INTEGRATED
COOLANT MODULE

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The energy management of electric vehicles is of significant relevance to the overall energy consumption of the vehicle. By optimizing the conditioning of the components, losses can be minimized and the range can be improved through the intelligent use of heat sources for vehicle heating and air conditioning.

With the Integrated Coolant Module (ICM), heat and coolant flows can be optimally interconnected and thus make a significant contribution to increasing the vehicle's efficiency.

The modular combination of components and their functions thus represents the core of the coolant control system in an electric vehicle. This reduces the number of interfaces and optimizes the required installation space and weight.

RHEINMETALL SUPPLIES

- Modular electric water pumps with high efficiency and low pressure loss
- The pump portfolio covers all relevant performance classes
- Multi-way valves as a core component of fluid control and distribution
- Extensive design experience and expertise in the development of plastic distributor housings
- In-house development enables a high degree of integration of the components into an efficient module, with individual consideration of customer specific requirements
- Comprehensive development of customized, modular and scalable integration solutions

OUR CORE COMPONENTS

- Comprehensive development of customized, modular and scalable integration solutions
- Proportional multi-port valves with two or more paths
- Manifold to accommodate all core components and hydraulic connection according to customer specifications
- Optional expansion tanks with or w/o level sensor, temperature sensors and also wiring harnesses with central interface according to customer specifications

BENEFITS

- Weight reduction
- Elimination of interfaces and tubing
- Optimized flow control
- Development from a single source

TECHNICAL DATA

Voltage level	12 V
Lifetime	20,000 hrs
Valve	Rotary proportional
Valve movements	> 1,000,000* *depending on customer durability requirements, test profile
Pumps	25 W ... 950 W

CONTACT

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