

BATTERY THERMAL MANAGEMENT SYSTEMS FOR ELECTRIC VEHICLES





## **BATTERY THERMAL MANAGEMENT SYSTEM** FOR ELECTRIC VEHICLES

# Thermion (SP)

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).



**BTMS EG1** 



## **PRODUCT FEATURES**

#### DESIGN

- > Compact, for cooling and heating requirements.
- > Brushless ventilator fans.
- > High efficiency.
- > Modular system, with the ability to adapt to different types of vehicles from commercial transport to high-capacity vehicles.
- > Plug and play.
- > Possibility of refrigeration for stationary charge and opportunity charge batteries.
- > Minimum consumption adapting to the demand of the battery at all times.
- > High efficiency increasing vehicle autonomy.
- > Operating in cooling and heating mode.

#### MAINTENANCE

- > Maintenance friendly. Easy access for preventive and corrective maintenance.
- > System compatible with different communication platforms. CAN, J1939.

## **TECHNICAL DATA**

Maximun cooling capacity	4 kW	6 kW	10 kW
Outside temperature	40 °C	55 °C	40 °C
Coolant outlet	15 °C	15 °C	15 ºC
Coolant flow	2400 l/h (*)	3600 l/h (*)	1800 l/h (*)
Maximun heating capacity	3 kW	6 kW	3 kW
Max. Power consumption:			
Compresor	2.9 kW — 5.3 A	3.8 kW — 7.5 A	6 kW — 9.8 A
Fan	0.26 kW — 11 A	0.53 kW — 22 A	0.53 kW — 22 A
Heater	3.0 kW — 125 A	6.0 kW — 10 A	3.0 kW — 125 A
Weight (max.)			
without coolant-carrying components	122 kg	148 kg	174 kg
Voltage (compressor/fan/heater)	400 V AC / 24 V DC / 24 V DC	400 V AC / 24 V DC / 600 V DC	400 V AC / 24 V DC / 24 V DC
Dimensions (L x W x H)	954 x 598 x 369 mm	1060 x 675 x 463 mm	1143 x 630 x 427 mm
Coolant	R134a	R134a	R134a
Filling capacity	Ca. 0.8 kg	Cə. 1.2 kg	Ca. 0.9 kg

(\*) Dependant of battery internal pressure drop.





### **BTMS EG2**

## **BTMS PW1**



## HVAC systems performing in more than 100 countries across the five continents





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