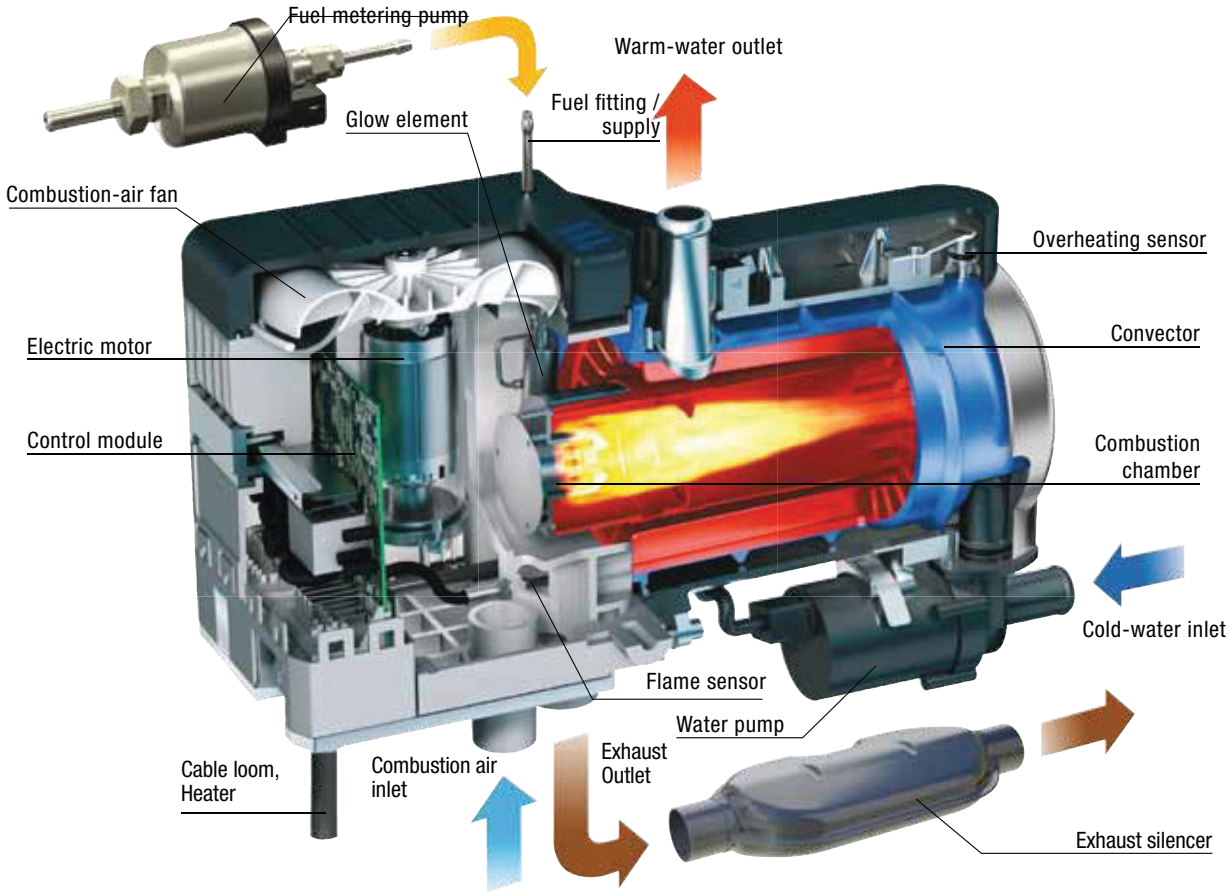
PRODUCT INFORMATION

HYDRONIC M-II: TECHNOLOGY



HYDRONIC M FUNCTIONS:

- Combustion air is conveyed to the combustion chamber by the fan motor and impeller.
- Fuel is drawn from the vehicle's tank.
- Fuel is delivered to the combustion chamber by the metering pump (reciprocating pump).
- The glow element vaporises this fuel as it enters the combustion chamber and creates a combustible fuel-air mix with the combustion air.
- The resulting flame formation switches off the glow element, transfers the heat to the cooling water via the convector, and diverts exhaust gas via the exhaust silencer.
- The cooling water circulation pump conveys cool water to the heater, where it is warmed by the convector and then routed to the vehicle's own convector and combustion engine.

PRODUCT INFORMATION - Hydronic M II heaters

EBERSPÄCHER HYDRONIC					
Heater		Hydronic M8 Biodiesel	Hydronic M8 Biodiesel	Hydronic M10	Hydronic M10
Product package		Heater	Heater	Heater	Heater
Techn. designation		Hydronic M-II (D8W)	Hydronic M-II (D8W)	Hydronic M-II (D10W)	Hydronic M-II (D10W)
Order no. for heater		25.2470.05.0000	25.2471.05.0000	25.2434.05.0000	25.2435.05.0000
Fuel		Diesel and FAME (biodiesel)	Diesel and FAME (biodiesel)	Diesel	Diesel
Voltage	V	12	24	12	24
Heating medium		Mixture of water and anti-freeze (Proportion of antifreeze at least 10 % up to 50 % maximum)			
Control / heat settings		low / medium / high / power	low / medium / high / power	low / medium / high / power	low / medium / high / power
Heat output	W	1,500 / 3,500 / 5,000 / 8,000	1,500 / 3,500 / 5,000 / 8,000	1,500 / 3,500 / 8,000 / 9,500	1,500 / 3,500 / 8,000 / 9,500
Fuel consumption	l / h	0.18 / 0.4 / 0.65 / 0.9	0.18 / 0.4 / 0.65 / 0.9	0.18 / 0.4 / 0.9 / 1.2	0.18 / 0.4 / 0.9 / 1.2
Power consumption, heater	W	6 / 10 / 17 / 26	6 / 10 / 17 / 26	6 / 10 / 31 / 57	6 / 10 / 31 /57
Power consumption, water pump	W	29	29	29	29
Elec. power consumption, start	W	200	200	120	120
Minimum water throughput	l / h	500	500	500	500
Lower voltage limit	V	10	20	10	20
Upper voltage limit	V	15	30	15	30
Interference suppression		5 (DIN EN 55025)	5 (DIN EN 55025)	5 (DIN EN 55025)	5 (DIN EN 55025)
Dimensions L x W x H	mm	331 x 138 x 221	331 x 138 x 221	331 x 138 x 221	331 x 138 x 221
Weight empty	kg	6.2	6.2	6.2	6.2

EBERSPÄCHER HYDRONIC			
Heater		Hydronic M12	Hydronic M12
Product package		Heater	Heater
Techn. designation		Hydronic M-II (D12W)	Hydronic M-II (D12W)
Order no. for heater		25.2472.05.0000	25.2473.05.0000
Fuel		Diesel	Diesel
Voltage	V	12	24
Heating medium		Mixture of water and anti-freeze (Proportion of antifreeze at least 10 % up to 50 % maximum)	
Control / heat settings		low / medium 1 / medium 2 / medium 3 / high / power	low / medium 1 / medium 2 / medium 3 / high / power
Heat output	W	1,200 / 1,500 / 3,500 / 5,000 / 9,500 / 12,000	1,200 / 1,500 / 3,500 / 5,000 / 9,500 / 12,000
Fuel consumption	l / h	0.15 / 0.18 / 0.4 / 0.65 / 1.2 / 1.5	0.15 / 0.18 / 0.4 / 0.65 / 1.2 / 1.5
Power consumption, heater	W	5 / 6 / 10 / 17 / 57 / 103	5 / 6 / 10 / 17 / 57 / 103
Power consumption, water pump	W	29	29
Elec. power consumption, start	W	120	120
Minimum water throughput	l / h	500	500
Lower voltage limit	V	10	20
Upper voltage limit	V	15	30
Interference suppression		5 (DIN EN 55025)	5 (DIN EN 55025)
Dimensions L x W x H	mm	331 x 138 x 221	331 x 138 x 221
Weight empty	kg	6.2	6.2

HYDRONIC M-II
SERIES: 27,300 /32,450 /42,000 BTU

		Heater	Harness	Fuel System	Coolant Hose	Mounting Bracket	Control Options / Timers	Fuel Pick-up Pipe	Hardware Kit	Exhaust Pipe	Intake Pipe	Boxed	Portal Instructions
HYDRONIC M II													
HYDRONIC M8 biodiesel 12 volt	25.2470.05.0000	■											■
HYDRONIC M8 biodiesel 24 volt	25.2471.05.0000	■											■
HYDRONIC M10 12 volt	25.2434.05.0000	■											■
HYDRONIC M10 24 volt	25.2435.05.0000	■											■
HYDRONIC M12 12 volt	25.2472.05.0000	■											■
HYDRONIC M12 24 volt	25.2473.05.0000	■											■
HYDRONIC M12 24 volt w/Hella	25.2725.05.0000	■											■
HYDRONIC M12 12 volt Boxed Kit	25.2824.72.1210	■	■	■		■		■	■	■	■	■	■
HYDRONIC M12 24 volt Boxed Kit	25.2824.73.1210	■	■	■		■		■	■	■	■	■	■
HYDRONIC M12 12 volt Boxed Kit w/high Capacity Pump	25.2824.72.0012	■	■	■		■		■	■	■	■	■	■
HYDRONIC M12 24 volt Boxed Kit w/high Capacity Pump	25.2824.73.0024	■	■	■		■		■	■	■	■	■	■
UNIVERSAL INSTALLATION KITS													
Eberspaecher Universal Install 12V with diagnostic connection	25.2800.90.1012		■	■		■			■	■	■		
Eberspaecher Universal Install 24V with diagnostic connection	25.2800.90.1024		■	■		■			■	■	■		
Air Int Muffler w/end Cap	25.1786.80.0200										■		

■ Item in the kit

Boxed Kit

Hydronic M II heater

CONTROL OPTIONS AND TIMERS

Control units




Model	EasyStart Pro	EasyStart Timer	EasyStart Select	Airtronic mini-controller
Order number	22.1000.35.2200	22.1000.34.1500	22.1000.34.1300	22.1000.32.0700
Interface	CAN	LIN, S+	LIN	S+
Control unit compatibility with heaters				
 Hydronic S3 12V CS Economy	CAN	S+ *	–	–
 Hydronic S3 24V CS Commercial	CAN	S+ *	–	–
 Hydronic S3 12V CL Economy	–	LIN	LIN	–
 Hydronic M II 12/24 V	–	LIN	LIN	–
 Hydronic L3 24V (16/24/30/35 kW)	CAN / E-Control	LIN	LIN	-
 Airtronic S3/M3/L3 12 V Commercial	CAN	LIN	LIN	S+ **
 Airtronic M3 12V Recreational	CAN	LIN	LIN	S+ **
 Airtronic S3/M3/L3/XL3 24V Commercial	CAN	S+ * No setpoint input possible	–	S+ **

* With restricted function: diagnostics cannot be run via the control unit

** With restricted function: no external temperature sensor possible

QUICK-REFERENCE GUIDE

The basic principle of pre-heaters is to heat the passenger compartment of all kinds of vehicles without having to depend on the heat given off by a running engine. That's a well-known fact. But at some point or other you must have asked yourself what the actual difference is between air and water heaters.

Air-based pre-heater – Eberspächer Airtronic:

Air-based pre-heaters are mostly installed inside the cab and directly heat the air inside it, which is sucked in via the unit's own fan. Their effects are noticeable almost instantly, as the heat in the form of hot gas, which is produced by a burner, does not have to heat up a water circuit first. Modern devices are very quiet, low on emissions and chiefly used to maintain the temperature in the cab of a truck or van at a pleasant level even while it is at a standstill (e.g. overnight).

Water-based pre-heater – Eberspächer Hydronic:

Water-based pre-heaters have a compact design and can be fitted almost anywhere in the engine compartment. They are therefore the pre-heater of choice for cars with interiors too cramped for additional installations. The heat generated by a burner is transferred to the vehicle's coolant.

An (additional) electric circulation pump distributes the hot coolant, even when the engine is switched off. Then, the interior fan is activated automatically – everything works as it does in normal heater operation. Water-based heaters therefore not only warm up the interior but, depending on the application, also the engine or the water used in boats or motor homes. Engines heated in this way can be started more easily in cold weather while also protecting the car battery from the effects of the cold, and producing fewer harmful emissions on starting, as the hotter exhaust temperature enables the catalytic converter to reach its operating temperature more quickly. The cold-starting phase, which produces mechanical stress and higher emissions, is dramatically reduced, as the oil reaches operating temperature fast when the engine is started. This saves fuel and money while lowering CO2 emissions at the same time.

Both systems generally run on the vehicle's fuel, straight out of the fuel tank. Depending on the model, you can use a timer, remote control, smartphone, smartwatch, Alexa or a browser to control them.

QUICK-REFERENCE GUIDE

Hydronic S3 (5 kW):

Cab and engine heater


Passenger cars (from 2.0 l displacement)


Emergency vehicles


Vans, large taxis, minivans


Commercial vehicles, including tandem configurations with air heaters


Construction and agricultural machines


Motor homes

Hydronic M8 / M10 / M12 (8–12 kW):


Commercial vehicles from approx. 150 kW engine power


Cargo area heating


Military vehicles


Large agricultural and construction machines


Motor homes

Hydronic L3 (16 / L24 / L30 / L35 (16–35 kW):


Coaches and city buses


Large freight compartments for goods that need to be kept warm


Container setups


Diesel locomotives

QUICK REFERENCE GUIDE

Airtronic S3 (2.2 kW):

Heating comfort for a variety of applications.


Vans, small motor homes, small buses


Truck cabs with sleeping cabins


Construction and agricultural machines without engine-dependent heating


Forklifts and other plant machinery


Electric vehicles

Airtronic M3 (4 kW):

The high-performance, compact air heater for mid-range requirements.


Large trucks – cabs with sleeping cabins


Vans, small buses


Large agricultural and construction machines


Motor homes


Minivans, and vehicles used for conferences and consultancy

Airtronic L3 (6 kW):


Vans, workshop vehicles, personnel carriers, small buses (fast heating despite door opening frequently)


Ambulances and emergency medics' vehicles (special heating and temperature requirements)


Freight compartment and freight goods heating plus frost protection and dew point prevention

Airtronic XL3 (8 kW):

Continuously variable, pre-selectable heating performance regulation.


Large freight compartments, containers


Personnel carriers


Coaches and city buses

QUICK REFERENCE GUIDE

INTRODUCTION PAGE

On the following pages you will find the entire offering of Eberspaecher heaters, heater kits, control options and accessories. Below are some tips on how to best choose the products you are looking for.

PAGE LAYOUT

The Product Catalog is a complete listing of the products we sell. In the heater section, you can trace the heater you are considering straight across to the dots in the columns on the right side of the page. These columns have a header row showing the items offered with the blue squares indicating which of them actually come in the kit being selected.In the accessory section, you trace the accessory across to the blue squares on the far right to see what heaters that component is used with.

HEATER CHOICES

Our heaters come in both 12 and 24 Volt offerings and in Gasoline (B prefix) and Diesel (D prefix) models. When selecting a heater model, be sure to begin with the right voltage and fuel type for your application. The "Basic" heaters shown are just that, a bare heater, and are usually used as replacements. If a heater price seems too low, compared to other models, be sure it's not a basic kit.

- RECOMMENDED

  There are a variety of kits and components in the catalogue that may look similar.

  When more than one item is listed, look for the label. PREFERRED

  This indicates that item is one of the more commonly sold products of those that are listed. However, we want to make sure you get the right equipment for the job so if you are in doubt please don't hesitate to contact your local regional sales manager or our tech service department at (1-800-387-4800) or to seek assistance, log on to Eberspaecher Service World at https://service.eberspaecher.com/EN/service/ and create a service ticket using the "My Ticket Management" link.

- EMMISSIONS

  Eberspaecher offers more EPA Verified / CARB Compliant heater choices than any other manufacturer. Look for the EPA label when selecting a heater for specific applications.

- AIRTRONIC HEATER KITS

  Unless specified otherwise these kits are usually sold as complete with installation components. The variables are usually limited to multiple controller and fuel Pick-up choices. These are all noted in the kit description and in the columns on the right side of the page.

- HYDRONIC HEATER KITS

  Unless otherwise noted these units are typically sold ala-carte – with the heater kit, timer/controller and even installation kits purchased separately to provide maximum installation flexibility. Always check the description and the kit component listing in the columns on the right side of the page.

- CONTROLLERS

  Eberspaecher offers a variety of controllers for almost every heater model and application combination. The most preferred controller is the EasyStart PRO controller for both the air and coolant heaters. Other controller types like the EasyStart timer, the programmable (school bus) timers, mini controller and the multi-function switch are also available for use based on the application and customer requirements.