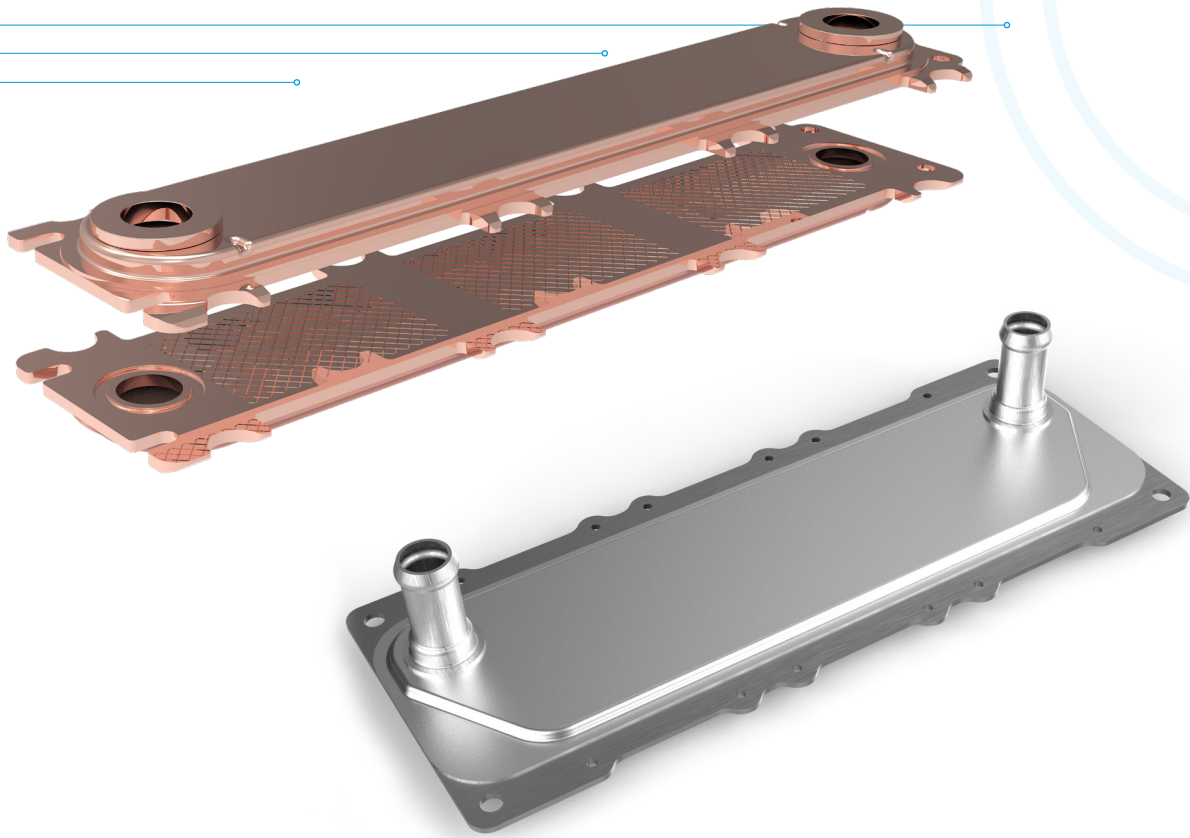




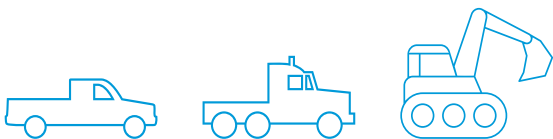
LONG[®]

Thermal Products

Hybrid & Electric Vehicle **Electronics Cooling Capabilities**



Ideal for Light Vehicle, Commercial Vehicle, and Off-Highway Vehicle Applications



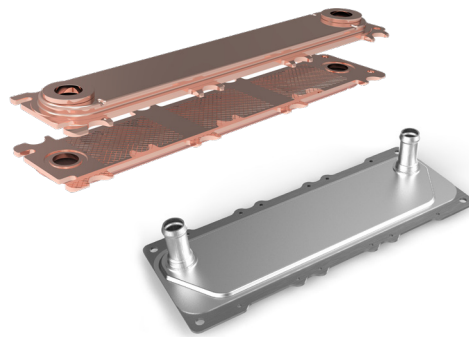
Electronics Cooling Technologies for the Most Advanced Vehicles

Dana designs, develops, and manufactures custom heat transfer products for vehicle electrification. Our extensive range of Long® thermal-management products sets the industry standard for innovation and quality.

Dana offers a range of thermal-management products for various electronics applications. Dana's extensive R&D facilities enable custom-designed cooling solutions that feature lightweight aluminum construction and result in ultra-clean products. With deep expertise and problem-solving ability in thermal-management applications, Dana provides solutions that are customized to exact OEM needs.

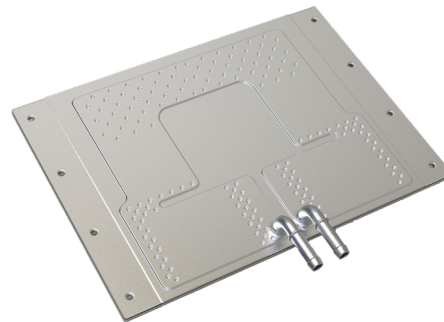
Power Electronics Cooling

- Higher power density
- High-cycle durability against thermal fatigue
- Ensures maximum junction temperature is limited
- Maintains required temperature delta across system layers
- Both single- and double-sided cooling solutions available
- Maximizes Insulated Gate Bipolar Transistor (IGBT) efficiency
- For DC/AC inverter and DC/DC converter cooling
- Lightweight, fluxless brazed aluminum construction
- Superior flatness for chip thermal contact



ADAS Cooling

- Ultrathin aluminum cooling plates
- Specifically designed for ADAS control modules
- Capability for multi-level mounting surface design
- High level of cleanliness ensures system reliability
- Meets stringent demands of ADAS cooling requirements



[Dana.com/e-mobility](https://www.dana.com/e-mobility)

Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.



LONG®

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