

FLEXURE BEARING STIRLING COOLER SF100

- **Flexure Bearing and Moving Magnet Technology**
- **High MTF (>30,000h)**
- **Compact and lightweight**
- **High cooling capacity of 2W (@ 80K; 23°C)**
- **Modular Cooler Concept**
- Several coldfinger options available

The AIM SF100 is a Stirling cryocooler based on Moving Magnet Technology and Flexure Bearing suspension on both ends of the driving mechanism. A computerized alignment process combined with an optimized material composition inside the helium vessel results in lifetimes exceeding 30,000h.

The cooler is designed for high performance IR-detectors and high temperature superconductor applications. The SF100 is compact, lightweight and provides a cooling capacity of 2W at 23°C ambient temperature. The resulting performance margin allows detector temperatures down to 60K.

The SF100 can be operated with AIM's digital cooler electronics (μ DCE050, DCE100) or alternatively with customers' electronics.

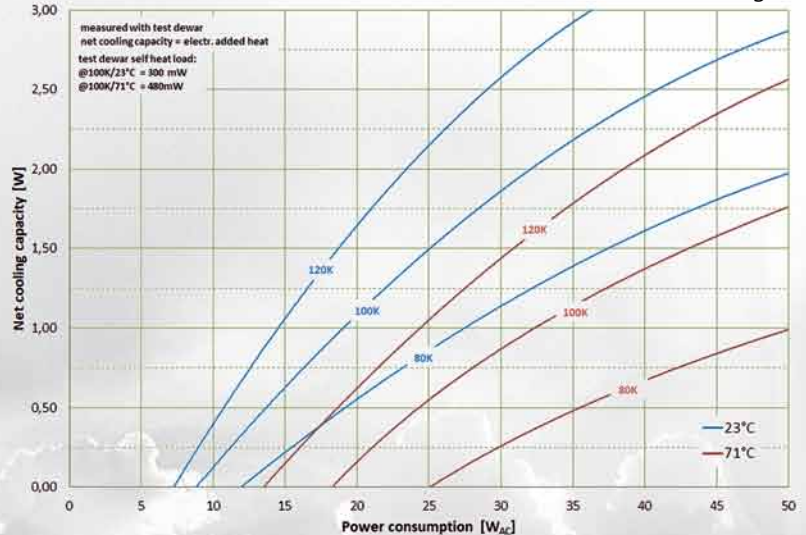


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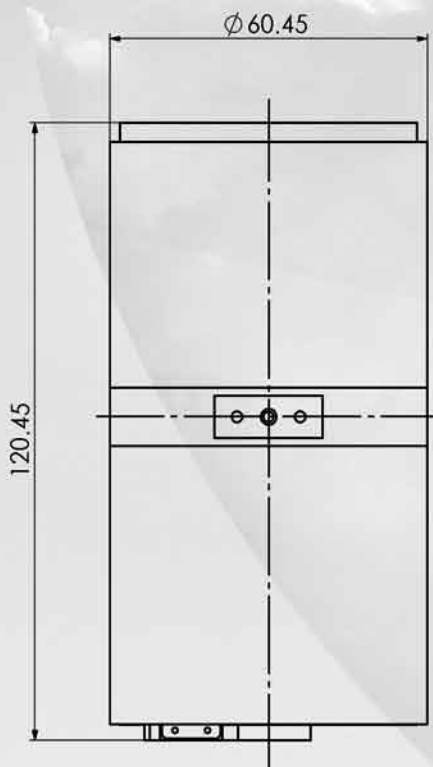
Typical Performance Data
SF100 mit 13.7mm coldfinger

Applications

- High performance IDCAs
- IR-detectors operating at 60 - 120K
- Ambient temperature up to 90°C
- High Temperature Superconductor (HTS)
- Applications requiring high cryocooler reliability and reduction in maintenance costs



		SF100
Compressor diameter	[mm/in]	60 / 2.36
Compressor length	[mm/in]	120 / 4.72
Compressor weight	[g/lb]	1800 / 3.97
Supply voltage	[V _{AC}]	6-17
Cooler Controller		μDCE050 / DCE100
Ambient temperature range	[°C]	-54 to +90
Suitable coldfinger / dewar diameter		8mm, 13mm / 1/2", PT



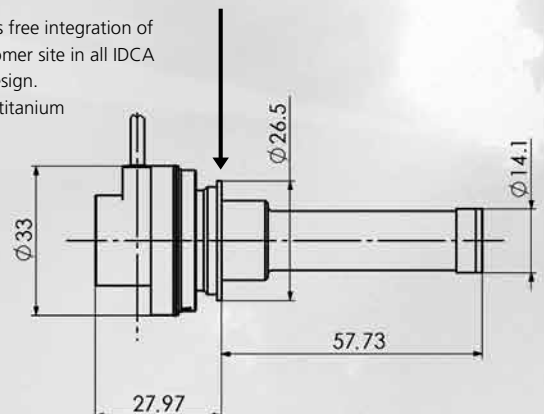
Dimensions SF100 compressor

2 coldfinger versions available:

- AIM 13.7mm sleeve coldfinger
- US standard 13.7mm sleeve coldfinger

The sleeve design allows free integration of the regenerator at customer site in all IDCA dewar bores of same design. All versions suitable for titanium and Inconel® IDCAs

Welding flange for outer dewar can be changed according to customer needs



Dimensions 13.7mm sleeve coldfinger AIM standard

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