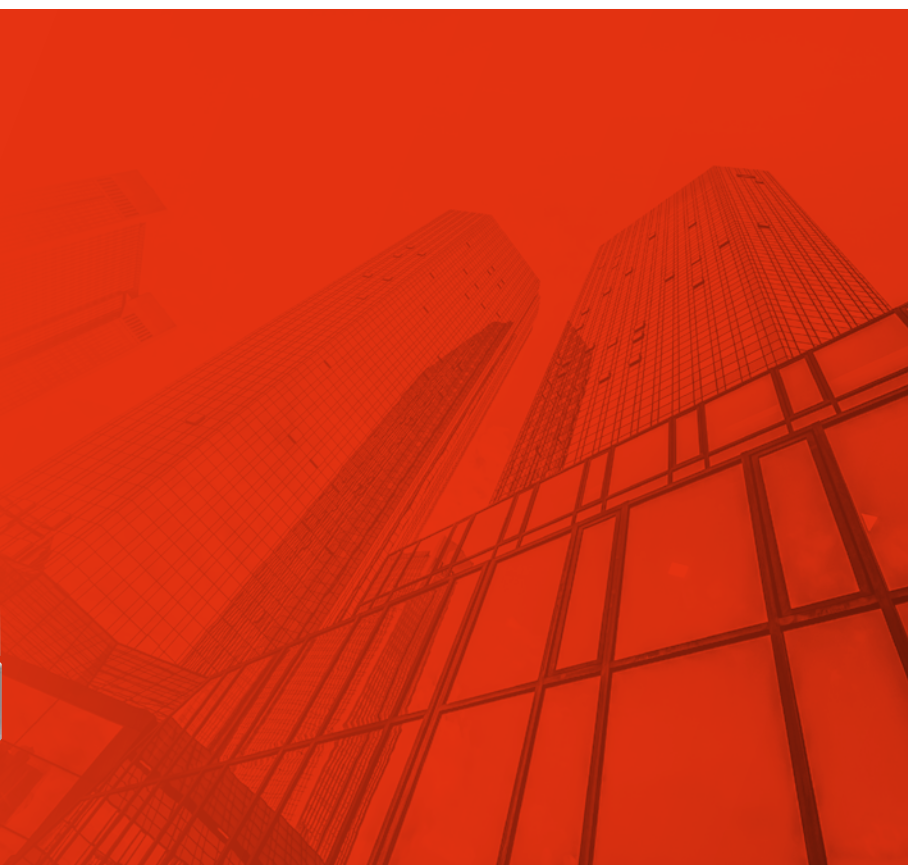




# ARES PRO

Floor standing condensing boiler  
with high water content



# ARES PRO

High water content for large systems

Floor-standing, with high water content for heating only, **ARES PRO is designed for plants from 150 to 4800 kW.**

It can be used alone or in cascade installations with up to 8 units, which guarantee higher overall efficiency and lower running costs thanks also to condensing technology.

Reduced clogging risk, low load losses and maximum adaptability to existing systems are the characteristics that make **ARES PRO ideal in replacement installations.**

The great flexibility of combination and installation makes this generator **perfect for heating large home and condominium systems as well as commercial and industrial premises.**

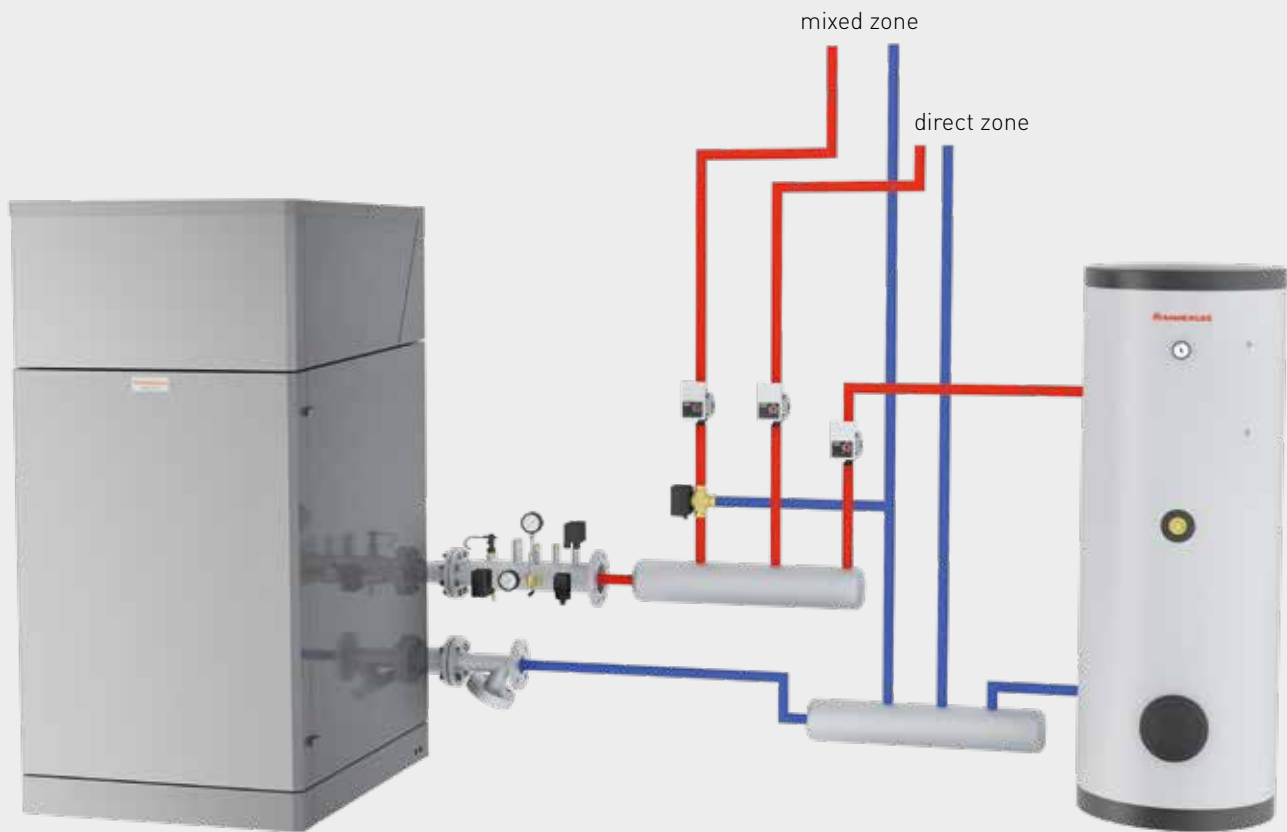
ARES PRO makes the installation of a hydraulic compensator not necessary, which means **simpler systems and increased efficiency.**



➤ Ideal in replacements

➤ Lower installation costs

➤ Reduce running costs



### **SIMPLE TO INSTALL**

ARES PRO **does not require a primary circuit**, it can be connected directly to the system and needs no limitation on return temperature. These characteristics make installation in limited spaces possible and enable significant **savings on components**: there is no need for a compensator nor for a plate exchanger.

### **COMPACT**

Despite its high water content, the installation of ARES PRO **does not require large spaces**. This makes it particularly useful when replacing obsolete generators as well as in new installations.

### **VERY EFFICIENT**

Its large-sized primary storage tank and modulation ratio up to 1:4 of maximum output, **reduce the number of burner switch-on/switch-off cycles**. Seasonal efficiency improves by as much as 30% compared to conventional generators and **when replacing an existing unit, the savings in running costs are substantial**.

### **ECOLOGICAL**

The boiler has obtained the **top ecological rating** in accordance with regulations on NOx polluting emissions. This solution is therefore optimal in buildings that **aim to obtain very high energy efficiency and environmental impact ratings**.





**Large water content** condensing unit, entirely in stainless steel AISI 316 L (from 153 litres for ARES PRO 150 to 425 litres for ARES PRO 600) with **high-efficiency and reliability** over time

Possibility to reuse the existing system pump thanks to **low head losses**

Vertical burner with **integrated clapet valve** that allows the use of **positive pressure chimney systems**, with smaller sections, and also the **creation of ARES PRO cascades**

**Very low risk of clogging** in replacement existing systems

**Reduced number of ignition cycles and burner shutdown** with benefits on seasonal efficiency

**Easy opening book**, with shock absorbers of the upper inspection door for easy maintenance

**Great flexibility** in managing several circuits (up to 12 system circuits plus 1 domestic hot water storage tank and a further direct circuit)

**Multifunction board (SHC)** to manage 3 circuits with 3 NTC probes supplied as **standard**

**External probe as standard**



## CONTROL ELECTRONICS

ARES PRO is equipped with standard external probe and hot water boiler probe. The HSCP [Heating System Control Panel] fitted on the boiler is equipped with a backlit LCD display where it is possible to programme: time brackets, daily and weekly programmes, heating curves, anti-legionella function and other settings.

The boiler's basic electronics named BCM [Boiler Control Manager] has been designed for the control of:

- a circulator for direct supply to the system;
- a circulator for hot water storage control;
- a circulator for primary ring (if any).

In addition, the BCM serves as a backup control unit, taking over generator control to guarantee emergency operation in the event of failure of the HSCP control panel.

Another standard feature of the ARES PRO is the multifunction module SHC [Slave Heating Controller], an integration electronics unit that can control up to three circuits such as: solar circuits, mixed zones, additional hot water storage tanks, etc.

For cascade installations, there is also a cascade regulator kit that can handle up to 8 appliances in series.

Technical characteristics	Unit of measurement	ARES PRO 150	ARES PRO 230	ARES PRO 300	ARES PRO 348
<b>Code N.G.</b>		<b>3.028309</b>	<b>3.028310</b>	<b>3.028311</b>	<b>3.028312</b>
<b>Code L.P.G.</b>		<b>3.028309GPL</b>	<b>3.028310GPL</b>	<b>3.028311GPL</b>	<b>3.028312GPL</b>
Maximum nominal heat input	kW	140	214	280	348
Minimum nominal heat input	kW	35	50	65	90
Nominal heat output (80/60 °C)	kW	136,36	209,29	274,54	341,42
Minimum heat output (80/60 °C)	kW	32,52	48,25	63,57	87,67
Nominal heat output (50/30 °C)	kW	145,88	226,84	292,88	363,31
Minimum nominal heat output (50/30 °C)	kW	36,54	54,60	70,01	99,09
Efficiency at nominal heat output (80/60 °C)	%	97,4	97,8	98,05	98,11
Efficiency at minimum heat output (80/60 °C)	%	92,92	96,50	97,80	97,41
Efficiency at nominal heat output (50/30 °C)	%	104,2	106,0	104,6	104,4
Efficiency at minimum heat output (50/30 °C)	%	104,4	109,2	107,7	110,1
Stack losses with burner ON	%	2,21	2,14	1,84	1,78
Stack losses with burner OFF	%	0,22	0,18	0,12	0,27
Casing losses with burner ON	%	0,4	0,1	0,1	0,1
Casing losses with burner OFF	%	0,22	0,18	0,12	0,27
NOx Class		6	6	6	6
NOx at maximum heat input (0% O <sub>2</sub> )	mg/kWh	54	43	53	49
CO at maximum heat input (0% O <sub>2</sub> )	mg/kWh	13,73	18,05	28,08	25,27
Gas flow rate to burner at max. and min. heat output with natural gas (G20)	m <sup>3</sup> /h	14,80 - 3,70	22,63 - 5,29	29,61 - 6,87	36,80 - 9,52
Maximum pressure at the base of chimney	Pa	100	100	100	100
Flue exhaust mass flow rate at nominal heat output	kg/h	229	350	458	569
Maximum fan available head	%	9,1 - 9,1	9,1 - 9,1	9,1 - 9,1	9,1 - 9,1
Flue exhaust max temperature (setting temperature 20 °C and operation at 80/60 °C)	°C	44,2	42,7	36,7	35,6
Maximum operation temperature	°C	90	90	90	90
Set heating temperature	°C	20 - 85	20 - 85	20 - 85	20 - 85
Central heating circuit max pressure	bar	6	6	6	6
Maximum condensate production	kg/h	11,5	13,7	15,8	29,1
Power supply	V/Hz	230/50	230/50	230/50	230/50
Installed electric power	kW	0,190	0,195	0,210	0,270
Electric protection index	IP	X4D	X4D	X4D	X4D
Empty appliance weight (cover)	kg	347 (60)	399 (80)	459 (90)	610 (106)
Appliance water content	l	153	210	270	340

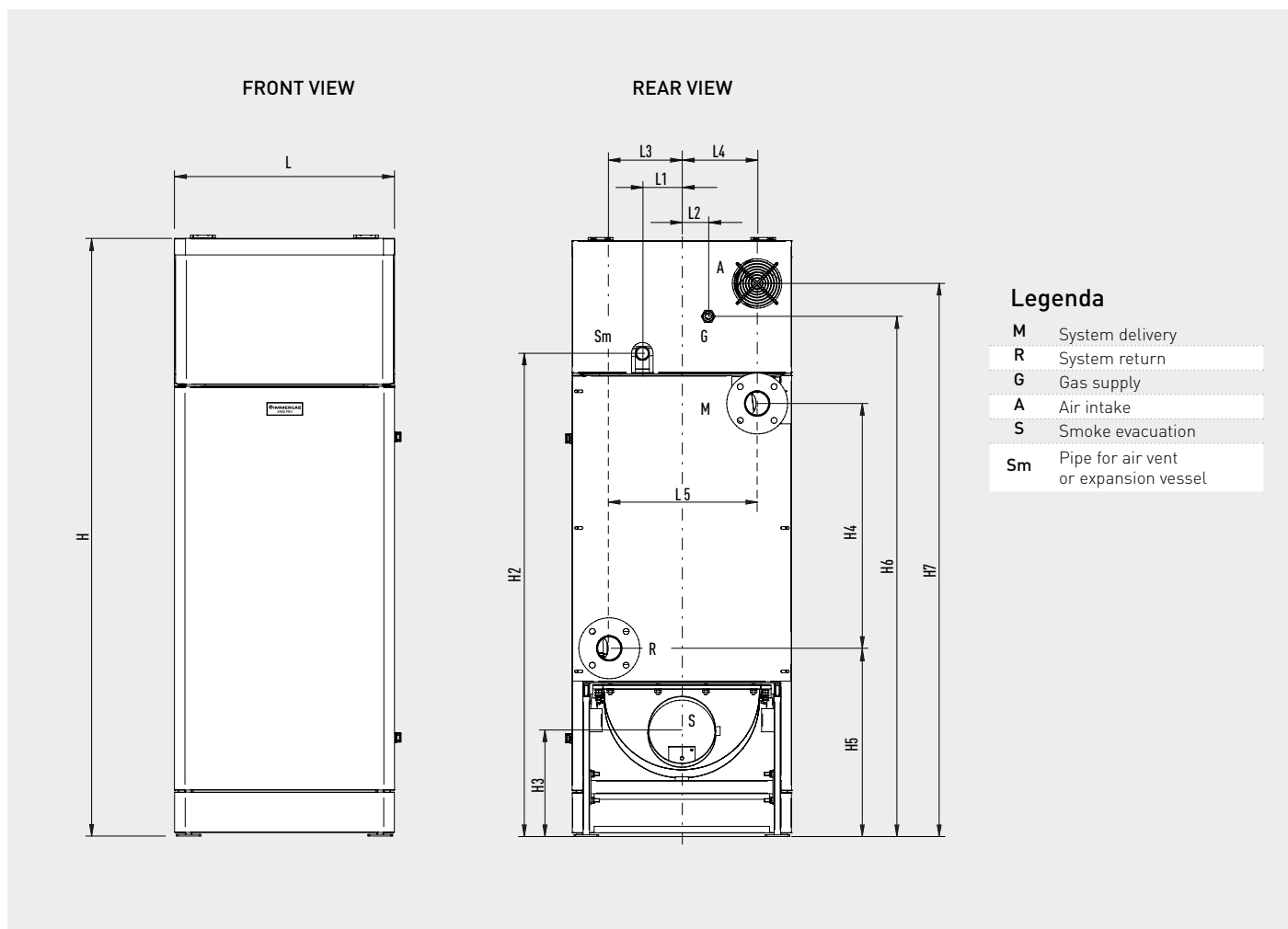
For more information consult the technical sheet or the website [immergas.com](http://immergas.com)



Technical characteristics	Unit of measurement	ARES PRO 400	ARES PRO 500	ARES PRO 600
<b>Code N.G.</b>		<b>3.028313</b>	<b>3.028314</b>	<b>3.028315</b>
<b>Code L.P.G.</b>		<b>3.028313GPL</b>	<b>3.028314GPL</b>	<b>3.028315GPL</b>
Maximum nominal heat input	kW	380	450	550
Minimum nominal heat input	kW	90	115	125
Nominal heat output (80/60 °C)	kW	373,01	441,95	540,32
Minimum heat output (80/60 °C)	kW	87,80	111,09	118,53
Nominal heat output (50/30 °C)	kW	399,00	427,05	581,19
Minimum nominal heat output (50/30 °C)	kW	97,20	124,09	135,88
Efficiency at nominal heat output (80/60 °C)	%	98,16	98,21	98,24
Efficiency at minimum heat output (80/60 °C)	%	97,55	96,60	94,82
Efficiency at nominal heat output (50/30 °C)	%	105,00	104,90	105,67
Efficiency at minimum heat output (50/30 °C)	%	108	107,9	108,7
Stack losses with burner ON	%	1,77	1,78	1,72
Stack losses with burner OFF	%	0,27	0,27	0,24
Casing losses with burner ON	%	0,10	0,03	0,04
Casing losses with burner OFF	%	0,27	0,27	0,24
NOx Class		6	6	6
NOx at maximum heat input (0% O <sub>2</sub> )	mg/kWh	50	48	50
CO at maximum heat input (0% O <sub>2</sub> )	mg/kWh	18,25	22,46	22,10
Gas flow rate to burner at max. and min. heat output with natural gas (G20)	m <sup>3</sup> /h	40,18 - 9,52	47,58 - 12,16	58,15 - 13,22
Maximum pressure at the base of chimney	Pa	100	100	100
Flue exhaust mass flow rate at nominal heat output	kg/h	621	735	899
Maximum fan available head	%	9,1 - 9,1	9,1 - 9,1	9,1 - 9,1
Flue exhaust max temperature (setting temperature 20 °C and operation at 80/60 °C)	°C	35,4	35,5	34,3
Maximum operation temperature	°C	90	90	90
Set heating temperature	°C	20 - 85	20 - 85	20 - 85
Central heating circuit max pressure	bar	6	6	6
Maximum condensate production	kg/h	28,5	28,8	31,0
Power supply	V/Hz	230/50	230/50	230/50
Installed electric power	kW	0,425	0,555	0,590
Electric protection index	IP	X4D	X4D	X4D
Empty appliance weight (cover)	kg	610 (106)	610 (106)	755 (120)
Appliance water content	l	340	340	425

For more information consult the technical sheet or the website [immergas.com](http://immergas.com)





**Legenda**

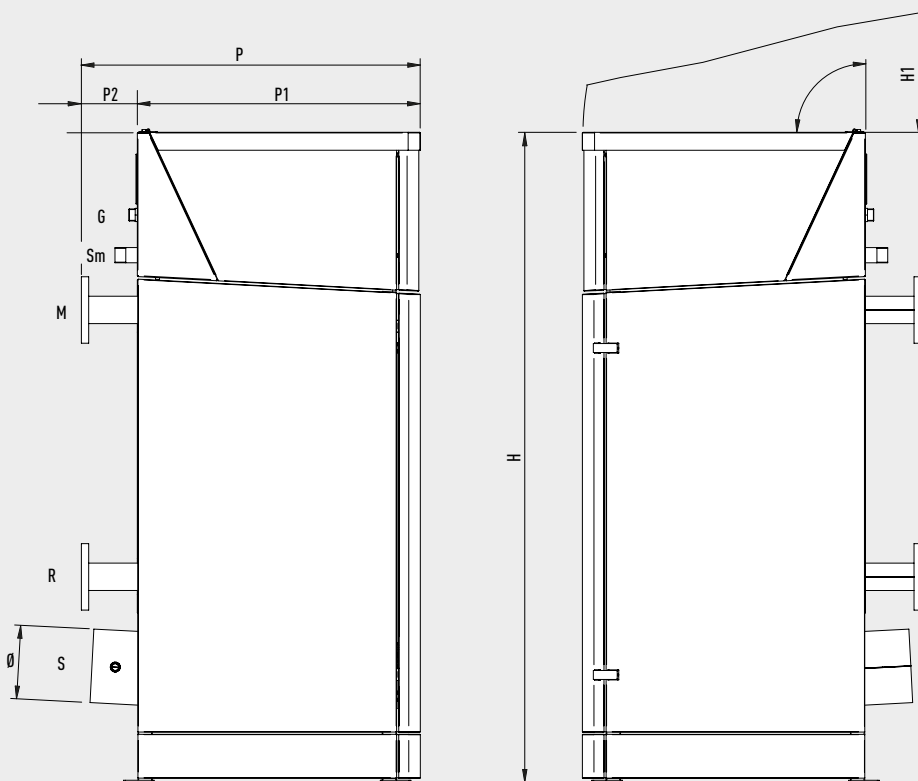
- M** System delivery
- R** System return
- G** Gas supply
- A** Air intake
- S** Smoke evacuation
- Sm** Pipe for air vent or expansion vessel

Technical characteristics	ARES PRO 150	ARES PRO 230	ARES PRO 300	ARES PRO 348	ARES PRO 400	ARES PRO 500	ARES PRO 600
<b>Dimensions with cover (mm)</b>							
Height [H]	1809	1917	1946	2130	2130	2130	2206
Height [H1]	65,6	65,6	65,6	65,6	65,6	65,6	65,6
Height [H2]	1467	1557	1618	1712	1712	1712	1753
Height [H3]	323,5	356	353	390	390	390	390
Height [H4]	770	800	825	853	853	853	900
Height [H5]	554,5	604,5	600,5	664	664	664	673
Height [H6]	1579	1697	1741	1794	1794	1794	1863
Height [H7]	1679	1768	1796	1974	1974	1974	2052
Width [L]	666	846	910	996	996	996	1096
Width [L1]	120	120	100	100	100	100	200
Width [L2]	81	43	200	200	200	200	220
Width [L3]	288,5	277	297	338	338	338	386
Width [L4]	228,5	277	297	338	338	338	386
Width [L5]	457	554	594	676	676	676	772
Depth [P]	944	1092	1181	1276	1276	1276	1398
Depth [P1]	788	954	1036	1152	1152	1152	1256
Depth [P2]	156	141	144	124	124	124	142



LEFT SIDE VIEW

RIGHT SIDE VIEW



**Legenda**

- M** System delivery
- R** System return
- G** Gas supply
- A** Air intake
- S** Smoke evacuation
- Sm** Pipe for air vent or expansion vessel


**Connections**

Model	System delivery	System return	Gas supply	Pipe for expansion vessel	Smoke evacuation
	<b>M</b>	<b>R</b>	<b>G</b>	<b>Sm</b>	<b>S</b>
<b>ARES PRO 150</b>	DN 65	DN 65	1"	1"	Ø 200
<b>ARES PRO 230</b>	DN 65	DN 65	1 ¼"	1 ¼"	Ø 250
<b>ARES PRO 300</b>	DN 80	DN 80	1 ¼"	1 ½"	Ø 250
<b>ARES PRO 348</b>	DN 80	DN 80	1 ½"	1 ½"	Ø 300
<b>ARES PRO 400</b>	DN 80	DN 80	1 ½"	1 ½"	Ø 300
<b>ARES PRO 500</b>	DN 80	DN 80	1 ½"	1 ½"	Ø 300
<b>ARES PRO 600</b>	DN 100	DN 100	1 ½"	1 ½"	Ø 300




Combining ARES PRO with a heat regulation device is an excellent investment because it improves the seasonal energy efficiency of the heating system. For each of the following heat regulation devices we therefore indicate a class, which gives you the percentage value of increased efficiency.


## CRONO 7

Type		Code
ON-OFF chronothermostat. Temperature control class IV* or VII Contribution to seasonal space heating energy efficiency 2%* or 3,5%	 <p>Dimensions (H x W x D) mm 103 x 142 x 31</p>	3.021622

## CRONO 7 WIRELESS

Wireless ON-OFF chronothermostat. Temperature control class IV* or VII Contribution to seasonal space heating energy efficiency 2%* or 3,5%	 <p>Dimensions (H x W x D) mm 103 x 142 x 31</p> <p>Dimensions (H x W x D) mm 82 x 105 x 26</p>	3.021624
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## SHC multifunction board kit

It allows to integrate 3 more user circuits for each kits up to 4 kit (max 12 supplementary circuits). N.B. 1 multifunction kit (not connected) is supplied as standard with the boiler.		3.028338
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## 24V Power pack kit

To be inserted in the control panel.		3.028339
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## Solar collector temperature probe kit

Solar collector temperature probe kit for ARES PRO.		1.028812
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## Cascade regulator kit

It can manage up to 8 boilers in cascade. Composed by: <ul style="list-style-type: none"> <li>• HSCP viewer/programmer</li> <li>• BCM board</li> <li>• 24V power supply</li> <li>• external probe</li> <li>• puffer probe</li> </ul>		3.028340
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Inside the various range of options it is possible to find out complementary accessories for installing ARES PRO. The use of original kits enhances quality and reliability of the products.

### Safety kit

Type	Code
Safety kit with filter for ARES PRO 150÷230*.	3.028336
Safety kit with filter for ARES PRO 300÷500*.	3.028337
Safety kit with filter for ARES PRO 600*.	3.023658

\* The kit includes filter and safety devices except safety valve, manometer, expansion vessel and fuel relief valve.

### Kit for condensate drain management

Condensate neutralizer kit up to 1500 kW.	3.023662
Granulate kit for condensate neutralizer (25 kg).	3.023663





### App Immergas TOOLBOX



[immergas.com](http://immergas.com)



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**IMMERGAS**  
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Design, manufacture and post-sale assistance of gas boilers, gas water heaters and related accessories