

CLIMATE CONTROL SOLUTIONS FROM EBERSPÄECHER

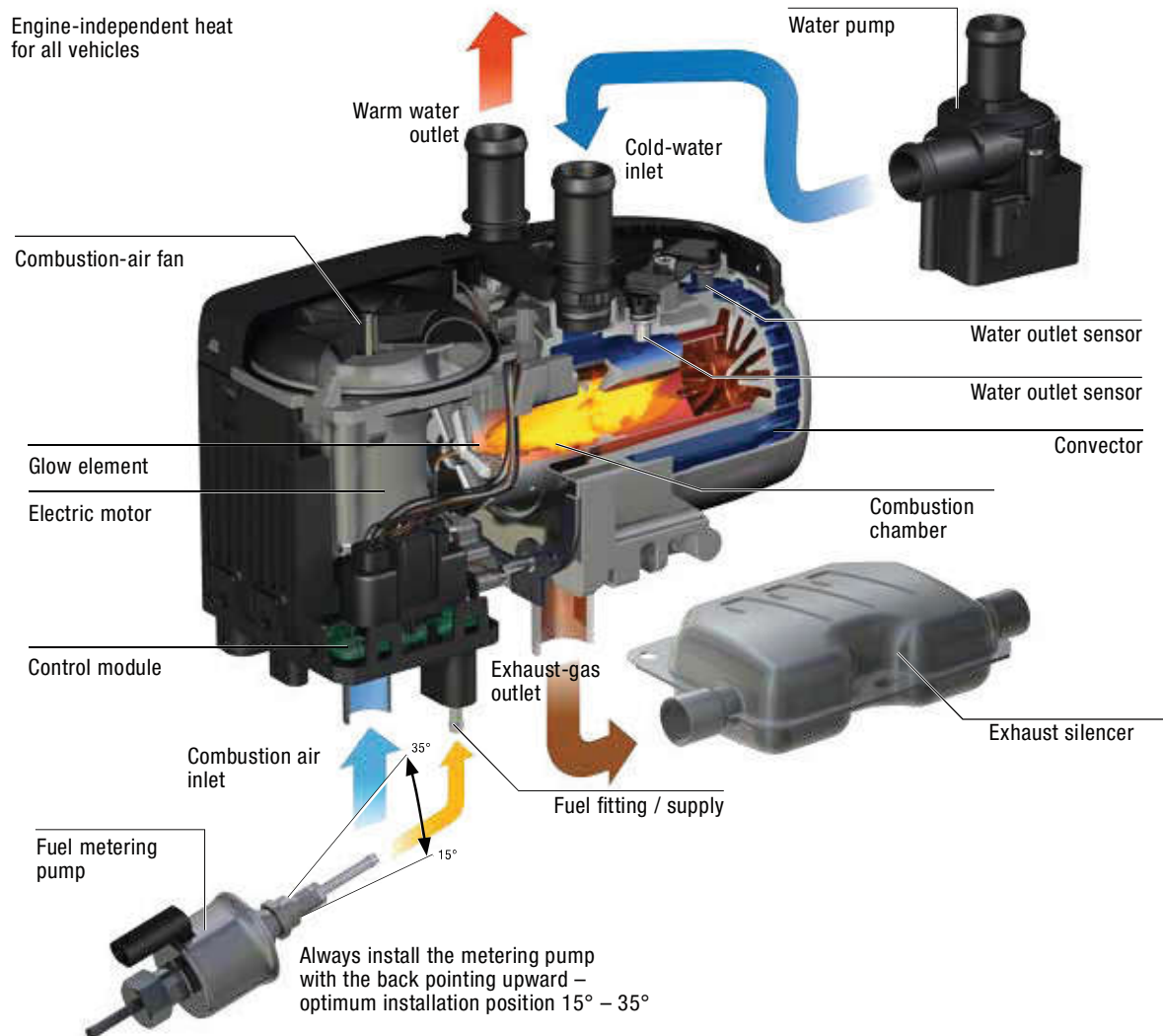


SEPTEMBER 2024, Rev 1

A WORLD OF COMFORT

PRODUCT INFORMATION

HYDRONIC S3 ECONOMY: TECHNOLOGY

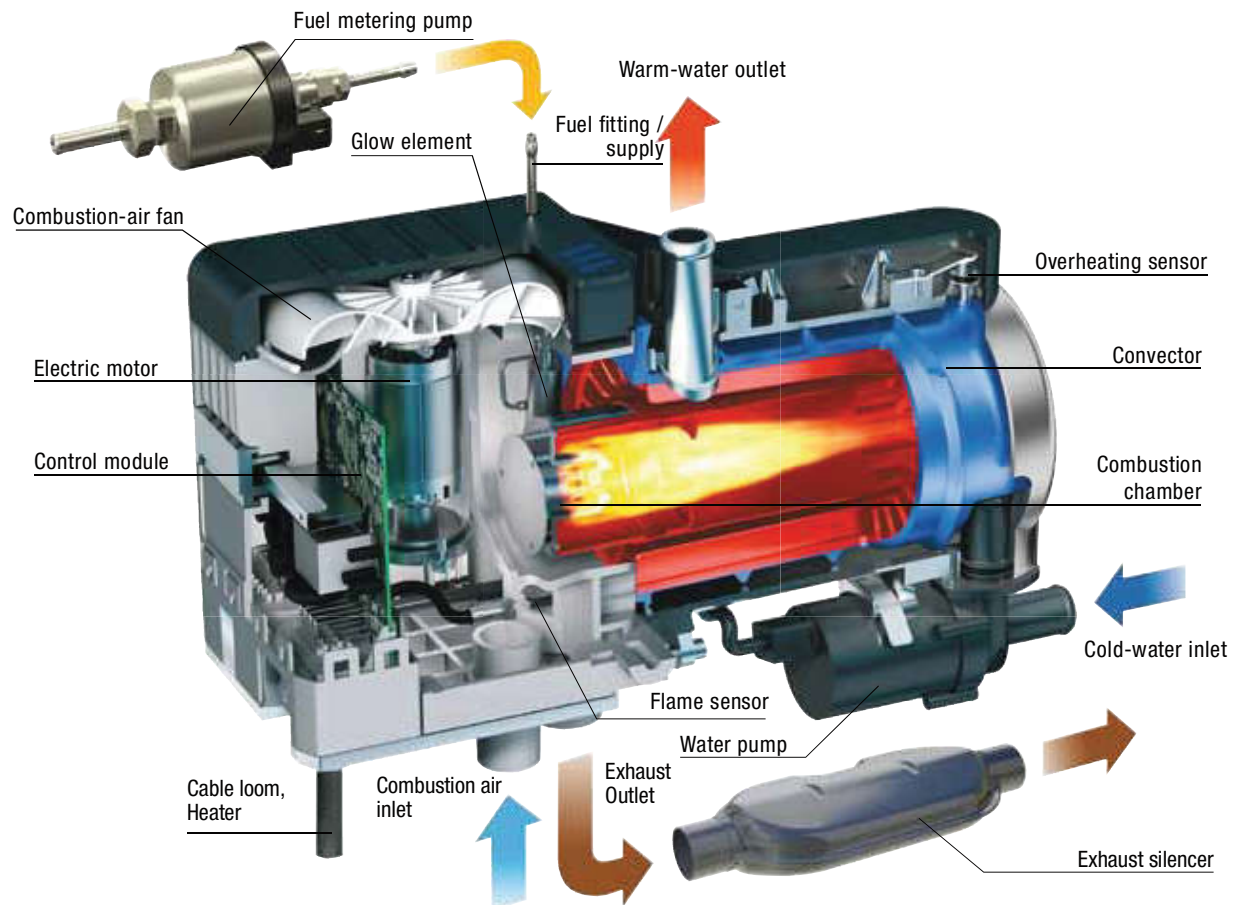


HYDRONIC S3 ECONOMY* FUNCTIONS:

- 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 vaporizes 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 convector and combustion engine.

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.

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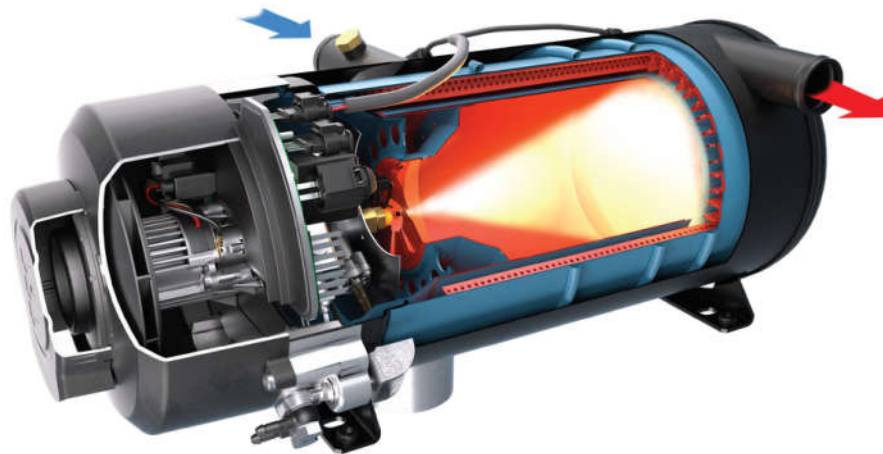
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PRODUCT INFORMATION

HYDRONIC L3 : TECHNOLOGY



HYDRONIC L3 FUNCTIONS:

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- Combustion air is conveyed to the combustion chamber by the fan motor and impeller.

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- A gear pump delivers fuel from the vehicle's tank and builds up pressure against the closed solenoid valve.
- The solenoid valve opens and the fuel is atomized by the fuel nozzle in the combustion chamber / flame tube.

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- The ignition spark monitor ignites the fuel-air mix.
- The resulting flame detection by an optical flame sensor switches off the ignition spark monitor, 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.

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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

PRODUCT INFORMATION - Hydronic S3 heaters



EBERSPÄCHER HYDRONIC

Heater	Hydronic S3 Economy	Hydronic S3 Economy	Hydronic S3 Economy	Hydronic S3 Economy
Product package	Heater	Heater	Heater	Heater
Techn. designation	HS3 CS B5E	HS3 CL B5E	HS3 CS D5E	HS3 CL D5E
Order no. for heater	20.2051.05.0000	20.2048.05.0000	25.2993.05.0000	25.2971.05.0000
Order no. for heater with PRMP*	-	-	25.2994.05.0000	25.2990.05.0000
Fuel	Gasoline	Gasoline	Diesel	Diesel
Voltage V	12	12	12	12
Heating medium	Mixture of water and anti-freeze (Proportion of antifreeze at least 10 % up to 50 % maximum)			
Control / heat settings	Infinitely variable	Infinitely variable	Infinitely variable	Infinitely variable
Heat output W	1,800 to 5,000	1,800 to 5,000	1,300 to 5,000	1,300 to 5,000
Fuel consumption l / h	0.23 / 0.67	0.23 / 0.67	0.15 / 0.59	0.15 / 0.59
Power consumption, heater W	7 / 32	7 / 32	5 / 32	5 / 32
Power consumption, water pump W	17	17	17	17
Elec. power consumption, start W	135	135	135	135
Minimum water throughput l / h	300	300	300	300
Lower voltage limit V	10.5	10.5	10.5	10.5
Upper voltage limit V	16	16	16	16
Protection rating	Heater: IP5K6K, IP5K9K, Control module: IP6K6K, IP6K9K			
Dimensions L x W x H mm	215 x 91 x 124	215 x 91 x 124	215 x 91 x 124	215 x 91 x 124
Weight empty kg	2.0	2.0	2.0	2.0



EBERSPÄCHER HYDRONIC

Heater	HS3 CS D6L Commercial			
Product package	Heater			
Order no. for heater	25.2972.05.0000			
Fuel	Diesel - standard commercially available (EN 590) Blending with max. 30 % FAME according to EN 14214 is permitted.			
Voltage V	24			
Heating medium	Mixture of water and anti-freeze (Proportion of antifreeze at least 10 % up to 50 % maximum)			
Control / heat settings	Infinitely variable			
Heat output W	1,300 to 5,600			
Fuel consumption l / h	0.15 / 0.65			
Power consumption, heater W	5 / 37			
Power consumption, water pump W	11			
Elec. power consumption, start W	135			
Minimum water throughput l / h	300			
Lower voltage limit V	20.4			
Upper voltage limit V	32			
Interference suppression	5 (DIN EN 55025)			
Dimensions L x W x H mm	215 x 91 x 124			
Weight empty kg	2.0			

*PRMP: Pressure resistant metering pump

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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

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PRODUCT INFORMATION - Hydronic L3 heaters



EBERSPÄCHER HYDRONIC

Heater	Hydronic L16	Hydronic L24	Hydronic L30	Hydronic L35
Product package	Heater	Heater	Heater	Heater
Techn. designation	Hydronic L3 (HL3-16)	Hydronic L3 (HL3-24)	Hydronic L3 (HL3-30)	Hydronic L3 (HL3-35)
Order no. for heater	25.3042.02.0000	25.3043.02.0000	25.3040.02.0000	25.3041.02.0000
Order no. for compact heater -	25.3043.05.0000	25.3040.05.0000	25.3041.05.0000	
Fuel	Diesel, fuel oil, HVO #	Diesel, fuel oil, HVO #	Diesel, fuel oil, HVO #	Diesel, fuel oil, HVO #
Voltage V	24	24	24	24
Heating medium	Mixture of water and anti-freeze (Proportion of antifreeze at least 10 % up to 50 % maximum)			
Heat output W	16,000	24,000	30,000	35,000
Fuel consumption l / h	2	2.9	3.65	4.2
Power consumption, heater W	65	85	95	110
Power consumption, water pump W	104 - 210*	104 - 210*	104 - 210*	104 - 210*
Minimum water throughput l / h	1,400	2,000	2,600	3,000
Lower voltage limit V	20.4	20.4	20.4	20.4
Upper voltage limit V	32	32	32	32
Dimensions L x W x H mm	544 x 230 x 221	544 x 230 x 221	544 x 230 x 221	544 x 230 x 221
Weight empty** kg	16	16	16	16

* depending on the coolant pump model

Hydrogenated Vegetable Oil



EBERSPÄCHER COOLANT PUMPS FOR HYDRONIC L3

Water pumps	Flowtronic 5000	Flowtronic 6000 SC
Order no. for water pump	25.2488.26.0000	25.2488.25.0000
Coolant	Water-glycol mix with up to max 50 % glycol	Water-glycol mix with up to max 50 % glycol
Delivery rate l / h	5,200 at 0.2 bar	6,000 at 0.4 bar
Operating pressure bar	max. 2	max. 2
Nominal voltage V	24	24
Elec. power consumption W	104	210
Protection class	IP5K4	IP25 (potted electronics)
Dry running	No	Yes - motor switches itself off after 45 minutes
Shaft-impeller connector	Mechanical seal	Magnetic coupling
Weight empty* kg	2.04	2.5

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PRODUCT INFORMATION - Hydronic L II heaters

				
EBERSPÄCHER HYDRONIC				
Heater	Hydronic L16	Hydronic L24	Hydronic L30	Hydronic L35
Product package	Heater	Heater	Heater	Heater
Techn. designation	Hydronic L-II (HL2-16)	Hydronic L-II (HL2-24)	Hydronic L-II (HL2-30)	Hydronic L-II (HL2-35)
Order no. for heater	25.2486.02.0000	25.2487.02.0000	25.2599.02.0000	25.2600.02.0000
Order no. for compact heater -	-	25.2599.05.0000	25.2600.05.0000	
Fuel	Diesel and fuel oil	Diesel and fuel oil	Diesel and fuel oil	Diesel and fuel oil
Voltage V	24	24	24	24
Heating medium	Mixture of water and anti-freeze (Proportion of antifreeze at least 10 % up to 50 % maximum)			
Heat output W	16,000	24,000	30,000	35,000
Fuel consumption l / h	2	2.9	3.65	4.2
Power consumption, heater W	60	80	105	120
Power consumption, water pump W	104 - 210*	104 - 210*	104 - 210*	104 - 210*
Minimum water throughput l / h	1,400	2,000	2,600	3,000
Lower voltage limit V	20	20	20	20
Upper voltage limit V	30	30	30	30
Dimensions L x W x H mm	600 x 230 x 222	600 x 230 x 222	600 x 230 x 222	600 x 230 x 222
Weight empty** kg	18	18	18	18
* depending on the coolant pump model				

EBERSPÄCHER COOLANT PUMPS FOR HYDRONIC L II			
Water pumps		Flowtronic 5000	Flowtronic 6000 SC
Order no. for water pump		25.2488.26.0000	25.2488.25.0000
Coolant		Water-glycol mix with up to max 50 % glycol	Water-glycol mix with up to max 50 % glycol
Delivery rate	l / h	5,200 at 0.2 bar	6,000 at 0.4 bar
Operating pressure	bar	max. 2	max. 2
Nominal voltage	V	24	24
Elec. power consumption	W	104	210
Protection class		IP5K4	IP25 (potted electronics)
Dry running		No	Yes – motor switches itself off after 45 minutes
Shaft-impeller connector		Mechanical seal	Magnetic coupling
Weight empty*	kg	2.04	2.5

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HYDRONIC HS3 CS

COOLANT HEATER - 17,100 BTU / 19,100 BTU

		Heater	Harness	Fuel System	Coolant Hose	Mounting Bracket	Control Options / Timers	Fuel Pickup Pipe	Hardware Kit	Exhaust Pipe	Intake Pipe	Boxed	Portal Instructions
HYDRONIC HS3 D5E/D6L CS - DIESEL													
D5E 12V Economy with FMP and water pump - No installation parts	25.2993.05.0000												
D6L 24V Commercial with FMP and water pump - No installation parts	25.2972.05.0000												
HEATER WITH INSTALLATION KIT													
Install Kit HS3 CS D5E 12 V	25.2829.34.0500												
Install Kit HS3 CS D5E Boxed 12 V Right	25.2829.34.0501												
Install Kit HS3 CS D6L 24 V	25.2827.45.0600												
Install Kit HS3 CS D6L Boxed 24 V Right	25.2827.45.0601												
HYDRONIC HS3 B5E CS - GASOLINE													
B5E 12V Economy with FMP and water pump - No installation parts	20.2051.05.0000												
HEATER WITH INSTALLATION KIT													
Install Kit HS3 CS B5E 12 V	25.2820.51.0500												
HS1 to HS3 TRANSITION HARNESSES KIT													
HS1 to HS3 heater harness adaptor	20.2900.70.0516												
Ax1 to Ax2/x3 FMP harness adaptor	20.2900.70.0026												

Item in the kit



Boxed Kit



Hydronic S3 heater

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HYDRONIC M-II – BUILD YOUR OWN KIT
SERIES: 42,000 BTU - CARB APPROVED

		Heater	Harness	Fuel System	Coolant Hose	Mounting Bracket	Control Options / Timers	Fuel Pickup Pipe	Hardware Kit	Exhaust Pipe	Intake Pipe	Boxed	Portal Instructions
HYDRONIC M II													
STEP 1 - SELECT BASIC KITS:													
HYDRONIC M12 12 volt, Basic assambly	25.2824.72.1203												
HYDRONIC M12 24 volt, Basic assambly	25.2824.73.1201												
STEP 2 - SELECT ONE OF THE FOLLOWING CONTROL OPTIONS													
EasyStart Timer	22.1000.34.1500												
Programmable Timer With LVD	25.2800.70.1010												
Programmable Timer With LVD Dual Input	25.2800.70.2020												
Programmable Timer w/LVD Dual Output Switch	25.2800.70.3030												
STEP 3 - SELECT FUEL PICKUP PIPE OPTIONS													
Fuel Pick Up Pipe 4mm with 1/2 NPT	20.2900.20.2050												
Fuel Pipe with Vent 4mm ID - 19.5 IN	20.2900.20.4006												

 Item in the kit

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HYDRONIC L3

SERIES: 55,000, 82,000, 102,000, 120,000 BTU

HYDRONIC L3-16	
Basic Heater 24V	25.3042.02.0000
HYDRONIC L3-24	
Basic Heater 24 volt	25.3043.02.0000
Hydronic L3-24 Compact	
Water pump Flowtronic 5000 and fuel filter pre-assembled	25.3043.05.0000
HYDRONIC L3-30	
Basic Heater 24 volt	25.3040.02.0000
HYDRONIC L3-30 Compact	
Water pump Flowtronic 5000 and fuel filter pre-assembled	25.3040.05.0000
HYDRONIC L3-35	
Basic Heater 24 volt	25.3041.02.0000
HYDRONIC L3-35 Compact	
Water pump Flowtronic 5000 and fuel filter pre-assembled	25.3041.05.0000

Additional parts which have to be ordered separately

Water Pump, Flowtronic 5000	25.2488.26.0000	Screw, M14 x 1.5	266.09.005
Water pump, Flowtronic 6000 SC	25.2488.25.0000	Rubber buffer M6 x 10	20.1607.65.0002
Water Pump, Flowtronic 5000S	25.1818.30.0000	Height: 15 mm	
Hose clip, Ø 40-47 mm	152.09.017	Fuel return line,	25.1698.05.0400
Hose elbow, Ø 38 mm	25.1799.80.0001	Ø 5 x 3, length: 750 mm	
Connection pipe, Ø 38 mm	25.1214.89.0021	Ball valve	25.2488.05.0200
T-piece, Ø 38-38-38	25.1371.89.0400	Reducer coupling 8 / 6	266.00.026
Reducer, Ø 38/28 mm	25.1214.89.0019	Shroud with hose connection	22.1000.40.0600
Hose clip, Ø 32-39 mm	10.2067.03.2050	1 m flexible hose, Ø 60 mm	10.2114.31.0000
Pipe elbow, Ø 38 mm	25.1214.89.0003	Hose clip 10.2067.05.0070	10.2067.05.0070
Water hose, Ø 38 mm	360.75.413	Air hose fixing kit	22.1000.50.0200
Exhaust pipe socket, Ø 70 mm	22.1000.40.0400	Plastic grille	25.1688.80.0600
Exhaust pipe elbow, Ø 70 mm	22.1000.40.0300	Nozzle holder	22.1000.01.0035
Fuel filter	25.2599.05.0100	Nozzle	10.2067.05.0070
Banjo bolt, M14 x 1.5	104.09.002	Hose connection nozzle	22.1000.01.0005
Sealing ring, A14 x 18	323.16.006	Adapter	25.1226.89.0050
Fuel suction line,	25.2488.05.0400		
Ø 5 x 3, length: 800 mm			
Screw, M14 x 1.5	266.42.004		
Ball bushing	263.61.001		
Union nut, M14 x 1.5	116.09.003		
Fuel pipe, Cu, according to DIN	-----		
1786, Internal diameter Ø 6			
Fuel hose,	360.75.350		
Fuel hose, Ø 5 x 3			
Hose clip, Ø 11 mm	10.2068.01.1098		

CABLES & CONNECTORS

Connection parts electrical HL3	25.3040.89.0100.0A
Adapter cable CAN operating unit	25.3040.89.0200.2A
Adapter cable diagnose	25.3040.89.0300.2A
Supplement kit	25.3040.89.0400.0A
Adapter cable HL2 to HL3	25.3040.89.0500.2A
Adapter cable waterpump Flow	25.3040.89.0600.2A
5000/6000SC	



HYDRONIC L3

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HYDRONIC L-II

SERIES: 55,000, 82,000, 102,000, 120,000 BTU

HYDRONIC L 16	
Basic Heater 24V	25.2486.02.0000
HYDRONIC L 24	
Basic Heater 24 volt	25.2487.02.0000
HYDRONIC L 30	
Basic Heater 24 volt	25.2599.02.0000
HYDRONIC L 30 Compact	
Water pump Flowtronic 5000 and fuel filter pre-assembled	25.2599.05.0000
HYDRONIC L 35	
Basic Heater 24 volt	25.2600.02.0000
HYDRONIC L 35 Compact	
Water pump Flowtronic 5000 and fuel filter pre-assembled	25.2600.05.0000

ACCESORIES

FUEL	Nipple and Nut Connectors for compact version (1 required)	20.2900.20.2071
	Fuel Line 5.0mm black rubber	360.75.350
	Clamps 11mm	10.2068.01.1098
	Fuel Pick-up with Return	20.2900.20.2059
	L-II Filter Base and Bracket	25.2599.05.0100
EXHAUST	Flexible Stainless Steel Exhaust Tube 70mm	5530015
	Muffler Clamp 3"	5530004
	Exhaust Elbow (70mm exhaust) D30 / D35	22.1000.40.0300
PUMPS	Coolant Pump 24volt (5,000 L/hr)	25.2488.26.0000
	Flowtronic Coolant Pump 24 volt (6,000 L/hr)	25.2488.25.0000
CONTROLS	Multi Max F-1000 Controller	20.2800.70.1600
	Programmable Timer With LVD	25.2800.70.1010
	Programmable Timer With LVD Dual Input	25.2800.70.2020
	Pro. Timer w/LVD Dual Output Switch	25.2800.70.3030



HYDRONIC L II



HYDRONIC L II COMPACT

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Hydronic L-II Boxed Off-Highway Kits

HYDRONIC L-II OFF HIGHWAY		Heater	Harness	Fuel System	Coolant Hose	Mounting Bracket	Control Options / Timers	Fuel Pickup Pipe	Hardware Ki	Exhaust Pipe	Intake pipe	Boxed enclosure	Portal Instructions
HYDRONIC 30 L-II Boxed Off-Highway Assembly 12V w/6000 L pump	25.2800.10.3612												
HYDRONIC 30 L-II Boxed Off-Highway Assembly 24V w/6000 L pump	25.2800.10.3600												
HYDRONIC 35 L-II Boxed Off-Highway Assembly 24V w/6000 L pump	25.2800.10.5624												

Item in the kit Mounting holes on base. No mounting hardware included

Fuel
Hose Fuel 5 x 3mm black rubber 360.75.350
Single Pick-up Pipe 4.0 mm with Return (61 cm or 24") 20.2900.20.2059
Clamp 11mm, 4 qty. 10.2068.01.1098

Controls
Prog Timer With LVD 25.2800.70.1010
Prog Timer With LVD Dual Input 25.2800.70.2020
Prog Timer w/LVD Dual Output Switch 25.2800.70.3030

- Packaged for Off-Highway and oilfield applications
- 12 and 24 volt options
- Eliminate cold starts
- Minimize diesel exhaust emissions
- Rugged, compact
- Versatile fluid pre-heating
- Standard with pre-heated nozzle



HYDRONIC L II BOXED ASSLY

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