

CENTUM® SKHC1-127-08

Single-Stage Thermoelectric Cooler Chip



The CENTUM® SKHC1-127-08 is a solid-state, single-stage thermoelectric cooler in a compact 40×40×3.5mm package. It delivers up to 83.7W cooling, with a 83°C maximum ΔT , operating at 8.2A/17.7V. Sealed lead wires and alumina ceramic build deliver dependable performance from -40°C to 100°C environments.

Features

- ~93W max cooling power
- $\Delta T_{\max}$ of 83°C
- Low profile height
- High reliability
- Wide operating temperature range

Applications

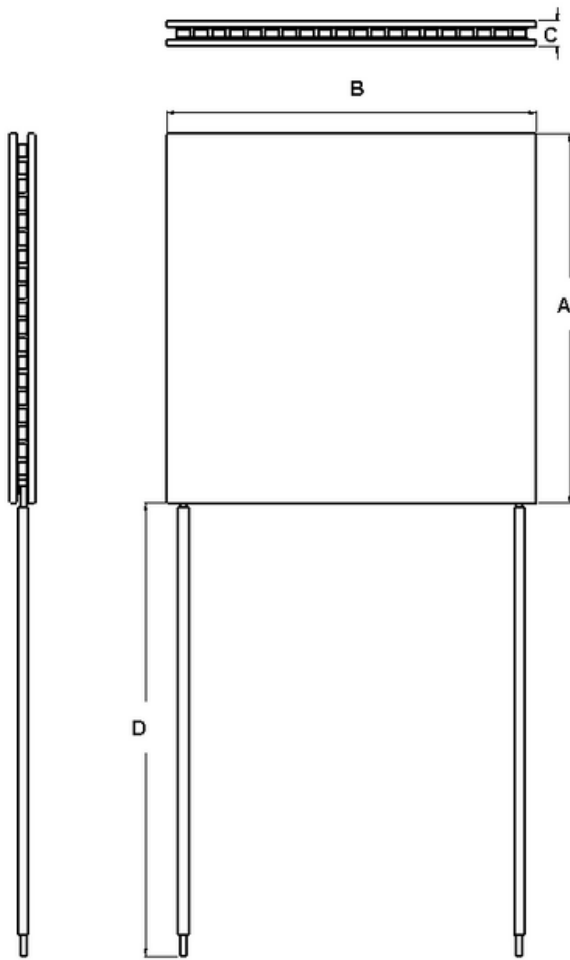
- Laser/photonics modules
- Power electronics
- Telecom/RF equipment
- Compact lab instruments
- Portable medical devices

Performance Specification Sheet

Hot Side Temperature T_h (°C)	27	50
$\Delta T_{\max}$ (°C)	74	83
$Q_{\max}$ (Watts)	87	93.7
$I_{\max}$ (Amps)	8.2	8.2
$V_{\max}$ (DC Volts)	16.4	17.7
R_{AC} (Ω)	1.5	1.66

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

Dimensions

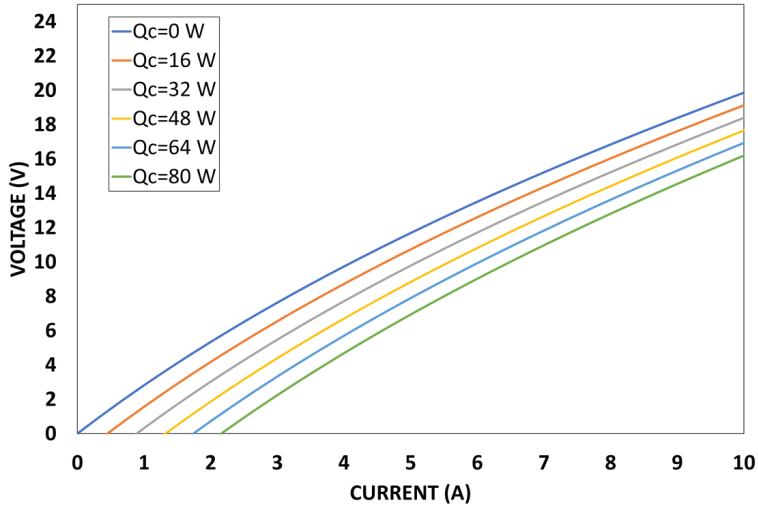


Model #	A
A	40 +/- 0.1 mm
B	40 +/- 0.1 mm
C	3.5 +/- 0.2 mm
D	150 mm

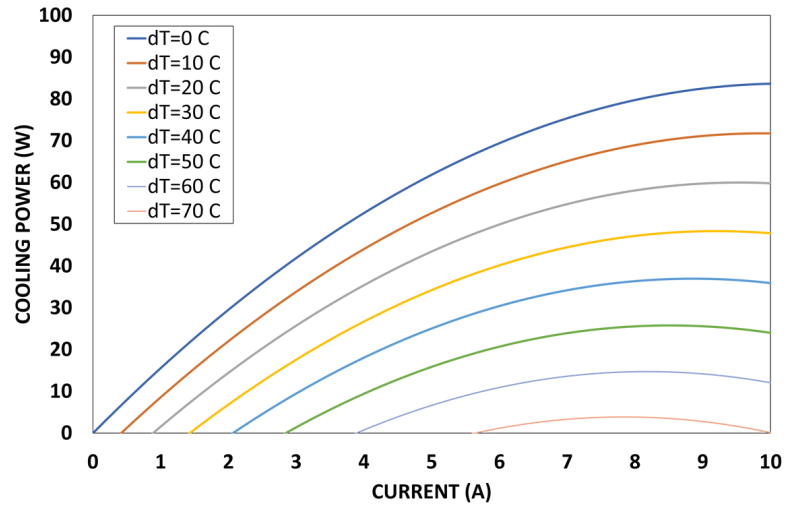
Standard lapping is +/- 0.025 mm

► Performance curves at $T_{hot} = 27^{\circ}\text{C}$

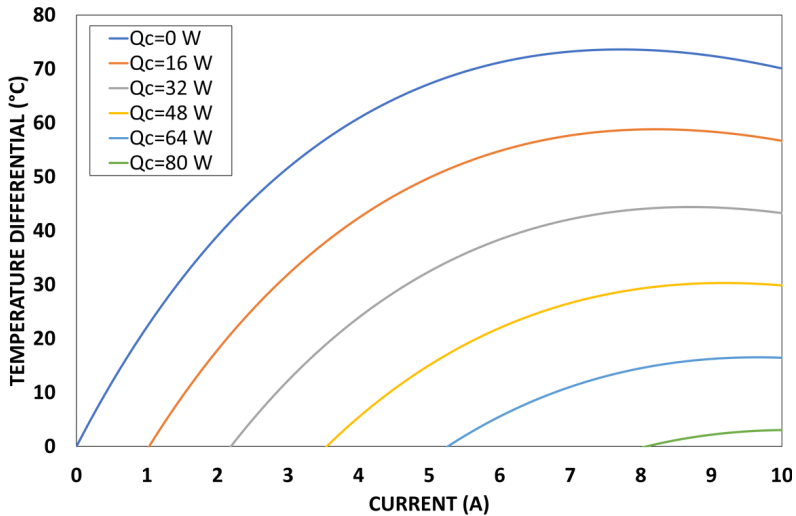
Current vs. Voltage



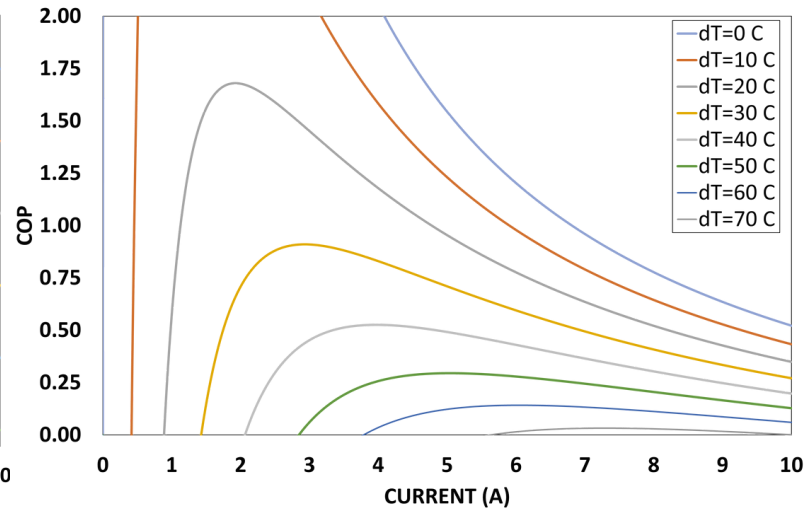
Current vs. Cooling Power



Current vs. Temperature Differential

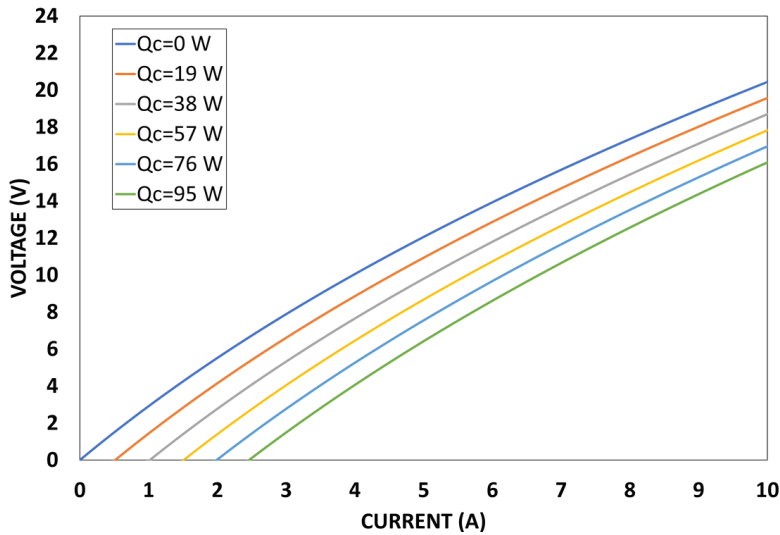


Current vs. COP

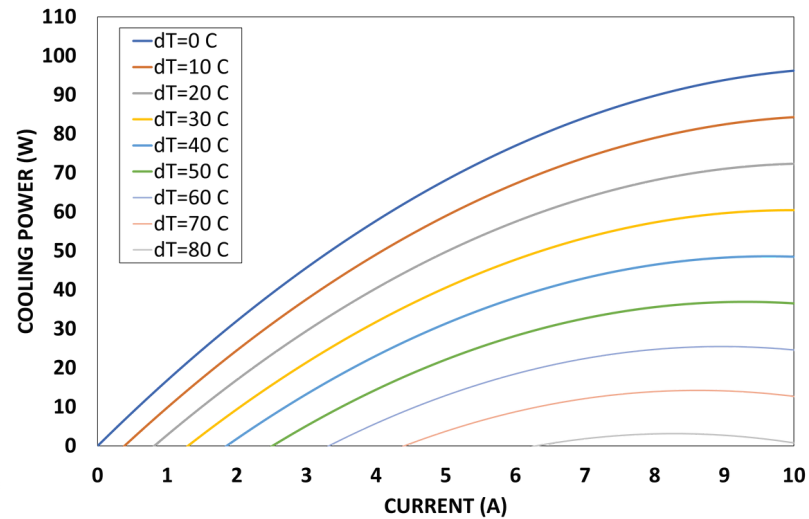


► Performance curves at $T_{hot} = 50^{\circ}\text{C}$

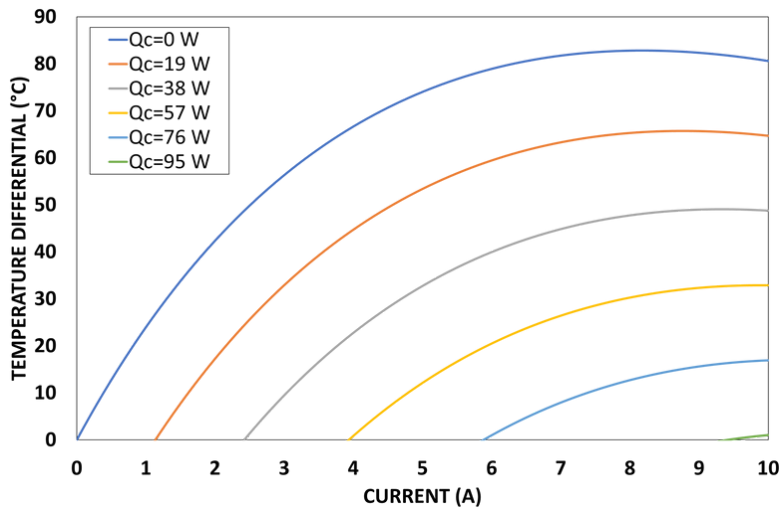
Current vs. Voltage



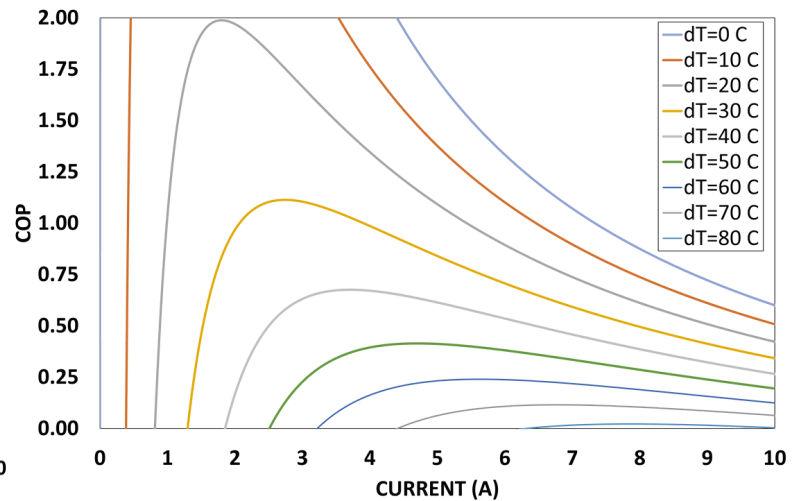
Current vs. Cooling Power



Current vs. Temperature Differential



Current vs. COP



➤ Other Standard Models

Model Number	Dimensions (mm)	T _h (°C)	$\Delta T_{\max}$ (°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
SKHC1-71-06	30x30x3.8	27	74	39.2	6.3	9.3	1.13
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
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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