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### Technical Data

PH Extra Low 250W to 2000W

**Function:** Hose installed heater, designed to pre-heat applications such as coolant circuits that does temper battery packs in electrical vehicles.

Thermostat controlled with max temperature +25°C and overheating protection.

Circulation-pump can be added.



Subject	Data	Note	Approved by
<b>1. Certification</b>			
	1706406	EN 60335-1 SS 4330790	Intertek Semko
<b>2. Electrical Data</b>			
Type of element	Resistor element		
Voltage, nom.	230 V AC		
Input power	250W to 2000W	+5 / -10%	
<b>3. Temperature range</b>			
Operation temperature	-40°C to +125°C and 30min. +140°C		
<b>4. Degree of protection</b>			
	IP44	SS EN 60 529	Intertek Semko
<b>5. High pressure washing</b>			
	Working pressure: 170 bar Water flow: 17 l/min Water temperature: 90°C Distance: 300mm		Approved by SP, Swedish National Testing and Research Institute
<b>6. Chemical resistance</b>			
		Volvo STD 7611;131 SAAB STD 5028	SP (Swedish National Testing and Research Institute)
<b>Chemicals</b>	<b>Type</b>	<b>Immersion Time/Temp</b>	.
Oil	IRM 902	48 h/90°C	
Hydraulic oil	IRM 903	30 min/23°C	
Grease	Gr 2 Diester	1 h/80°C	
Grease	Gr 4 Silicone	1 h/80°C	
Brake fluid	DOT 4	48 h/90°C	



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Battery fluid	25% $H_2SO_4$	1 h/50°C	
Petrol	ISO 1817 liquid C	30 min/23°C	
Petrol with alcohol	ISO 1817 liquid 4	24 h/23°C	
Diesel	IRM 903/10% paraxylene	48 h/90°C	
Biofuel	SS 155436	24 h/23°C	
Alcofuel	SS 155437	24 h/23°C	
Solvent	15-17% aromatic content	1 h/23°C	
Window washing fluid	10% isopropanol, 40% ethanol, 50% water	1 h/23°C	
Antifreeze	Volvo No. 1381079-1	1 h/80°C	
Road salt	5% $CaCl_2/NaCl$ 95% water	48 h/23°C	

<b>7. Coolant pressure</b>			
	3 bar pressure	Calix TM 18-048	

<b>8. Enviroment</b>			
		IMDS	<a href="https://public.md.system.com/en/web/imds-public-pages/home">https://public.md.system.com/en/web/imds-public-pages/home</a>
		REACH	REACH (EG) 1907/2006

<b>9. Recycling</b>			
	100% recoverable		Swedish Environmental Protection Agency 2017/04/09

<b>10. Corrosion</b>			
	SS 433 07 90 ISO 9227		Intertek Semko Tested at Swedish Corrosion Institute

<b>11. Durability</b>			
	9000h	Calix TM 18-047	

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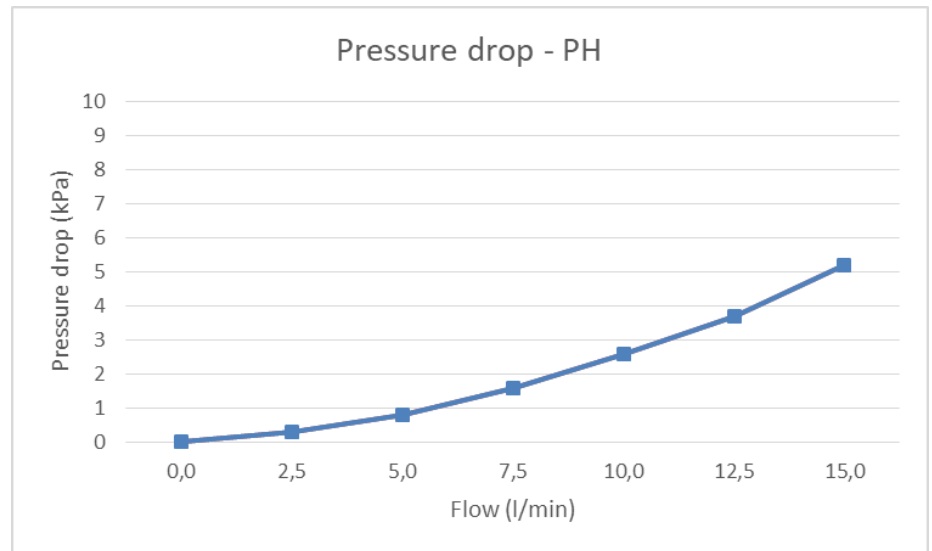
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<b>12. Connector geometry</b>			
	Calix interface SI		

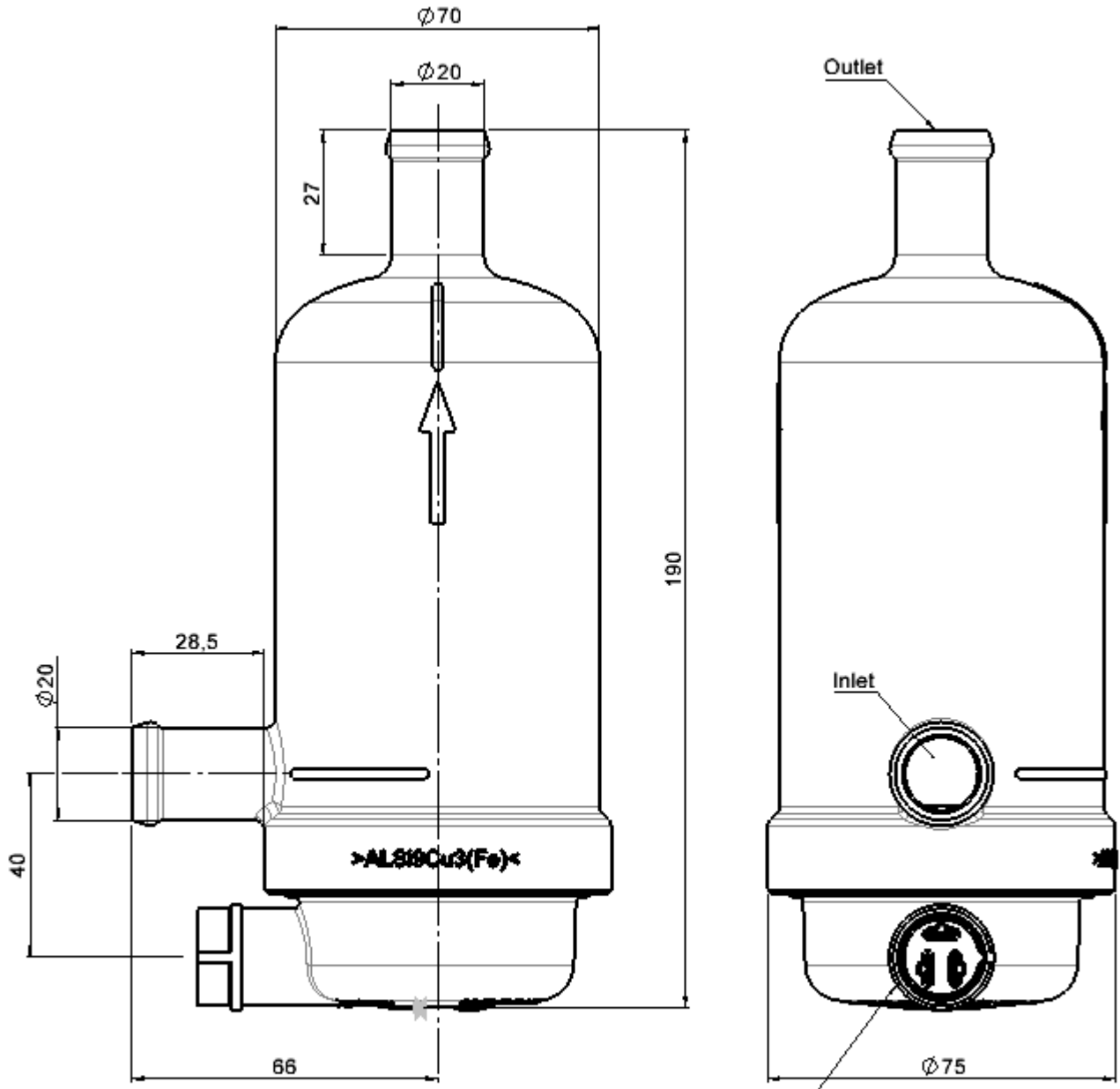
<b>13. Pressure drop</b>			
Pressure drop in PH Extra Low	See table and curve below	All measurements were performed with glycol/water-mix 50/50%, at an ambient temperature of 25°C.	

Flow q (L/min)	Pressure drop p (kPa)
0,0	0
2,5	0,3
5,0	0,8
7,5	1,6
10,0	2,6
12,5	3,7
15,0	5,1



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14. Dimensions



Calix connector interface type SI,  
fit with Calix connector type SU

N.B. PH heater to be installed in vertical position, with the Outlet pointing upwards, as indicated by the arrow on the housing.



**TECHNICAL  
DATA**

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**15. Available PH configurations**

<b>Thermostat</b>	<b>Power (W)</b>
Extra Low: Open 25°, Close 15°C	250, 500, 750, 1000, 1500, 2000

**16. Doc. change record**

<b>Date</b>	<b>Change description</b>	<b>Sign</b>	<b>Rev</b>
2022-01-19	Document released	PB	S1

We reserve the right to change technical data without prior notice.