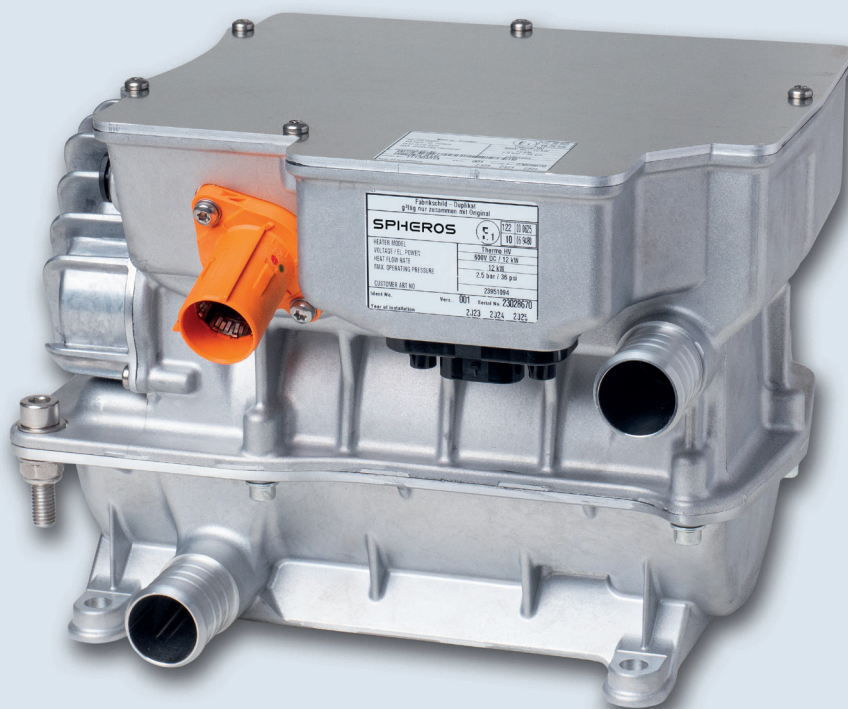


High voltage heater for e-powered buses and commercial vehicles

THERMO HV



High voltage future for high end e-Bus heating

Thermo HV is the future solution for plugin and e-powered buses and commercial vehicles that quickly, consistently and reliably heats the vehicle interior. The compact device ensures a constantly high heat output of 12kW and allows for flexible use in a power range of 600 to 875 Volts. Thermo HV features infinitely variable heat output control by means of an integral control unit. This takes place either by regulating the water outlet temperature or by limiting the maximum heat output or power consumption.

Furthermore, it is CAN-capable and transmits key operating data to the vehicle system using an intelligent diagnostic function.

www.spheros.com/us

SPHEROS

TECHNICAL ADVANTAGES AND CUSTOMER BENEFITS



Technical specifications for bus and heavy duty application

- 12 KW heating capacity – stepless regulable performance as needed
- Full heating capacity in a broad voltage range 450 V DC - 875 V DC (in peaks 1150 V DC) without compromising efficiency
- Integrated control board
- CAN communication
- Diagnosis



Environmentally friendly

- 100 % emission-free heating
- Almost noiseless and no annoying exhaust fumes
- Eco mode



Fast and easy integration

- Low weight, small and smart design easy application, plug & play integration possible
- Modular applicable as one-zone or multi zone-solution (up to 4 units applicable)



Reliability & Safety

- Multi level safety concept to ensure a constantly high heating performance
- Compliant with ISO 26262 (ASIL B)



Convincing Customer Benefits

- Powerful and reliable heat output: fast and constant comfort for the driver, passenger and battery system
- Efficient performance: extended driving range without wasting energy
- Precise and stepless controllability: better performance and optimized power management

TECHNICAL DATA

	Thermo HV
Heat Output (kW)	12 @ 600 V DC
Operating Voltage Range (V DC)	450 – 850
Nominal Voltage (V DC)	600
Low Voltage (V)	24 nominal
Temperature range in operation (°C)	-40 to +85
Weight (kg)	4.9
Dimensions L x W x H (mm) w/o connection pipe, connectors	250 x 182 x 194
Controllability	step less (via CAN)
Protection class	IP 6K9K / IP 67
Safety concept	according to ISO 26262 (ASIL B)