ENGINEERING SPECIFICATION SHEET

STIEBEL ELTRON

HydroShark® Electric Modulating Micro-Boilers

› For radiant floor space heating

Features

- › Designed for closed-loop embedded concrete or pour over radiant floor heating systems
- › Modularity for maximum system versatility
- › Also available premounted on HydroShark® Pro Panels for simple and easy installation
- › Heavy duty triacs with heat sink
- › Durable electric elements with heavy duty wire element connectors, designed for Propylene Glycol use
- › Control board with Advanced Control Algorithm
- › 86 – 140 °F (30 – 60 °C) temperature range
- › High-limit protection
- › HydroShark® 12 – 36 can be used with DHW Integrator panel to provide domestic hot water as well as space heating

HydroShark® 7 – 10

7/3 YEAR LIMITED WARRANTY

HydroShark® 12 – 36

Model Specifications

HydroShark® Model	7	10	12	14	19	24	29	36
Item No.	HSEB007	HSEB010	HSEB012	HSEB014	HSEB019	HSEB024	HSEB029	HSEB036
Voltage	240 Vac							
Phase	Single, 60 Hz							
Wattage	7.2 kW	9.6 kW	12.0 kW	14.4 kW	19.2 kW	24.0 kW	28.8 kW	36.0 kW
Total Amperage	30 A	40 A	50 A	60 A	80 A	100 A	120 A	150 A
Breaker Size	1 x 40 A	1 x 50 A	1 x 70 A	2 x 40 A	2 x 50 A	2 x 70 A	3 x 50 A	3 x 70 A
Recommended Wire Size, AWG Copper	1 x 8	1 x 6	1 x 4	2 x 8	2 x 6	2 x 4	3 x 6	3 x 4
Minimum Flow Rate	0.264 gpm		0.37 gpm	0.50 gpm			0.77 gpm	
Weight	7.0 lb.		12.2 lb.	14.4 lb.			15.9 lb.	
Tank(s) Volume	0.13 gal			0.26 gal			0.39 gal	
Width	7.88″		16.62″					
Height	14.25″		14.50″					
Depth	4.25″		4.00″					
Working Pressure	18 psi							
Tested Pressure	300 psi							
Connections S/R	½″ MPT		¾″ MPT					
Fluid Delivery Temperature Range	Adjustable, 86 – 140 °F							
Maximum Inlet Temperature	105 °F							
Minimum Operating Temperature	32 °F		N/A					
Compliance Listings	UL 499		UL 834					
System Fluid Type	Up to 50% Propylene Glycol Mixed with Distilled Water							

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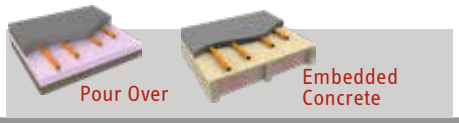
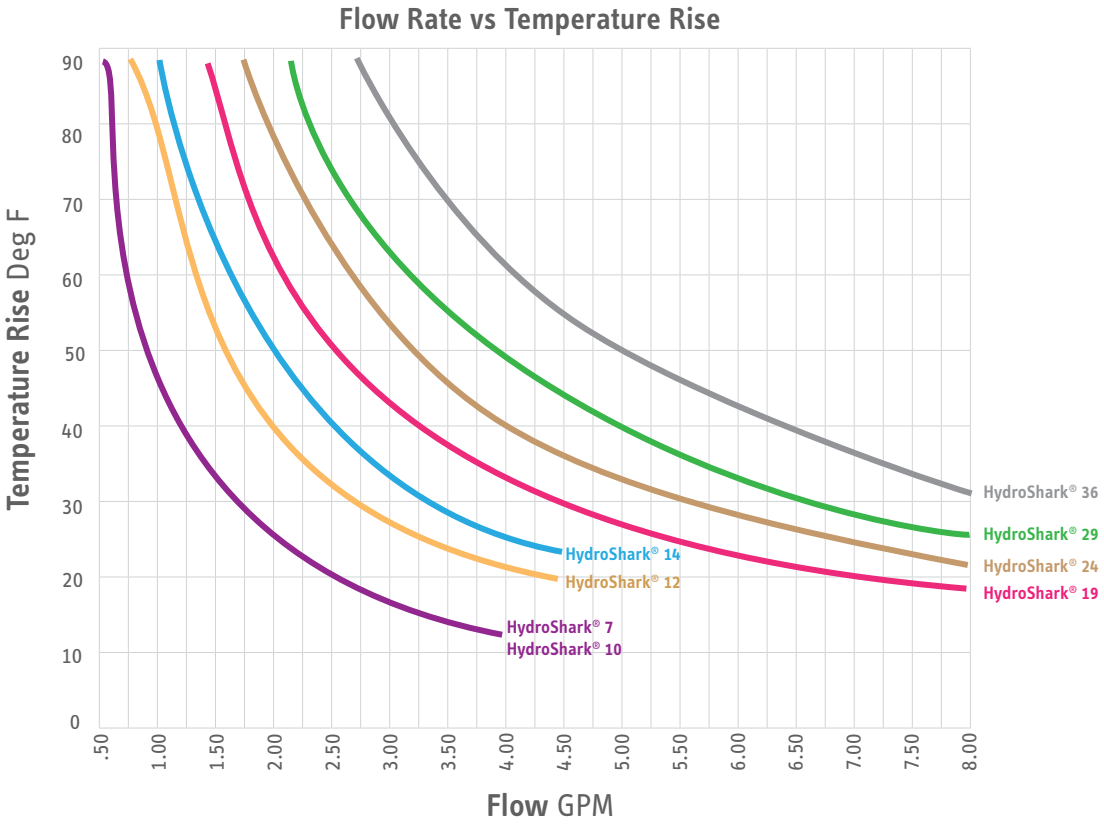
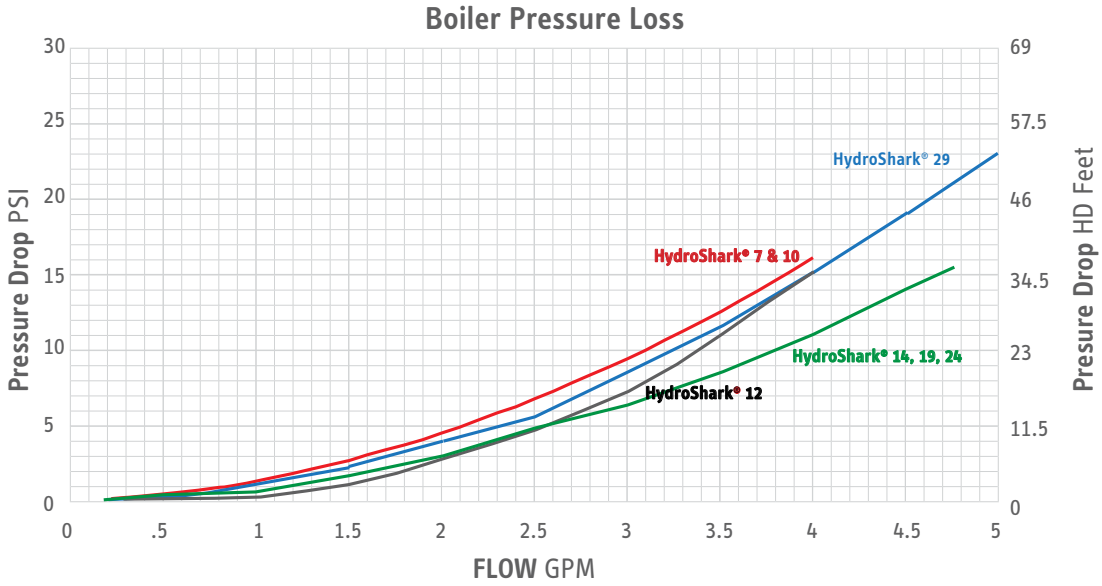
Compatible with these panels & accessories



	HydroShark® 7 – 19	HydroShark® 24 – 36
Master Panels	All Master Panels, All Master ECM Panels, All Pro Panels, All ECM Pro Panels	
Zoning Panels	All HydroShark® Zoning Panels, All HydroShark® ECM Zoning Panels	
DHW Integrator Panels	N/A	DHW Integrator-120
Thermostat Options	Aube Thermostat, Lyric WiFi Thermostat	

Flow Rate





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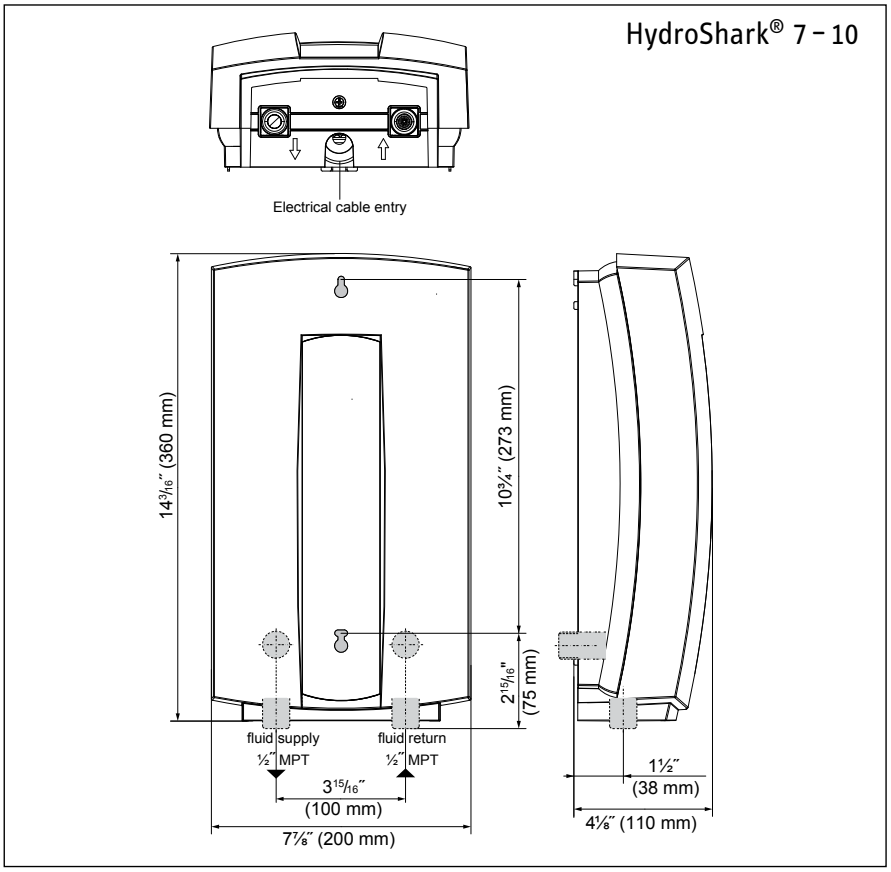
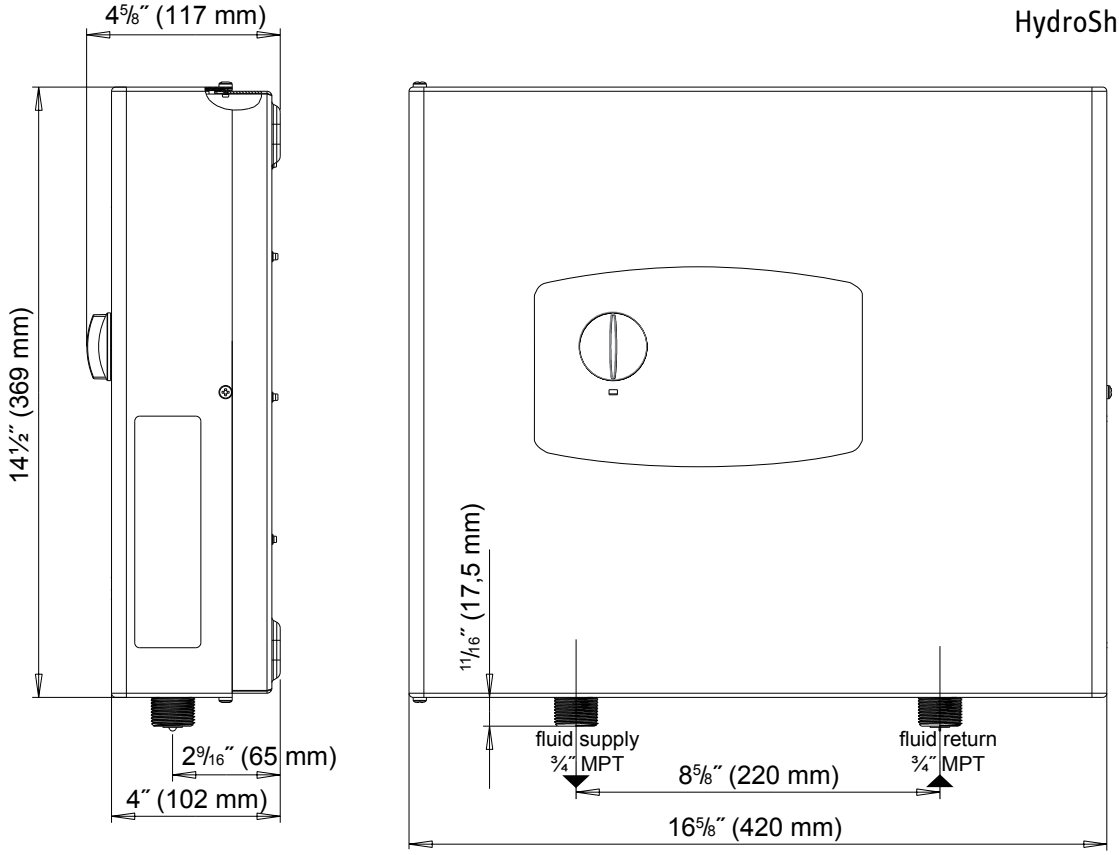
Dimensions

HydroShark® 7 – 10



HydroShark® 12 – 36



Specification

The electric modulating micro-boiler shall be equipped with several copper sheathed heating elements housed in copper cylinders. The number of heating elements shall be three in the case of the 7.2 kW, 9.6 kW, and 12 kW units, four in the case of the 14.4 kW and 19.2 kW units, six in the case of the 24 kW and 28.8 kW units and nine in the case of the 36 kW unit. Each copper cylinder that houses heating elements shall be equipped with a dedicated single pole bimetal type high limit that is attached to the top dome of the cylinder. These safety high limit switches shall have a manual reset that interrupts power at 185 °F. The heating elements shall be controlled by a number of triacs (power transistors) that are soldered into the circuit board and cooled by the incoming cool fluid. The unit shall be equipped with a flow sensor with a miniaturized turbine that feeds the fluid flow rate information into the main circuit board. The output temperature shall be adjustable between 68 °F and 140 °F via a knob that is positioned on the front cover. The fluid connections shall be MPT copper ½″ for HydroShark® 7 – 10 and ¾″ for HydroShark® 12 – 36. For HydroShark® 7 – 10, the housing shall be made of high-impact polycarbonate plastic. For HydroShark® 12 – 36, the housing shall be made of a powder coat painted steel and the front cover shall be hinged on the left side of the housing. The unit shall be installed in a closed-loop radiant floor heating system with a two-pump primary/secondary and Y-strainer. For freeze protection, only propylene glycol shall be used. Maximum glycol ratio when filling shall be 50%. HydroShark® 7– 10 units shall conform to UL Std. 499, be certified to CAN/CSA Std. E335-1 & E335-2-35. HydroShark® 12 – 36 units shall conform to UL Std. 834, be certified to CAN/CSA Std. C22.2 No. 64.

Engineer/Architect _____ Date _____

Job Name/Customer _____ Location _____

Contractor _____ Representative _____

	Qty	kW	Voltage	Amps
HydroShark® model _____	_____	_____	240 V	_____

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