



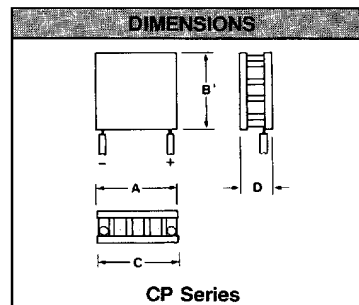
Materials Electronic Products Corp.
994 Spruce St., Trenton, NJ 08648 USA
Telephone (609) 393-4178/TELEX 843314
FAX (609) 393-9461

SOLID STATE COOLING WITH THERMOELECTRICS

Thermoelectric (Peltier) Heat Pump Module Specifications—CP Series

CP SERIES

Catalog Number	I max Amps	Hot Face Th = 25°C			Universal Multipliers			Dimensions, mm			
		Q max ⁽¹⁾ (watts)	V max (volts)	ΔT max (°C)	N No. of Couples	G Geometry Factor	G x N	A	B	C	D ⁽²⁾
CP 1.0-7-08L	2.5	1.2	0.85	67	7	0.05	0.35	8	8	8	4.0
CP 1.0-17-08L	2.5	2.9	2.06	67	17	0.05	0.85	12	12	12	4.0
CP 1.0-31-08L	2.5	5.3	3.75	67	31	0.05	1.55	15	15	15	4.0
CP 1.0-63-08L	2.5	10.6	7.62	67	63	0.05	3.15	15	30	15	4.0
CP 1.0-71-08L	2.5	12.0	8.60	67	71	0.05	3.55	23	23	23	4.0
CP 1.0-127-08L	2.5	21.4	15.4	67	127	0.05	6.35	30	30	30	4.0
CP 1.0-7-06L	3.0	1.4	0.85	67	7	0.06	0.42	8	8	8	3.6
CP 1.0-17-06L	3.0	3.4	2.06	67	17	0.06	1.02	12	12	12	3.6
CP 1.0-31-06L	3.0	6.3	3.75	67	31	0.06	1.86	15	15	15	3.6
CP 1.0-63-06L	3.0	12.7	7.62	67	63	0.06	3.78	15	30	15	3.6
CP 1.0-71-06L	3.0	14.4	8.60	67	71	0.06	4.26	23	23	23	3.6
CP 1.0-127-06L	3.0	25.7	15.4	67	127	0.06	7.62	30	30	30	3.6
CP 1.0-7-05L	3.9	1.8	0.85	67	7	0.078	0.55	8	8	8	3.2
CP 1.0-17-05L	3.9	4.5	2.06	67	17	0.078	1.33	12	12	12	3.2
CP 1.0-31-05L	3.9	8.2	3.75	67	31	0.078	2.42	15	15	15	3.2
CP 1.0-63-05L	3.9	16.6	7.62	67	63	0.078	4.91	15	30	15	3.2
CP 1.0-71-05L	3.9	18.7	8.60	67	71	0.078	5.54	23	23	23	3.2
CP 1.0-127-05L	3.9	33.4	15.4	67	127	0.078	9.90	30	30	30	3.2
CP 1.4-3-10L	3.9	0.8	0.36	70	3	0.078	0.23	5	10	5	4.7
CP 1.4-7-10L	3.9	1.8	0.85	70	7	0.078	1.33	10	10	10	4.7
CP 1.4-11-10L	3.9	2.9	1.33	70	11	0.078	0.86	10	15	10	4.7
CP 1.4-17-10L	3.9	4.5	2.06	70	17	0.078	1.33	15	15	15	4.7
CP 1.4-31-10L	3.9	8.2	3.75	70	31	0.078	2.42	20	20	20	4.7
CP 1.4-35-10L	3.9	9.2	4.24	70	35	0.078	2.73	15	30	15	4.7
CP 1.4-71-10L	3.9	18.7	8.60	70	71	0.078	5.54	30	30	30	4.7
CP 1.4-127-10L	3.9	33.4	15.4	70	127	0.078	9.90	40	40	40	4.7
CP 1.4-3-06L	6.0	1.2	0.36	67	3	0.12	0.36	5	10	5	3.8
CP 1.4-7-06L	6.0	2.8	0.85	67	7	0.12	0.84	10	10	10	3.8
CP 1.4-11-06L	6.0	4.4	1.33	67	11	0.12	1.32	10	15	10	3.8
CP 1.4-17-06L	6.0	6.9	2.06	67	17	0.12	2.04	15	15	15	3.8
CP 1.4-31-06L	6.0	12.5	3.75	67	31	0.12	3.72	20	20	20	3.8
CP 1.4-35-06L	6.0	14.2	4.24	67	35	0.12	4.20	15	30	15	3.8
CP 1.4-71-06L	6.0	28.7	8.60	67	71	0.12	8.52	30	30	30	3.8
CP 1.4-127-06L	6.0	51.4	15.4	67	127	0.12	15.24	40	40	40	3.8
CP 1.4-3-045L	8.5	1.6	0.36	67	3	0.17	0.51	5	10	5	3.3
CP 1.4-7-045L	8.5	3.8	0.85	67	7	0.17	1.19	10	10	10	3.3
CP 1.4-11-045L	8.5	6.0	1.33	67	11	0.17	1.87	10	15	10	3.3
CP 1.4-17-045L	8.5	9.2	2.06	67	17	0.17	2.89	15	15	15	3.3
CP 1.4-31-045L	8.5	16.8	3.75	67	31	0.17	5.27	20	20	20	3.3
CP 1.4-35-045L	8.5	19.0	4.24	67	35	0.17	5.95	15	30	15	3.3
CP 1.4-71-045L	8.5	38.5	8.60	67	71	0.17	12.07	30	30	30	3.3
CP 1.4-127-045L	8.5	68.8	15.4	67	127	0.17	21.60	40	40	40	3.3
CP 2-7-10L	9.0	4.2	0.85	70	7	0.18	1.26	15	15	15	5.6
CP 2-15-10L	9.0	9.1	1.82	70	15	0.18	2.70	15	30	15	5.6
CP 2-17-10L	9.0	10.3	2.06	70	17	0.18	3.06	22	22	22	5.6
CP 2-31-10L	9.0	18.8	3.75	70	31	0.18	5.58	30	30	30	5.6
CP 2-49-10L	9.0	29.7	5.93	70	49	0.18	8.82	36	36	36	5.6
CP 2-71-10L	9.0	43.1	8.60	70	71	0.18	12.78	44	44	44	5.6
CP 2-127-10L	9.0	77.1	15.4	70	127	0.18	22.86	62	62	62	5.6
CP 2-7-06L	14.0	6.6	0.85	67	7	0.28	1.96	15	15	15	4.6
CP 2-15-06L	14.0	14.2	1.82	67	15	0.28	4.20	15	30	15	4.6
CP 2-17-06L	14.0	16.0	2.06	67	17	0.28	4.76	22	22	22	4.6
CP 2-31-06L	14.0	29.3	3.75	67	31	0.28	8.86	30	30	30	4.6
CP 2-49-06L	14.0	46.2	5.93	67	49	0.28	13.72	36	36	36	4.6
CP 2-71-06L	14.0	67.0	8.60	67	71	0.28	19.88	44	44	44	4.6
CP 2-127-06L	14.0	120.0	15.4	67	127	0.28	35.56	62	62	62	4.6
CP 2.8-32-06L	24.0	51.8	3.87	67	32	0.48	15.36	40	40	40	5.0
CP 5-31-10L	39.0	81.5	3.75	70	31	0.78	24.18	55	55	55	5.8
CP 5-31-06L	60.0	125.0	3.75	67	31	1.20	37.20	55	55	55	4.9



Notes:

- (1) Q max rated value at $\Delta T = 0^\circ$, I max and V max, $T_h = 25^\circ\text{C}$
- (2) Thickness (D,mm) for Type L only.

Interfacing: Both hot and cold faces lapped flat, TYPE L. Both faces metallized and tinned, TYPE TT. Hybrid, hot face tinned, cold face lapped, TYPE TL. Hot face lapped, cold face tinned, TYPE LT. Two face soldering (TYPE TT) in sizes larger than 12 x 12 mm is not recommended. Consult Melcor for details.

WIRE STANDARDS

Module Type	Wire Gauge (AWG)	Length (mm/in.)	Insulation
CP 1.0-ALL	24 (STRANDED)	114/4.5	PVC
CP 1.4-ALL	18 (STRANDED)	114/4.5	PVC
CP 2-ALL	18 (STRANDED)	114/4.5	PVC
CP 2.8-ALL	16 (STRANDED)	114/4.5	PVC
CP 5-XX-10	14 (STRANDED)	114/4.5	PVC
CP 5-XX-06	12 (STRANDED)	114/4.5	PVC

See page 4 for performance graphs, examples, and construction specifications.