



Lamborghini
CALORECLIMA



Smeraldo

Monosplit / Multisplit heat pump with DC inverter, in R32

SMERALDO

THE QUALITY AIR CONDITIONER AT THE RIGHT PRICE



Are you looking for a quality air conditioner at the right price? Take a look at **Smeraldo**, the latest split heat pump system by Lamborghini CaloreClima, in the monosplit and multisplit version, capable of satisfying all your requirements.

Smeraldo simply has everything. Thanks to the optimised cooling circuit and adjustment that regulates the compressor with DC inverter technology, these machines can accurately and promptly reach your temperature setpoints, for both heating and cooling. This means **less noise, maximum comfort and first-class efficiency**, resulting in less kilowatts per hour in your electricity bill. The Smeraldo monosplit versions, for example, never fall below class A**.

They also use **R32** refrigerant, the more eco-sustainable gas that does not harm the ozone and has a GWP of about a third compared to the more commonly used R410A.

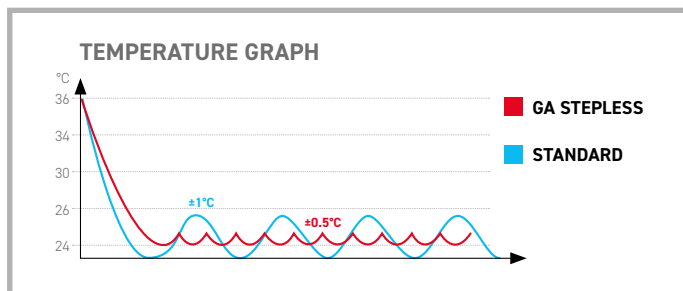
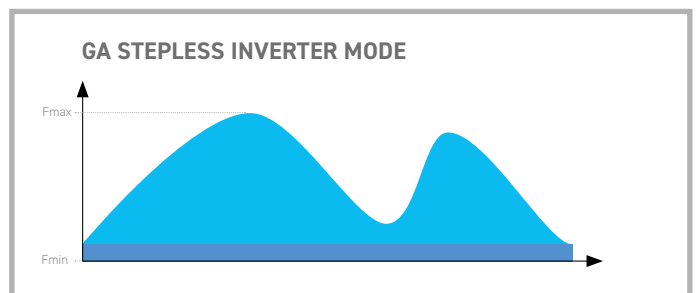
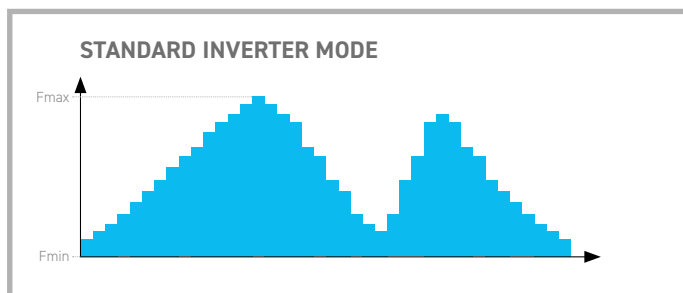
All Smeraldo appliances can be connected to your **Wi-Fi**, as standard, without expensive accessories. Moreover, the new Smeraldo air conditioners are **compatible** with the **“Amazon Alexa”** and **“Google Home”** voice assistants. Thanks to our **free App**, you can easily manage and program them remotely.

But that's not all, a **double filtration layer** and **cutting-edge treatment of the external coil** are included, ensuring long-term protection from the weather.

Carry on reading to learn more in the following pages.

LET'S TAKE A LOOK AT SMERALDO

HOW IT GUARANTEES YOUR WELL-BEING



Thanks to Lamborghini CaloreClima's **GA Stepless Comfort** technology, the inverters can modulate with minimal frequency fluctuations, so small that some temperature fluctuations in the room will not be noticeable.

But that's not all, the units can also be used in **Boost** mode to reach the required temperatures in the shortest possible time. This may reduce the efficiency of the machines for brief periods, but will be very useful if you need to cool a room quickly.



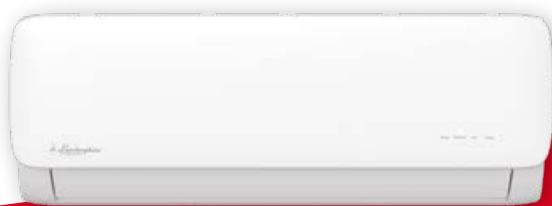
The **i-Clean** function helps wash away dust, mould and grease that may settle on the heat exchanger, causing unpleasant odours.

The fan coil runs extra drying cycles, keeping surfaces clean.

This function is available only for Smeraldo Mono models.

LET'S FIND OUT ABOUT...

ALL THE BENEFITS OF SMERALDO



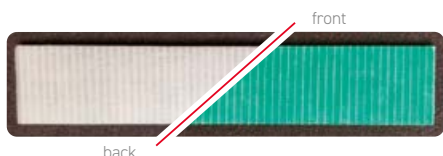
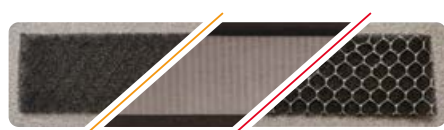
SMERALDO

AVAILABLE IN THE MONO AND MULTI SPLIT VERSION,
FOR ALL REQUIREMENTS

Filtering
Q · U · A · D · R · U · P · L · E



Regarding air quality, Smeraldo air conditioners, in both Mono and Multi Split versions, feature a **quadruple level of filtration**, consisting of **“Cold Catalyst”, “Active Carbon”, “Silver Ion” and “Biohepa”** filters. In addition to this, Smeraldo is equipped with the new sanitising technology **“Super Ioniser”**.

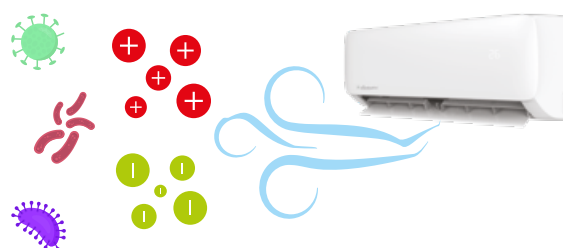


4 FILTERS: COLD CATALYST, ACTIVE CARBON, SILVER ION AND BIOHEPA

New four-layer filter technology that purifies the air and removes gases, odours, formaldehydes, pollutants, bacteria, viruses and fungi from it.

NEW SUPER IONISER

New Ioniser that releases millions of ions to drastically reduce the presence of viruses and bacteria in the air.



IN ADDITION TO CONVENIENCE, WI-FI CONNECTIVITY AND VOICE COMMAND COMPATIBILITY ARE INCLUDED

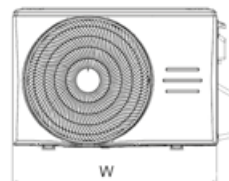
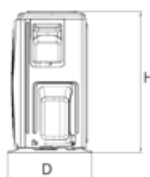
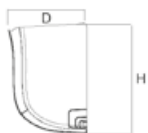
With an unbeatable price, Smeraldo air conditioners guarantee **SEER** and **SCOP**; they can achieve an efficiency class of A** in cooling mode and A* in heating mode (for the typical average temperature band). All the appliances are also supplied with a **Wi-Fi** connection, thanks to which it is possible to connect remotely using the Lamborghini CaloreClima **App**. Moreover, the new range is now compatible with the **“Amazon Alexa”** and **“Google Home”** voice assistants. The remote control supplied (with a larger display as requested by our customers) can, of course, manage all of Smeraldo's functions. Moreover, the App also offers you the possibility of remote access together with the handy **Smart Diagnosis** function, allowing you to run up to 97 function tests on your air conditioner to check that it is working correctly and detect any (highly unlikely) problems.

TECHNICAL DATA

SMERALDO MONO VERSION

MODEL			09	12	18	24
Power supply		V-Ph-Hz	220/240 V - 1 phase - 50Hz			
Cooling power ⁽¹⁾	nominal	W	2,640	3,515	5,275	5,880
	min-max	W	1,025 ~ 3,225	1,375 ~ 4,310	3,390 ~ 5,900	2,110 ~ 8,205
Power absorbed in cooling	nominal	W	733	1,089	1,550	1,765
	min-max	W	80 ~ 1,100	120 ~ 1,650	560 ~ 2,050	420 ~ 3,200
Current absorbed in cooling	nominal	A	3.18	4.73	6.70	7.67
	min-max	A	0.35 ~ 4.78	0.5 ~ 7.2	2.4 ~ 9.0	1.8 ~ 13.9
EER ref. Standard EN14511 (nominal)			3.60	3.23	3.40	3.33
Cooling	SEER		7.40	7.00	7.00	6.40
	PdesignC	kW	2.80	3.60	5.30	7.00
	Class ErP		A++	A++	A++	A++
Thermal power ⁽²⁾	nominal	W	2,930	3,810	5,390	6,660
	min-max	W	820 ~ 3,370	1,070 ~ 4,380	3,100 ~ 5,850	1,555 ~ 8,205
Power absorbed in heating	nominal	W	771	1,027	1,436	1,771
	min-max	W	70 ~ 990	110 ~ 1,480	780 ~ 2,000	300 ~ 3,100
Current absorbed in heating	nominal	A	3.35	4.46	6.23	7.70
	min-max	A	0.32 ~ 4.32	0.5 ~ 6.4	3.4 ~ 8.7	1.3 ~ 13.5
COP ref. Standard EN14511 (nominal)			3.80	3.71	3.76	3.76
Heating Moderate climate zone	SCOP		4.10	4.20	4.00	4.00
	PdesignH	kW	2.50	2.50	4.20	4.90
	Class ErP		A+	A+	A+	A+
	Tbiv / Tol	°C	-7 / -15	-7 / -15	-7 / -15	-7 / -15
Heating Warm climate zone	SCOP		5.30	5.50	5.10	5.10
	PdesignH	kW	2.50	2.50	4.50	5.30
	Class ErP		A+++	A+++	A+++	A+++
	Tbiv / Tol	°C	2 / -15	2 / -15	2 / -15	2 / -15
Maximum power absorbed		W	2,150	2,150	2,500	3,700
Maximum current absorbed		A	10	10	13	19.0
Inrush current		A	Negligible thanks to inverter technology			
Indoor unit	Air flow rate (max-med-min)	m ³ /h	520 / 460 / 330	530 / 400 / 350	800 / 600 / 500	1,090 / 770 / 610
	Sound pressure ⁽³⁾ (max-med-min-slo)	dB(A)	37 / 32 / 22 / 20	37 / 32 / 22 / 21	41 / 37 / 31 / 20	46 / 37 / 34.5 / 21
	Sound pressure (max)	dB(A)	54	56	56	62.0
Outdoor unit	Air flow rate	m ³ /h	1,850	1,850	2,100	3,500
	Sound pressure ⁽³⁾	dB(A)	55.5	55	57.0	60.0
	Sound power	dB(A)	62	62	65.0	67.0
Refrigerant gas	Type / GWP		R32 / 675			
	Load quantity	kg	0.60	0.65	1.10	1.45
Liquid / gas line connections		inches	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"	3/8" - 5/8"
Maximum length refrigeration lines		m	25	25	30	50
Maximum height difference		m	10	10	20	25

(1) External air temperature = 35°C D.B. • Room air temperature = 27°C D.B. / 19°C W.B. - (2) External air temperature = 7°C D.B. / 6°C W.B. • Room air temperature = 20°C D.B. - (3) Sound pressure measured at a distance of 1 m: E.U. in open area, I.U. in 100 m³ room with 0.5 second reverberation time



MODEL	W mm	H mm	D mm	Weight kg
9	726	291	210	8.0
12	835	295	208	8.7
18	969	320	241	11.2
24	1083	336	244	13.6

MODEL	W mm	H mm	D mm	Weight kg
9	720	495	270	23.5
12	720	495	270	23.7
18	874	554	330	33.5
24	955	673	342	43.9

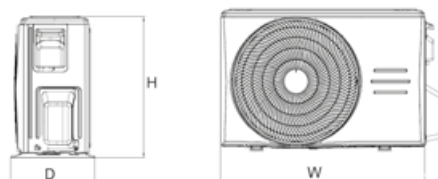
TECHNICAL DATA

SMERALDO MULTI VERSION

OUTDOOR UNIT*			18-2	27-3	28-4
Power supply		V-Ph-Hz	220/240 V - 1 phase - 50Hz		
Cooling power ⁽¹⁾	nominal	W	5,275	7,915	8,205
	min-max	W	2,225 ~ 5,570	3,025 ~ 8,500	2,490 ~ 10,255
Power absorbed in cooling	nominal	W	1,635	2,450	2,500
	min-max	W	690 ~ 2,000	230 ~ 3,250	150 ~ 3,340
Current absorbed in cooling	nominal	A	7.1	11.2	10.9
	min-max	A	3.2 ~ 9.0	2.1 ~ 14.7	1.3 ~ 14.5
EER ref. Standard EN14511 (nominal)			3.23	3.23	3.23
Cooling	SEER		6.1	6.1	7
	PdesignC	kW	5.3	7.9	8.2
	Class ErP		A++	A++	A++
Thermal power ⁽²⁾	nominal	W	5,570	8,205	8,790
	min-max	W	2,340 ~ 5,625	2,200 ~ 8,500	1,605 ~ 10,140
Power absorbed in heating	nominal	W	1,500	2,210	2,400
	min-max	W	600 ~ 1,780	330 ~ 2,960	280 ~ 3,200
Current absorbed in heating	nominal	A	6.6	10.1	10.4
	min-max	A	2.80 ~ 7.95	2.6 ~ 13.5	1.98 ~ 14.0
COP ref. Standard EN14511 (nominal)			3.71	3.71	3.71
Heating Moderate climate zone	SCOP		4.0	4.0	4.0
	PdesignH	kW	4.5	5.7	6.8
	Class ErP		A+	A+	A+
	Tbiv / Tol	°C	-7 / -15	-7 / -15	-7 / -15
Heating Warm climate zone	SCOP		5.1	5.1	5.1
	PdesignH	kW	5	6	6.8
	Class ErP		A+++	A+++	A+++
	Tbiv / Tol	°C	2 / -15	2 / -15	2 / -15
Maximum power absorbed		W	3,050	4,100	4,150
Maximum current absorbed		A	13	18	19
Inrush current		A	Negligible thanks to inverter technology		
Outdoor unit	Air flow rate	m ³ /h	2,100	3,000	3,800
	Sound pressure ⁽³⁾	dB(A)	54	55	63.0
	Sound power	dB(A)	65	68	68
Refrigerant gas	Type / GWP		R32 /675		
	Load quantity	kg	1.25	1.85	2.1

INDOOR UNIT			9	12	18
Cooling performance		W	2,640	3,515	5,275
Thermal performance		W	2,930	3,810	5,570
Air flow rate (max-med-min)		m ³ /h	520 / 460 / 330	530 / 400 / 350	800 / 600 / 500
Sound pressure (max-med-min-slo)		dB(A)	37 / 32 / 22 / 20	37 / 32 / 22 / 21	41 / 37 / 31 / 20
Sound pressure (max)		dB(A)	54	56	56
Liquid / gas line connections		inches	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"

(1) External air temperature = 35°C D.B. · Room air temperature = 27°C D.B. / 19°C W.B. - (2) External air temperature = 7°C D.B. / 6°C W.B. · Room air temperature = 20°C D.B. - (3) Sound pressure measured at a distance of 1 m: E.U. in open area, I.U. in 100 m³ room with 0.5 second reverberation time * Nominal data, check combinations on the following pages



MODEL	W mm	H mm	D mm	Weight kg
9	726	291	210	8.0
12	835	295	208	8.7
18	969	320	241	11.2

MODEL	W mm	H mm	D mm	Weight kg
18-2	805	554	330	35.0
27-3	890	673	342	48.0
28-4	946	810	410	62.1

FEATURES

LIMITS - POSSIBLE COMBINATIONS

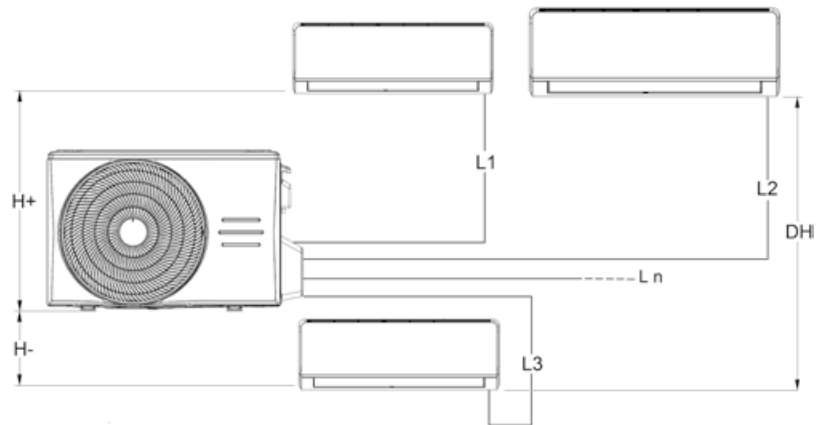
FIELD OF APPLICATION

OPERATING MODE	PARAMETER		INDOOR SIDE	OUTDOOR SIDE
Cooling	Input air max/min temperature (B.S.)	°C	32 / 17	50 / -15
Heating	Input air max/min temperature (B.S.)	°C	30 / 0	30 / -15
All	Power voltage / frequency	V	230±10% / 50±2	

LIMITS ON LENGTH AND HEIGHT DIFFERENCE OF COOLING PIPES

The length of the cooling pipes between the indoor and outdoor units must be the shortest possible and is, in any case, limited by the maximum values in height difference between the two units.

With the decrease in the difference in height between the units (H1,H2) and the length of the pipes (L), the load loss will be limited, thus increasing the overall performance of the machine. Observe the limits indicated in the following tables.



OUTDOOR UNIT			18-2		27-3			28-4		
Diameter	Liquid	"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
	Gas	"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"
Tot. maximum length		m	40		60		80			
Maximum length single unit		m	25		30		35			
Maximum height difference	H+	m	15		15		15			
	H-	m	15		15		15			
	DH	m	10		10		10			
Total maximum length of pipes with standard load		m	7.5		7.5		7.5			
Additional quantity of refrigerant per metre		g/m	12	12	12	12	12	12	12	24

TABLE OF POSSIBLE COMBINATIONS

OUTDOOR UNIT	INDOOR UNIT CONNECTED			
	1	2	3	4
18-2	9K	9K+9K	-	not included
	12K	9K+12K	-	
	18K	12K+12K	-	
27-3	9K	9K+9K	12K+12K	not included
	12K	9K+12K	12K+18K	
	18K	9K+18K	-	
28-4	9K	9K+9K	12K+12K	9K+9K+9K
	12K	9K+12K	12K+18K	9K+9K+12K
	18K	9K+18K	18K+18K	9K+9K+18K

- NB:
- combinations for which the total power required by the indoor units is compatible with the nominal power of the outdoor unit.
 - combinations for which the total power required by the indoor units is higher than the nominal power of the outdoor unit. In the event of a simultaneous request for power by all the units connected, the power available for the individual units will be in line with the indications given in the previous table.

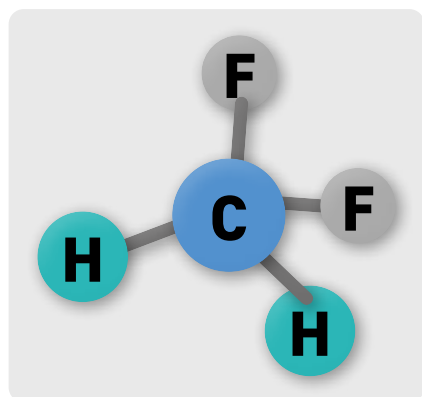
PERFORMANCE IN HEATING MODE

SUMMARY TABLE

EU	U	Combination	Partial capacity (kW)				Total capacity in heating (kW)			Power absorbed Total (kW)			Current absorbed Total (A)			COP	SCOP	Energy class	
			Room				Min	Nom	Max	Min	Nom	Max	Min	Nom	Max	Nom			
			A	B	C	D													
18-2	1	9	3.00	–	–	–	1.56	3.00	3.63	0.32	0.80	1.00	1.39	3.48	4.35	3.75	–	–	
		12	3.80	–	–	–	1.56	3.80	4.60	0.32	1.02	1.23	1.39	4.45	5.34	3.71	–	–	
	2	9+9	2.79	2.79	–	–	2.23	5.57	6.68	0.51	1.50	1.88	2.22	6.53	8.16	3.71	4.0	A+	
		9+12	2.40	3.20	–	–	2.23	5.60	6.68	0.51	1.51	1.88	2.22	6.56	8.16	3.71	4.0	A+	
		12+12	2.80	2.80	–	–	2.23	5.60	6.96	0.51	1.51	1.88	2.22	6.56	8.16	3.71	4.0	A+	
27-3	2	9+9	3.00	3.00	–	–	2.30	6.00	7.38	0.57	1.62	2.21	2.50	7.03	9.61	3.71	3.8	A	
		9+12	2.70	3.60	–	–	2.30	6.30	7.79	0.57	1.70	2.32	2.50	7.38	10.09	3.71	3.8	A	
		9+18	2.33	4.67	–	–	2.30	7.00	8.20	0.57	1.89	2.43	2.50	8.20	10.57	3.71	3.8	A	
		12+12	3.25	3.25	–	–	2.30	6.50	7.95	0.57	1.75	2.39	2.50	7.62	10.38	3.71	3.8	A	
		12+18	2.80	4.20	–	–	2.30	7.00	8.20	0.57	1.89	2.43	2.50	8.20	10.57	3.71	3.8	A	
	3	9+9+9	2.73	2.73	2.73	–	2.87	8.20	9.84	0.69	2.21	2.76	2.98	9.61	12.01	3.71	4.0	A+	
		9+9+12	2.49	2.49	3.32	–	2.87	8.30	9.84	0.69	2.24	2.76	2.98	9.73	12.01	3.71	4.0	A+	
		9+12+12	2.26	3.02	3.02	–	2.87	8.30	9.84	0.69	2.24	2.76	2.98	9.73	12.01	3.71	4.0	A+	
		12+12+12	2.77	2.77	2.77	–	2.87	8.30	9.84	0.69	2.24	2.76	2.98	9.73	12.01	3.71	4.0	A+	
		2	9+9	3.00	3.00	–	–	2.20	6.00	7.30	0.59	1.62	2.13	2.58	7.03	9.28	3.71	3.4	A
			9+12	3.00	4.00	–	–	2.20	7.00	7.48	0.59	1.89	2.25	2.58	8.20	9.80	3.71	3.4	A
			9+18	2.63	5.27	–	–	2.20	7.90	8.10	0.59	2.13	2.61	2.58	9.26	11.34	3.71	3.4	A
			12+12	3.75	3.75	–	–	2.20	7.50	7.92	0.59	2.02	2.32	2.58	8.79	10.11	3.71	3.4	A
12+18	3.20		4.80	–	–	2.20	8.00	8.10	0.59	2.16	2.61	2.58	9.38	11.34	3.71	3.4	A		
18+18	4.00		4.00	–	–	2.20	8.00	8.10	0.59	2.16	2.61	2.58	9.38	11.34	3.71	3.4	A		
28-4	3	9+9+9	2.87	2.87	2.87	–	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A	
		9+9+12	2.58	2.58	3.44	–	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A	
		9+9+18	2.15	2.15	4.30	–	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A	
		9+12+12	2.35	3.13	3.13	–	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A	
		9+12+18	1.98	2.65	3.97	–	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A	
		12+12+12	2.87	2.87	2.87	–	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A	
	4	9+9+9+9	2.23	2.23	2.23	2.2	3.08	8.90	10.65	0.81	2.40	2.96	3.51	10.43	12.89	3.71	4.0	A+	
		9+9+9+12	2.10	2.10	2.10	2.8	3.08	9.10	10.65	0.81	2.45	2.96	3.51	10.66	12.89	3.71	4.0	A+	

BUT WHAT IS R32?

WHY IS IT CONSIDERED ENVIRONMENTALLY FRIENDLY?



DI-FLUORO-METHANE

i.e.
 CH_2F_2

It is no longer a question of the hole in the ozone. R11, R12 and R22 have been banned for years now.


All new refrigerants must have **ODP** (Ozone Depletion Potential, i.e. the potential damage that the gas can cause to the ozone layer) must be nil, equal to zero.

We now talk about **GWP**.

GWP is the acronym for **Global Warming Potential** and indicates the potential impact that a refrigerant gas could have if it was released into the environment.

This allows the impact of 1kg of gas to be compared with 1 kg of CO_2 , over a period of 100 years.

For example, R410A has a GWP of 2,088. This basically means that 1 kg of R410A has the same impact as 2,088 kg of CO_2 (i.e. the equivalent of over 2 tons of CO_2).



Lamborghini CaloreClima has chosen R32 gas for these machines with a GWP of 675, virtually a third compared to R410A.

But R32 is not the latest of the innovations since it has been around for quite a while.

Just consider that the “old” R410A was a mixture of 50% R32.

R32 offers many benefits on small-medium power machines. It IS a gas with similar features to R410A, but with even **better thermodynamic properties!**

When comparing the two gases on machines of a similar construction (compressors of equivalent power and similar exchange surfaces), R32 allows you to achieve the same capacities, **but with greater efficiency and a reduced refrigerant load!**

This means using less gas with a lower GWP. In practical terms, we are not far wrong by stating that R32 leads to a **reduction of about 75% of emissions**, compare to the same machine with R410A.

BUT WILL R32 BE THE GAS OF THE FUTURE?

We have no problem in telling you no. We believe that R32 is an interim gas, but currently it is one of the best compromises in terms of performance and environmental impact. There are lots of other alternatives being developed, including natural ones.

Lamborghini CaloreClima is also leading the way in this and we will let you know about any developments on the market.



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