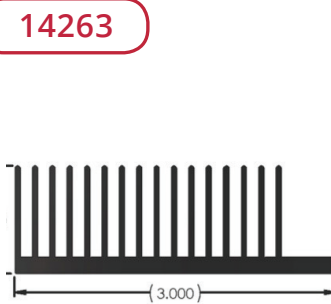




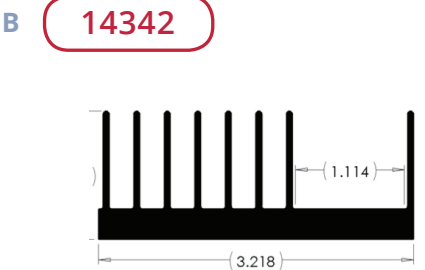
Per.	34.48	in.
WT.	2.48	lb/ft
θsa	2.10	°C/w/3"



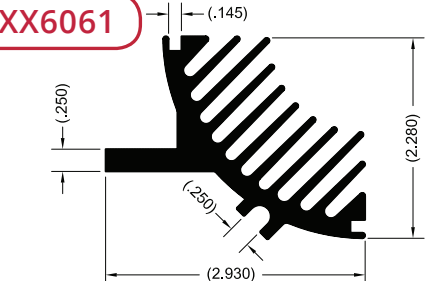
Per.	30.97	in.
WT.	2.85	lb/ft
θsa	2.26	°C/w/3"



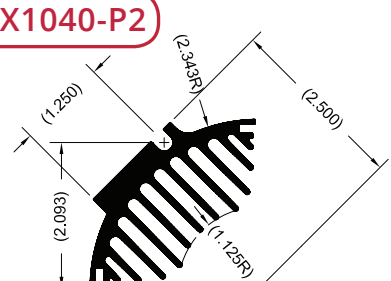
Per.	34.15	in.
WT.	2.51	lb/ft
θsa	2.05	°C/w/3"



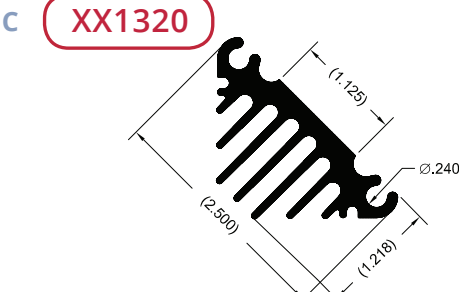
Per.	48.06	in.
WT.	2.88	lb/ft
θsa	1.45	°C/w/3"



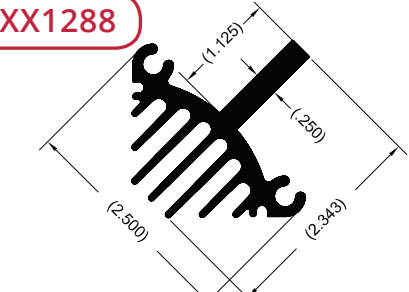
Per.	28.28	in.
WT.	2.23	lb/ft
θsa	2.00	°C/w/3"



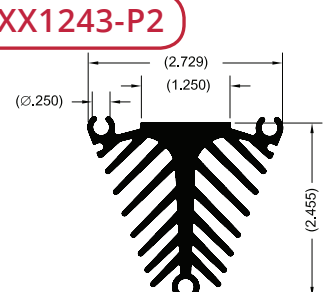
Per.	24.00	in.
WT.	1.87	lb/ft
θsa	2.90	°C/w/3"



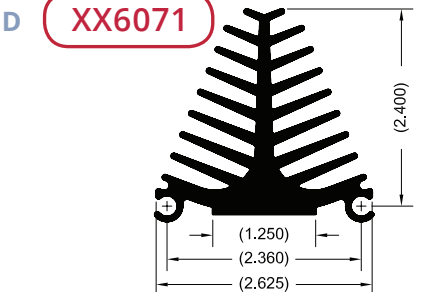
Per.	16.50	in.
WT.	1.36	lb/ft
θsa	3.90	°C/w/3"



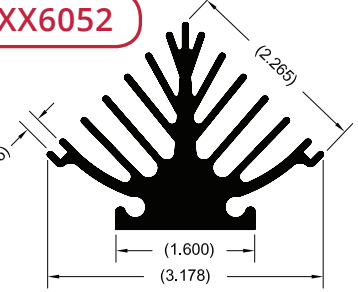
Per.	18.77	in.
WT.	1.41	lb/ft
θsa	3.90	°C/w/3"



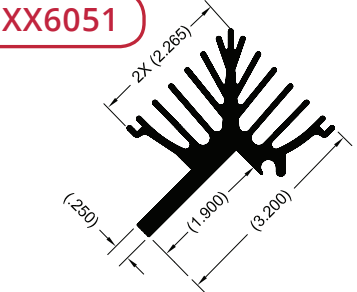
Per.	34.14	in.
WT.	2.24	lb/ft
θsa	2.20	°C/w/3"



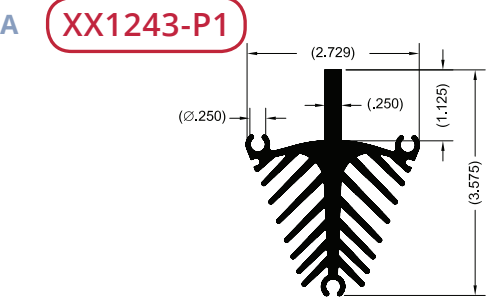
Per.	31.70	in.
WT.	2.45	lb/ft
θsa	1.80	°C/w/3"



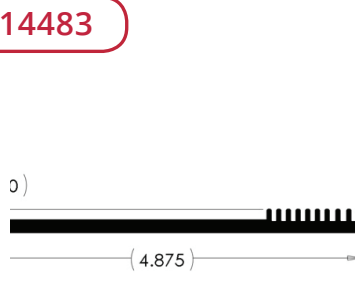
Per.	27.55	in.
WT.	2.19	lb/ft
θsa	1.90	°C/w/3"



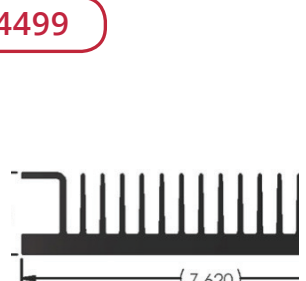
Per.	28.91	in.
WT.	2.18	lb/ft
θsa	1.90	°C/w/3"



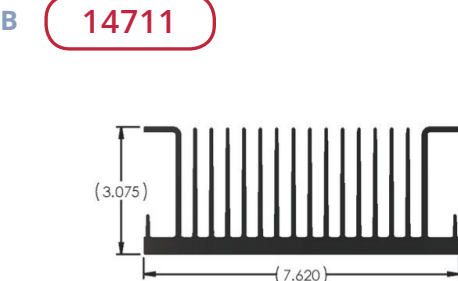
Per.	36.25	in.
WT.	2.53	lb/ft
θsa	2.10	°C/w/3"



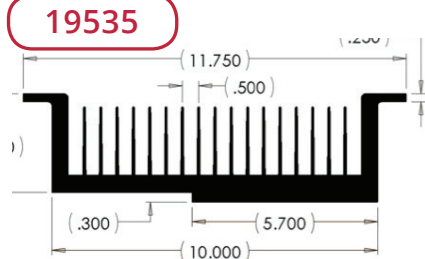
Per.	70.37	in.
WT.	4.32	lb/ft
θsa	0.99	°C/w/3"



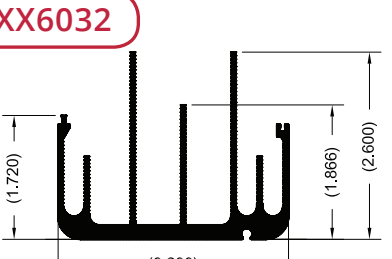
Per.	88.60	in.
WT.	11.46	lb/ft
θsa	0.79	°C/w/3"



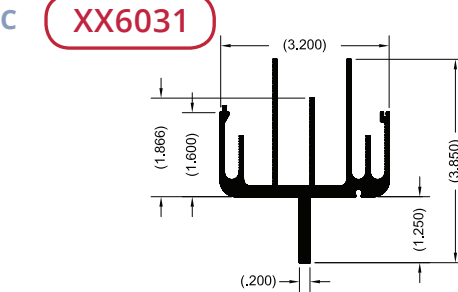
Per.	89.05	in.
WT.	5.95	lb/ft
θsa	0.79	°C/w/3"



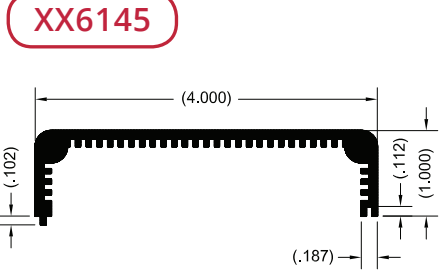
Per.	95.28	in.
WT.	9.50	lb/ft
θsa	0.73	°C/w/3"



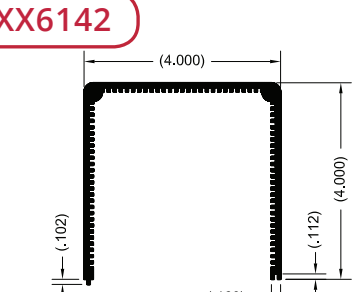
Per.	31.61	in.
WT.	1.75	lb/ft
θsa	2.02	°C/w/3"



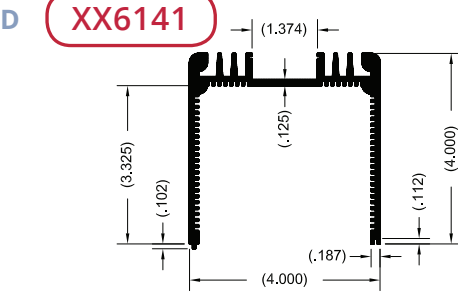
Per.	33.93	in.
WT.	2.06	lb/ft
θsa	2.20	°C/w/3"



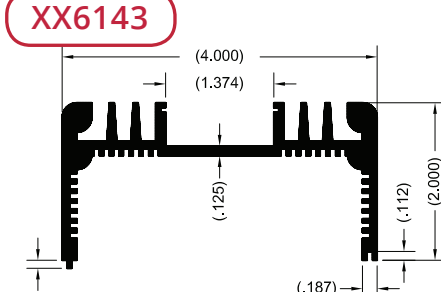
Per.	18.06	in.
WT.	1.03	lb/ft
θsa	2.10	°C/w/3"



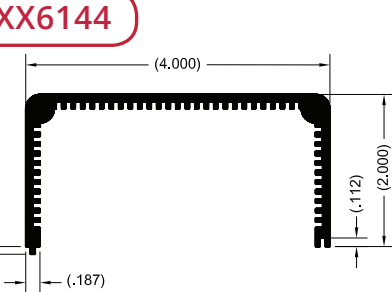
Per.	38.61	in.
WT.	2.05	lb/ft
θsa	1.80	°C/w/3"



Per.	41.54	in.
WT.	2.57	lb/ft
θsa	1.70	°C/w/3"

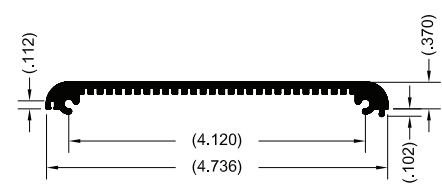


Per.	27.55	in.
WT.	1.92	lb/ft
θsa	1.90	°C/w/3"



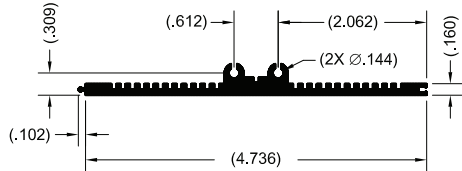
Per.	24.66	in.
WT.	1.37	lb/ft
θsa	2.00	°C/w/3"

A XX6115



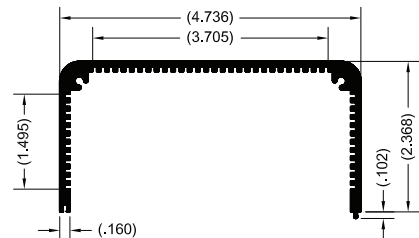
Per.	16.06	in.
WT.	0.87	lb/ft
θsa	3.10	°C/w/3"

XX6116



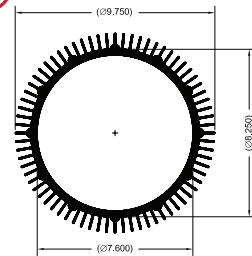
Per.	15.79	in.
WT.	0.90	lb/ft
θsa	3.10	°C/w/3"

XX6110



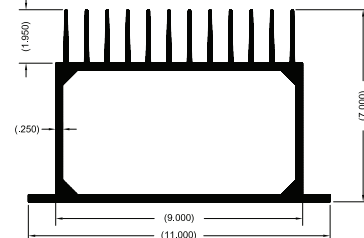
Per.	27.72	in.
WT.	1.50	lb/ft
θsa	2.00	°C/w/3"

A 015569



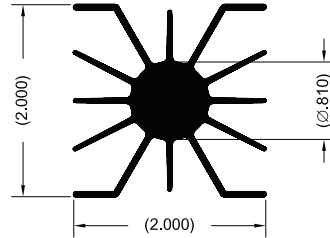
Per.	153.16	in.
WT.	15.66	lb/ft
θsa	0.90	°C/w/3"

017013



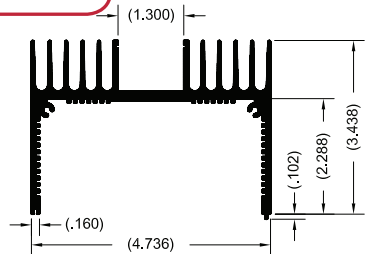
Per.	101.85	in.
WT.	12.90	lb/ft
θsa	0.95	°C/w/3"

XX1290-P1



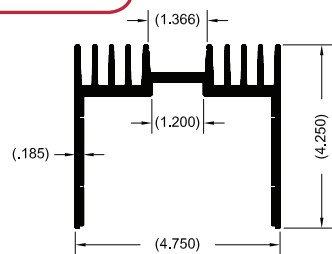
Per.	23.00	in.
WT.	0.97	lb/ft
θsa	2.50	°C/w/3"

B XX6111



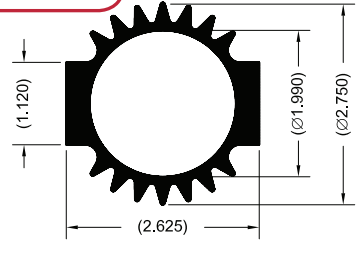
Per.	48.90	in.
WT.	2.95	lb/ft
θsa	1.60	°C/w/3"

XX6102



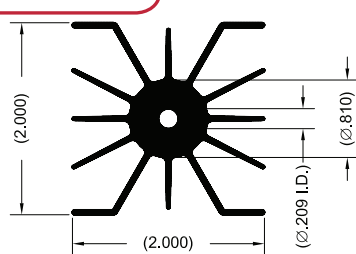
Per.	41.15	in.
WT.	3.79	lb/ft
θsa	1.90	°C/w/3"

XX5075



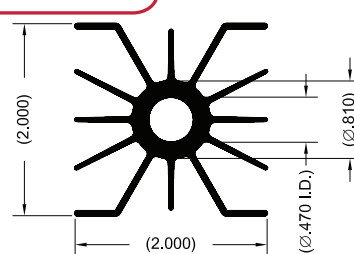
Per.	19.85	in.
WT.	2.14	lb/ft
θsa	3.90	°C/w/3"

B XX1290-P2



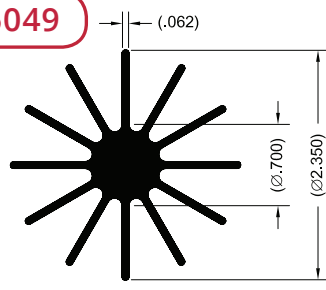
Per.	23.18	in.
WT.	0.93	lb/ft
θsa	2.50	°C/w/3"

XX1290-P3



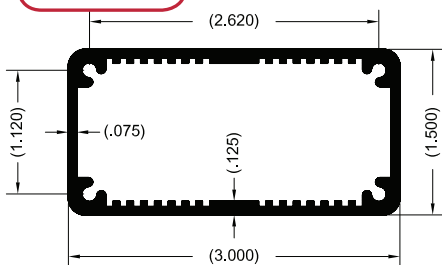
Per.	23.98	in.
WT.	0.77	lb/ft
θsa	2.50	°C/w/3"

XX5049



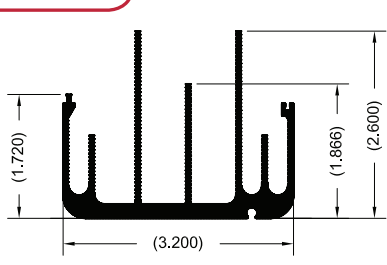
Per.	21.17	in.
WT.	1.22	lb/ft
θsa	2.10	°C/w/3"

C XX6301



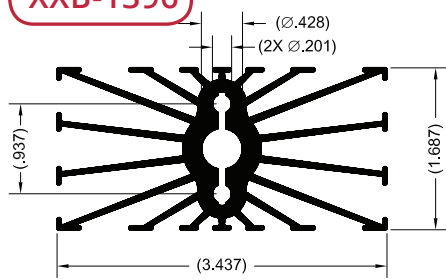
Per.	21.07	in.
WT.	0.90	lb/ft
θsa	3.50	°C/w/3"

XX6302



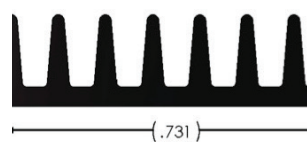
Per.	31.61	in.
WT.	1.75	lb/ft
θsa	2.02	°C/w/3"

XXB-1396



Per.	41.34	in.
WT.	1.75	lb/ft
θsa	2.20	°C/w/3"

C 21074



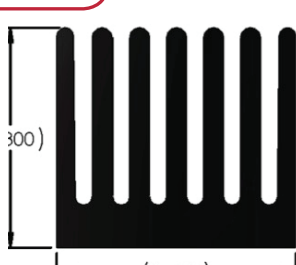
Per.	7.72	in.
WT.	1.05	lb/ft
θsa	9.06	°C/w/3"

19757



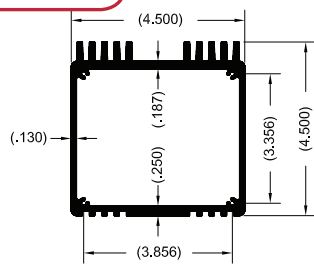
Per.	16.29	in.
WT.	0.76	lb/ft
θsa	4.29	°C/w/3"

19253



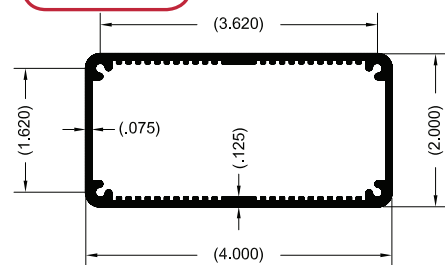
Per.	14.08	in.
WT.	0.45	lb/ft
θsa	4.97	°C/w/3"

D XX6164



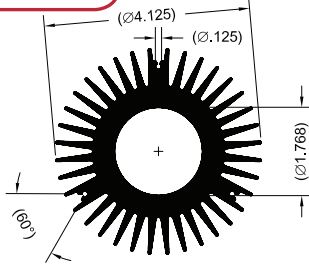
Per.	45.33	in.
WT.	4.26	lb/ft
θsa	1.60	°C/w/3"

XX6303



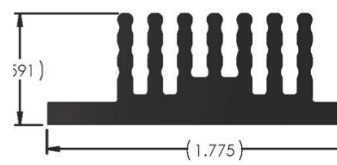
Per.	28.62	in.
WT.	1.40	lb/ft
θsa	3.90	°C/w/3"

015346



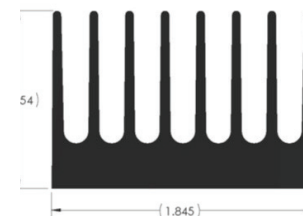
Per.	62.02	in.
WT.	6.47	lb/ft
θsa	1.60	°C/w/3"

D 19756



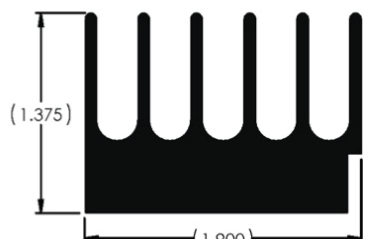
Per.	22.20	in.
WT.	1.21	lb/ft
θsa	3.15	°C/w/3"

18436

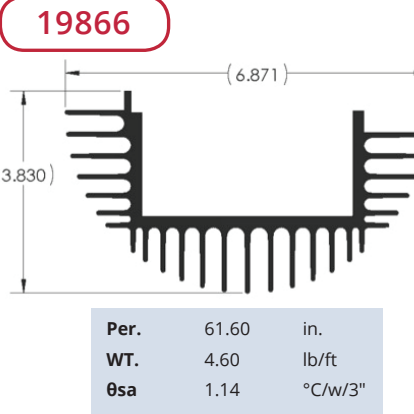
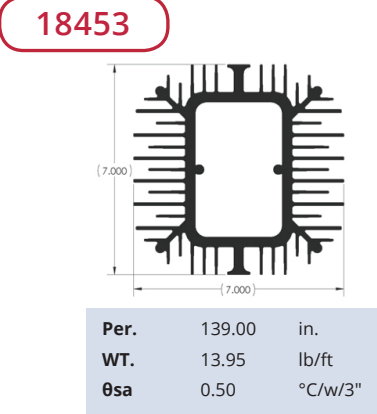
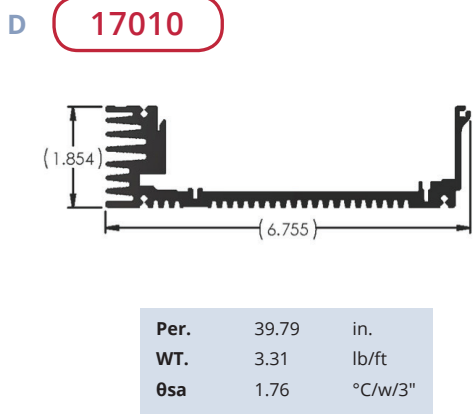
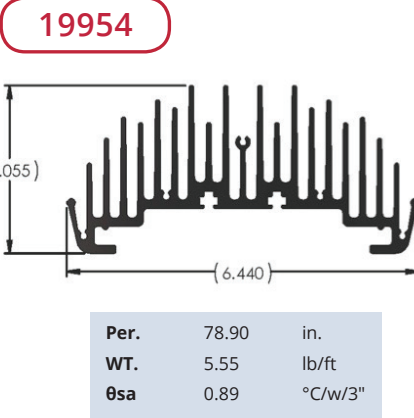
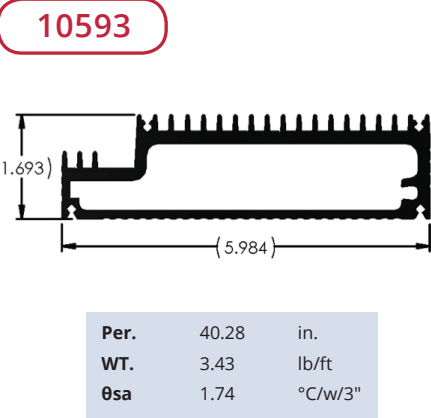
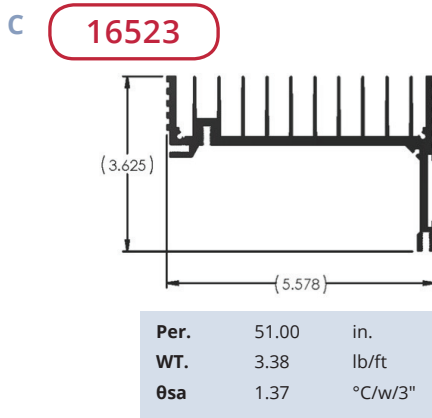
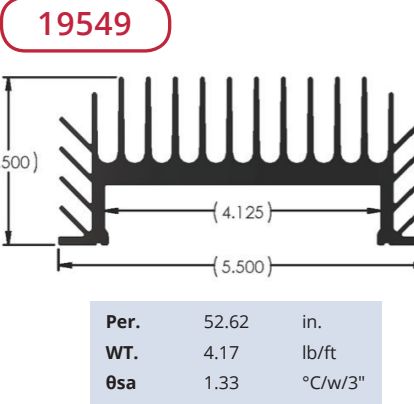
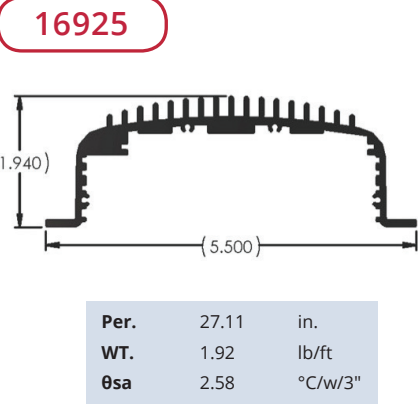
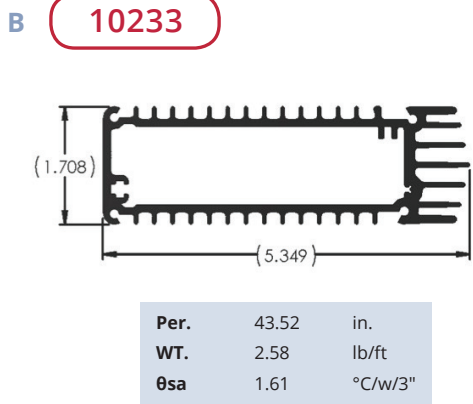
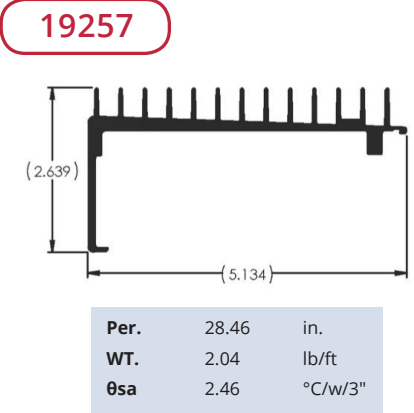
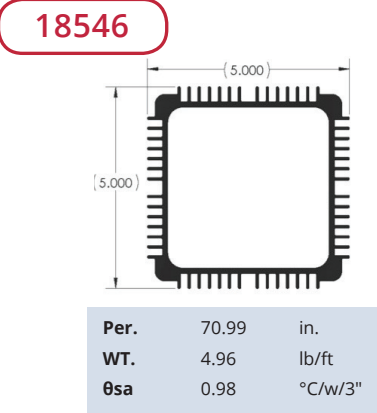
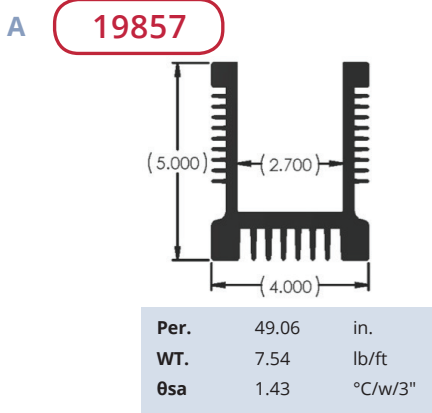
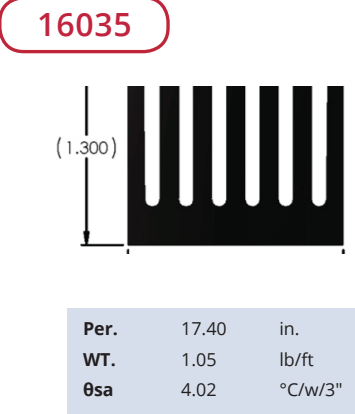
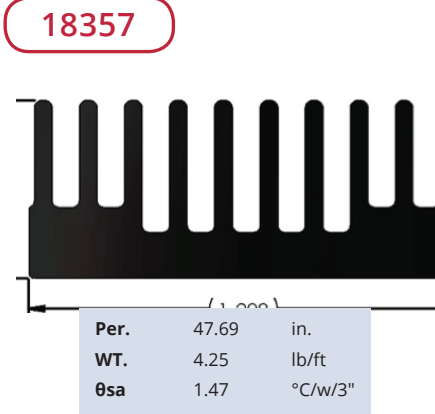
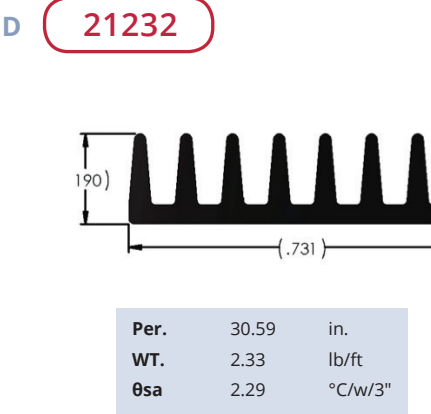
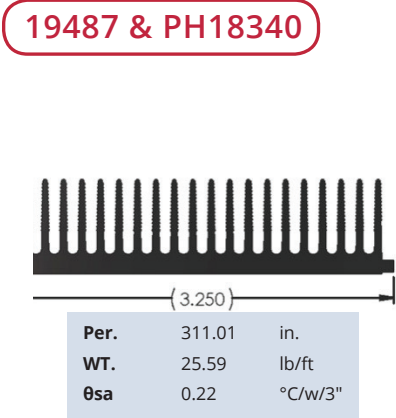
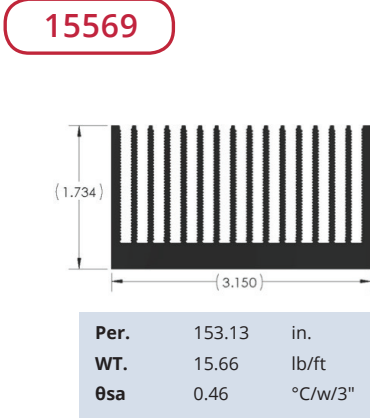
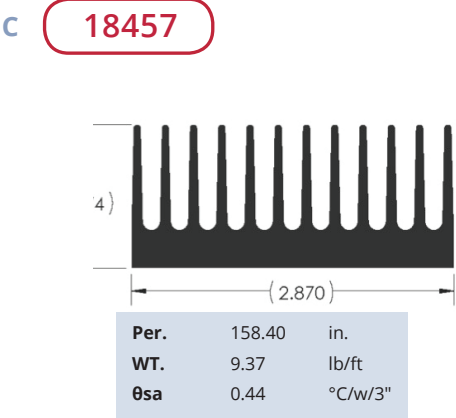
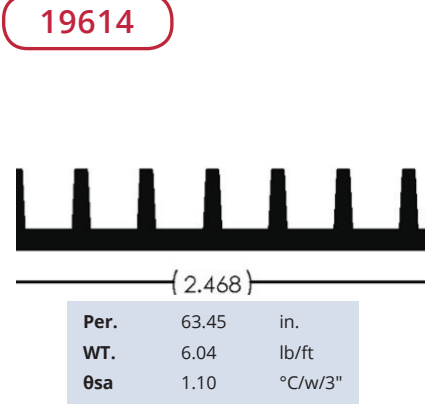
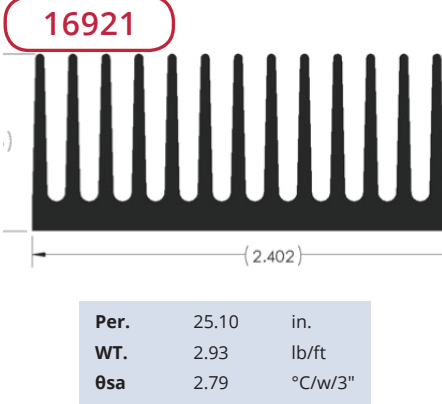
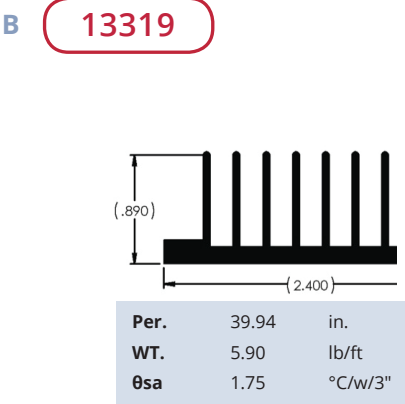
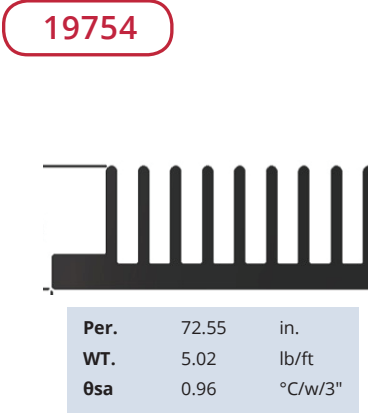
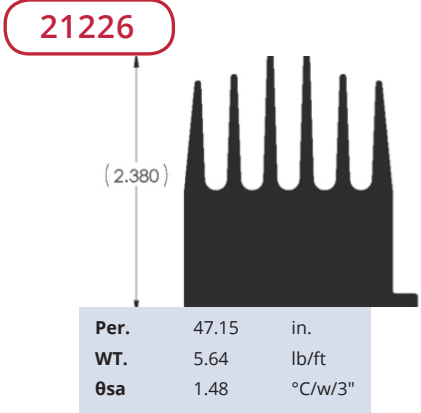
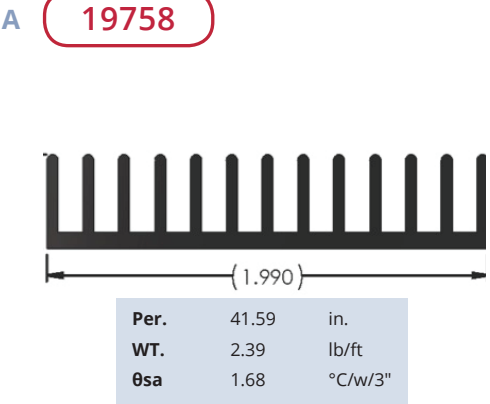


Per.	32.13	in.
WT.	1.35	lb/ft
θsa	2.18	°C/w/3"

19755



Per.	39.98	in.
WT.	1.97	lb/ft
θsa	1.75	°C/w/3"





A

18395

Per.	40.24	in.
WT.	2.94	lb/ft
θsa	1.74	°C/w/3"

16517

Per.	52.66	in.
WT.	3.22	lb/ft
θsa	1.33	°C/w/3"

19384

Per.	68.16	in.
WT.	5.89	lb/ft
θsa	1.03	°C/w/3"

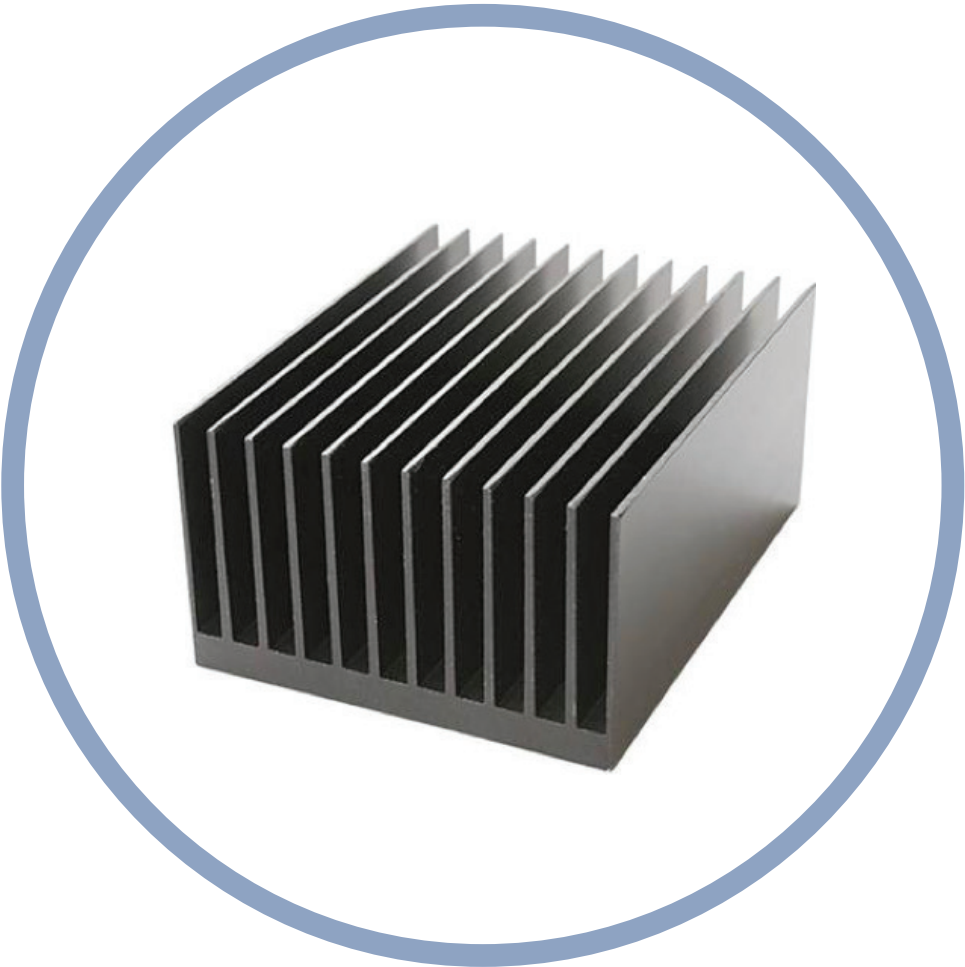
B

17013

Per.	100.85	in.
WT.	12.75	lb/ft
θsa	0.69	°C/w/3"

HIGH ASPECT RATIO THERMAL EXTRUSIONS

<i>12 Inch High Aspect Ratio Thermal Extrusions</i>	<i>280–285</i>
<i>High Aspect Ratio Thermal Extrusions</i>	<i>286</i>



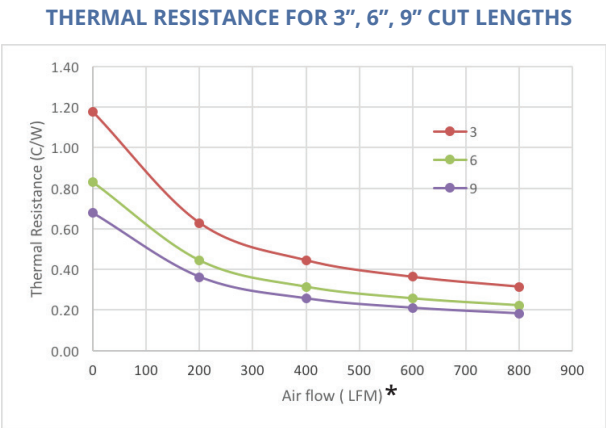
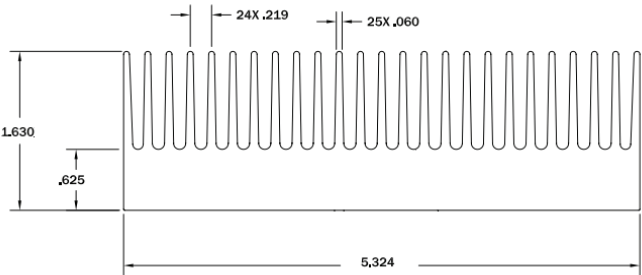
12 INCH HIGH ASPECT RATIO THERMAL EXTRUSIONS

PART NUMBER 122254



Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 19671
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122254	19671 Profile Cut to 12 inches	12	5.324	1.63	0.625	0.096

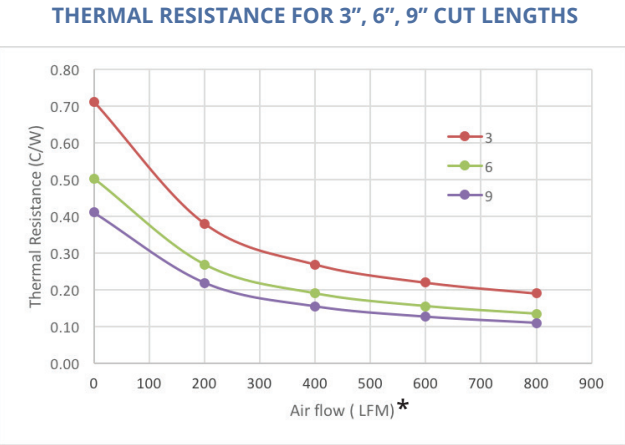
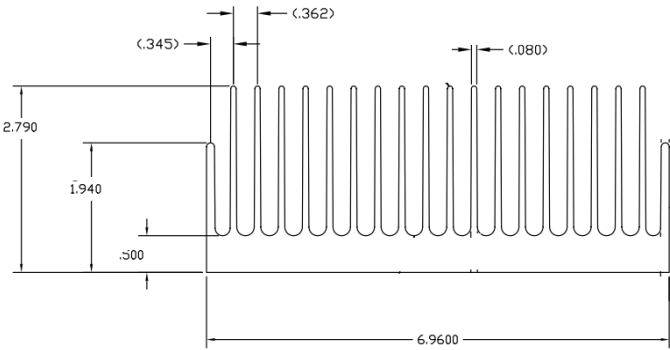


PART NUMBER 122255



Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 13694
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122255	13694 Profile Cut to 12 inches	12	6.96	2.79	.05	0.1



*Thermal performance data is for reference only and may vary by application
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*All data is based on a fully distributed load on the base of the heat sink
*All forced convection data is based on an open duct configuration

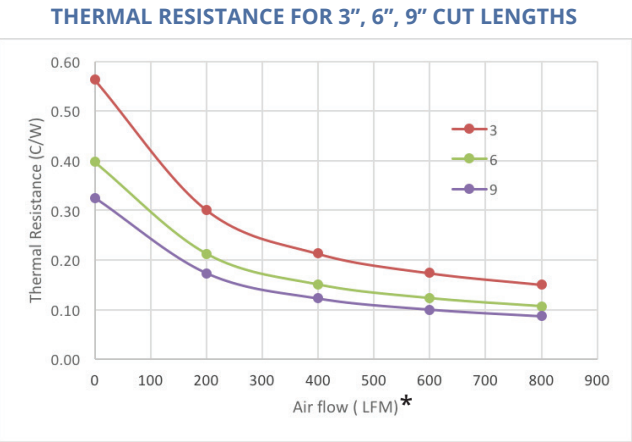
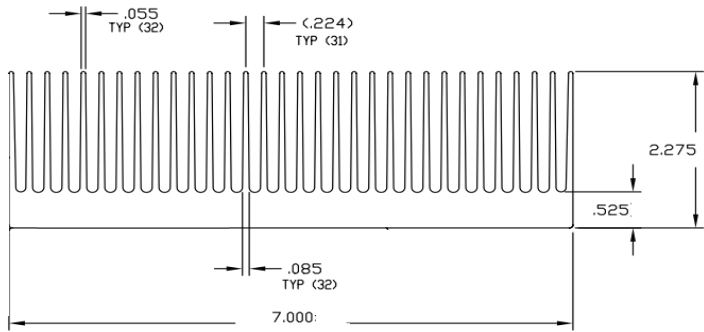


PART NUMBER 122256



Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 15837
Cut, Deburred, Washed
No Finish

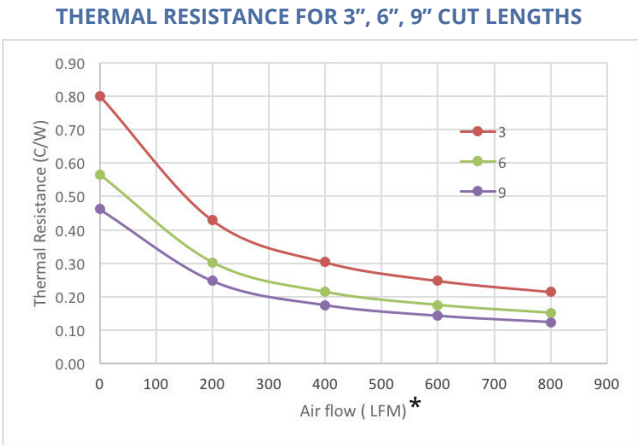
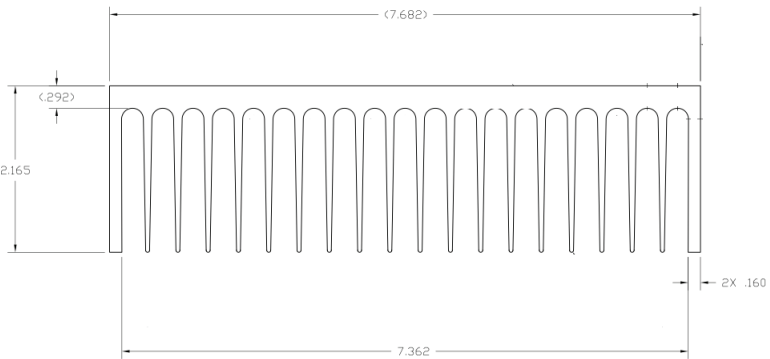
Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122256	15837 Profile Cut to 12 inches	12	7	2.275	0.525	0.085



PART NUMBER 122257

Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 19275
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122257	19275 Profile Cut to 12 inches	12	7.362	2.165	0.292	0.051



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*All forced convection data is based on an open duct configuration

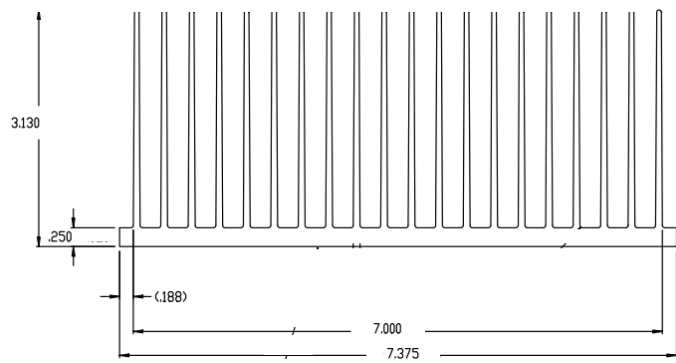
12 INCH HIGH ASPECT RATIO THERMAL EXTRUSIONS



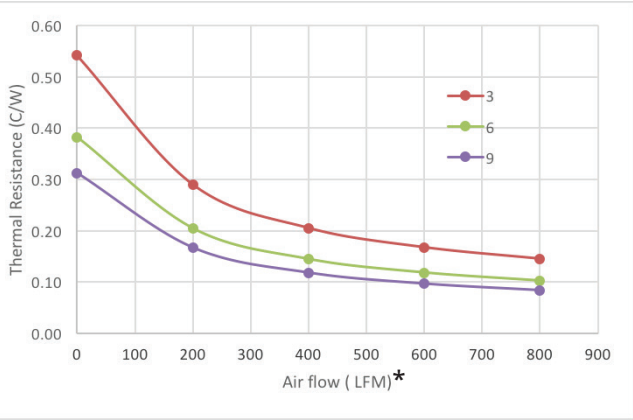
PART NUMBER 122258

Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 15817
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122258	15817 Profile Cut to 12 inches	12	7.375	3.13	0.25	0.09



THERMAL RESISTANCE FOR 3", 6", 9" CUT LENGTHS

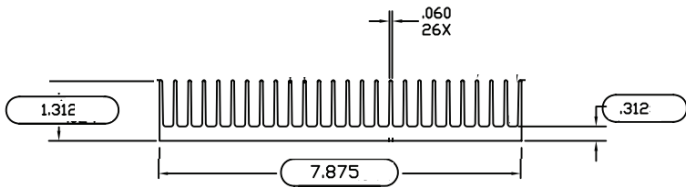


PART NUMBER 122259

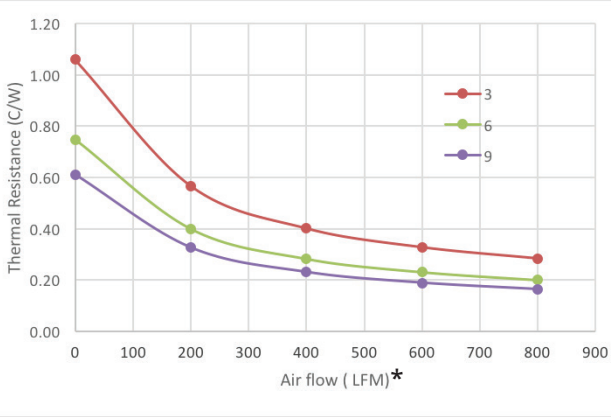


Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 16639
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122259	16639 Profile Cut to 12 inches	12	7.875	1.312	0.312	0.08



THERMAL RESISTANCE FOR 3", 6", 9" CUT LENGTHS



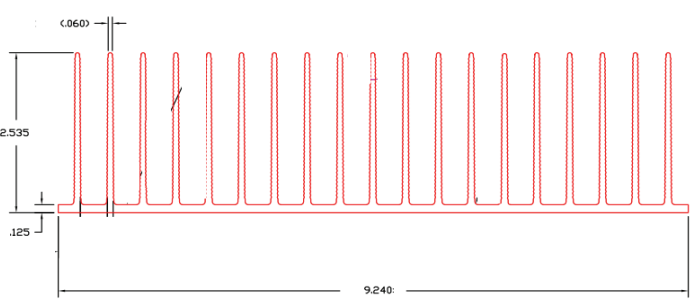
*Thermal performance data is for reference only and may vary by application
*0 LFM represents a natural convection environment with a vertical heat sink
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*All forced convection data is based on an open duct configuration



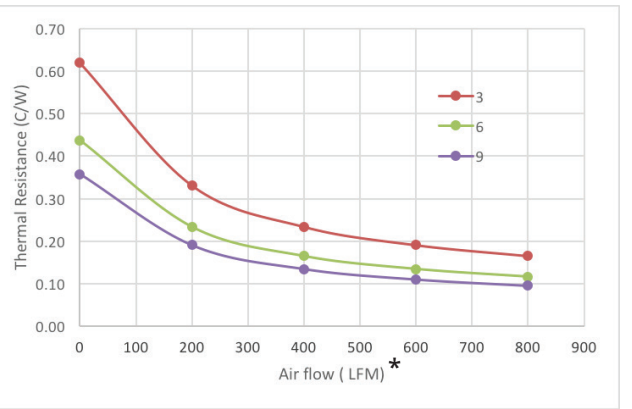
PART NUMBER 122260

Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 16639
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122260	16639 Profile Cut to 12 inches	12	9.24	2.66	0.125	0.085



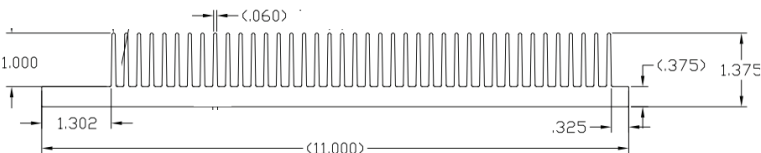
THERMAL RESISTANCE FOR 3", 6", 9" CUT LENGTHS



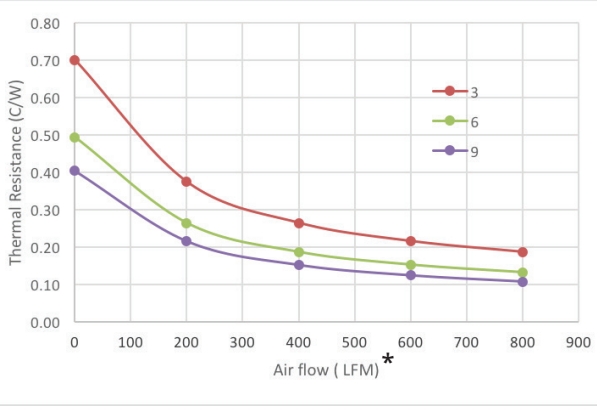
PART NUMBER 122261

Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 19584
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122261	19584 Profile Cut to 12 inches	12	11	1.375	0.375	0.09



THERMAL RESISTANCE FOR 3", 6", 9" CUT LENGTHS



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*All forced convection data is based on an open duct configuration



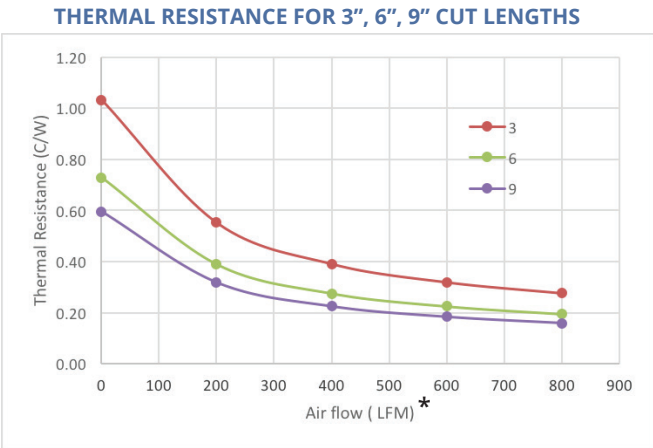
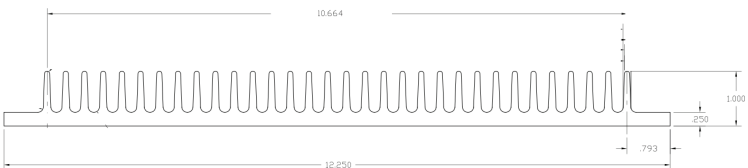
12 INCH HIGH ASPECT RATIO THERMAL EXTRUSIONS

PART NUMBER 122262



Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 19152
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122262	19152 Profile Cut to 12 inches	12	12.25	1	0.25	0.146

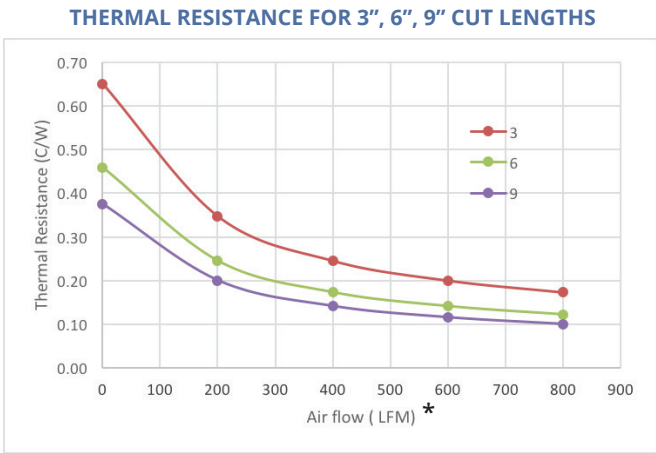
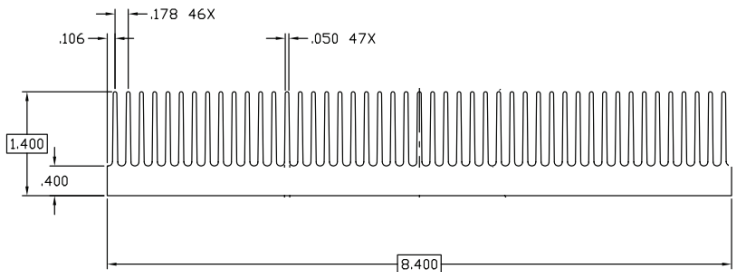


PART NUMBER 122263



Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 16681
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122263	16681 Profile Cut to 12 inches	12	8.4	1.4	0.4	0.5



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**All forced convection data is based on an open duct configuration*

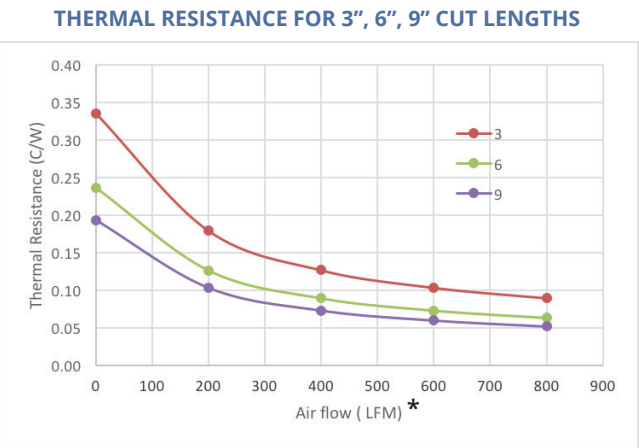
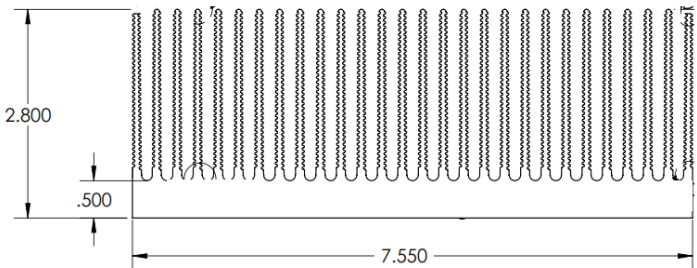


PART NUMBER 122264



Material: 6063 Aluminum
Description: 12 Inch Cut Length of Extrusion Profile 19832
Cut, Deburred, Washed
No Finish

Part Number	Description	Length	Inches			
			Width	Height	Avg Base Thk	Avg Fin Thk
122264	19832 Profile Cut to 12 inches	12	7.55	2.8	0.5	0.57



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**All forced convection data is based on an open duct configuration*

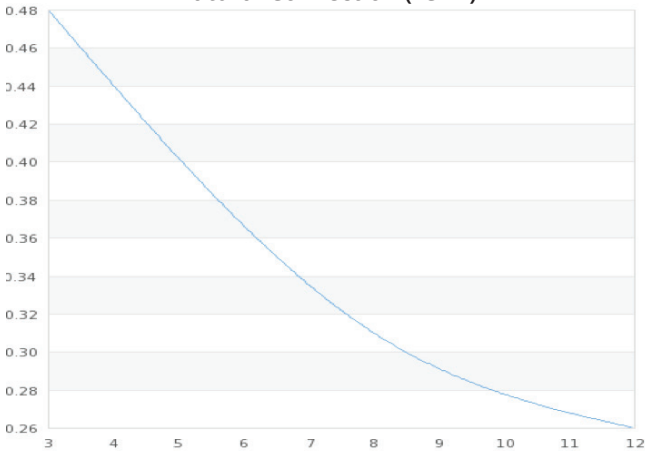
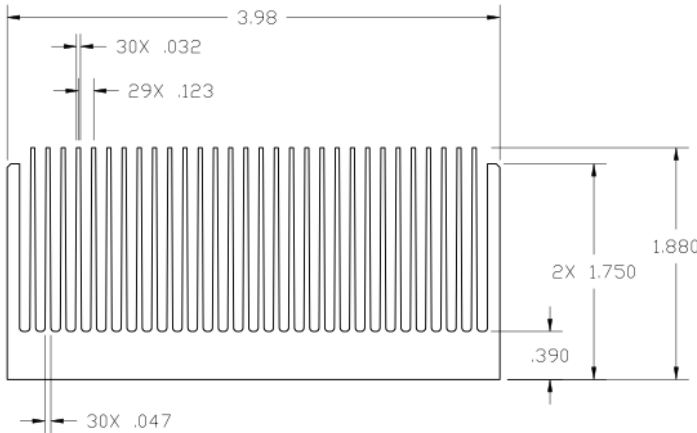
HIGH ASPECT RATIO THERMAL EXTRUSIONS



PART NUMBER 122547

Part Number	Description	Inches						Weight Per Piece	Natural Convection (3 in.)
		Length	Width	Height	Avg Base Thk	Avg Fin Thk	Perimeter		
122547	High Aspect Heat Sink for Power Module	15.25	3.98	1.88	0.39	0.123	145	5.5	0.48

THERMAL RESISTANCE
Natural Convection (°C/W)

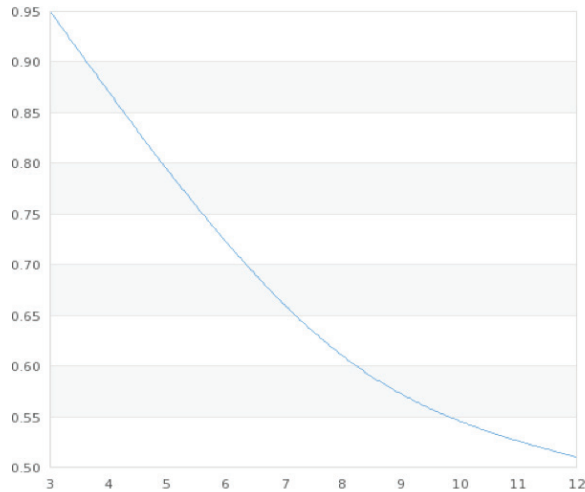
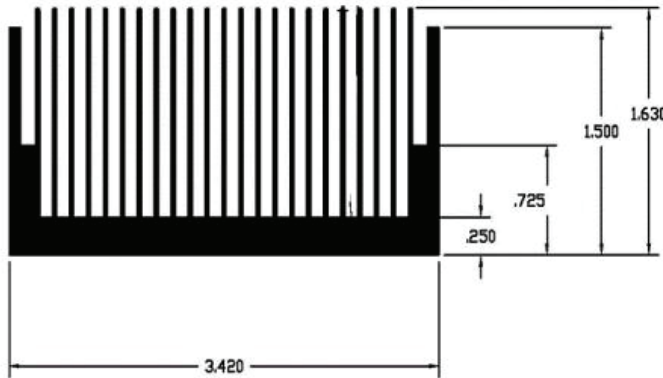


PART NUMBER 122551



Part Number	Description	Inches						Weight Per Piece	Natural Convection (3 in.)
		Length	Width	Height	Avg Base Thk	Avg Fin Thk	Perimeter		
122551	High Aspect Heat Sink for Power Module	12.32	3.42	1.63	0.25	0.031	73.61	2.61	0.95

THERMAL RESISTANCE
Natural Convection (°C/W)

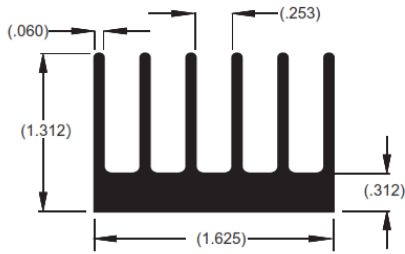


*Thermal performance data is for reference only and may vary by application
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*All forced convection data is based on an open duct configuration

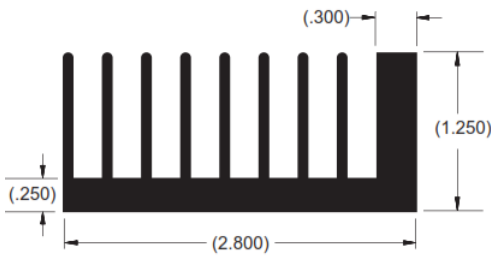
Thermal Extrusions Cut to Length

Aluminum Flatback

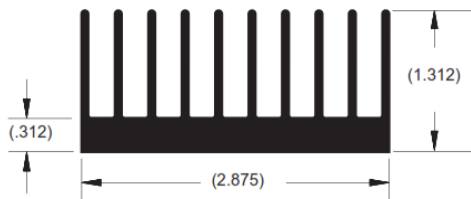
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



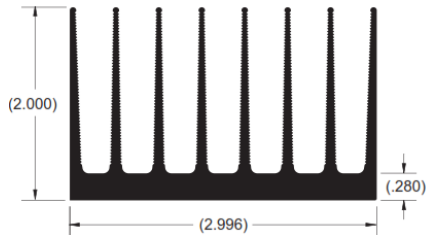
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125295	1.625" Wide x 12" Flatback heatsink 16079 xx2014	1.625	1.312	12	3.2
125296	1.625" Wide x 36" Flatback heatsink 16079 xx2014	1.625	1.312	36	3.2



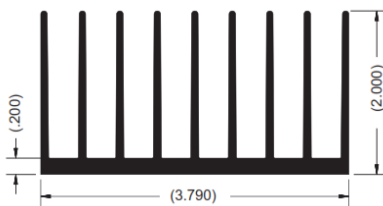
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125301	2.80" Wide x 12" Flatback Heatsink 11201 XX6998	2.8	1.25	12	2.9
125302	2.80" Wide x 36" Flatback Heatsink 11201 XX6998	2.8	1.25	36	2.9



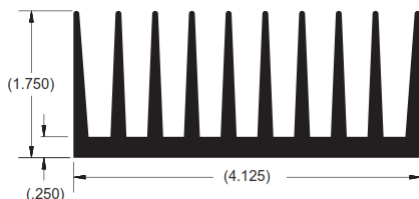
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125313	2.875" Wide x 12" Flatback heatsink 16078 xx2013	2.875	1.312	12	2.3
125314	2.875" Wide x 36" Flatback heatsink 16078 xx2013	2.875	1.312	36	2.3



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125319	3" Wide x 12" Flatback Heatsink 9099	3	2	12	1.5
125320	3" Wide x 36" Flatback Heatsink 9099	3	2	36	1.5



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125325	3.79" Wide x 12" Flatback heatsink 16304 xx5079	3.79	2	12	1.5
125326	3.79" Wide x 36" Flatback heatsink 16304 xx5079	3.79	2	36	1.5



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125367	4.125" x 12" Flatback Heatsink 2656 xx5138	4.125	1.75	12	1.9
125368	4.125" x 36" Flatback Heatsink 2656 xx5138	4.125	1.75	36	1.9

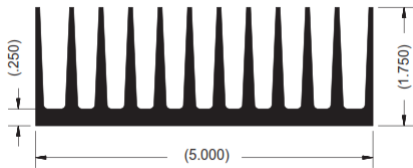
Thermal Extrusions Cut to Length

Aluminum Flatback

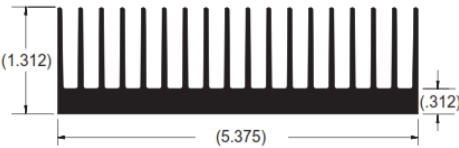
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



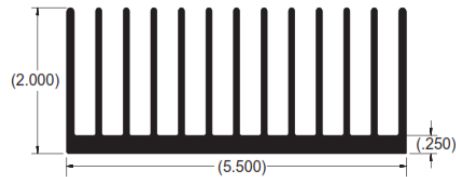
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125373	4.375" Wide x 12" Flatback heatsink 16296 xx1527	4.375	1.29	12	1.4
125374	4.375" Wide x 36" Flatback heatsink 16296 xx1527	4.375	1.29	36	1.4



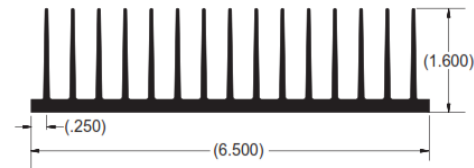
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125397	5.00" Wide x 12" Flatback Heatsink 16338 xx2065	5	1.75	12	1.6
125398	5.00" Wide x 36" Flatback Heatsink 16338 xx2065	5	1.75	36	1.6



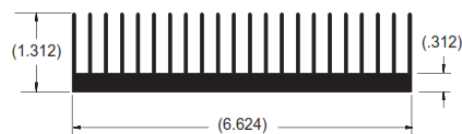
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125403	5.375" x 12" Flatback Heatsink 6037 xx5045	5.375	1.312	12	1.8
125404	5.375" x 36" Flatback Heatsink 6037 xx5045	5.375	1.312	36	1.8



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125409	5.50" x 12" Flatback Heatsink 13760 xx2199	5.5	2	12	1.2
125410	5.50" x 36" Flatback Heatsink 13760 xx2199	5.5	2	36	1.2



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125415	6.50" x 12" Flatback Heatsink 6664 xx4509	6.5	1.6	12	1.3
125416	6.50" x 36" Flatback Heatsink 6664 xx4509	6.5	1.6	36	1.3

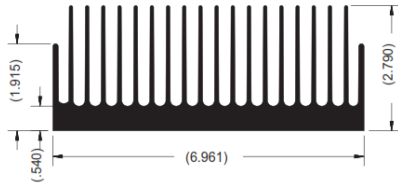


WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125421	6.624" Wide x 12" Flatback heatsink 16524 xx7031	6.624	1.312	12	1.3
125422	6.624" Wide x 36" Flatback heatsink 16524 xx7031	6.624	1.312	36	1.3

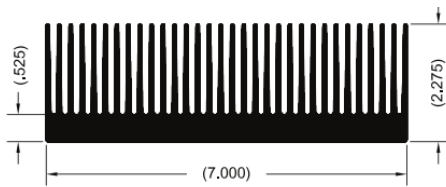
Thermal Extrusions Cut to Length

Aluminum Flatback

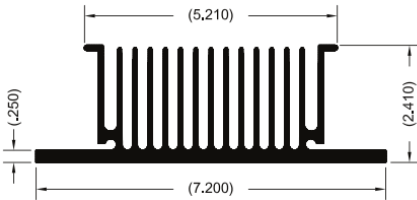
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



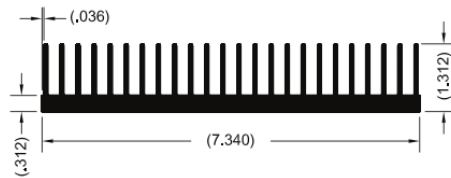
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
122255	6.961" Wide x 12" Flatback Heatsink 13694 xx6274	6.961	2.79	12	0.8
125643	6.961" Wide x 36" Flatback Heatsink 13694 xx6274	6.961	2.79	36	0.8



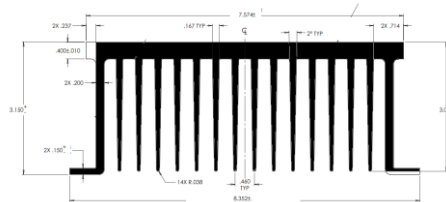
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
122256	7.00" Wide x 12" Flatback heatsink 15837	7	2.275	12	0.3
125645	7.00" Wide x 36" Flatback heatsink 15837	7	2.275	36	0.3



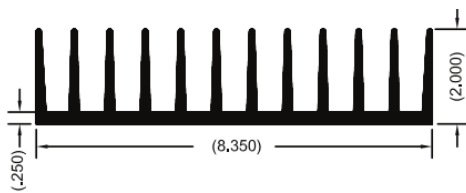
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125512	7.20" Wide x 36" Flatback heatsink 16316 xx6438-2	7.2	2.41	36	0.9



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125430	7.343" Wide x 12" Flatback Heatsink 13454 xx4771	7.343	1.312	12	1.1
125431	7.343" Wide x 36" Flatback Heatsink 13454 xx4771	7.343	1.312	36	1.1



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125601	7.574" Wide x 12" Flatback Heatsink 21910	7.574	3.15	12	0.65
125602	7.574" Wide x 36" Flatback Heatsink 21910	7.574	3.15	36	0.65

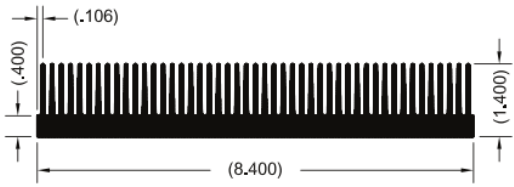


WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125436	8.35" Wide x 12" Flatback Heatsink 13668 xx4937	8.35	2	12	0.9
125437	8.35" Wide x 36" Flatback Heatsink 13668 xx4937	8.35	2	36	0.9

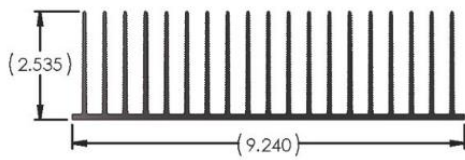
Thermal Extrusions Cut to Length

Aluminum Flatback

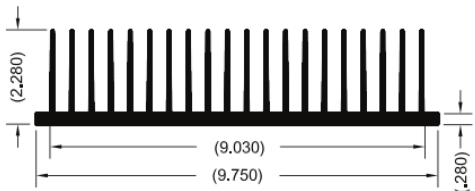
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



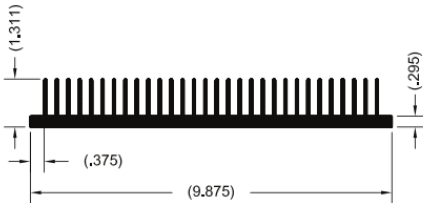
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
122263	8.40" Wide x 12" Flatback heatsink 16681	8.4	1.4	12	0.65
125657	8.40" Wide x 36" Flatback heatsink 16681	8.4	1.4	36	0.65



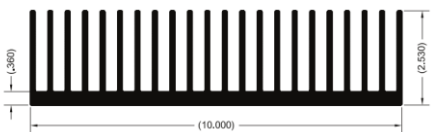
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
122260	9.24" Wide x 12" Flatback Heatsink 19035	9.24	2.535	12	0.62
125651	9.24" Wide x 36" Flatback Heatsink 19035	9.24	2.535	36	0.62



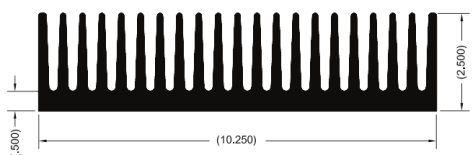
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125520	9.75" Wide x 12" Flatback heatsink 16473 xx5384	9.75	2.28	12	0.75
125521	9.75" Wide x 36" Flatback heatsink 16473 xx5384	9.75	2.28	36	0.75



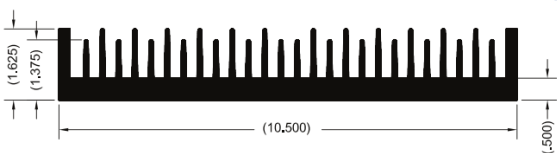
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125442	9.875" Wide x 12" Flatback heatsink 16329 xx1703	9.875	1.31	12	0.91
125443	9.875" Wide x 36" Flatback heatsink 16329 xx1703	9.875	1.31	36	0.91



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125592	10" Wide x 12" Flatback heatsink 13953 sf1002	10	2.53	12	0.6



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125448	10.25" Wide x 12" Flatback heatsink 14236 xx5772	10.25	2.5	12	0.71
125449	10.25" Wide x 36" Flatback heatsink 14236 xx5772	10.25	2.5	36	0.71

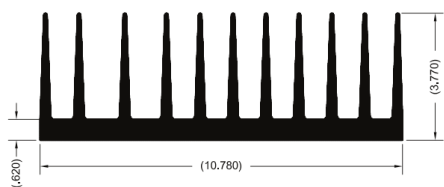


WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125454	10.50" Wide x 12" Flatback Heatsink 16990 xx2904	10.5	1.265	12	1.3
125455	10.50" Wide x 36" Flatback Heatsink 16990 xx2904	10.5	1.265	36	1.3

Thermal Extrusions Cut to Length

Aluminum Flatback

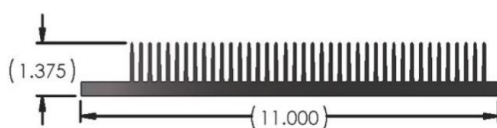
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



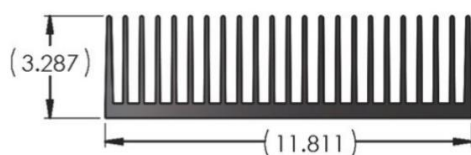
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125460	10.78" Wide x 12" Flatback Heatsink xx4559	10.78	3.77	12	0.5
125461	10.78" Wide x 36" Flatback Heatsink xx4559	10.78	3.77	36	0.5



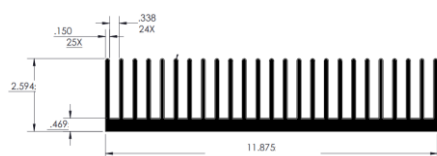
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125577	10.827" Wide x 12" Flatback Heatsink 19572	10.827	1.221	12	0.83
125578	10.827" Wide x 36" Flatback Heatsink 19572	10.827	1.221	36	0.83



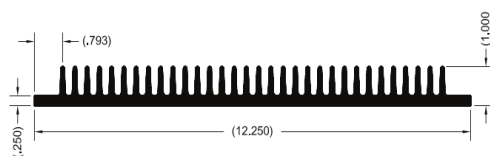
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
122261	11.00" Wide x 12" Flatback Heatsink 19584	11	1.375	12	1.43
125653	11.00" Wide x 36" Flatback Heatsink 19584	11	1.375	36	1.43



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125625	11.811" Wide x 12" Flatback Heatsink 19740	11.811	3.287	12	0.46
125626	11.811" Wide x 36" Flatback Heatsink 19740	11.811	3.287	36	0.46



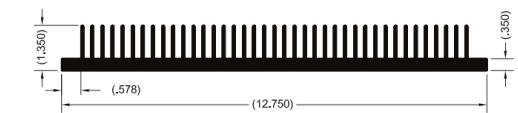
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125619	11.875" Wide x 12" Flatback Heatsink 17099	11.875	2.594	12	0.4
125620	11.875" Wide x 36" Flatback Heatsink 17099	11.875	2.594	36	0.4



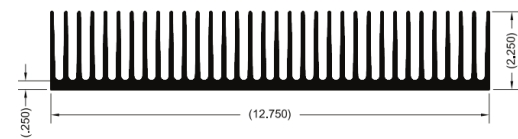
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
122262	12.25" Wide x 12" Flatback Heatsink 19152 xx4471	12.25	1	12	1.3
125655	12.25" Wide x 36" Flatback Heatsink 19152 xx4471	12.25	1	36	1.3

Aluminum Flatback

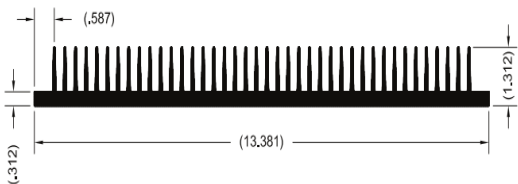
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



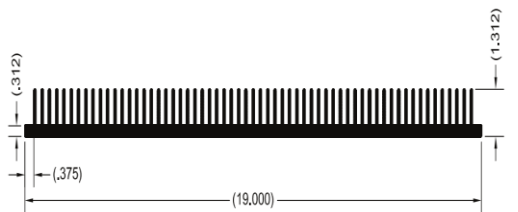
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125631	12.75" Wide x 12" Flatback Heatsink xx2170	12.75	1.35	12	0.6
125632	12.75" Wide x 36" Flatback Heatsink xx2170	12.75	1.35	36	0.6



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125469	12.75" Wide x 12" Flatback Heatsink xx2044	12.75	2.25	12	0.56
125470	12.75" Wide x 36" Flatback Heatsink xx2044	12.75	2.25	36	0.56



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125475	13.381" Wide x 12" Flatback Heatsink xx5429	13.381	1.312	12	0.65
125476	13.381" Wide x 36" Flatback Heatsink xx5429	13.381	1.312	36	0.65

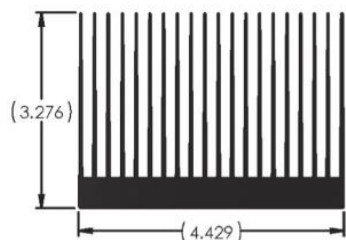


WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125481	19.00" Wide x 36" Flatback Heatsink xx2016	19	1.32	12	0.65
125482	19.00" Wide x 36" Flatback Heatsink xx2016	19	1.32	36	0.65

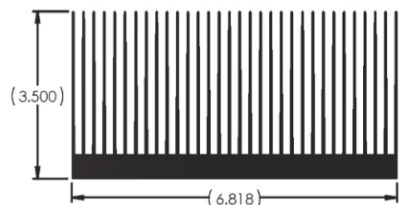
Thermal Extrusions Cut to Length

High Aspect

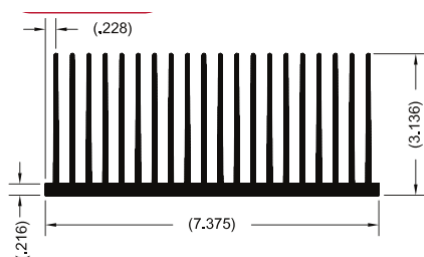
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



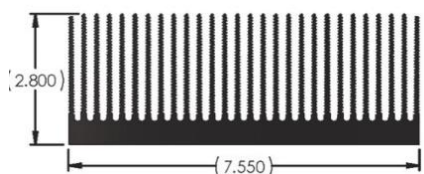
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125562	4.429" Wide x 11.81" High Aspect Heatsink 17080-11.81	4.429	3.276	11.81	0.59



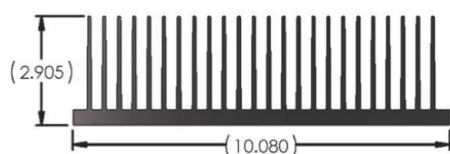
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125565	6.818" Wide x 11.81" High Aspect Heatsink 19333-12	4.429	3.5	12	0.34



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
122258	7.375" Wide x 12" High Aspect Extrusion 15817 xx5113	7.375	3.136	12	0.68
125649	7.375" Wide x 36" High Aspect Extrusion 15817 xx5113	7.375	3.136	36	0.68



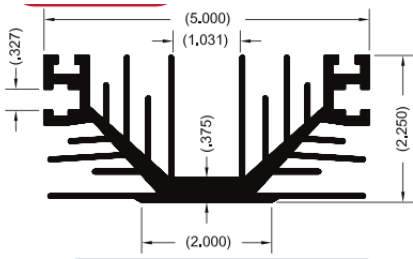
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
122264	7.55" Wide x 12" High Aspect Extrusion 19832	7.55	2.8	12	0.34
125659	7.55" Wide x 36" High Aspect Extrusion 19832	7.55	2.8	36	0.34



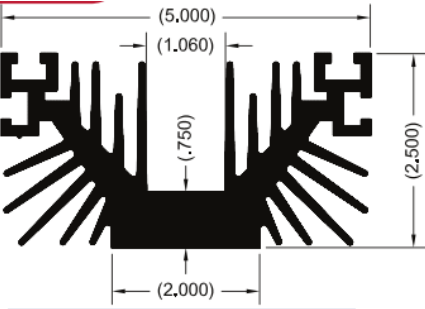
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125571	10.08" Wide x 12" High Aspect Extrusion 21052	10.08	2.905	12	0.51
125572	10.08" Wide x 36" High Aspect Extrusion 21052	10.08	2.905	36	0.51

SCR Press Pack Extrusions

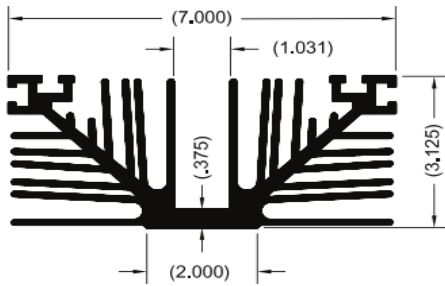
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



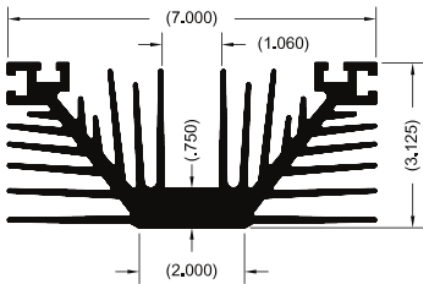
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125526	5.00" Wide x 12" Presspack SCR Extrusion 16082 xx3560-2	5	2.25	12	1.4
125527	5.00" Wide x 36" Presspack SCR Extrusion 16082 xx3560-2	5	2.25	36	1.4



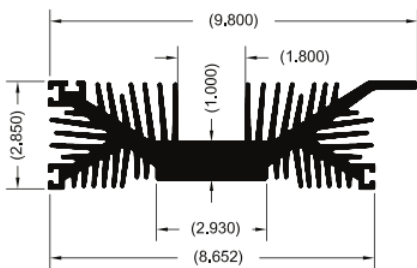
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125532	5.00" Wide x 12" Presspack SCR Extrusion 16565 xx5732	5	2.5	12	1.39
125533	5.00" Wide x 12" Presspack SCR Extrusion 16565 xx5732	5	2.5	36	1.39



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125538	7.00" Wide x 12" Presspack SCR Extrusion 16348 xx3559-2	7	3.125	12	0.85
125539	7.00" Wide x 36" Presspack SCR Extrusion 16348 xx3559-2	7	3.125	36	0.85



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125544	7.00" Wide x 12" Presspack SCR Extrusion 16235 xx5733	7	3.125	12	0.88
125545	7.00" Wide x 36" Presspack SCR Extrusion 16235 xx5733	7	3.125	36	0.88

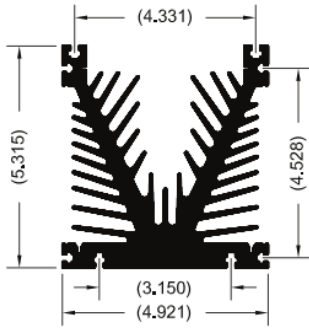


WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125550	9.80" Wide x 12" Presspack SCR Extrusion xx5735	9.8	2.85	12	0.71
125551	9.80" Wide x 36" Presspack SCR Extrusion xx5735	9.8	2.85	36	0.71

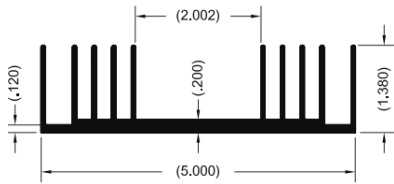
Thermal Extrusions Cut to Length

Power Modules

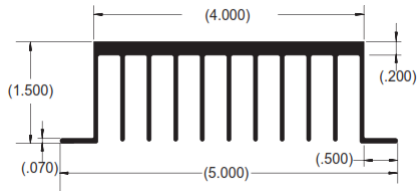
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



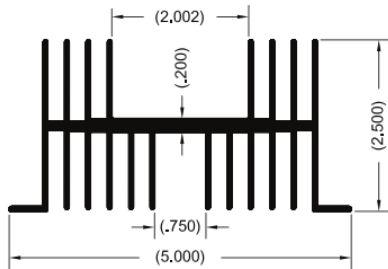
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125556	4.921" Wide x 12" Power Module Extrusion 13698 xx5658	4.921	4.528	12	0.8
125557	4.921" Wide x 36" Power Module Extrusion 13698 xx5658	4.921	4.528	36	0.8



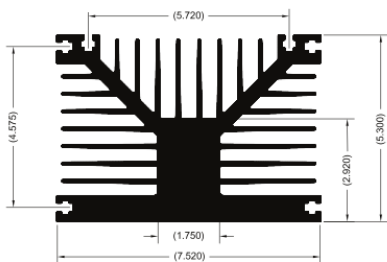
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125391	5.00" Wide x 12" Power Module Extrusion 19589 xx7331	5	1.38	12	3
125392	5.00" Wide x 36" Power Module Extrusion 19589 xx7331	5	1.38	36	3



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125379	5.00" Wide x 12" Power Module Extrusion 16414 xx7332	5	1.5	12	2.5
125380	5.00" Wide x 36" Power Module Extrusion 16414 xx7332	5	1.5	36	2.5



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125385	5.00" Wide x 12" Power Module Extrusion 16936 xx7330	5	2.5	12	1.7
125386	5.00" Wide x 36" Power Module Extrusion 16936 xx7330	5	2.5	36	1.7

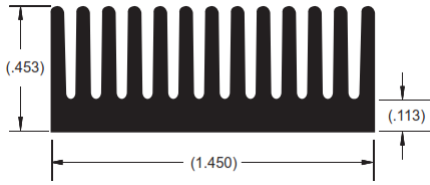


WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125613	7.52" Wide x 12" Power Module Extrusion 17003	7.52	5.3	12	0.65
125614	7.52" Wide x 36" Power Module Extrusion 17003	7.52	5.3	36	0.65

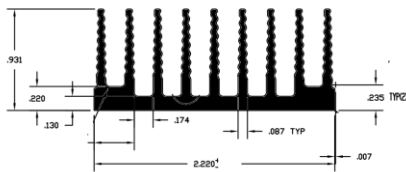
Thermal Extrusions Cut to Length

DC/DC Heat Sink

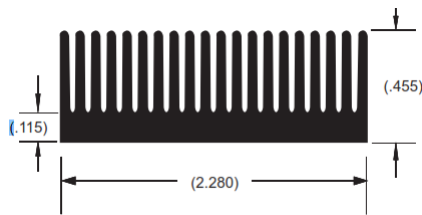
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



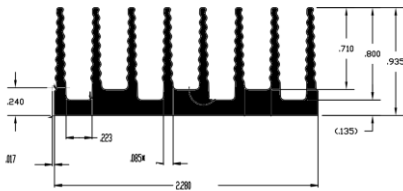
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125361	1.45" Wide x 12" DC/DC Heatsink Extrusion 14363	1.45	0.768	12	4.2
125362	1.45" Wide x 36" DC/DC Heatsink Extrusion 14363	1.45	0.768	36	4.2



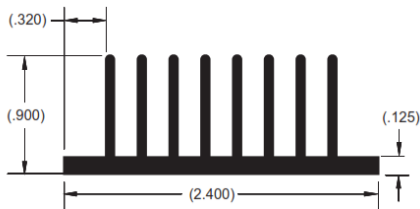
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125343	2.22" Wide x 12" DC/DC Heatsink Extrusion 14192	2.22	2.53	12	0.6
125344	2.22" Wide x 36" DC/DC Heatsink Extrusion 14192	2.22	2.53	36	0.6



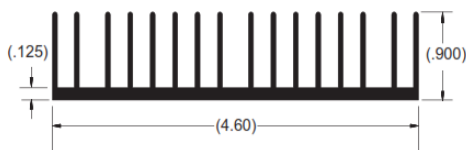
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125355	2.28" Wide x 12" DC/DC Heatsink Extrusion 14362	2.28	0.455	12	4
125356	2.28" Wide x 36" DC/DC Heatsink Extrusion 14362	2.28	0.455	36	4



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125349	2.28" Wide x 12" DC/DC Heatsink Extrusion 14228	2.28	9.35	12	0.28
125350	2.28" Wide x 36" DC/DC Heatsink Extrusion 14228	2.28	9.35	36	0.28



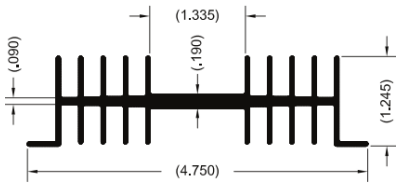
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125331	2.40" Wide x 12" DC/DC Heatsink Extrusion 12613	2.4	0.9	12	4.1
125332	2.40" Wide x 36" DC/DC Heatsink Extrusion 12613	2.4	0.9	36	4.1



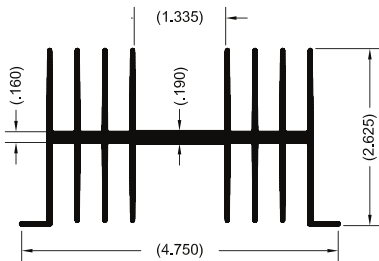
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125337	4.60" Wide x 12" DC/DC Heatsink Extrusion 12614	4.6	0.9	12	2.1
125338	4.60" Wide x 36" DC/DC Heatsink Extrusion 12614	4.6	0.9	36	2.1

H Style/Mounting Shelf Heat Sinks

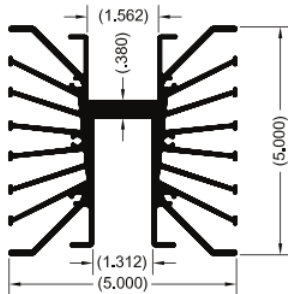
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



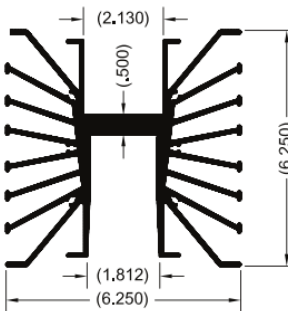
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125487	4.75" x 12" H Style Heatsink 4530 xx1024	4.75	1.245	12	2
125488	4.75" x 36" H Style Heatsink 4530 XX1024	4.75	1.245	36	2



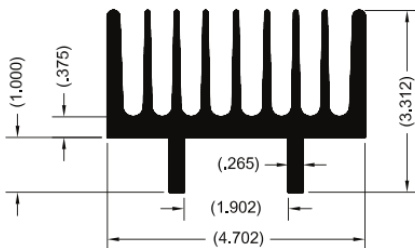
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125493	4.75" x 12" H Style Heatsink 5410 xx1025	4.75	2.625	12	1.3
125494	4.75" x 36" H Style Heatsink 5410 xx1025	4.75	2.625	36	1.3



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125499	5.00" x 12" H Style Heatsink 6542 xx1245	5	5	12	0.72
125500	5.00" x 36" H Style Heatsink 6542 xx1245	5	5	36	0.72



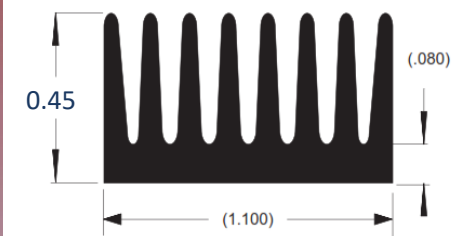
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125505	6.25" Wide x 12" H Style Heatsink 16971 xx1541	6.25	6.25	12	0.59
125506	6.25" Wide x 36" H Style Heatsink 16971 xx1541	6.25	6.25	36	0.59



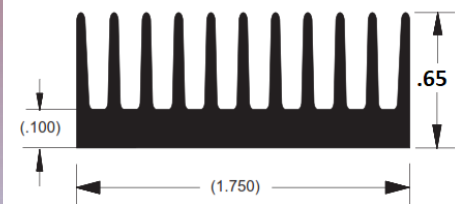
WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125637	4.702" Wide x 12" Mounting Shelf Extrusion 14264	4.702	3.312	12	1.8
125638	4.702" Wide x 12" Mounting Shelf Extrusion 14264	4.702	3.312	36	1.8

BGA Style Heat Sinks

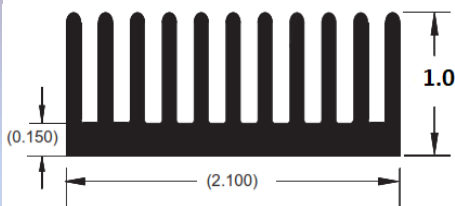
- Dimensions: Inches
- Thermal Resistance based on 3 Inch Length in Natural Convection Setting



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125283	1.10" Wide x 12" BGA Heatsink Extrusion 16240 xx8052-45	1.1	0.45	12	8
125284	1.10" Wide x 36" BGA Heatsink Extrusion 16240 xx8052-45	1.1	0.45	36	8



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125289	1.75" Wide x 12" BGA Heatsink Extrusion 16249 XX8260-65	1.75	0.65	12	7.8
125290	1.75" Wide x 36" BGA Heatsink Extrusion 16249 XX8260-65	1.75	0.65	36	7.8



WKV Part Number	Description	Width	Height	Length	Thermal Resistance °C/w/3"
125307	2.10" Wide x 12" BGA Heatsink Extrusion 12554 xx8355-100	2.1	1	12	3.8
125308	2.10" Wide x 36" BGA Heatsink Extrusion 12554 xx8355-100	2.1	1	36	3.8

EXTRUDED SERIES HEAT SINKS

Extruded Heat Sinks For Power Semiconductors 88-92

Performance, Low Profile Heat Sinks For Power Modules & IGBT's 93

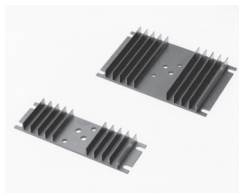
Extruded Heat Sinks For DC/DC Converters..... 94-96

Mounting Hardware For Extruded Heat Sinks..... 95



For cooling single and multiple high power devices packaged in industry standard semiconductor case styles: TO-3 to TO-247, DO-4 to DO-30, hex-type, and stud mount; press pack devices; power modules; SCRs, IGBTs; I/O devices; and other isolated flat base devices in both natural and forced convection.

EXTRUDED HEAT SINKS FOR POWER SEMICONDUCTORS



621 & 623 SERIES

LOW-PROFILE HEAT SINKS FOR ALL METAL-CASE
POWER SEMICONDUCTORS

TO-3

A general purpose yet efficient heat dissipator for TO-3 and virtually all other styles of metal case power semiconductor package types, the **621 and 623 Series** low-profile flat back heat sinks find a wide variety of applications. The central channel between fins measures 1.300 in. (33.0) (min.) in width, accommodating many types of packages. Mounting hole pattern “A” is pre-drilled for the standard TO-3 package.

Standard P/N	Footprint Dimensions in. (mm)	Height in. (mm)	Mounting Hole Pattern	Thermal Performance at Typical Load		Weight lbs. (grams)
				Natural Convection	Forced Convection	
621A	4.750 (120.6) x 1.500 (38.1)	0.461 (11.7)	(1) TO-3	75°C @ 15W	2.0°C/W @ 250 LFM	0.1000 (45.36)
621K	4.750 (120.6) x 1.500 (38.1)	0.461 (11.7)	None	75°C @ 15W	2.0°C/W @ 250 LFM	0.1000 (45.36)
623A	4.750 (120.6) x 3.000 (76.2)	0.461 (11.7)	(1) TO-3	52°C @ 15W	1.5°C/W @ 250 LFM	0.2100 (95.26)
623K	4.750 (120.6) x 3.000 (76.2)	0.461 (11.7)	None	52°C @ 15W	1.5°C/W @ 250 LFM	0.2100 (95.26)

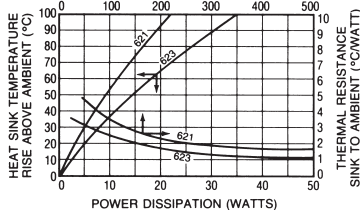
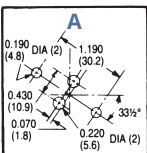
Material: Aluminum Alloy, Black Anodized.

MECHANICAL DIMENSIONS

(EXTRUSION PROFILE 1327)

NATURAL AND FORCED
CONVECTION CHARACTERISTICS

SEMICONDUCTOR
MOUNTING HOLES



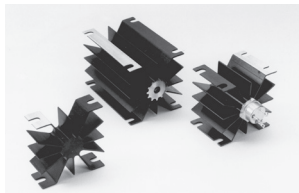
Dimensions: in. (mm)

COMPACT HEAT SINKS FOR DUAL
STUD-MOUNTED SEMICONDUCTOR CASES

301, 302, &
303 SERIES

Stud-Mount

The large fin area in minimum total volume provided by the radial design of the **301/302/303 Series** offers maximum heat transfer efficiency in natural convection. All types are available with one tapped mounting hole for rectifiers and other stud-mounting semiconductor; the 302 and 303 Series offer maximum cost savings with dual mounting locations (“MM” and “NN” mounting hole patterns) for two stud-mount devices.



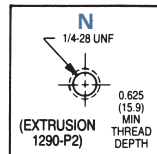
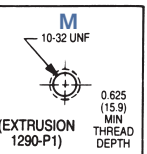
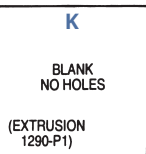
Standard P/N	Outline Dimensions in. (mm)	Length “A” in. (mm)	Mounting Hole(s) Pattern and Number	Thermal Performance at Typical Load		Weight lbs. (grams)
				Natural Convection	Forced Convection	
301K	2.000 (50.8) x 2.000 (50.8)	0.750 (19.1)	None	70°C @ 15W	2.5°C/W @ 250 LFM	0.0580 (26.31)
301M	2.000 (50.8) x 2.000 (50.8)	0.750 (19.1)	(1) 10-32UNF, 0.625 in. thread depth	70°C @ 15W	2.5°C/W @ 250 LFM	0.0580 (26.31)
301N	2.000 (50.8) x 2.000 (50.8)	0.750 (19.1)	(1) 1/4 -28UNF, 0.625 in. thread depth	70°C @ 15W	2.5°C/W @ 250 LFM	0.0580 (26.31)
302M	2.000 (50.8) x 2.000 (50.8)	1.500 (38.1)	(1) 10-32UNF, 0.625 in. thread depth	50°C @ 15W	1.8°C/W @ 250 LFM	0.1330 (60.33)
302MM	2.000 (50.8) x 2.000 (50.8)	1.500 (38.1)	(2) 10-32UNF, 0.625 in. thread depth	50°C @ 15W	1.8°C/W @ 250 LFM	0.1330 (60.33)
302N	2.000 (50.8) x 2.000 (50.8)	1.500 (38.1)	(1) 1/4 -28UNF, 0.625 in. thread depth	50°C @ 15W	1.8°C/W @ 250 LFM	0.1330 (60.33)
302NN	2.000 (50.8) x 2.000 (50.8)	1.500 (38.1)	(2) 1/4 -28UNF, 0.625 in. thread depth	50°C @ 15W	1.8°C/W @ 250 LFM	0.1330 (60.33)
303M	2.000 (50.8) x 2.000 (50.8)	3.000 (76.2)	(1) 10-32UNF, 0.625 in. thread depth	37°C @ 15W	1.3°C/W @ 250 LFM	0.2680 (121.56)
303MM	2.000 (50.8) x 2.000 (50.8)	3.000 (76.2)	(2) 10-32UNF, 0.625 in. thread depth	37°C @ 15W	1.3°C/W @ 250 LFM	0.2680 (121.56)
303N	2.000 (50.8) x 2.000 (50.8)	3.000 (76.2)	(1) 1/4 -28UNF, 0.625 in. thread depth	37°C @ 15W	1.3°C/W @ 250 LFM	0.2680 (121.56)
303NN	2.000 (50.8) x 2.000 (50.8)	3.000 (76.2)	(2) 1/4 -28UNF, 0.625 in. thread depth	37°C @ 15W	1.3°C/W @ 250 LFM	0.2680 (121.56)

Material: Aluminum Alloy, Black Anodized.

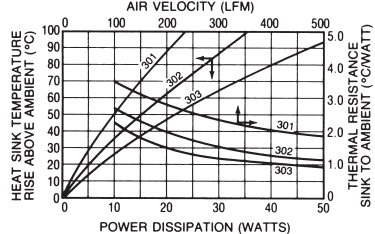
MECHANICAL DIMENSIONS

NOTE: CROSS-HATCHED AREAS FREE OF ANODIZE.

SEMICONDUCTOR MOUNTING HOLES



NATURAL AND FORCED
CONVECTION CHARACTERISTICS



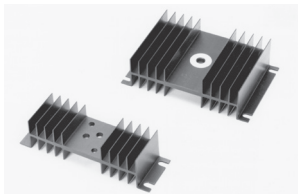
302 AND 303 SERIES

301 SERIES

Dimensions: in. (mm)

DOUBLE-SURFACE HEAT SINKS
FOR TO-3 CASE STYLES

401 & 403 SERIES



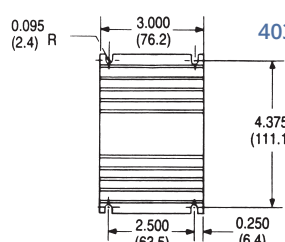
TO-3; Stud-Mount

With fins oriented vertically in cabinet sidewall applications, **401 and 403 Series** heat sinks are recommended for critical space applications where maximum heat dissipation is required for high-power TO-3 case styles. Forced convection performance is also exemplary with these double surface fin types. Semiconductor mounting hole style “F” offers a single centered 0.270 in. (6.9)-diameter mounting hole (with a 0.750 in. (19.1)-diameter area free of anodize) for mounting stud-type diodes and rectifiers. Hole pattern “V” available upon request.

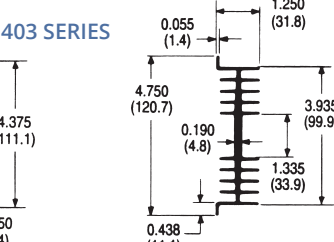
Standard P/N	Width in. (mm)	Overall Dimensions in. (mm)	Height in. (mm)	Semiconductor Mounting Hole Pattern	Thermal Performance at Typical Load		Weight lbs. (grams)
					Natural Convection	Forced Convection	
401A	4.750 (120.7)	1.500 (38.1)	1.250 (31.8)	(1) TO-3	80°C @ 30W	1.5°C/W @ 250 LFM	0.1500 (68.04)
401F	4.750 (120.7)	1.500 (38.1)	1.250 (31.8)	0.270 in. (6.9)-Dia Hole	80°C @ 30W	1.5°C/W @ 250 LFM	0.1500 (68.04)
401K	4.750 (120.7)	1.500 (38.1)	1.250 (31.8)	None	80°C @ 30W	1.5°C/W @ 250 LFM	0.1500 (68.04)
403A	4.750 (120.7)	3.000 (76.2)	1.250 (31.8)	(1) TO-3	55°C @ 30W	0.9°C/W @ 250 LFM	0.3500 (158.76)
403F	4.750 (120.7)	3.000 (76.2)	1.250 (31.8)	0.270 in. (6.9)-Dia Hole	55°C @ 30W	0.9°C/W @ 250 LFM	0.3500 (158.76)
403K	4.750 (120.7)	3.000 (76.2)	1.250 (31.8)	None	55°C @ 30W	0.9°C/W @ 250 LFM	0.3500 (158.76)

Material: Aluminum Alloy, Black Anodized.

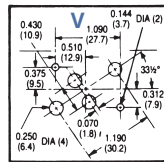
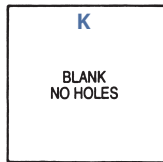
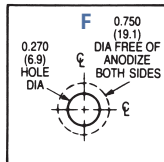
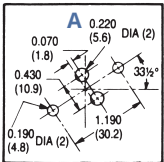
MECHANICAL DIMENSIONS



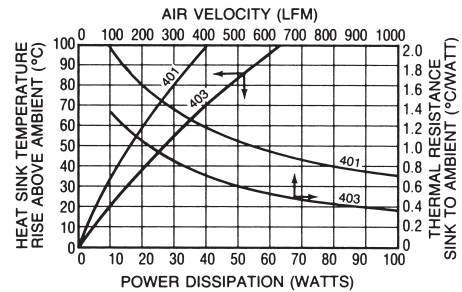
Dimensions: in. (mm)



SEMICONDUCTOR MOUNTING HOLES



NATURAL AND FORCED
CONVECTION CHARACTERISTICS

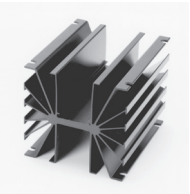


(EXTRUSION PROFILE 1024)

441 SERIES

HIGH-PERFORMANCE NATURAL CONVECTION HEAT
SINKS FOR RECTIFIERS AND DIODES

Stud-Mount

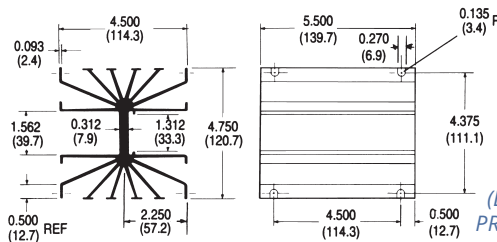


Designed for vertical mounting within a power supply enclosure or equipment cabinet without forced airflow available. This Wakefield-Vette **441 Series** heat sink will dissipate up to 100 watts efficiently in natural convection with a maximum 55°C heat sink temperature rise above ambient. When applied in a forced convection environment, the 441K Type will achieve thermal resistance of 0.18°C/W (sink to ambient) at 1000 LFM. Supplied with no pre-drilled device mounting hole pattern.

Standard P/N	Nominal Dimensions			Semiconductor Mounting Hole Pattern	Thermal Performance at Typical Load		Weight lbs. (grams)
	Width in. (mm)	Length in. (mm)	Height in. (mm)		Natural Convection	Forced Convection	
441K	4.750 (120.7)	5.500 (139.7)	4.500 (114.3)	None	34°C @ 50W 47°C @ 80W	0.30°C/W @ 250 LFM 0.19°C/W @ 600 LFM	1.9700 (893.59)

Material: Aluminum Alloy, Black Anodized.

MECHANICAL DIMENSIONS

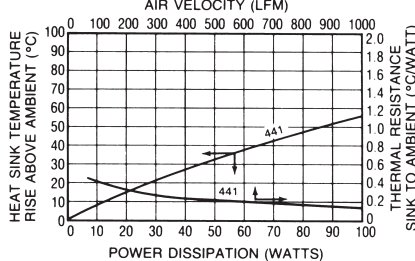


Dimensions: in. (mm)

SEMICONDUCTOR
MOUNTING HOLE



NATURAL AND FORCED
CONVECTION CHARACTERISTICS



EXTRUDED HEAT SINKS FOR POWER SEMICONDUCTORS

413, 421, &
423 SERIES

LOW-HEIGHT DOUBLE-SURFACE HEAT SINKS FOR
TO-3 CASE STYLES AND DIODES

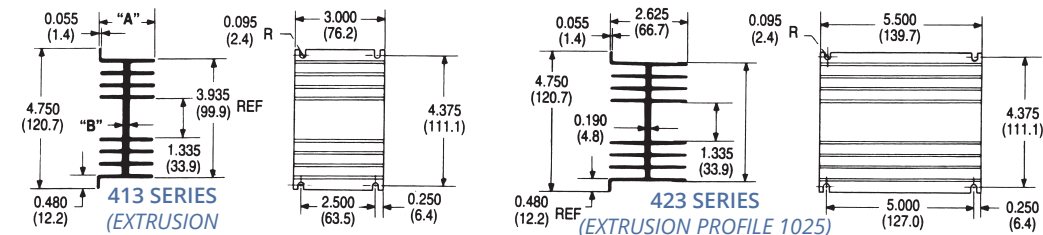
TO-3; DO-5; Stud-Mount

Space-saving double surface **413, 421, and 423 Series** utilize finned surface area on both sides of the power semiconductor mounting surface to provide maximum heat dissipation in a compact profile. Ready to install on popular power components in natural and forced convection applications. Apply Wakefield-Vette Type 126 silicone-free thermal compound or Wakefield-Vette DeltaPad™ interface materials for maximum performance.

Standard P/N	Nominal Dimensions			Semiconductor Mounting Hole Pattern	Thermal Performance at Typical Load		
	Width in. (mm)	Length in. (mm)	Height "A" in. (mm)		Natural Convection	Forced Convection	Weight lbs. (grams)
413A	4.750 (120.7)	3.000 (76.2)	1.875 (47.6)	(1) TO-3	72°C @ 50W	0.85°C/W @ 250 LFM	0.6300 (285.77)
413F	4.750 (120.7)	3.000 (76.2)	1.875 (47.6)	0.270 in. (6.9)-Dia Hole	72°C @ 50W	0.85°C/W @ 250 LFM	0.6300 (285.77)
413K	4.750 (120.7)	3.000 (76.2)	1.875 (47.6)	None	72°C @ 50W	0.85°C/W @ 250 LFM	0.6300 (285.77)
421A	4.750 (120.7)	3.000 (76.2)	2.625 (66.7)	(1) TO-3	58°C @ 50W	0.7°C/W @ 250 LFM	0.6300 (285.77)
421F	4.750 (120.7)	3.000 (76.2)	2.625 (66.7)	0.270 in. (6.9)-Dia Hole	58°C @ 50W	0.7°C/W @ 250 LFM	0.6300 (285.77)
421K	4.750 (120.7)	3.000 (76.2)	2.625 (66.7)	None	58°C @ 50W	0.7°C/W @ 250 LFM	0.6300 (285.77)
423A	4.750 (120.7)	5.500 (140.2)	2.625 (66.7)	(1) TO-3	47°C @ 50W	0.5°C/W @ 250 LFM	1.1700 (530.71)
423K	4.750 (120.7)	5.500 (140.2)	2.625 (66.7)	None	47°C @ 50W	0.5°C/W @ 250 LFM	1.1700 (530.71)

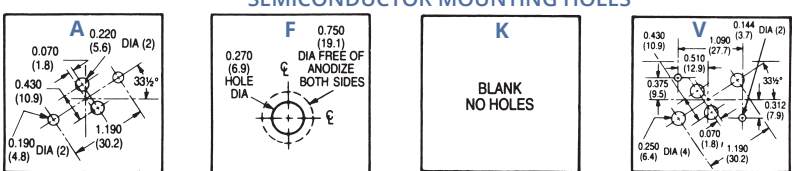
Material: Aluminum Alloy, Black Anodized.

MECHANICAL DIMENSIONS



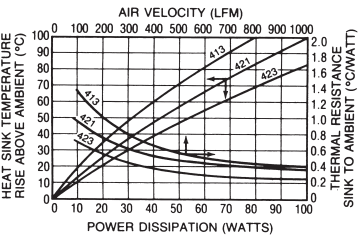
413 SERIES
(EXTRUSION
PROFILE 2276)
421 SERIES
(EXTRUSION
PROFILE 1025)
SERIES "A" "B"
413 1.875 (47.6) 0.200 (5.1)
421 2.625 (66.7) 0.190 (4.8)

Dimensions: in. (mm)



SEMICONDUCTOR MOUNTING HOLES

NATURAL AND FORCED
CONVECTION CHARACTERISTICS



HIGH-PERFORMANCE HEAT SINKS FOR 30-100W
METAL POWER SEMICONDUCTORS

TO-3; Stud-Mount

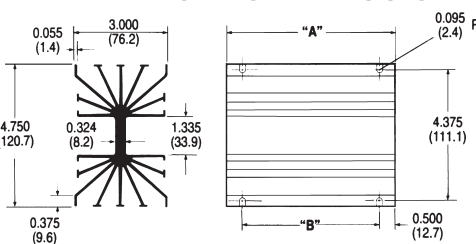
431 & 433 SERIES

Need maximum heat dissipation from a TO-3 rectifier heat sink in minimum space? The Wakefield-Vette **431 and 433 Series** center channel double-surface heat sinks offer the highest performance-to-weight ratio for minimum volume occupied for TO-3, diode, and stud-mount metal power semiconductors in the 30- to 100-watt operating range. Additional interface resistance reduction for maximized overall performance can be achieved with proper application of Wakefield-Vette Type 126 silicone-free thermal compound.

Standard P/N	Nominal Dimensions			Semiconductor Mounting Hole Pattern	Thermal Performance at Typical Load		Weight lbs. (grams)
	Width in. (mm)	Length "A" in. (mm)	Height in. (mm)		Natural Convection	Forced Convection	
431K	4.750 (120.7)	3.000 (76.2)	3.000 (76.2)	None	55°C @ 50W	0.40°C/W @ 250 LFM	0.7800 (353.81)
433K	4.750 (120.7)	5.500 (139.7)	3.000 (76.2)	None	42°C @ 50W	0.28°C/W @ 250 LFM	1.4900 (675.86)

Material: Aluminum Alloy, Black Anodized.

MECHANICAL DIMENSIONS



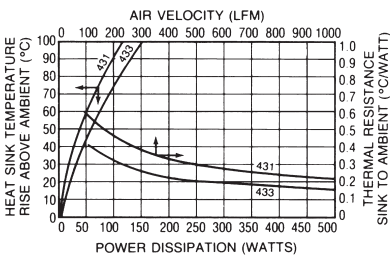
Dimensions: in. (mm)

SERIES "A" "B"
431 3.000 (76.2) 2.000 (50.8)
433 5.500 (139.7) 4.500 (114.3)

SEMICONDUCTOR MOUNTING HOLE



NATURAL AND FORCED
CONVECTION CHARACTERISTICS



LIGHTWEIGHT QUADRUPLE MOUNT HEAT SINK FOR
TO-3 CASE STYLES

435 SERIES

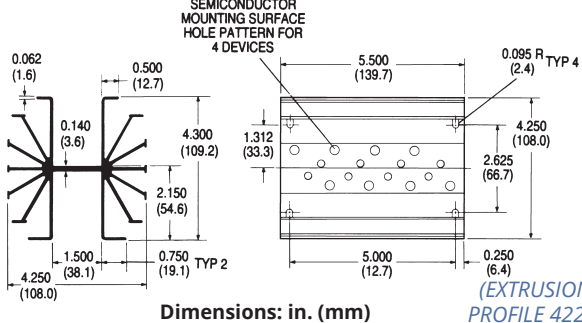
TO-3

This lightweight high-performance heat sink is designed to mount and cool efficiently one to four TO-3 style metal case power semiconductors. The Type 435AAAA is the standard configuration available from stock, pre-drilled for mounting four TO-3 style devices. Increased performance can be achieved with the proper selection and installation of a Wakefield-Vette Type 175 DeltaPad Kapton™ interface material for each power semiconductor or, for maximum reduction of case-to-sink interface loss, the application of Wakefield-Vette Type 126 silicone-free thermal compound.

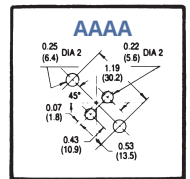
Standard P/N	Nominal Dimensions			Semiconductor Mounting Hole Pattern	Thermal Performance at Typical Load		Weight lbs. (grams)
	Width in. (mm)	Length in. (mm)	Height in. (mm)		Natural Convection	Forced Convection	
435AAAA	4.250 (108.0)	5.500 (139.7)	4.300 (109.2)	(4) TO-3	37°C @ 50W 54°C @ 80W	0.38°C/W @ 250 LFM 0.24°C/W @ 600 LFM	1.1500 (521.64)

Material: Aluminum Alloy, Black Anodized.

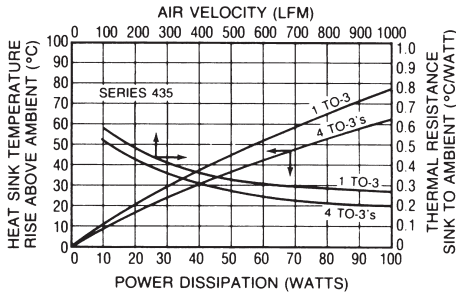
MECHANICAL DIMENSIONS



SEMICONDUCTOR MOUNTING HOLES



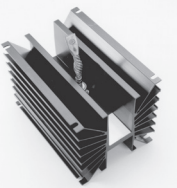
NATURAL AND FORCED
CONVECTION CHARACTERISTICS



486 & 489 SERIES

HEAT SINKS FOR HIGH-POWER HEX-TYPE
RECTIFIERS AND DIODES

Stud-Mount

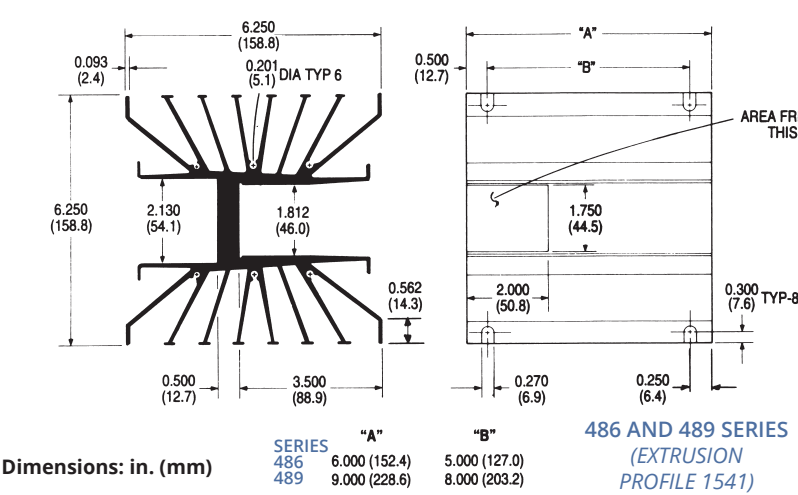


These two heat sink types accept industry standard 1.750 in. (44.5) hex-type devices for mounting and efficient heat dissipation. Each type is provided with a 1.750 in. (44.5) x 2.000 in. (50.8) area on the semiconductor base mounting surface which is free of anodize.

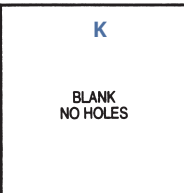
Standard P/N	Nominal Dimensions			Hex Style Type	Mounting Hole Pattern	Thermal Performance at Typical Load		Weight lbs. (grams)
	Width in. (mm)	Length in. (mm)	Height in. (mm)			Natural Convection	Forced Convection	
486K	6.250 (158.8)	6.000 (152.4)	6.250 (158.8)	1.750 in. Hex	None	24°C @ 50W 86°C @ 250W	0.20°C/W @ 250 LFM 0.13°C/W @ 500 LFM	4.2100 (1909.66)
489K	6.250 (158.8)	9.000 (228.6)	6.250 (158.8)	1.750 in. Hex	None	19°C @ 50W 75°C @ 250W	0.15°C/W @ 250 LFM 0.10°C/W @ 500 LFM	6.1400 (2785.10)

Material: Aluminum Alloy, Black Anodized.

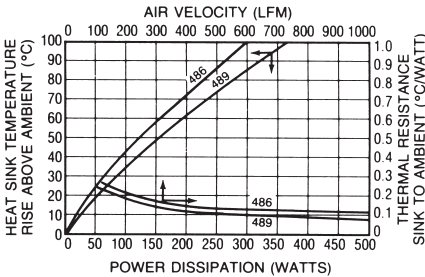
MECHANICAL DIMENSIONS



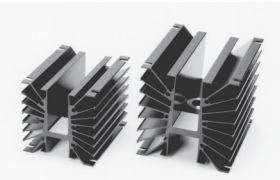
SEMICONDUCTOR MOUNTING HOLE



NATURAL AND FORCED
CONVECTION CHARACTERISTICS



EXTRUDED HEAT SINKS FOR POWER SEMICONDUCTORS



465 & 476 SERIES

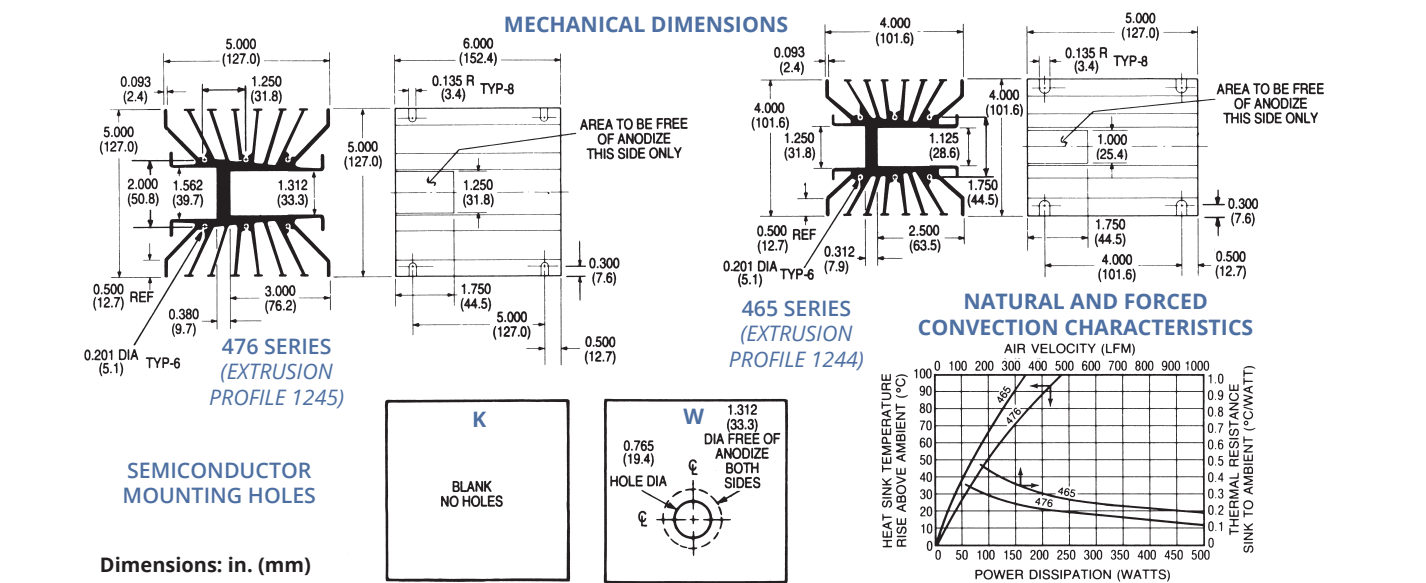
HIGH-POWER HEAT SINKS FOR MEDIUM
HEX-TYPE RECTIFIERS AND DIODES

Stud-Mount

Wakefield-Vette Engineering has designed four standard heat sink types for ease of installation and efficient heat dissipation for industry standard hex-type rectifiers and similar stud-mount power devices: 465, 476, 486, and 489 Series. The **465 and 476 Series** shown here are designed for 1.060 in. Hex (465 Type) and 1.250 in. Hex (476 Type). The 476W Type is available pre-drilled for an 0.765 in. (19.4) dia,

Standard P/N	Nominal Dimensions			Hex Style Type	Mounting Hole Pattern	Thermal Performance at Typical Load		Weight lbs. (grams)
	Width in. (mm)	Length in. (mm)	Height in. (mm)			Natural Convection	Forced Convection	
465K	4.000 (101.6)	5.000 (127.0)	4.000 (101.6)	1.060 in. Hex	None	38°C @ 50W	0.27°C/W @ 500 LFM	1.9300 (875.45)
476K	5.000 (127.0)	6.000 (152.4)	5.000 (127.0)	1.250 in. Hex	None	25°C @ 50W	0.19°C/W @ 500 LFM	2.8200 (1279.15)
476W	5.000 (127.0)	6.000 (152.4)	5.000 (127.0)	1.250 in. Hex	0.765 in. (19.4) Dia. Center Mount	25°C @ 50W	0.19°C/W @ 500 LFM	2.8000 (1270.08)

Material: Aluminum Alloy, Black Anodized.

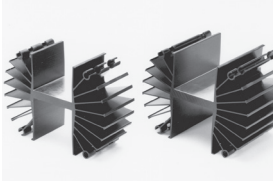


General Purpose

KING SIZE HEAT SINKS FOR HIGH-POWER RECTIFIERS

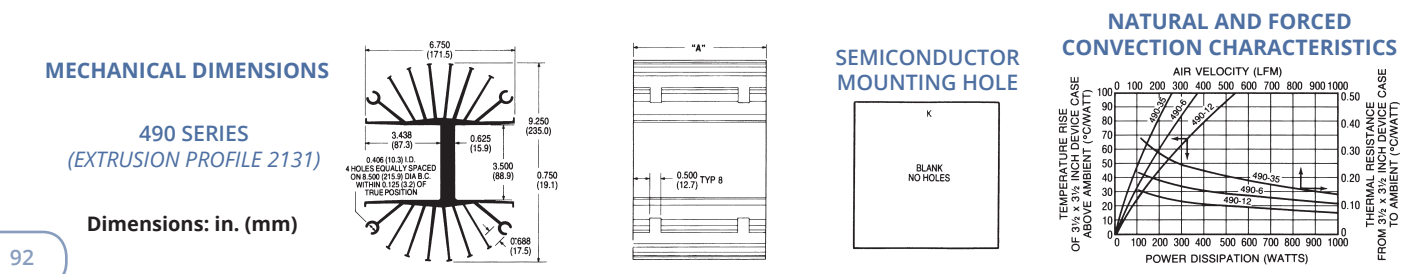
490 SERIES

The **490 Series** can be used to mount a single high-power rectifier or a grouping of smaller power devices. The semiconductor device mounting surface is free of anodize on the entire surface on one side only; finish overall is black anodize. Use Type 109 mounting brackets (see accessories section) for mounting to enclosure wall and for electrical isolation. The anodize-free mounting surface is milled for maximum contact area. The 490 Series Can also be drilled for mounting and cooling IGBTs and other isolated power modules.



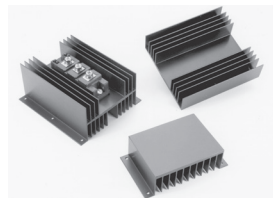
Standard P/N	Nominal Dimensions			Semiconductor Mounting Hole Pattern	Thermal Performance at Typical Load		Weight lbs. (grams)
	Width in. (mm)	Length "A" in. (mm)	Height in. (mm)		Natural Convection	Forced Convection	
490-35K	9.250 (235.0)	3.500 (88.9)	6.750 (171.5)	None	84°C @ 200W	0.18°C/W @ 600 LFM	3.2400 (1469.66)
490-6K	9.250 (235.0)	6.000 (152.4)	6.750 (171.5)	None	60°C @ 200W	0.13°C/W @ 600 LFM	5.4700 (2481.19)
490-12K	9.250 (235.0)	12.000 (304.8)	6.750 (171.5)	None	45°C @ 200W	0.09°C/W @ 600 LFM	10.6200(4817.23)

Material: Aluminum Alloy, Black Anodized.



PERFORMANCE, LOW PROFILE HEAT SINKS FOR POWER MODULES & IGBT'S

394, 395, & 396 SERIES

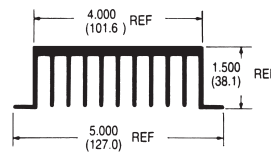
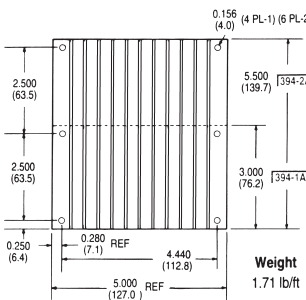


Standard P/N	Overall Dimensions: in. (mm)			Device Base Mounting Area (mm)	Base Mounting Holes	Thermal Resistance at Typical Load	
	Length in. (mm)	Height in. (mm)	Width in. (mm)			Natural Convection (Øsa) ⁽¹⁾ (°C/W)	Forced Convection (Øsa) (°C/W @ 500 LFM)
394-1AB	3.000 (76.2)	1.500 (38.1)	5.000 (127.0)	101 x 76	4	1.85	0.90
394-2AB	5.500 (139.7)	1.500 (38.1)	5.000 (127.0)	101 x 139	6	1.51	0.60
395-1AB	3.000 (76.2)	2.500 (63.5)	5.000 (127.0)	50 x 76	4	1.10	0.50
395-2AB	5.500 (139.7)	2.500 (63.5)	5.000 (127.0)	50 x 139	6	0.90	0.32
396-1AB	3.000 (76.2)	1.380 (35.1)	5.000 (127.0)	50 x 76	4	1.85	1.07
396-2AB	5.500 (139.7)	1.380 (35.1)	5.000 (127.0)	50 x 139	6	1.51	0.64

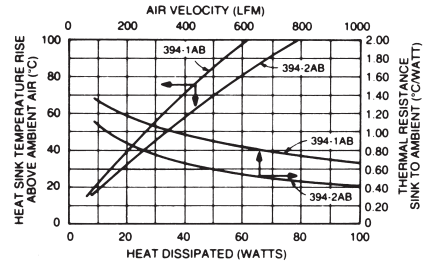
Note: 1. Thermal resistance values shown are for black anodized finish at 50°C rise above ambient.

MECHANICAL DIMENSIONS

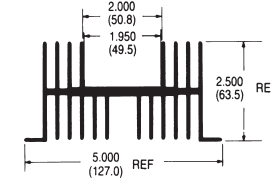
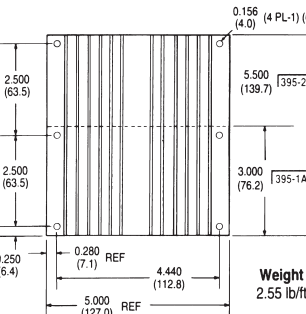
394 SERIES
(EXTRUSION PROFILE 7332)



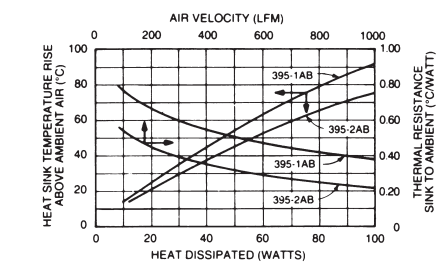
NATURAL AND FORCED CONVECTION CHARACTERISTICS



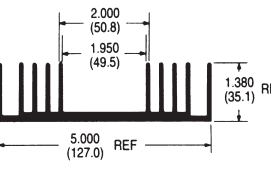
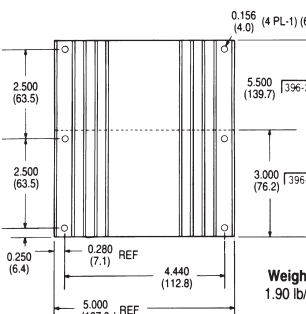
395 SERIES
(EXTRUSION PROFILE 7330)



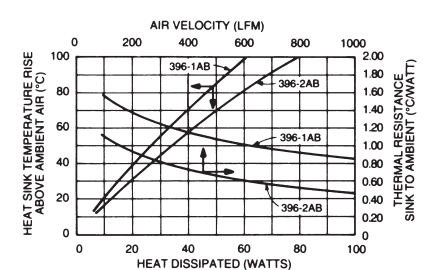
NATURAL AND FORCED CONVECTION CHARACTERISTICS



396 SERIES
(EXTRUSION PROFILE 7331)

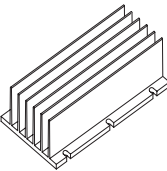


NATURAL AND FORCED CONVECTION CHARACTERISTICS



Dimensions: in. (mm)

EXTRUDED HEAT SINKS FOR DC/DC CONVERTERS



557, 558, &
559 SERIES

HEAT SINKS FOR “FULL-BRICK”
DC/DC CONVERTERS

TO-220 and TO-218

FEATURES AND BENEFITS

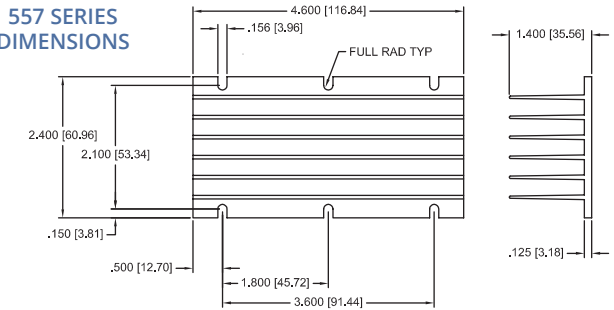
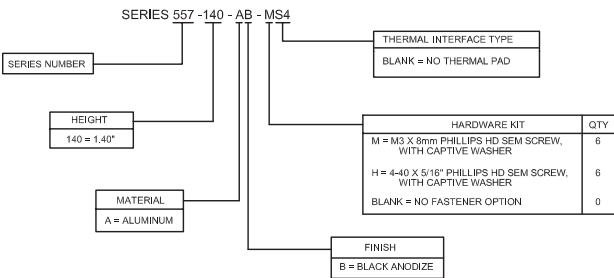
- Standard mounting hole pattern mates with Vicor DC/DC converters.
- Aluminum extruded fin construction keeps DC/DC converter modules cool in both forced and natural convection applications.
- Three fin heights, two flow direction options.
- Black anodized finish standard.
- Integral thermal interface pad option eliminates need to order and install pad separately.
- Ordering a single part number with the hardware kit option provides everything necessary to keep your converter cool.

Standard P/N	Footprint Dimensions in. (mm)	Height in. (mm)	Fin Orientation	Number of Fins	Forced Convection Thermal Resistance at 300 ft/min (C/W)	Natural Convection Power Dissipation (Watts) 40°C Rise Heat Sink to Ambient
557-140AB	4.60 (116.8) x 2.40 (61.0)	1.40 (35.6)	Horizontal	6	1.3	14
558-75AB	2.40 (61.0) x 4.60 (116.8)	0.75 (19.1)	Vertical	16	1.8	12
559-50AB	2.40 (61.0) x 4.60 (116.8)	0.50 (12.7)	Vertical	27	2.2	10

Material: Aluminum, Black Anodized

MECHANICAL DIMENSIONS

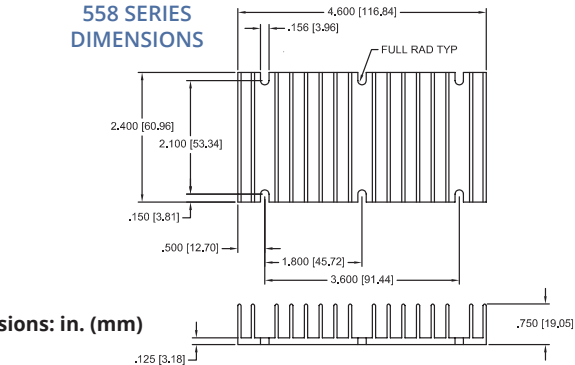
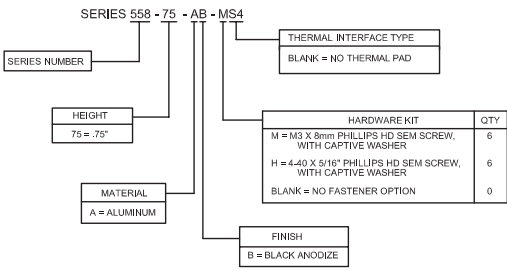
PRODUCT DESIGNATION



Dimensions: in. (mm)

MECHANICAL DIMENSIONS

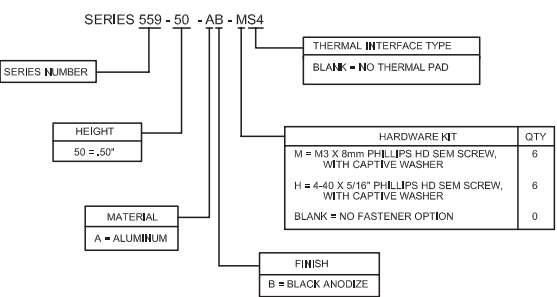
PRODUCT DESIGNATION



Dimensions: in. (mm)

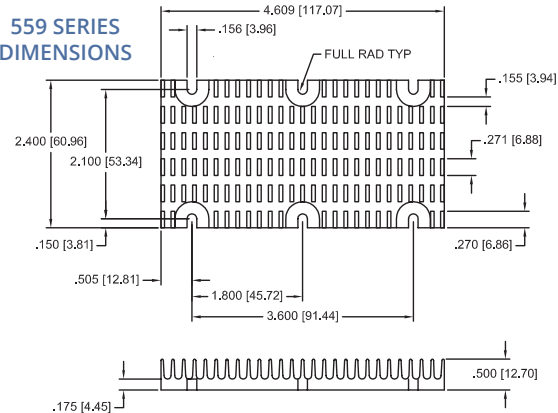
MECHANICAL DIMENSIONS

PRODUCT DESIGNATION



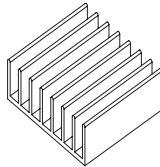
Dimensions: in. (mm)

559 SERIES
DIMENSIONS



HEAT SINKS FOR “HALF-BRICK”
DC/DC CONVERTERS

517, 527, 518,
& 528 SERIES



FEATURES AND BENEFITS

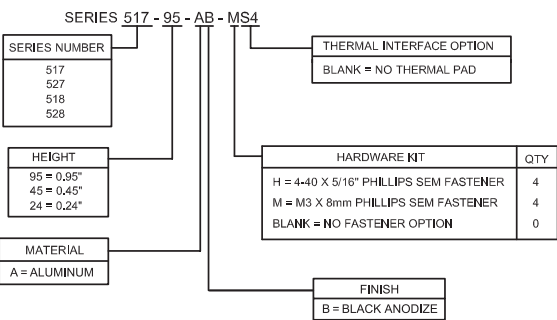
- Standard mounting hole patterns mate with the majority of “half-brick” DC/DC converters on the market.
- Aluminum extruded fin construction keeps DC/DC converter modules cool in both forced and natural convection applications.
- Vertical and horizontal fin configurations available in a variety of heights.
- Black anodized finish standard.
- Integral thermal interface pad option eliminates need to order and install pad separately.
- Ordering a single part number with the hardware kit option provides everything necessary to keep your converter cool.

Standard P/N	Footprint Dimensions in. (mm)	Height in. (mm)	Fin Orientation	Number of Fins	Thermal Performance	
					Natural Convection Power Dissipation (Watts) 60°C Rise Heat Sink to Ambient	Forced Convection Thermal Resistance at 300 ft/min (C/W)
517-95AB	2.28 (57.9) x 2.40 (61.0)	0.95 (24.1)	Horizontal	8	11W	2.0
527-45AB	2.28 (57.9) x 2.40 (61.0)	0.45 (11.4)	Horizontal	11	7W	3.2
527-24AB	2.28 (57.9) x 2.40 (61.0)	0.24 (6.1)	Horizontal	11	5W	5.8
518-95AB	2.40 (61.0) x 2.28 (57.9)	0.95 (24.1)	Vertical	8	11W	2.0
528-45AB	2.40 (61.0) x 2.28 (57.9)	0.45 (11.4)	Vertical	11	7W	3.2
528-24AB	2.40 (61.0) x 2.28 (57.9)	0.24 (6.1)	Vertical	11	5W	5.8

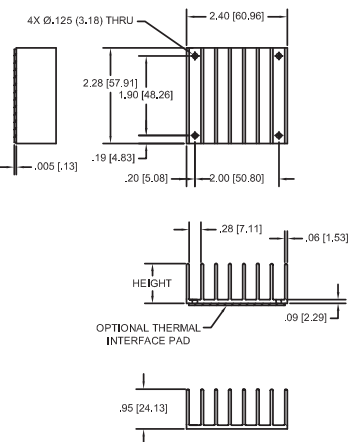
Material: Aluminum, Black Anodized

MECHANICAL DIMENSIONS

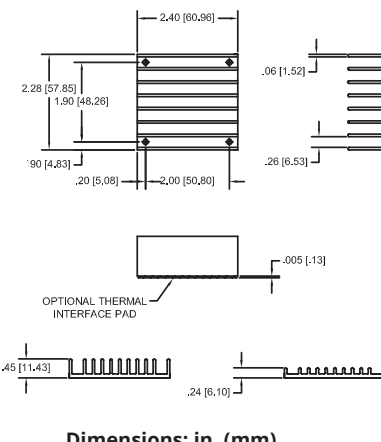
PRODUCT DESIGNATION



517/527 SERIES DIMENSIONS



518/528 SERIES DIMENSIONS



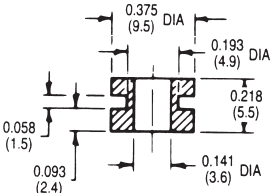
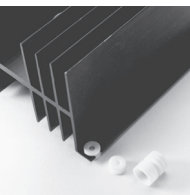
MOUNTING HARDWARE FOR EXTRUDED HEAT SINKS

100 SERIES

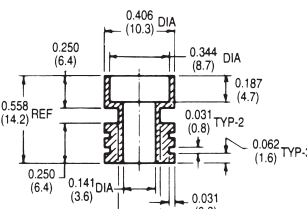
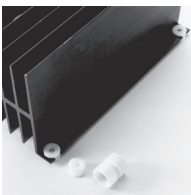
TEFLON MOUNTING INSULATORS

Standard P/N	Description	For Use with Series	Mounting Hardware	Material	Hipot Rating (VAC)	Weight lbs. (grams)
103	Spool-shaped insulator	300, 400, 600, 111, 113	#6-32 screw	Teflon	1500	0.00012 (0.05)
107	Spool-shaped insulator	300, 400, 600, 111, 113	#6-32 screw, nut	Teflon	5000	0.0034 (1.54)

103 SERIES

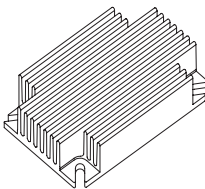


107 SERIES





EXTRUDED HEAT SINKS FOR DC/DC CONVERTERS



537 & 547 SERIES

HEAT SINKS FOR “QUARTER-BRICK”
DC/DC CONVERTERS

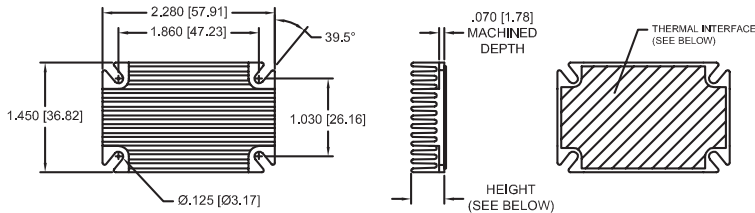
TO-220 and TO-218

FEATURES AND BENEFITS					
- Mounting slots accommodate two hole patterns: 1.86" x 1.03" and 2.00" x 1.20", fitting the vast majority of quarter-brick converters on the market. - Designed for optimum use in forced convection applications. - Vertical and horizontal fin configurations available in a variety of heights.			- Black anodized finish standard. - Integral thermal interface pad option eliminates need to order and install pad separately. - Ordering a single part number with the hardware kit option provides everything necessary to keep your converter cool.		

Standard P/N	Footprint Dimensions in. (mm)	Height in. (mm)	Fin Orientation	Number of Fins	Forced Convection Thermal Resistance at 300 ft/min (C/W)
537-95AB	2.28 (57.9) x 1.45 (36.8)	0.95 (24.1)	Horizontal	8	2.1
537-45AB	2.28 (57.9) x 1.45 (36.8)	0.45 (11.4)	Horizontal	13	2.3
537-24AB	2.28 (57.9) x 1.45 (36.8)	0.24 (6.1)	Horizontal	14	4.2
547-95AB	1.45 (36.8) x 2.28 (57.9)	0.95 (24.1)	Vertical	11	2.2
547-45AB	1.45 (36.8) x 2.28 (57.9)	0.45 (11.4)	Vertical	20	2.1
547-24AB	1.45 (36.8) x 2.28 (57.9)	0.24 (6.1)	Vertical	22	3.5
Material: Aluminum, Black Anodized					

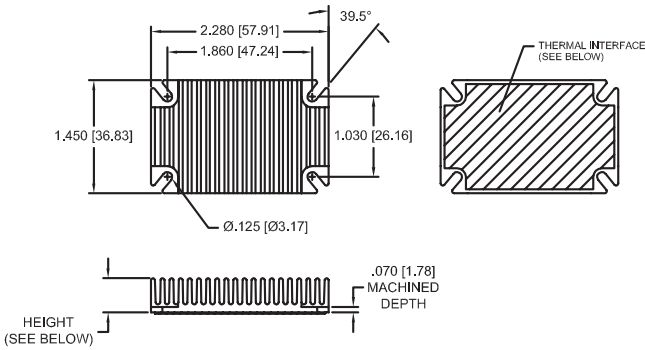
MECHANICAL DIMENSIONS

537 SERIES DIMENSIONS

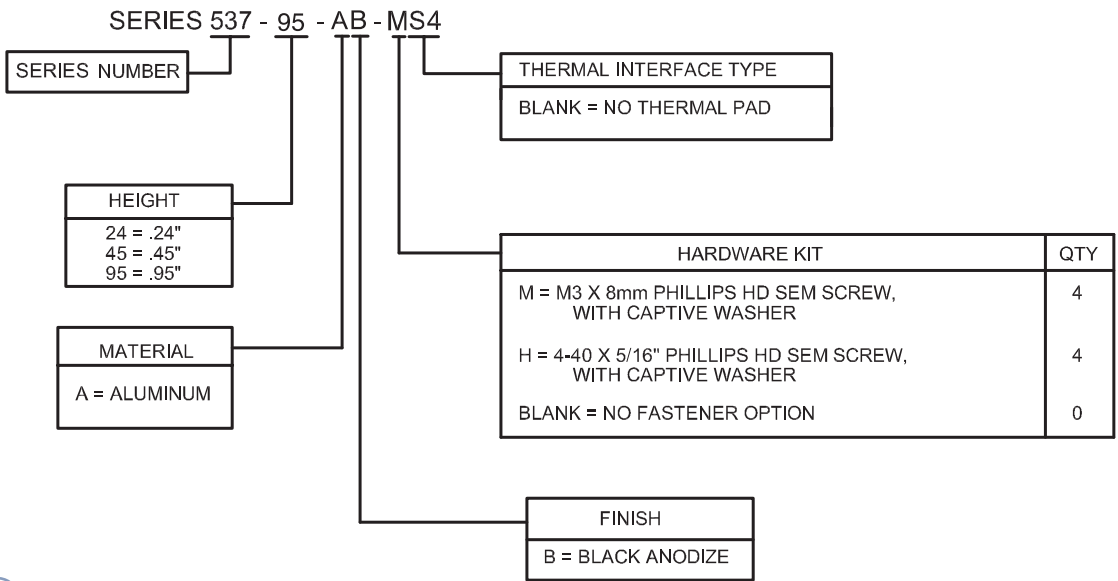


Dimensions: in. (mm)

547 SERIES DIMENSIONS



PRODUCT DESIGNATION



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Wakefield Thermal:](#)

5045	2004-84	6957	2903	1327-72	2009-72	2013	XX7030-72"	5052	122257	122258	122260	122255	122259
122261	122263	122264	122254	122256	122262	125296	125302	125325	125308	125314	125313	125614	
125643	125532	125577	125578	125649	125557	125602	125416	125461	125470	125475	125520	125527	
125415	125526	125651	125319	125361	125367	125500	125539	125356	125362	125409	125410	125476	
125637	125655	125344	125379	125481	125320	125326	125349	125380	125422	125431	125626	125493	
125550	125551	125620	125625	125545	125631	125338	125391	125436	125556	125601	125613	125638	
125657	125494	125499	125533	125619	125632	125506	125562	125571	125653	125350	125373	125404	
125430	125449	125460	125505	125538	125544	125565	125659						