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MADE IN FRANCE MADE IN

Cetetherm AquaGenius Neo

Domestic hot water system with copper brazed or fusion-bonded 100% stainless steel heat exchanger.

+ AquaGenius «Neo» for its new Micro4000 control box, with dynamic, user-friendly and intuitive display

+ AquaGenius «Neo» for the addition of charging pump(s) management for primary storage tank

+ AquaGenius «Neo» for the management of renewable energy installations

+ Heat exchanger without gaskets: no maintenance or risk of leakage

APPLICATIONS

AquaGenius Neo is a domestic hot water system, easy to select, designed to provide Domestic Hot Water (DHW) from 50 kW to 400 kW for :

- apartment blocks
- Hospitals
- Hotels
- Retirement homes and care centers
- Schools and universities
- Leisure centers...

Competitive, efficient and ready to be connected to any type of boiler, Cetetherm AquaGenius Neo can be connected to building remote management systems via ModBus.

KEY BENEFITS

- ⊕ Heat exchanger without gaskets: no maintenance or risk of leakage
- ⊕ Competitif price
- ⊕ Compact
- ⊕ Class A low consumption primary pump(s) and 3-port mixing valve for reduced scaling
- ⊕ Possibility of remote control via ModBus
- ⊕ Fast and efficient control system

WORKING PRINCIPLE

In the domestic hot water system, energy is exchanged through a heat exchanger from the primary to the DHW side. On the primary side, the Cetetherm AquaGenius Neo has to be fed by a heating source that can be provided for example by a local boiler, a primary tank or a solar system. The temperature of the water entering the heat exchanger on the primary side is adapted to meet the demand detected on the domestic side. The mixing valve eliminates thermal shock in the heat exchanger and reduces the potential build-up of lime-scale on the secondary side.

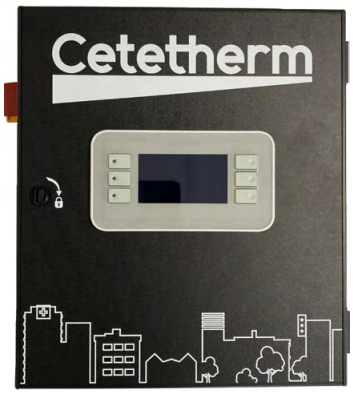
On the secondary side, Cetetherm AquaGenius Neo instantantenous is connected to the main water circuit and provides domestic hot water to the distribution pipe-work when there is demand. A circulation pump - which is usually used to limit the time needed to deliver domestic hot water to the tap at the right temperature - maintains a minimum flow rate through the heat exchanger and through the distribution pipe-work.

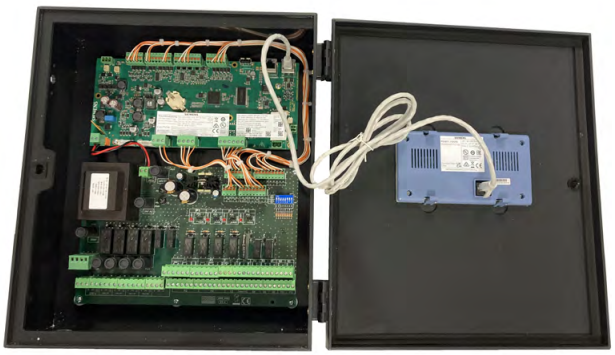
For Cetetherm AquaGenius Neo semi-instantaneous a charging pump maintains - thanks to a constant flow rate -the supply of energy to the storage tank and the DHW network. This storage tank ensures DHW supply is met during peak demand periods.

MICRO4000

Controller for DHW units AquaGenius Neo , AquaFirst Neo and AquaEfficiency Neo

NEW





KEY BENEFITS

+ Dynamic, user-friendly and intuitive display
+ Management of charging pump(s) for primary tank
+ Features adapted to renewable energies
+ Heat Pump Ready
+ ModBus communication
+ Siemens Climatix controller with specific Cetetherm program
+ Industrial electronics
+ Easy access to components

STANDARD FEATURES

Heat exchanger	· Copper brazed heat exchanger with thermal insulation · 100% stainless steel fusion bonded heat exchanger with thermal insulation
Control system	· 3-port mixing electronic control valve · 24V 0-10V, 15 second speed actuator · ModBus RTU RS 485 Controller · Multi functional IP44 control box · NTC10K temperature sensors on secondary outlet with stainless steel sleeve
Pumps	· Primary class A flooded rotor Pumps pump: single or double head · Stainless steel charging flooded rotor pump: single or double head for semi-instantaneous solutions
Equipments	· Drain valve (primary) · Pressure relief valve (secondary)

Operating limits	Primary	Secondary
Maximum operating pressure bar	10	10
Maximum operating temperature °C	100	85

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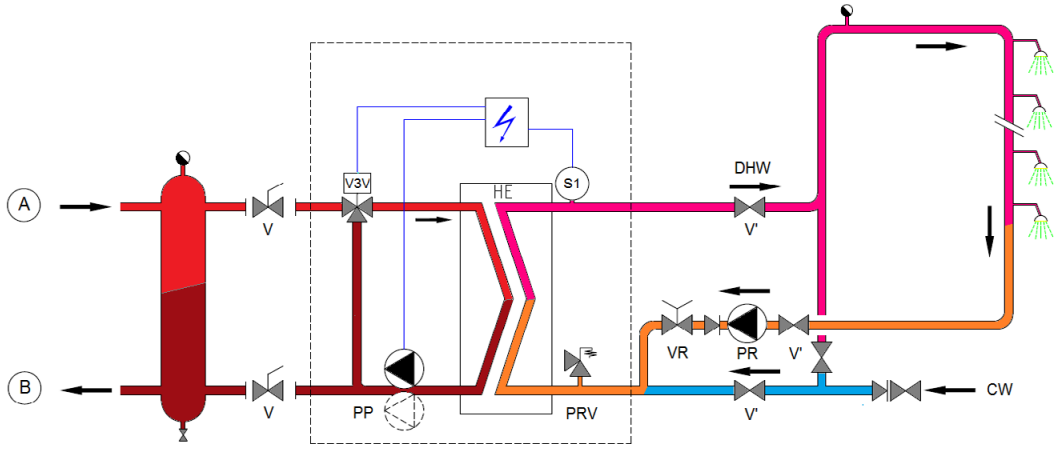
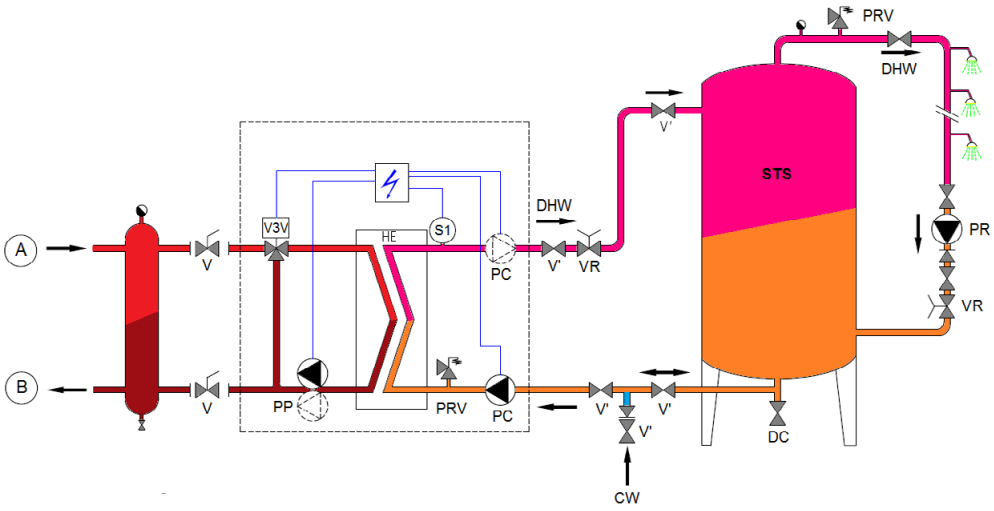
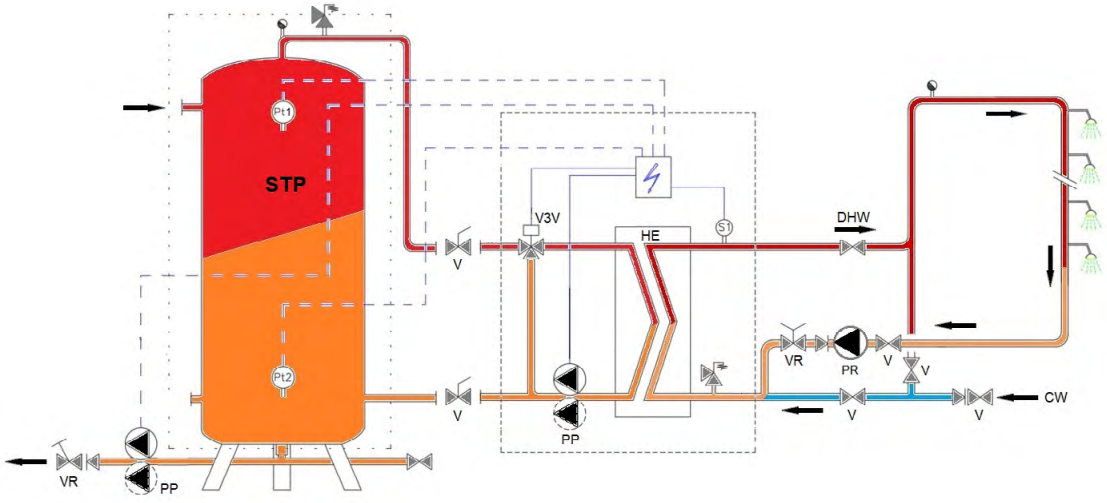
HYDRAULIC FLOWCHART AQUAGENIUS NEO INSTANTANEOUS & SEMI-INSTANTANEOUS





HYDRAULIC FLOWCHART AQUAGENIUS NEO WITH PRIMARY TANK

COMBITHERM SOLUTION



A	Primary inlet
B	Primary outlet
CW	Cold water inlet
DC	Draining valve
DHW	Domestic Hot Water
HE	Heat exchanger (PHE)
PC	Charging pump (one or two)
PP	Primary pump (single or double)
PR	Recycling pump (on installation)
PRV	Pressure relief valve
S	DHW temperature sensor
STS	Storage tank (Buffer vessel) secondary
STP	Storage tank (Buffer vessel) primary
V	Manual gate valve
VR	Balancing valve
V3V	Mixing 3-port control valve with actuator

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COMBITHERM SOLUTION

1.

AquaGenius Neo

+

Sensor(s)

+

Primary tank

+

Recycling pump

2.

AquaFirst Neo*

+

Sensor(s)

+

Primary tank

+

Recycling pump

3.

AquaEfficiency Neo*

+

Sensor(s)

+

Primary tank

+

Recycling pump

WHY COMBITHERM ?

Combitherm optimises the advantages of both instantaneous and semi-instantaneous, providing

- **Maximum hygiene**
secondary storage is avoided, along with the risk of legionella, as the thermal capacity is transferred to the primary side.

- **Greater cost-effectiveness**
a greater return of investment is generated, by allowing reduced power from the primary source.

- **Full suitability**
the solution is suitable for all domestic hot water loops and high circulation flow rates, like in hospitals and other collective applications..

- **Easy maintenance**
periodic maintenance is not needed at the secondary side, like storage tank and sanitary charging pumps.

- **Optimal reliability and robustness**
the tank charging pump is located on the heating side, so there is no risk of scaling the recycling pump or corrosion.

- **Thermal efficiency**
Combitherm significantly reduces return temperatures.

Contact Cetetherm to calculate the Combitherm solution best suited to your needs.

* Brochures for these products are available at www.cetetherm.com

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QUICK SELECTION TABLES

AQUAGENIUS NEO INSTANTANEOUS

Heat exhanger	Primary	Prim. 80°C	Secondary		Prim. 70°C	Secondary		Prim. 65°C	Secondary		Partnumber	
	flow rate m3/h	capacity kW	flow rate L/sec	pres. drop kPa	capacity kW	flow rate L/sec	pres. drop kPa	capacity kW	flow rate L/sec	pres. drop kPa	single pump	double pump
	Secondary: 10°C - 60°C / free pressure available on primary: 5 Kpa											
Copper Brazed	2.4	140	0.7	43	105	0.5	25	80	0.4	15	**FIB2IS**	**FIB2ID**
	3.7	240	1.1	33	180	0.9	19	140	0.7	12	**FIB4IS**	**FIB4ID**
	5.7	350	1.7	43	270	1.3	27	215	1	18	**FIB5IS**	**FIB5ID**
	6	400	1.9	43	300	1.4	25	235	1.1	16	**FIB6IS**	**FIB6ID**
Fusion bonded 100% stainless steel	1.9	115	0.6	35	90	0.4	22	65	0.3	12	**FIN2IS**	**FIN2ID**
	3.2	205	1	29	160	0.8	18	130	0.6	12	**FIN4IS**	**FIN4ID**
	5.1	320	1.5	45	250	1.2	28	200	0.9	17	**FIN5IS**	**FIN5ID**
	5.6	355	1.7	41	280	1.3	25	225	1.1	16	**FIN6IS**	**FIN6ID**

AQUAGENIUS NEO SEMI-INSTANTANEOUS

Heat exhanger	Primary	Prim. 80°C	Secondary	Prim. 70°C	Secondary	Prim. 65°C	Secondary	Partnumber		
	flow rate m3/h	capacity kW	flow rate L/sec	capacity kW	flow rate L/sec	capacity kW	flow rate L/sec	single/ single pumps	double/ single pumps	double/double pumps
	Secondary: 10°C - 60°C / free pressure available on primary: 5 Kpa									
Copper Brazed	2.4	140	0.7	105	0.5	80	0.4	**FIB2SS**	**FIB2DS**	**FIB2DD**
	3.7	240	1.1	180	0.9	140	0.7	**FIB4SS**	**FIB4DS**	**FIB4DD**
	5.7	350	1.7	270	1.3	215	1	**FIB5SS**	**FIB5DS**	**FIB5DD**
	6	X	X	300	1.4	235	1.1	**FIB6SS**	**FIB6DS**	**FIB6DD**
Fusion bonded 100% stainless steel	1.9	115	0.6	90	0.4	65	0.3	**FIN2SS**	**FIN2DS**	**FIN2DD**
	3.2	205	1	160	0.8	130	0.6	**FIN4SS**	**FIN4DS**	**FIN4DD**
	5.1	320	1.5	250	1.2	200	0.9	**FIN5SS**	**FIN5DS**	**FIN5DD**
	5.6	355	1.7	280	1.3	225	1.1	**FIN6SS**	**FIN6DS**	**FIN6DD**

* Limit of use of charging pump(s): PH 6-9 and TH < 25°TH or 14°dH. Beyond these values, please consult Cetetherm.

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TECHNICAL TABLES

AQUAGENIUS NEO COPPER BRAZED INSTANTANEOUS

Part number	Number of plates	Weight	Power consumption	
		(kg)	Pmax (W)	Imax (A)
FIB2IS	20	41	85 - 160	1.1 - 1.7
FIB4IS	40	43		
FIB5IS	50	45		
FIB6IS	60	46		
FIB2ID	20	51	155 -315	1.7 - 3
FIB4ID	40	53		
FIB5ID	50	55		
FIB6ID	60	56		

SEMI-INSTANTANEOUS

Part number	Number of plates	Weight	Power consumption	
		(kg)	Pmax (W)	Imax (A)
FIB2SS	20	47	300 - 385	2 - 2.8
FIB4SS	40	49		
FIB5SS	50	50		
FIB6SS	60	52		
FIB2DS	20	55	375 - 535	2.7 - 4
FIB4DS	40	59		
FIB5DS	50	60		
FIB6DS	60	62		
FIB2DD	20	63	595 - 750	3.7 - 5
FIB4DD	40	70		
FIB5DD	50	66		
FIB6DD	60	68		

AQUAGENIUS NEO FUSION BONDED 100% STAINLESS STEEL INSTANTANEOUS

Part number	Number of plates	Weight	Power consumption	
		(kg)	Pmax (W)	Imax (A)
FIN2IS	20	41	85 - 160	1.1 - 1.7
FIN4IS	40	43		
FIN5IS	50	45		
FIN6IS	60	46		
FIN2ID	20	51	155 -315	1.7 - 3
FIN4ID	40	53		
FIN5ID	50	55		
FIN6ID	60	56		

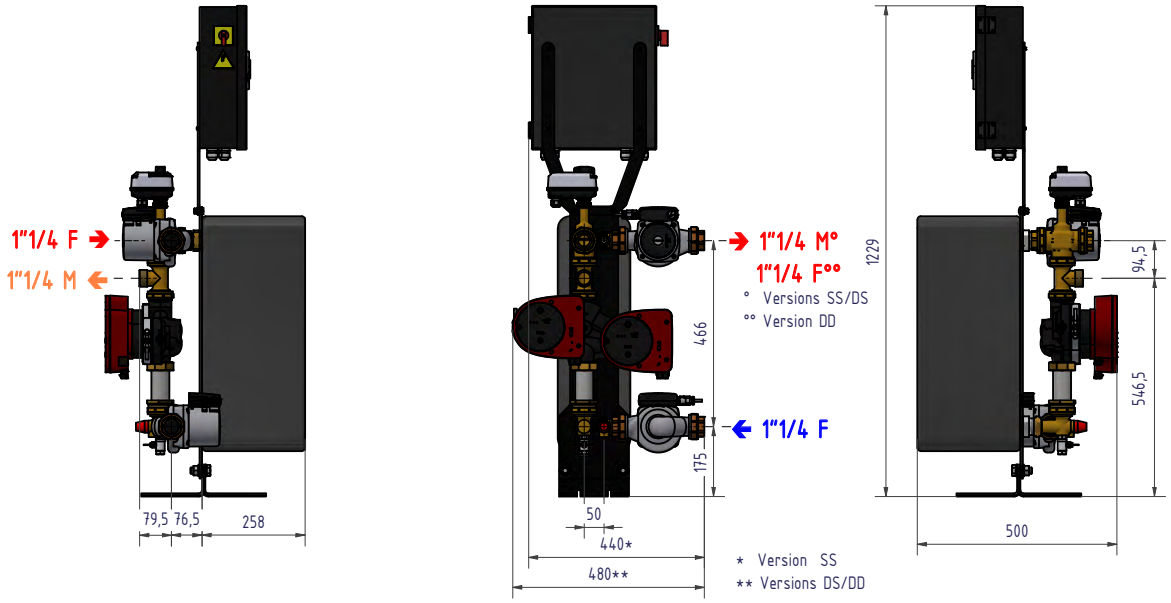
SEMI-INSTANTANEOUS

Part number	Number of plates	Weight	Power consumption	
		(kg)	Pmax (W)	Imax (A)
FIN2SS	20	47	300 - 385	2 - 2.8
FIN4SS	40	49		
FIN5SS	50	50		
FIN6SS	60	52		
FIN2DS	20	55	375 - 535	2.7 - 4
FIN4DS	40	59		
FIN5DS	50	60		
FIN6DS	60	62		
FIN2DD	20	63	595 - 750	3.7 - 5
FIN4DD	40	70		
FIN5DD	50	66		
FIN6DD	60	68		

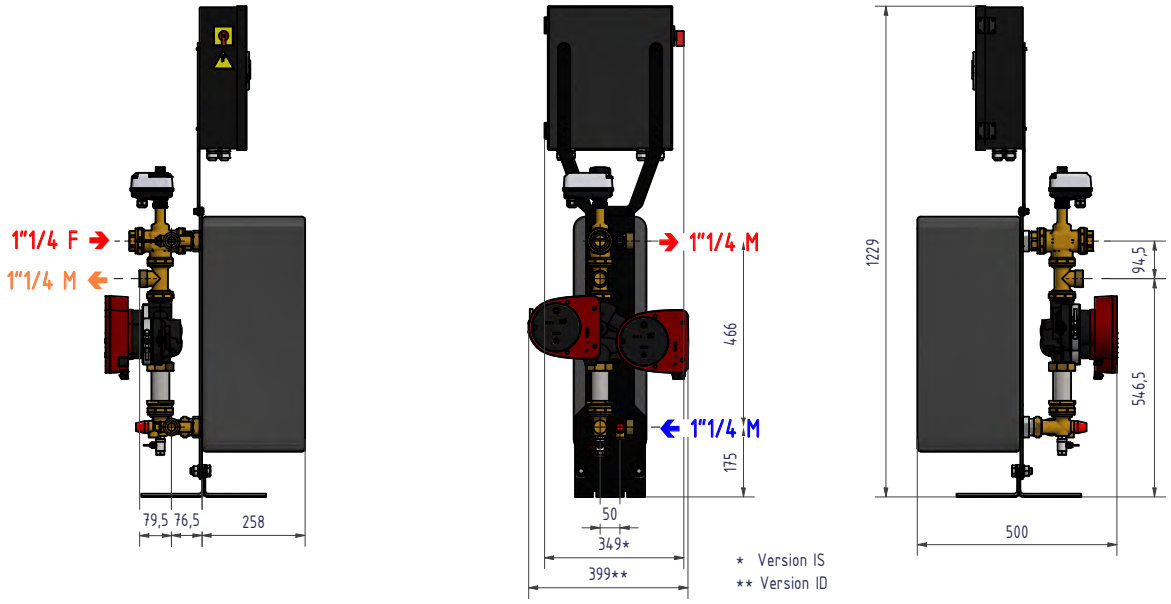
DIMENSIONS

The models are shown with max pumps equipement.

INSTANTANEOUS VERSION



SEMI-INSTANTANEOUS VERSION



ELECTRICAL SUPPLY AND CONSUMPTION
ELECTRICAL SUPPLY 230V / 50HZ + EARTH

Version	P max (W)	I max (A)
Instantaneous simple IS	225	2,0
Instantaneous double ID	335	3,0
Semi-instantaneous SS	445	3,0
Semi-instantaneous DS	555	4,0
Semi-instantaneous DD	775	5,0

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