# BATTERY THERMAL MANAGEMENT SYSTEMS FOR RAILWAY VEHICLES

# **T101 BTMS RAIL** FOR BEMU



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## **PRODUCT FEATURES**

#### DESIGN

- > Hermetic plug & play unit for roof mounting.
- > Ultra light weight and reduced dimensions.
- > Temperature sensors included in the units.

#### **THERMAL MANAGEMENT**

The BTMS (Battery Thermal Management System) maintains the battery temperature within the optimal operating range, ensuring its efficiency and increasing its lifetime.

Hispacold has a wide range of plug and play BTMS equipment adapted to work in the most adverse conditions, that respond to the different battery requirements in different applications. In addition, Hispacold has an intelligent regulation system specially adapted to the specific control strategies of each type of BMS (Battery Management System).

#### MAINTENANCE

- > Advanced microprocessor controller:
  - Electronic unit inside the HVAC.
- Web server based maintenance software integrated in the electronic unit.
- > RS485 and open CAN available as standard.
- > Standard Ethernet port (support DHCP or fixed IP).
- > System variables monitoring and errors log.
- > Interactive troubleshooting.
- > Easy and accesible maintenance from above.



Optimized life-cycle costs

# **TECHNICAL DATA**

Maximum cooling capacity Maximum outside temperature Nominal cooling capacity Coolant outlet Outside temperature Coolant flow Power consumption Cooling Heating Circulation Weight (max.) without coolant-carrying comp Voltage (compressor/fans/heater) Dimensions (L x W x H) Refrigerant R513A Filling charge

# **STANDARDS**

- > Vibrations Certificate according to CEI/ICE 61373:1999 Standard.
- > EMC according to UNE-EN 50121-3-2 Standard and Declaration of Conformity according to 2004/108/EC Directive.
- > Performance according to EN 50155 Standard for electronic device.
- > RAMS based on EN 50126.
- Fire and smoke standards; EN 45545, NF F 16101 NF F 16102, UNI-CEI 11170.
- > IRIS Certificate: ISO/TS 22163.



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	10 kW	
	55°C	
	8 kW	
	20°C	
	35°C	
	70 l/m	
	400 VAC	
	4.72 kW	
	4.00 kW	
	2.72 kW	
ponents	256 kg	
	380 VAC	
	1450 x 1212 x 565 mm	
	2.7 kg	

# **World** presence

Amsterdam	Cuiaba	London	Oslo
Antalya	De Lijn	Lugano	Quito
Augsburg	Edinburgh	Lund	Saint-Étienne
Barcelona	Essen	Luxembourg	Sarajevo
Basel	Genoa	Malaga	Sardinia
Belgrade	Granada	Manila	Schönbuch
Birmingham	Həlle	Marseille	Sidney
Bonn	Hannover	<b>Mauritius Islands</b>	Stockholm
Bucharest	Istanbul	Mexico City	Szeged
Budapest	Jerusalem	Milan	ТоІисә
Cádiz	Kaohsiung	Monterrey	Taiwan
Cagliari	Kayseri	Myənmər	Tallinn
Cairo	Liege	Naples	Utrecht
Canberra	Lisbon	New South Wales	Vitoria

**Hispacold** is a company of Irizar Group SC, which employees more than 3500 people and has a global turnover of more than 700 Million €. This gives Hispacold the benefits from a multinational organization while maintaining an individual company spirit.

**Hispacold** HVAC systems are running in all five continents and in more than 100 countries.





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