## Thermion (4)

# BATTERY THERMAL MANAGEMENT SYSTEMS FOR ELECTRIC VEHICLES



#### BATTERY THERMAL MANAGEMENT SYSTEM

**FOR ELECTRIC VEHICLES** 

### Thermion (4)

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 EG2** 

1.2 kg



**BTMS PW2** 



1 kg



BTMS Gen 3

BTMS Gen 3.1

1 kg

#### TECHNICAL DATA

Refrigerant charge

TECHNICAL DATA				
Maximum cooling capacity	6 kW	9-12 kW	7,5-10 kW	8-11 kW
Outside temperature	45 °C	45 °C	45 °C	45 °C
Coolant outlet temperature	15 °C	15 - 35 °C	15 - 35 °C	15 - 35 °C
Coolant flow rate (*)	3600 l/h	1800-3600 l/h	1800-3600 l/h	1800-3000 l/h
Maximum heating capacity	6 kW	6 kW	8 kW	8 kW
Operation temperature limit (**)	60 °C	60 °C	55 °C	58 °C
Maximum electrical consumption:				
Compressor	3.8 kW — 7.5 A	6 kW — 9.8 A	6.9 kW — 11.6 A	6.9 kW — 11.6 A
Fan	1.4 kW — 60 A	0.53 kW — 22 A	0.51 kW — 21 A	0.51 kW — 21 A
Heater	6.0 kW — 10 A	6.0 kW — 10 A	8.0 kW — 13 A	8.0 kW — 13 A
Weight (max.) without loading coolant	148 kg	190 kg	75 kg	79 kg
Voltage (compressor/fan/heater)	400 V AC / 24 V DC / 600 V DC	400 V AC / 24 V DC / 600 V DC	400-800 V DC / 24 V DC / 400-800 V DC	400-800 V DC / 24 V DC / 400-800 V DC
Dimensions (L x W x H)	1060 x 675 x 463 mm	1060 x 755 x 463 mm	1110 x 755 x 394 mm	1120 x 1020 x 340 mm
Refrigerant	R134a	R134a	R134a	R134a

1.1 kg



#### **PRODUCT FEATURES**

#### **DESIGN**

- > Compact, for cooling and heating requirements.
- > Brushless ventilator fans.
- > High efficiency.
- > 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.



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



