

DIGITAL CRYOCOOLER ELECTRONICS DCE025

- **Very compact & lightweight**
- **High efficiency**
- **Enhanced telecommand and -measuring capability**
- **Internal EMI filter**

AIM's latest family of digital cooler electronics is designed to meet the demand for lightweight high performance IR-technology.

Based on the Digital Cryocooler Electronics (DCE100) with enhanced telecommand and telemeasuring for 25 till 100 W_{DC} capability the low power electronics (DCE025) is designed to drive low power IDCAs up to 25 W_{DC} . Integrated input filter reduces setup time and external EMI tuning.

The software based control loop of input power and detector temperature can be adapted to a wide range of heat load and motor characteristics.

An integrated accelerometer together with custom hard- and software provides the capability to minimize vibration during the operation.

For a fast setup and easy handling the DCE025 can be controlled via an external PC through a RS232 interface. A GUI based on LabView™ for easy operation and full access to all operating data and control characteristics is available.



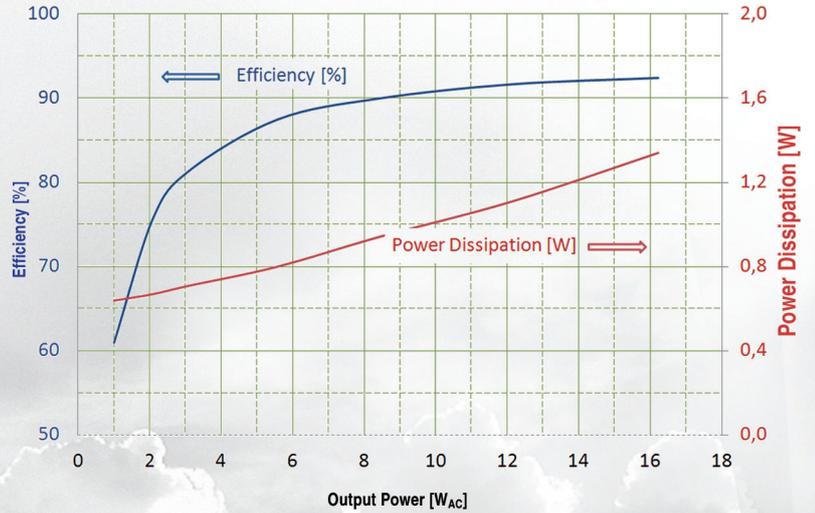


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Applications

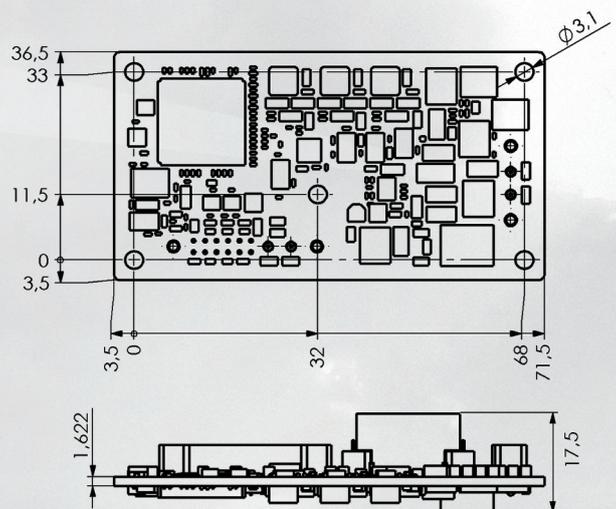
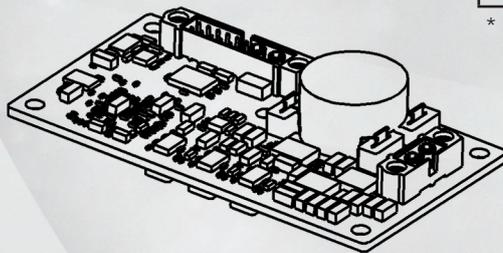
- Low power application up to 25 W_{DC}
- With connectivity through RS232 for high end application with lowest SWaP
- HOT (High Operating Temperature) detectors

Typical Efficiency Data
DCE025



	DCE025
Electronics height [mm]	< 20
Electronics dimension [mm]	75 x 40
Electronics weight [g]	< 30
Supply voltage [V]	6 - 16 V _{DC}
Nominal input power range* [W]	2 - 25 W _{DC}
Detector temperature stability	±50mK
EMI requirements	MIL-STD-461F
Digital interface	RS232
Ambient temperature range [°C]	-40 to +71

* Max. input power depends on the supply voltage



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