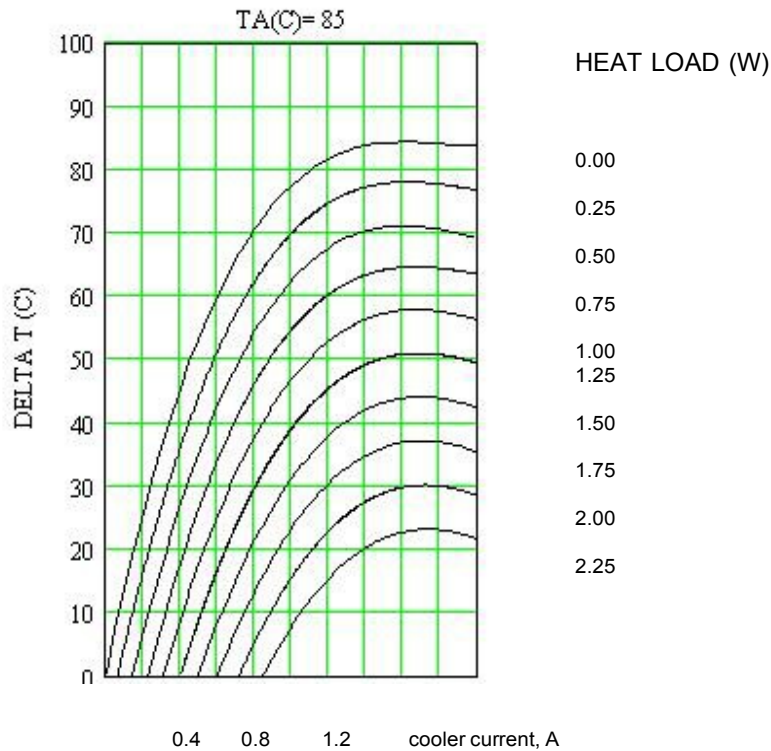


**1. Information on standard coolers (TEC).**

Typical performance of standard coolers integrated into all cooled SLD modules of Superlum is illustrated in the plot below. As evident from the plot, coolers provide excellent performance, allowing stabilization of nominal operating temperatures in the range from +20/+25 °C up to +85 °C (case temperature) for some modules of Superlum. However, to achieve the best performance of an SLD module, it is very important to provide proper heat dissipation from the module. Moreover, if operating at the highest possible temperature is required, then the recommended type of package is butterfly (single-sided or double-sided) due to better heat dissipation from the cooler.

Standard P/N of coolers is ott-23-1.3-28. On request, other types of coolers may be integrated into modules. Contact us for more details.

**TEC P/N ott-23-1.3-28. Typical performance @ T ambient = 85°C (one atmosphere dry nitrogen).**  
(Attention: maximum 1200 mA current is allowed by Superlum)



**2. Types of fibers used in standard SLD modules of Superlum.**

**Singlemode (SM) isotropic fibers.**

**SLD-2XX** (680-nm band): 125-µm cladding, 250-µm jacket, 3.8-µm mode size, 650-nm cutoff; domestic supplier;

**SLD-3XX** (780 – 860-nm band): Corning Puremode 780;

**SLD-4XX** (900 – 1060-nm band): Corning Puremode 780 (for central wavelength below 960 nm), or Corning Flexcore 1060;

**SLD-5XX, SLD7-XX:** Corning SMF-28 specially selected for cutoff < 1220 nm.

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### ***Polarization maintain (PM) fibers***

As a standard, Superlum uses elliptically stressed inner cladding 125- $\mu\text{m}$  cladding/250- $\mu\text{m}$  jacket domestic fiber with appropriate cutoff wavelength (depending on SLD wavelength). Call us for more details about this fiber.

However, there are a lot of different types of PM fibers available, and there may be some problems to couple light from one PM fiber to another. So, if you already use some specific fiber in your system, or if you do know the type of fiber that you will use, then we recommend you to send this fiber to Superlum to pigtail modules at the factory. This will eliminate any compatibility issues. Superlum will not charge extra for this service.

### **3. Thermistors**

Superlum uses NTC thermistors 10K3CG2 from BetaTherm Ltd., Ireland, with 10 kOhm at +25 °C and  $\beta=3892\pm 1\%$ .

### **4. PD monitors**

Some SLD modules of Superlum contain PD monitors. Monitors should be supplied by -3V reverse voltage.