

CENTUM[®] SKHC1-199-16

Single-Stage Thermoelectric Cooler Chip



The CENTUM[®] SKHC1-199-16 is a high-performance single-stage thermoelectric cooler in a 40×40×3.1 mm package. It delivers up to 259.1W of cooling at 50 °C with a 83 °C maximum ΔT , operating at 16 A/26.3 V. Sealed lead wires and alumina ceramic ensure reliability from -40 °C to 100 °C.

Features

- Ultra high cooling power
- Low thermal resistance interface
- Fast thermal response
- Robust build for added durability
- RoHS compliant construction

Applications

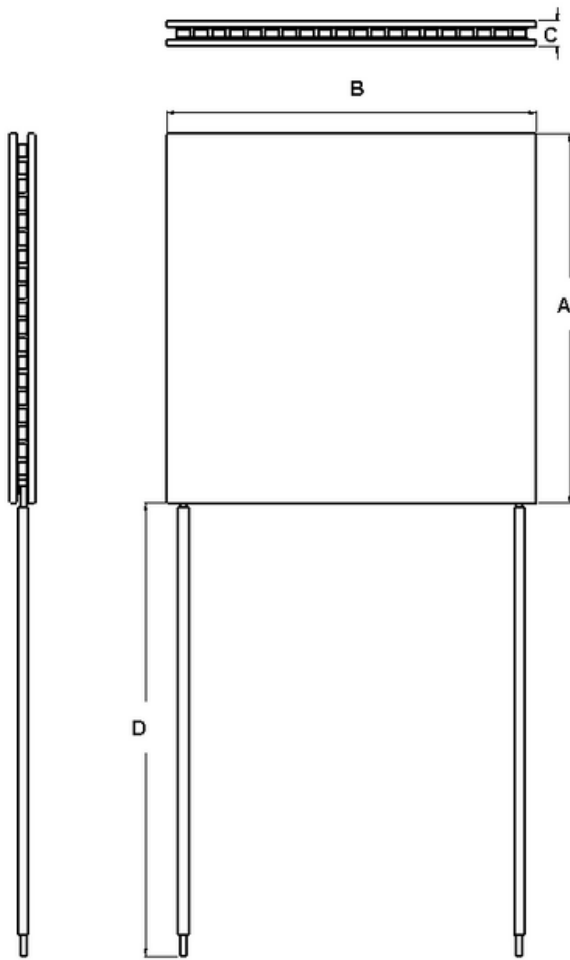
- Defense and aerospace avionics
- High power laser systems
- Test and measurement equipment
- Electric vehicle (EV) systems
- Industrial computing

Performance Specification Sheet

Hot Side Temperature T_h (°C)	27	50
ΔT_{max} (°C)	74	83
Q_{max} (Watts)	240.7	259.1
I_{max} (Amps)	14.7	14.7
V_{max} (DC Volts)	26.3	28.3
R_{AC} (Ω)	1.35	1.45

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

Dimensions

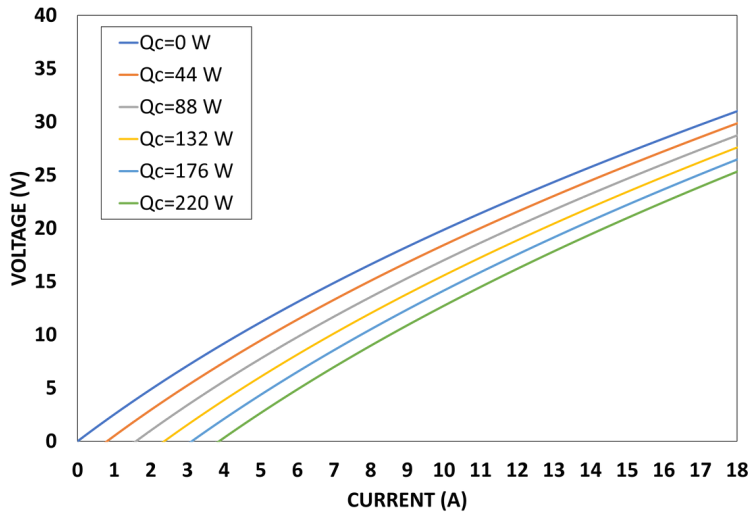


Model #	A
A	40 +/- 0.1 mm
B	40 +/- 0.1 mm
C	3.1 +/- 0.2 mm
D	150 mm

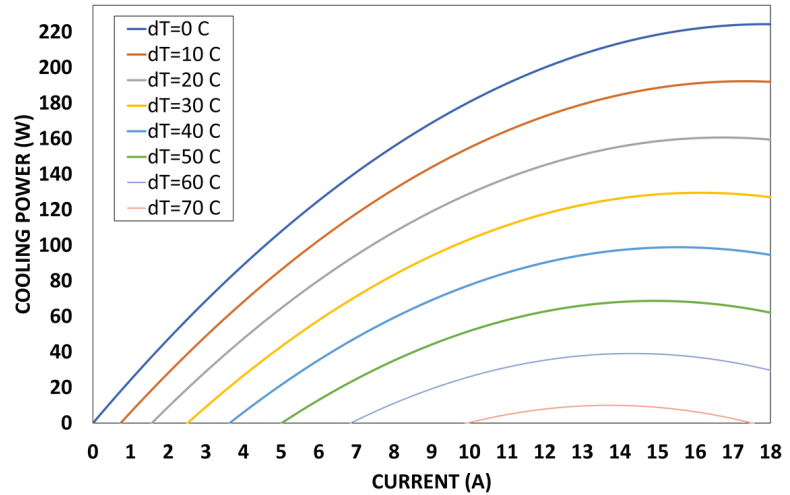
Standard lapping is +/- 0.025 mm

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

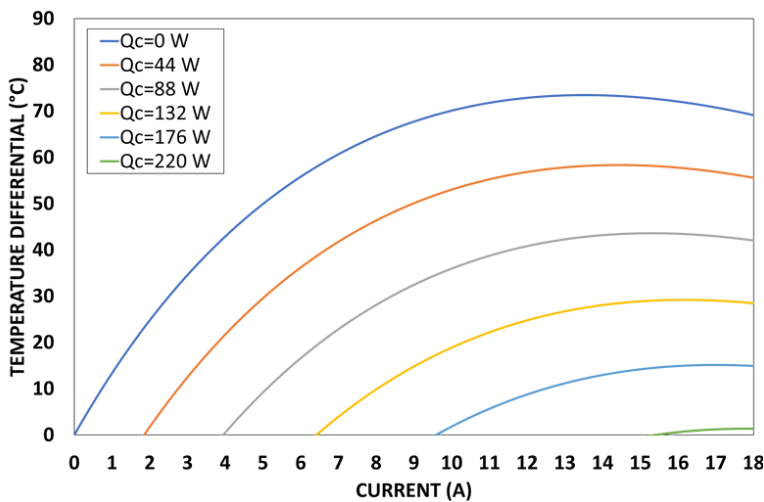
Current vs. Voltage



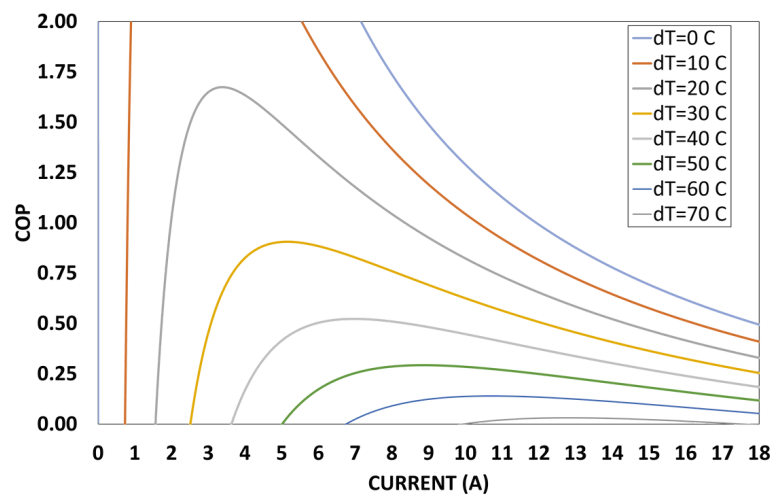
Current vs. Cooling Power



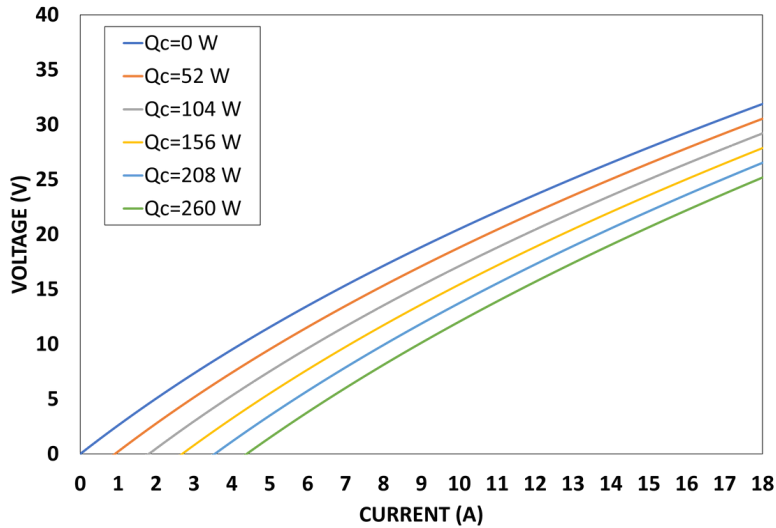
Current vs. Temperature Differential



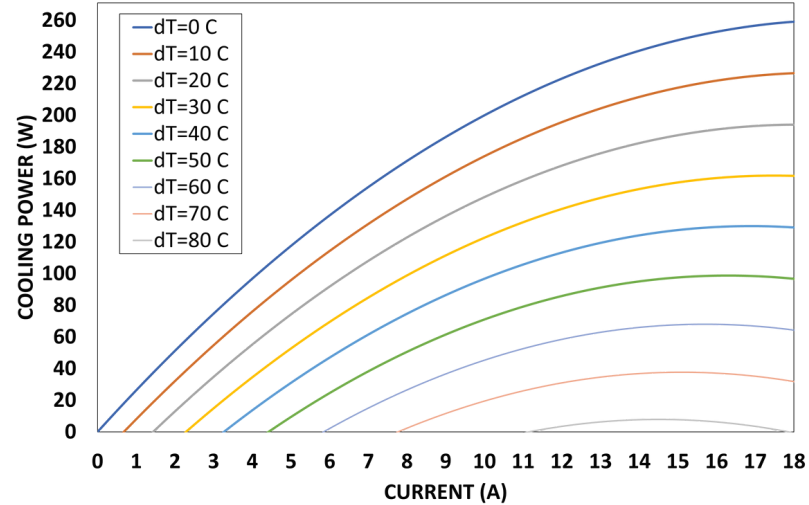
Current vs. COP



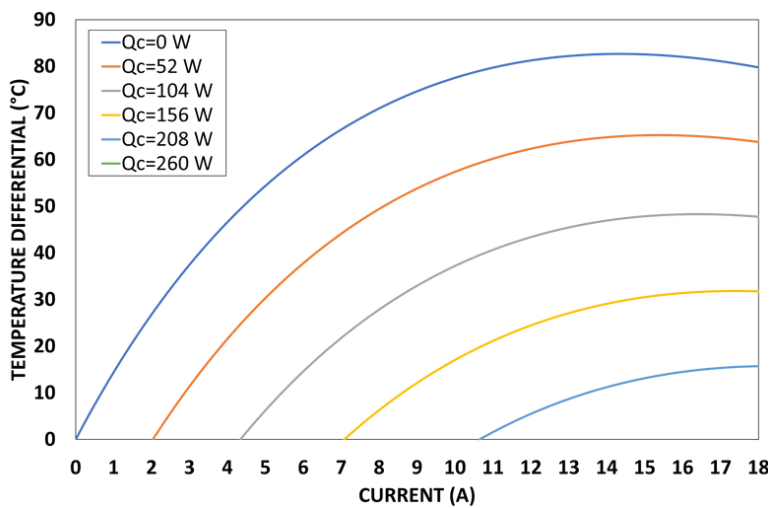
Current vs. Voltage



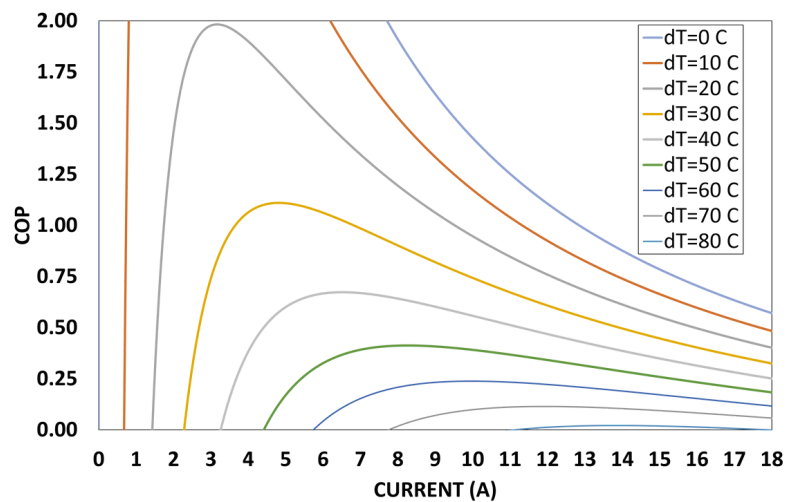
Current vs. Cooling Power



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
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

» *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.

» *Contact Us*



www.sheetak.com



www.linkedin.com/company/sheetak/



info@sheetak.com



[@SheetakAdvancedThermoelectrics](https://www.youtube.com/@SheetakAdvancedThermoelectrics)

» *Buy Now*

DigiKey

www.digikey.com