

**ferroli**



## Ambra

Monosplit / Multisplit heat pump with DC inverter, in R32



# AMBRA

The quality air conditioner at the right price



Are you looking for a quality air conditioner at the right price?

Take a look at **Ambra**, the latest split heat pump system by Ferroli, in the monosplit and multisplit version, capable of satisfying all your requirements. Ambra simply has it all.

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 mono-split versions of Ambra, 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 the versions of Ambra can be connected to your **Wi-Fi**, as part of the standard supply, with no need for costly accessories.

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 FIND OUT ABOUT...

All the benefits of AMBRA



**Ferroli's DC inverter technology** can be exploited in **Boost** mode to reach the set temperatures in the shortest possible time.

This may reduce the efficiency of the machine for brief periods, but will be very useful if you need to cool a room quickly.

The **internal heat exchanger** has been designed with **54 teeth**, more than traditional versions (which have 45 teeth), affording a greater exchange surface.

The **external exchanger** features a special treatment called **Golden Fin**, which guarantees **better protection** (compared to more widespread treatments, such as Blue Fin) from external agents, whether chemical or weather-related.



Golden Fin



Blue Fin



# LET'S FIND OUT ABOUT...

All the benefits of AMBRA



**AMBRA**

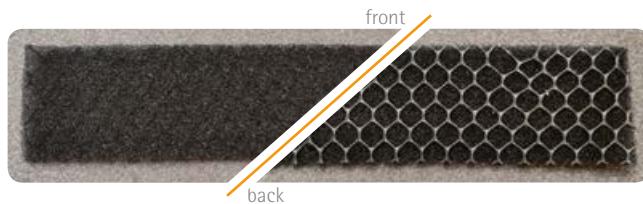
AVAILABLE IN THE MONO AND MULTI SPLIT VERSION,  
FOR ALL REQUIREMENTS



**Filtering** DOUBLE

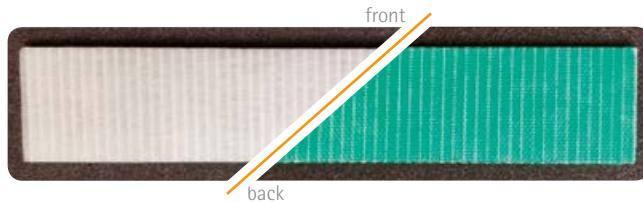


In terms of air quality, Ambra air conditioners, in both the Mono and Split version, feature a **double filtration layer**, consisting of a “**Cold Catalyst**” filter plus a “**Biohepa**” filter.



## “Cold Catalyst” filter

This filter combats total volatile organic compounds (TVOC), formaldehyde, ammonia and hydrosulfuric acid (or hydrogen sulphide, which is less intimidating but the same thing, with a typical “rotten egg” smell).



## “Biohepa” filter

This filter, on the other hand, captures tiny dust particles, bacteria and fungi; it consists of special enzymes which prevent their proliferation.



In addition to being cost-convenient, WiFi technology is also included

With an unbeatable price, Ambra air conditioners guarantee **SEER** and **SCOP**; they can achieve an efficiency class of A++ in cold 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 Ferroli **App**. The remote control supplied (with a larger display as requested by our customers) can, of course, manage all Ambra's functions.

But 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.

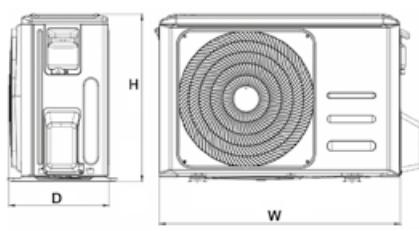
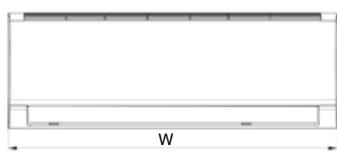
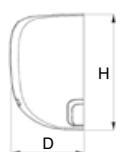


# TECHNICAL DATA

## AMBRA Mono version

MODEL			MONO 09	MONO 12	MONO 18	MONO 24
Power supply		V-Ph-Hz	220/240 V - 1 phase - 50Hz			
Cooling power <sup>(1)</sup>	nominal	W	2,770	3,350	5,270	5,860
	min-max	W	908 ~ 3,398	1,113 ~ 4,160	3,390 ~ 5,830	2,080 ~ 7,910
Power absorbed in cooling	nominal	W	769	1,021	1,550	1,787
	min-max	W	100 ~ 1,240	130 ~ 1,580	560 ~ 2,050	420 ~ 3,150
Current absorbed in cooling	nominal	A	3.34	4.44	6.70	7.77
	min-max	A	0.4 ~ 5.4	0.5 ~ 6.9	2.4 ~ 8.9	1.8 ~ 13.8
EER ref. Standard EN14511 (nominal)			3.60	3.28	3.40	3.28
Cooling	SEER		6.30	6.10	7.40	6.10
	PdesignC	kW	2.80	3.60	5.20	7.00
	Class ErP		A <sup>++</sup>	A <sup>++</sup>	A <sup>++</sup>	A <sup>++</sup>
Nominal thermal	power <sup>(2)</sup>	W	2,930	3,570	4,970	6,000
	min-max	W	820 ~ 3,369	1,084 ~ 4,220	3,100 ~ 5,850	1,610 ~ 7,910
Nominal power absorbed in	heating	W	733	963	1,298	1,608
	min-max	W	120 ~ 1,200	100 ~ 1,680	780 ~ 2,000	300 ~ 2,750
Nominal current absorbed in	heating	A	3.18	4.19	5.64	6.99
	min-max	A	0.5 ~ 5.2	0.4 ~ 6.9	3.4 ~ 8.7	1.3 ~ 12.2
COP ref. Standard EN14511 (nominal)			3.99	3.71	3.83	3.73
Heating Moderate climate zone	SCOP		4.00	4.00	4.00	4.00
	PdesignH	kW	2.60	2.70	4.10	4.80
	Class ErP		A+	A+	A+	A+
Heating Warm climate zone	Tbiv / Tol	°C	-7 / -15	-7 / -15	-7 / -15	-7 / -15
	SCOP		5.10	5.10	5.10	4.80
	PdesignH	kW	2.60	2.50	4.40	5.80
	Class ErP		A <sup>+++</sup>	A <sup>+++</sup>	A <sup>+++</sup>	A <sup>++</sup>
	Tbiv / Tol	°C	2 / -15	2 / -15	2 / -15	2 / -15
	Maximum power absorbed	W	2,150	2,150	2,500	3,500
Maximum current absorbed		A	10	10	13	15.5
Inrush current		A	Negligible thanks to inverter technology			
Indoor unit	Air flow rate (max-med-min)	m <sup>3</sup> /h	466 / 360 / 325	540 / 430 / 314	840 / 680 / 540	980 / 817 / 662
	Sound pressure <sup>(3)</sup> (max-med-min)	dB(A)	38.5 / 32 / 25	40.5 / 34.5 / 25	42.5 / 36 / 26	45 / 40.5 / 36
	Sound pressure (max)	dB(A)	54	55	56	59
Outdoor unit	Air flow rate	m <sup>3</sup> /h	1,750	1,800	2,100	3,500
	Sound pressure <sup>(3)</sup>	dB(A)	55.5	56	56	59
	Sound power	dB(A)	62	63	63	67
Refrigerant gas	Type / GWP		R32 / 675			
	Load quantity	kg	0.55	0.55	1.08	1.42
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 m<sup>3</sup> room with 0.5 second reverberation time



MODEL	W mm	H mm	D mm	Weight kg
<b>9</b>	805	285	194	7.6
<b>12</b>	805	285	194	7.6
<b>18</b>	957	302	213	10.0
<b>24</b>	1040	327	220	12.3

MODEL	W mm	H mm	D mm	Weight kg
<b>9</b>	720	495	270	23.2
<b>12</b>	720	495	270	23.2
<b>18</b>	802	554	330	32.7
<b>24</b>	890	673	342	42.9



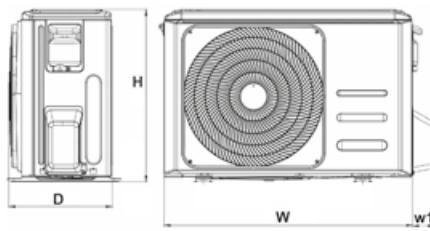
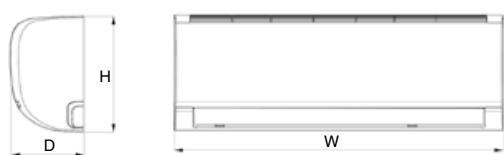
# TECHNICAL DATA

## AMBRA Multisplit version

OUTDOOR UNIT			14-2	18-2	21-3	27-3	28-4
Nominal combination			7+7	9+9	7+7+7	9+9+9	7+7+7+7
Power supply		V-Ph-Hz	220/240 V - 1 phase - 50Hz				
Cooling power <sup>(1)</sup>	nominal	W	4,105	5,275	6,155	7,915	8,205
	min-max	W	1,465 ~ 4,980	2,285 ~ 5,715	1,995 ~ 6,595	3,180 ~ 8,205	2,050 ~ 9,845
Power absorbed in cooling	nominal	W	1,270	1,635	1,905	2,450	2,540
	min-max	W	115 ~ 1,672	690 ~ 2,000	180 ~ 2,200	290 ~ 3,100	890 ~ 3,180
Current absorbed in cooling	nominal	A	5.8	7.3	8.3	11.2	11.3
	min-max	A	1.12 ~ 7.35	3.2 ~ 9.0	1.8 ~ 10.0	2.0 ~ 13.5	3.9 ~ 14.1
EER ref. Standard EN14511 (nominal)			3.23	3.23	3.23	3.23	3.23
Cooling	SEER		5.6	6.1	6.1	6.1	6.1
	PdesignC	kW	4.1	5.3	6.1	7.9	8.2
	Class ErP		A <sup>+</sup>	A <sup>++</sup>	A <sup>++</sup>	A <sup>++</sup>	A <sup>++</sup>
Thermal power <sup>(2)</sup>	nominal	W	4,395	5,570	6,450	8,205	8,790
	min-max	W	1,525 ~ 4,980	2,405 ~ 5,745	1,450 ~ 6,680	2,285 ~ 8,500	2,345 ~ 10,550
Power absorbed in heating	nominal	W	1,185	1,500	1,738	2,210	2,200
	min-max	W	253 ~ 1,592	600 ~ 1,780	350 ~ 1,800	370 ~ 2,900	770 ~ 2,750
Current absorbed in heating	nominal	A	5.4	6.6	7.6	10.1	9.8
	min-max	A	1.9 ~ 7.0	2.80 ~ 7.95	2.6 ~ 8.0	2.4 ~ 13.0	3.4 ~ 12.2
COP ref. Standard EN14511 (nominal)			3.71	3.71	3.71	3.73	4.00
Heating Moderate climate zone	SCOP		3.8	3.8	4	4.0	3.8
	PdesignH	kW	3.7	4.8	5.4	5.6	6.5
	Class ErP		A	A <sup>+</sup>	A <sup>+</sup>	A <sup>+</sup>	A
Heating Warm climate zone	Tbiv / Tol	°C	-7 / -15	-7 / -15	-7 / -15	-7 / -15	-7 / -15
	SCOP		4.6	5.1	4.8	5.1	4.6
	PdesignH	kW	4.1	5	5.6	6.1	6.9
Refrigerant gas	Class ErP		A <sup>++</sup>	A <sup>+++</sup>	A <sup>++</sup>	A <sup>+++</sup>	A <sup>++</sup>
	Tbiv / Tol	°C	2 / -15	2 / -15	2 / -15	2 / -15	2 / -15
	Type / GWP			R32 / 675			
Maximum power absorbed		W	2,750	3,050	3,910	4,100	4,150
Maximum current absorbed		A	12	12	17	18	19
Inrush current		A	Negligible thanks to inverter technology				
Outdoor unit	Air flow rate	m <sup>3</sup> /h	2,100	2,100	3,000	3,000	3,800
	Sound pressure <sup>(3)</sup>	dB(A)	56	54	58	58	61.5
	Sound power	dB(A)	65	65	65	68	67
Refrigerant gas	Type / GWP			R32 / 675			
	Load quantity	kg	1.1	1.25	1.5	1.85	2.1

INDOOR UNIT			7	9	12	18
Cooling performance	W		2,050	2,640	3,515	5,275
Thermal performance	W		2,345	2,930	3,810	5,570
Air flow rate (max-med-min)	m <sup>3</sup> /h		520 / 460 / 340	520 / 460 / 340	600 / 500 / 360	840 / 680 / 540
Sound pressure (max-med-min-slo)	dB(A)		40 / 30 / 26 / 21	40 / 30 / 26 / 21	40 / 34 / 26 / 22	44 / 37 / 30 / 25
Sound pressure (max)	dB(A)		54	54	53	55
Liquid / gas line connections	inches		1/4" - 3/8"	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 m<sup>3</sup> room with 0.5 second reverberation time



MODEL	W mm	H mm	D mm	Weight kg
7	805	285	194	7.5
9	805	285	194	7.5
12	805	285	194	7.5
18	957	302	213	10.0





# FEATURES

Limits on length and height difference - Possible combinations

## FIELD OF APPLICATION

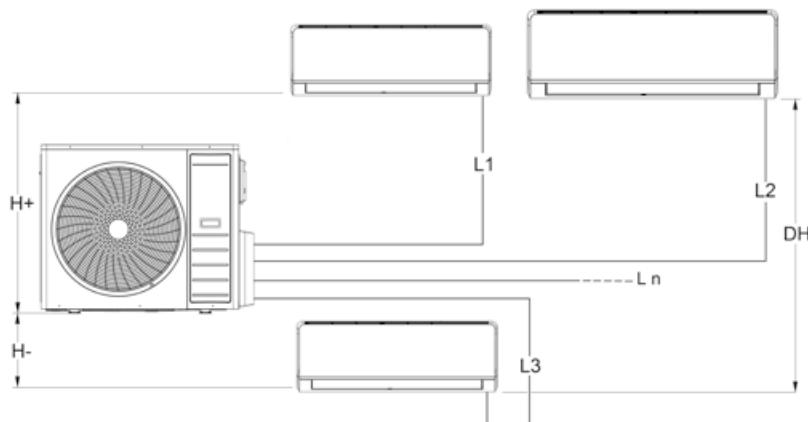
OPERATING MODE	PARAMETER		INDOOR SIDE	OUTDOOR SIDE
Cooling	Input air max/min temperature (B.S.)	°C	32 / 17	50 / -15
Heating	Input air max/min temperature (B.S.)	°C	30 / 0	30 / -15
All	Power voltage / frequency	V	230±10% / 50±2	

## 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 ( $H_1, H_2$ ) 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		14-2 / 18-2			21-3			27-3			28-4		
Diameter	Liquid	"	1/4"	1/4"	1/4"	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"	3/8"	3/8"	3/8"	1/2"
Tot. maximum length		m	40		60		60		60		80		
Maximum length single unit		m	25		30		30		30		35		
Maximum height difference	H+	m	15		15		15		15		15		
	H-	m	15		15		15		15		15		
	DH	m	10		10		10		10		10		
Total maximum length of pipes with standard load		m	7.5		7.5		7.5		7.5		7.5		
Additional quantity of refrigerant per metre	g/m	12	12	12	12	12	12	12	12	12	12	12	24

## TABLE OF POSSIBLE COMBINATIONS

OUTDOOR UNIT	INDOOR UNIT CONNECTED											
	1		2		3				4			
14-2	7K	7K+7K	7K+9K	not included				not included				
	9K	7K+12K	9K+9K									
	12K	9K+12K	-									
18-2	7K	7K+7K	7K+9K	not included				not included				
	9K	7K+12K	9K+9K									
	12K	9K+12K	12K+12K									
21-3	not included	7K+7K	7K+9K	7K+7K+7K	7K+7K+9K	7K+7K+12K	not included					
		7K+12K	7K+18K	7K+9K+9K	7K+9K+12K	9K+9K+9K						
		9K+9K	9K+12K	9K+9K+12K	-	-						
		9K+18K	12K+12K	-	-	-						
27-3	not included	7K+7K	7K+9K	7K+7K+7K	7K+7K+9K	7K+7K+12K	not included					
		7K+12K	7K+18K	7K+7K+18K	7K+9K+9K	7K+9K+12K						
		9K+9K	9K+12K	7K+9K+18K	7K+12K+12K	9K+12K+12K						
		9K+18K	12K+12K	9K+9K+12K	9K+12K+12K	12K+12K+12K						
		12K+18K	-	-	-	-						
28-4	not included	7K+7K	7K+9K	7K+7K+7K	7K+7K+9K	7K+7K+12K	7K+7K+7K+7K	7K+7K+7K+9K	7K+7K+7K+12K	7K+7K+7K+18K		
		7K+12K	7K+18K	7K+7K+18K	7K+9K+9K	7K+9K+12K	7K+7K+7K+12K	7K+7K+7K+18K	7K+7K+9K+12K	7K+7K+9K+18K		
		9K+9K	9K+12K	7K+9K+18K	7K+12K+12K	7K+12K+18K	7K+7K+9K+9K	7K+7K+9K+12K	7K+7K+9K+18K	7K+7K+9K+18K		
		9K+18K	12K+12K	9K+9K+9K	9K+9K+12K	9K+9K+18K	7K+7K+12K+12K	7K+7K+12K+12K	7K+7K+9K+9K	7K+7K+9K+9K		
		12K+18K	18K + 18K	9K+12K+12K	9K+12K+18K	12K+12K+12K	7K+9K+9K+12K	7K+9K+9K+12K	7K+9K+12K+12K	7K+9K+12K+12K		
		-	-	-	-	-	9K+9K+9K+9K	9K+9K+9K+9K	9K+9K+9K+12K	9K+9K+9K+12K		

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. • IN BLUE, THE REFERENCE NOMINAL COMBINATIONS.

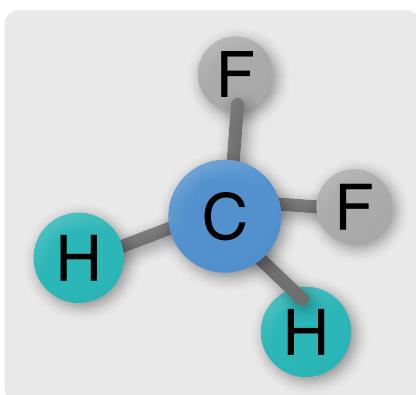
EU	IU	Combination	Partial capacity (kW)				Total capacity in cooling (kW)			Power absorbed Total (kW)			Current absorbed Total (A)			EER	SEER	Energy class
			Room				Min	Nom	Max	Min	Nom	Max	Min	Nom	Max			
			A	B	C	D												
14-2	1	7	2.00	—	—	—	1.23	2.00	2.90	0.30	0.62	0.77	1.30	2.68	3.34	3.25	—	—
		9	2.50	—	—	—	1.23	2.50	3.20	0.30	0.77	0.96	1.30	3.34	4.18	3.25	—	—
		12	3.50	—	—	—	1.23	3.50	3.90	0.30	1.08	1.35	1.30	4.68	5.85	3.25	—	—
	2	7+7	2.05	2.05	—	—	1.76	4.10	4.92	0.44	1.27	1.59	1.93	5.52	6.90	3.23	5.6	A+
		7+9	1.79	2.31	—	—	1.76	4.10	4.92	0.44	1.27	1.59	1.93	5.52	6.90	3.23	5.6	A+
		7+12	1.51	2.59	—	—	1.76	4.10	4.92	0.44	1.27	1.59	1.93	5.52	6.90	3.23	5.6	A+
18-2	1	9+9	2.05	2.05	—	—	1.76	4.10	4.92	0.44	1.27	1.59	1.93	5.52	6.90	3.23	5.6	A+
		9+12	1.76	2.34	—	—	1.76	4.10	4.92	0.44	1.27	1.59	1.93	5.52	6.90	3.23	5.6	A+
		7	2.00	—	—	—	1.43	2.00	2.90	0.35	0.60	0.75	1.52	2.60	3.24	3.35	—	—
	2	9	2.50	—	—	—	1.43	2.50	3.20	0.35	0.75	0.93	1.52	3.24	4.06	3.35	—	—
		12	3.50	—	—	—	1.43	3.50	3.90	0.35	1.08	1.29	1.52	4.68	5.62	3.25	—	—
		7+7	2.10	2.10	—	—	2.12	4.20	5.62	0.54	1.30	2.05	2.35	5.64	8.92	3.24	6.1	A++
		7+9	2.06	2.64	—	—	2.12	4.70	5.83	0.54	1.46	2.05	2.35	6.33	8.92	3.23	6.1	A++
		7+12	1.92	3.28	—	—	2.12	5.20	6.41	0.54	1.61	2.05	2.35	7.00	8.92	3.23	6.1	A++
	3	9+9	2.65	2.65	—	—	2.12	5.30	6.41	0.54	1.64	2.05	2.35	7.13	8.92	3.23	6.1	A++
		9+12	2.27	3.03	—	—	2.12	5.30	6.41	0.54	1.64	2.05	2.35	7.13	8.92	3.23	6.1	A++
		12+12	2.65	2.65	—	—	2.12	5.30	6.41	0.54	1.64	2.05	2.35	7.13	8.92	3.23	6.1	A++
21-3	2	7+7	2.10	2.10	—	—	2.01	4.20	5.49	0.57	1.30	1.89	2.46	5.65	8.21	3.23	5.6	A+
		7+9	2.06	2.64	—	—	2.01	4.70	5.80	0.57	1.46	1.98	2.46	6.33	8.62	3.23	5.6	A+
		7+12	1.95	3.35	—	—	2.01	5.30	6.10	0.57	1.64	2.08	2.46	7.13	9.03	3.23	5.6	A+
		7+18	1.76	4.54	—	—	2.01	6.30	6.83	0.57	1.95	2.17	2.46	8.48	9.44	3.23	5.6	A+
		9+9	2.65	2.65	—	—	2.01	5.30	6.41	0.57	1.64	2.08	2.46	7.13	9.03	3.23	5.6	A+
		9+12	2.57	3.43	—	—	2.01	6.00	6.59	0.57	1.86	2.12	2.46	8.08	9.20	3.23	5.6	A+
	3	9+18	2.10	4.20	—	—	2.01	6.30	6.83	0.57	1.94	2.17	2.46	8.45	9.44	3.24	5.6	A+
		12+12	3.10	3.10	—	—	2.01	6.20	6.83	0.57	1.92	2.17	2.46	8.35	9.44	3.23	5.6	A+
		7+7+7	2.03	2.03	2.03	—	2.44	6.10	7.20	0.68	1.89	2.36	2.96	8.21	10.26	3.23	6.1	A++
	3	7+7+9	1.92	1.92	2.47	—	2.44	6.30	7.26	0.68	1.95	2.36	2.96	8.48	10.26	3.23	6.1	A++
		7+7+12	1.70	1.70	2.91	—	2.44	6.30	7.32	0.68	1.94	2.36	2.96	8.45	10.26	3.24	6.1	A++
		7+9+9	1.76	2.27	2.27	—	2.44	6.30	7.32	0.68	1.94	2.36	2.96	8.45	10.26	3.24	6.1	A++
	3	7+9+12	1.58	2.03	2.70	—	2.44	6.30	7.32	0.68	1.94	2.36	2.96	8.45	10.26	3.24	6.1	A++
		9+9+9	2.10	2.10	2.10	—	2.44	6.30	7.32	0.68	1.94	2.36	2.96	8.45	10.26	3.24	6.1	A++
		9+9+12	1.89	1.89	2.52	—	2.44	6.30	7.32	0.68	1.94	2.36	2.96	8.45	10.26	3.24	6.1	A++
	2	7+7	2.10	2.10	—	—	2.21	4.20	6.32	0.64	1.30	2.08	2.76	5.65	9.04	3.23	5.6	A+
		7+9	2.06	2.64	—	—	2.21	4.70	6.72	0.64	1.46	2.20	2.76	6.33	9.57	3.23	5.6	A+
		7+12	1.95	3.35	—	—	2.21	5.30	7.11	0.64	1.64	2.45	2.76	7.13	10.63	3.23	5.6	A+
		7+18	1.82	4.68	—	—	2.21	6.50	7.90	0.64	2.01	2.69	2.76	8.75	11.70	3.23	5.6	A+
		9+9	2.65	2.65	—	—	2.21	5.30	7.11	0.64	1.64	2.45	2.76	7.13	10.63	3.23	5.6	A+
		9+12	2.57	3.43	—	—	2.21	6.00	7.51	0.64	1.86	2.57	2.76	8.08	11.17	3.23	5.6	A+
	3	9+18	2.27	4.53	—	—	2.21	6.80	7.90	0.64	2.09	2.69	2.76	9.10	11.70	3.25	5.6	A+
		12+12	3.15	3.15	—	—	2.21	6.30	7.66	0.64	1.94	2.64	2.76	8.45	11.48	3.24	5.6	A+
		12+18	2.72	4.08	—	—	2.21	6.80	7.90	0.64	2.09	2.69	2.76	9.10	11.70	3.25	5.6	A+
	3	7+7+7	2.43	2.43	2.43	—	2.77	7.30	8.69	0.76	2.26	2.91	3.30	9.83	12.65	3.23	6.1	A++
		7+7+9	2.25	2.25	2.90	—	2.77	7.40	8.69	0.76	2.29	2.91	3.30	9.96	12.65	3.23	6.1	A++
		7+7+12	2.13	2.13	3.65	—	2.77	7.90	8.69	0.76	2.45	2.91	3.30	10.63	12.65	3.23	6.1	A++
		7+7+18	1.73	1.73	4.44	—	2.77	7.90	8.69	0.76	2.43	2.91	3.30	10.57	12.65	3.25	6.1	A++
		7+9+9	2.13	2.74	2.74	—	2.77	7.60	8.69	0.76	2.35	2.91	3.30	10.23	12.65	3.23	6.1	A++
		7+9+12	1.98	2.54	3.39	—	2.77	7.90	8.69	0.76	2.45	2.91	3.30	10.63	12.65	3.23	6.1	A++
	3	7+9+18	1.63	2.09	4.18	—	2.77	7.90	8.69	0.76	2.43	2.91	3.30	10.57	12.65	3.25	6.1	A++
		7+12+12	1.78	3.06	3.06	—	2.77	7.90	8.69	0.76	2.43	2.91	3.30	10.57	12.65	3.25	6.1	A++
		9+9+9	2.63	2.63	2.63	—	2.77	7.90	8.69	0.76	2.45	2.91	3.30	10.63	12.65	3.23	6.1	A++
	3	9+9+12	2.37	2.37	3.16	—	2.77	7.90	8.69	0.76	2.43	2.91	3.30	10.57	12.65	3.25	6.1	A++
		9+12+12	2.15	2.87	2.87	—	2.77	7.90	8.69	0.76	2.43	2.91	3.30	10.57	12.65	3.25	6.1	A++
		12+12+12	2.63	2.63	2.63	—	2.77	7.90	8.69	0.76	2.43	2.91	3.30	10.57	12.65	3.25	6.1	A++
28-4	2	7+7	2.10	2.10	—	—	2.05	4.20	6.07	0.63	1.30	2.03	2.76	5.65	8.83	3.23	5.1	A
		7+9	2.06	2.64	—	—	2.05	4.70	6.40	0.63	1.46	2.16	2.76	6.33	9.38	3.23	5.1	A
		7+12	1.95	3.35	—	—	2.05	5.30	6.81	0.63	1.64	2.28	2.76	7.13	9.93	3.23	5.1	A
		7+18	1.96	5.04	—	—	2.05	7.00	7.54	0.63	2.17	2.79	2.76	9.42	12.14	3.23	5.1	A
		9+12	2.65	2.65	—	—	2.05	5.30	6.81	0.64	1.64	2.29	2.76	7.13	9.95	3.23	6.1	A++
		9+18	2.43	4.87	—	—	2.05	7.30	7.55	0.64	2.26	2.80	2.76	9.83	12.16	3.23	6.1	A++
	3	12+12	3.25	3.25	—	—	2.05	6.50	7.39	0.64	2.01	2.49	2.76	8.75	10.83	3.23	6.1	A++
		12+18	2.92	4.38	—	—	2.05	7.30	7.55	0.6								

NB: The reference nominal combinations highlighted.

EU	IU	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			
14-2	1	7	2.45	—	—	—	1.32	2.50	2.82	0.28	0.67	0.83	1.22	2.90	3.62	3.75	—	—
		9	2.92	—	—	—	1.32	2.90	3.36	0.28	0.78	0.97	1.22	3.38	4.23	3.73	—	—
		12	3.75	—	—	—	1.32	3.80	4.31	0.28	1.02	1.28	1.22	4.44	5.55	3.72	—	—
	2	7+7	2.20	2.20	—	—	1.89	4.40	5.28	0.42	1.19	1.48	1.80	5.16	6.45	3.71	3.8	A
		7+9	1.93	2.48	—	—	1.89	4.40	5.28	0.42	1.19	1.48	1.80	5.16	6.45	3.71	3.8	A
		7+12	1.62	2.78	—	—	1.89	4.40	5.28	0.42	1.19	1.48	1.80	5.16	6.45	3.71	3.8	A
18-2	1	9+9	2.20	2.20	—	—	1.89	4.40	5.28	0.42	1.19	1.48	1.80	5.16	6.45	3.71	3.8	A
		9+12	1.89	2.51	—	—	1.89	4.40	5.28	0.42	1.19	1.48	1.80	5.16	6.45	3.71	3.8	A
		7	2.50	—	—	—	1.56	2.50	3.03	0.32	0.67	0.83	1.39	2.90	3.62	3.75	—	—
	2	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	—	—
		7+7	2.50	2.50	—	—	2.23	5.00	6.04	0.51	1.35	2.12	2.22	5.86	9.23	3.71	3.8	A
21-3	2	7+9	2.32	2.98	—	—	2.23	5.30	6.13	0.51	1.43	2.12	2.22	6.21	9.23	3.71	3.8	A
		7+12	2.03	3.47	—	—	2.23	5.50	6.36	0.51	1.48	2.12	2.22	6.45	9.23	3.71	3.8	A
		9+9	2.79	2.79	—	—	2.23	5.57	6.68	0.51	1.50	2.12	2.22	6.53	9.23	3.71	3.8	A
	3	9+12	2.40	3.20	—	—	2.23	5.60	6.68	0.51	1.51	2.12	2.22	6.56	9.23	3.71	3.8	A
		12+12	2.80	2.80	—	—	2.23	5.60	6.96	0.51	1.51	2.12	2.22	6.56	9.23	3.71	3.8	A
		7+7	2.50	2.50	—	—	2.18	5.00	5.94	0.53	1.35	1.78	2.32	5.86	7.73	3.71	3.8	A
27-3	2	7+9	2.45	3.15	—	—	2.18	5.60	6.27	0.53	1.51	1.87	2.32	6.56	8.12	3.71	3.8	A
		7+12	2.17	3.73	—	—	2.18	5.90	6.60	0.53	1.59	1.96	2.32	6.91	8.51	3.71	3.8	A
		7+18	1.82	4.68	—	—	2.18	6.50	7.39	0.53	1.75	2.05	2.32	7.62	8.89	3.71	3.8	A+
	3	9+9	2.95	2.95	—	—	2.18	5.90	6.93	0.53	1.59	1.96	2.32	6.91	8.51	3.71	3.8	A
		9+12	2.70	3.60	—	—	2.18	6.30	7.13	0.53	1.70	1.99	2.32	7.38	8.66	3.71	3.8	A+
		9+18	2.20	4.40	—	—	2.18	6.60	7.39	0.53	1.78	2.05	2.32	7.73	8.89	3.71	3.8	A+
28-4	2	12+12	3.15	3.15	—	—	2.18	6.30	7.39	0.53	1.70	2.05	2.32	7.38	8.89	3.71	3.8	A+
		7+7+7	2.20	2.20	2.20	—	2.35	6.60	7.79	0.64	1.78	2.22	2.78	7.73	9.67	3.71	4.0	A+
		7+7+9	2.02	2.02	2.60	—	2.35	6.65	7.79	0.64	1.79	2.22	2.78	7.77	9.67	3.72	4.0	A+
	3	7+7+12	1.80	1.80	3.09	—	2.35	6.70	7.92	0.64	1.80	2.22	2.78	7.83	9.67	3.72	4.0	A+
		7+9+9	1.88	2.41	2.41	—	2.35	6.70	7.92	0.64	1.80	2.22	2.78	7.83	9.67	3.72	4.0	A+
		7+9+12	1.68	2.15	2.87	—	2.35	6.70	7.92	0.64	1.80	2.22	2.78	7.83	9.67	3.72	4.0	A+
28-4	2	9+9+9	2.23	2.23	2.23	—	2.35	6.70	7.92	0.64	1.81	2.22	2.78	7.85	9.67	3.71	4.0	A+
		9+9+12	2.01	2.01	2.68	—	2.35	6.70	7.92	0.64	1.80	2.22	2.78	7.83	9.67	3.72	4.0	A+
		7+7+7	2.20	2.20	2.20	—	2.35	6.60	7.79	0.64	1.78	2.22	2.78	7.73	9.67	3.71	4.0	A+
	3	7+7+9	2.13	2.13	2.74	—	2.87	7.00	9.96	0.68	1.88	2.78	2.96	8.16	12.09	3.73	4.0	A+
		7+7+12	2.13	2.13	3.65	—	2.87	7.90	9.96	0.68	2.12	2.78	2.96	9.21	12.09	3.73	4.0	A+
		7+7+18	1.82	1.82	4.67	—	2.87	8.30	9.96	0.68	2.23	2.78	2.96	9.67	12.09	3.73	4.0	A+
28-4	3	7+9+9	2.21	2.84	—	—	2.87	7.90	9.96	0.68	2.12	2.78	2.96	9.21	12.09	3.73	4.0	A+
		7+9+12	2.05	2.64	3.51	—	2.87	8.20	9.96	0.68	2.20	2.78	2.96	9.56	12.09	3.73	4.0	A+
		7+9+18	1.71	2.20	4.39	—	2.87	8.30	9.96	0.68	2.23	2.78	2.96	9.67	12.09	3.73	4.0	A+
	4	7+12+12	1.87	3.21	3.21	—	2.87	8.30	9.96	0.68	2.23	2.78	2.96	9.67	12.09	3.73	4.0	A+
		9+9+9	2.73	2.73	2.73	—	2.87	8.20	9.96	0.68	2.20	2.78	2.96	9.56	12.09	3.73	4.0	A+
		9+9+12	2.49	2.49	3.32	—	2.87	8.30	9.96	0.68	2.23	2.78	2.96	9.67	12.09	3.73	4.0	A+
28-4	2	9+12+12	2.26	3.02	3.02	—	2.87	8.30	9.96	0.68	2.23	2.78	2.96	9.67	12.09	3.73	4.0	A+
		12+12+12	2.77	2.77	2.77	—	2.87	8.30	9.96	0.68	2.23	2.78	2.96	9.67	12.09	3.73	4.0	A+
		7+7	2.50	2.50	—	—	2.20	5.00	6.51	0.59	1.35	1.90	2.58	5.86	8.25	3.71	3.4	A
	3	7+9	2.45	3.15	—	—	2.20	5.60	6.86	0.59	1.51	2.02	2.58	6.56	8.77	3.71	3.4	A
		7+12	2.21	3.79	—	—	2.20	6.00	7.38	0.57	1.61	2.20	2.49	6.99	9.56	3.73	3.4	A
		7+18	2.16	5.62	—	—	2.20	7.80	8.10	0.59	2.10	2.61	2.58	9.14	11.34	3.71	3.4	A
28-4	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	7.00	8.10	0.59	2.13	2.61	2.58	9.26	11.34	3.71	3.4	A
	3	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	2	7+7+7	2.33	2.33	2.33	—	2.82	7.00	9.06	0.71	1.89	2.75	3.09	8.20	11.96	3.71	3.5	A
		7+7+9	2.37	2.37	3.05	—	2.82	7.80	9.06	0.71	2.10	2.75	3.09	9.14	11.96	3.71	3.5	A
		7+7+12	2.26	2.26	3.88	—	2.82	8.40	9.06	0.71	2.26	2.75	3.09	9.84	11.96	3.71	3.5	A
	3	7+7+18	1.88	1.88	4.84	—	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96	3.71	3.5	A
		7+9+9	2.35	3.02	2.68	—	2.82	8.40	9.06	0.71	2.26	2.75	3.09	9.84	11.96	3.71	3.5	A
		7+9+12	2.13	2.73	3.64	—	2.82	8.50	9.06	0.71	2.29	2.75	3.09	9.96	11.96	3.71	3.5	A
28-4	2	7+9+18	1.77	2.28	4.55	—	2.82	8.60	9.06	0.71	2.32	2.75	3.09	10.08	11.96			

# BUT WHAT IS R32?

Why is it considered environmentally friendly?



## DI-FLUORO-METHANE

i.e.



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<sub>2</sub>, 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<sub>2</sub> (i.e. the equivalent of over 2 tons of CO<sub>2</sub>).



**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.

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



# NOTES



■ **NOTICE FOR SALES AGENTS:**

With a view to constantly improve its production range and customer satisfaction levels, the Company hereby specifies that aesthetic and/or dimensional features, specifications and accessories may be subject to changes.

Please place the utmost care to ensure all technical and/or sales documents (lists, catalogues, brochures, etc.) provided to the final Customer are updated according to the latest edition.

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