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CENTUM® SKHC1-071-06

Single-Stage Thermoelectric Cooler Chip

The CENTUM® SKHC1-071-06 is a compact, single-stage thermoelectric module (TEC) in a 30×30×3.8 mm package. It delivers up to 41 W of cooling with a 83 °C maximum ΔT, operating at 6.3A and up to 10.1V. Featuring sealed silicone-edge lead wires and dual-sided alumina ceramic construction, it ensures quiet, reliable thermal control from −40 °C to 100 °C environments.

Features

- 41W max cooling power
- ΔT_{max} of 83 °C
- Compact 30x30 mm footprint
- Sealed silicone-edge lead wires
- Wide operating temperature range

Applications

- Miniature medical and lab devices
- Infrared and optical sensors
- Power module thermal control
- Portable field instruments
- Embedded electronics protection

Performance Specification Sheet

Hot Side Temperature T_h (°C)	27	50
ΔT_{max} (°C)	74	83
Q_{max} (Watts)	39.2	41
I_{max} (Amps)	6.3	6.3
V_{max} (DC Volts)	9.3	10.1
R_{AC} (Ω)	1.13	1.24

All performance values fall within ±10% tolerance of tested data and/or models.

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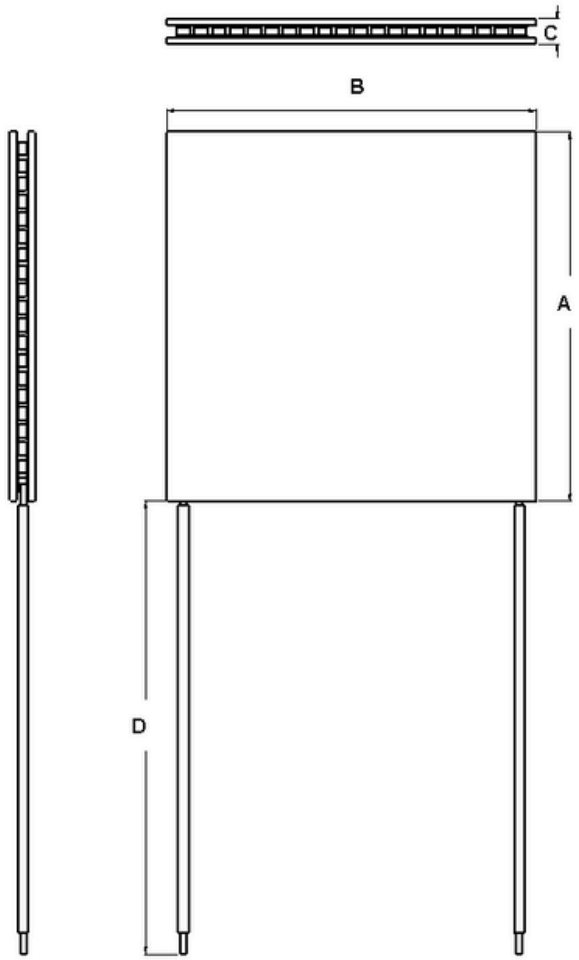
Dimensions



Model #	A
A	30 +/- 0.1 mm
B	30 +/- 0.1 mm
C	3.8 +/- 0.2 mm
D	150 mm

Standard lapping is +/- 0.025 mm

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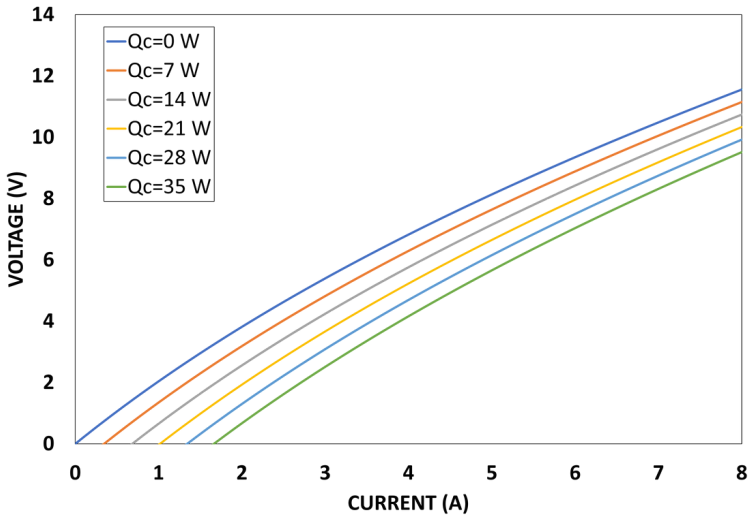
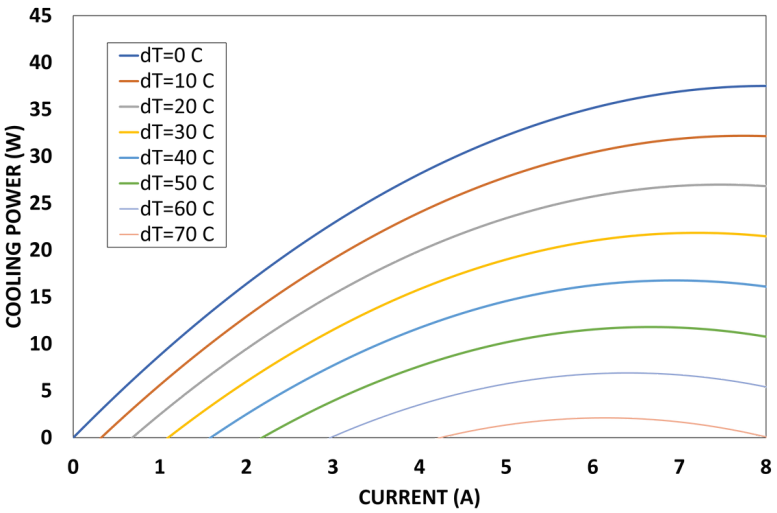
Performance curves at T_{hot} = 27°C

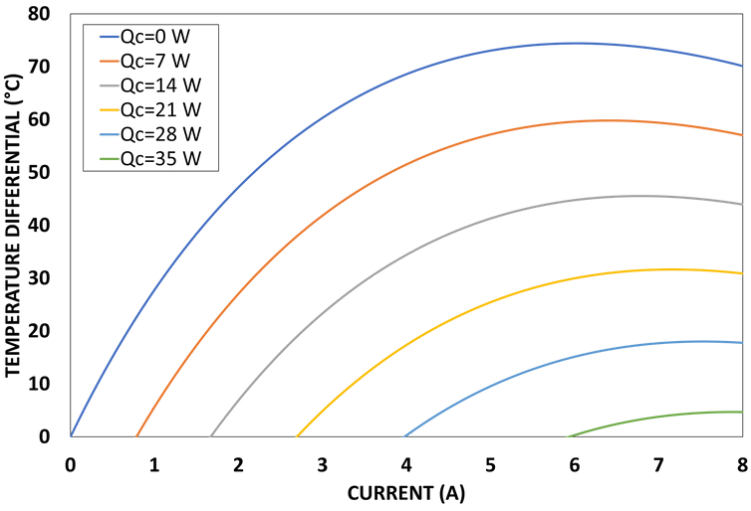
Current vs. Voltage



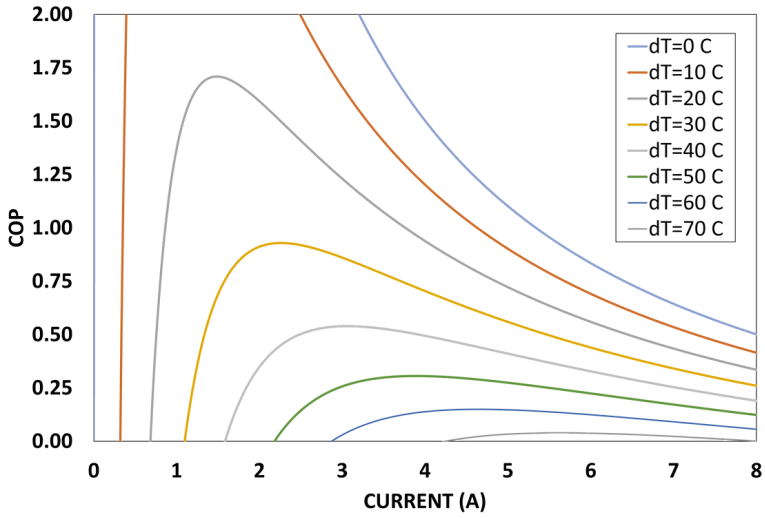
Current vs. Cooling Power



Current vs. Temperature Differential



Current vs. COP



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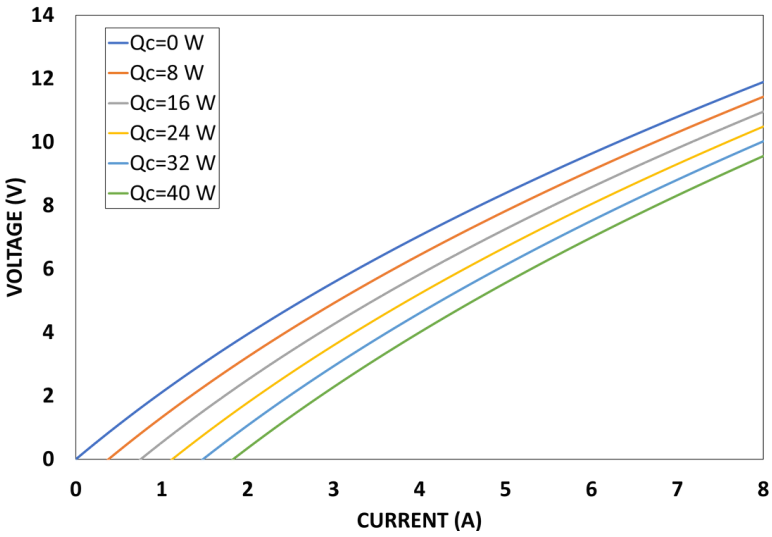
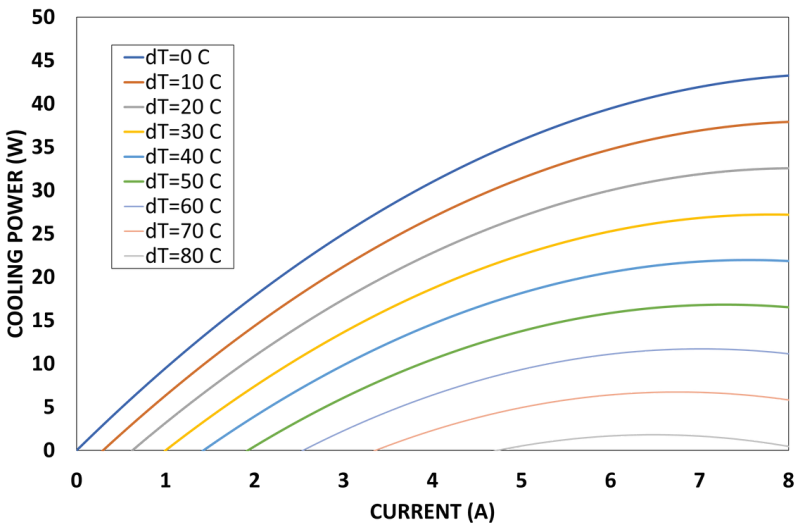
Performance curves at T_{hot} = 50°C

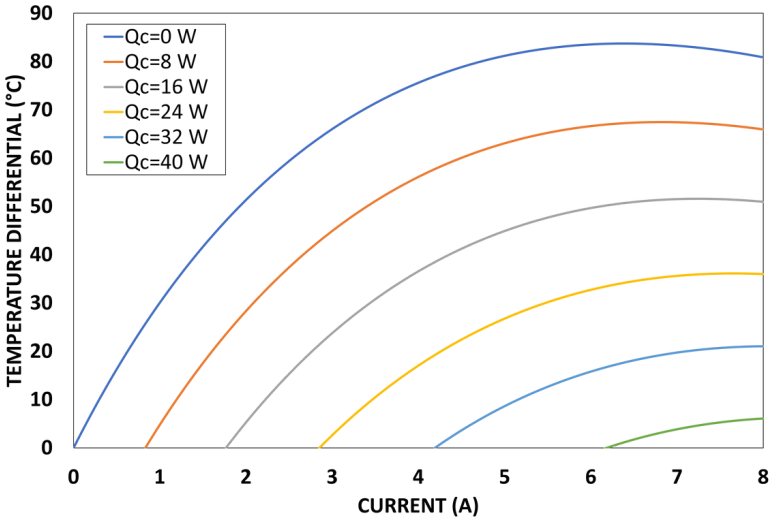
Current vs. Voltage



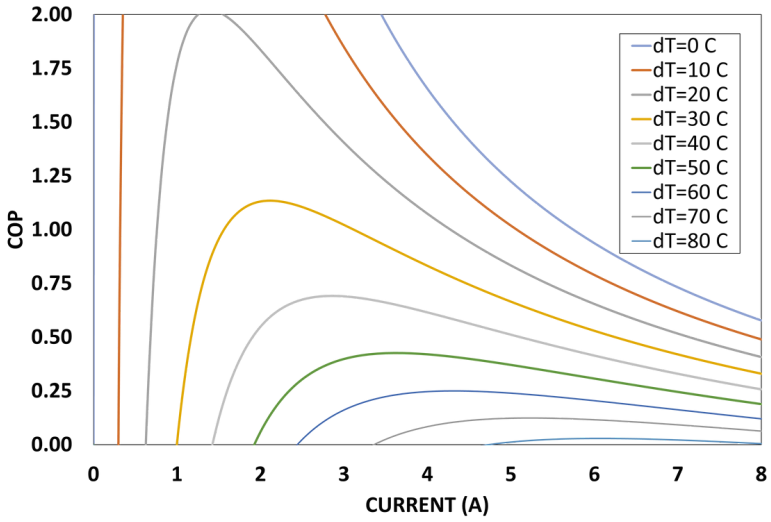
Current vs. Cooling Power



Current vs. Temperature Differential



Current vs. COP



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Other Standard Models

Model Number	Dimensions (mm)	T_h (°C)	ΔT_{max} (°C)	Q_{max} (Watts)	I_{max} (Amps)	V_{max} (DC Volts)	R_{AC} (Ω)
SKHC1-17-08	15x15x3.5	27	74	12	8.5	2.2	0.2
SKHC1-31-06	20x20x3.8	27	74	15.3	6	4.1	0.51
SKHC1-31-08	20x20x3.5	27	74	21.7	8.5	4.1	0.36
SKHC1-71-08	30x30x3.5	27	74	51.6	8.3	9.3	0.85
SKHC1-127-03	40x40x4.2	27	74	44.6	4.2	16.8	3.03
SKHC1-127-06	40x40x3.8	27	74	66	6.3	16.8	2.05
SKTC1-127-06	40x40x3.8	27	74	66	6.3	16.8	2.05
SKHC1-127-08	40x40x3.5	27	74	87	8.2	16.4	1.5
SKTC1-127-08	40x40x3.5	27	74	90	8.8	16.8	1.5
SKHC1-199-08	40x40x3.6	27	74	147.2	8.8	26.3	2.2
SKHC1-199-16	40x40x3.1	27	74	240.7	14.7	26.3	1.35

About Sheetak

Sheetak is redefining what's possible in thermal management and energy harvesting through advanced thermoelectric technology. With a portfolio of more than 25 issued patents, we design and manufacture high-performance thermoelectric chips that serve a diverse range of applications, from optoelectronics, data centers, and AI hyperscalers to telecom infrastructure, aerospace, and IoT systems.

Headquartered in Austin, Texas, Sheetak brings together deep expertise in material science, device engineering, and scalable manufacturing. By pushing the limits of thermoelectric performance, we help our customers meet today's toughest thermal challenges and enable the systems that power tomorrow.

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