

# Sigilus



Split systems for small and medium size cold rooms at positive and negative temperature, composed of a low-noise condensing unit and a slim-type, cubic-type or double-flow evaporating unit.

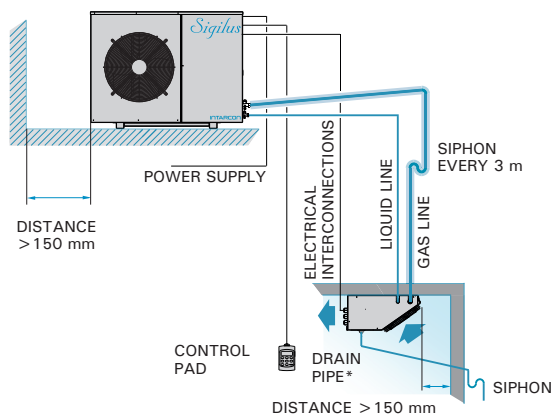
## Features

- ▶ 230 V-I-50 Hz or 400 V-III-50 Hz power supply. Available in 60 Hz. Others voltages by request.
- ▶ Minimal R-134A or R-449A refrigerant load.
- ▶ Hermetic reciprocating compressor.
- ▶ Double noise compressor insulation.
- ▶ Large surface L-shape condensing coil (straight for series 0 and 1).
- ▶ Low-speed condensing motor fans.
- ▶ Proportional control of condensing pressure (optional for -N version).
- ▶ High and low pressure switches.
- ▶ Discharge muffler (for models 1 HP or more) and crankcase heater.
- ▶ Liquid receiver.
- ▶ Refrigerant pre-load for 10 m of pipe.
- ▶ Evaporating unit: slim-type (-N version) or cubic-type (-Q version).
- ▶ Built-in thermostatic expansion valves and solenoid valves.
- ▶ Electrical heater defrost (except ASF series).
- ▶ Stainless steel drain pan.
- ▶ Flare-type connections (up to 1/2"-3/4") and service valves.
- ▶ MCB protection.
- ▶ Multifunctional electronic control with remote keyboard and digital condensation control.
- ▶ Liquid injection system for negative temperature models with R-449A.

## Installation scheme

Maximum vertical distance between units of 15 m if the condensing unit is placed at a higher level than the evaporating unit, and 6 m otherwise.

\* 20 % minimum slope for drain tube for negative temperature models.



- ❄ Factory-tested systems with no need for on-site tests.
- ❄ Low-noise condensing unit.
- ❄ Tropicalised design for high ambient temperature up to 50 °C.
- ❄ Built-in thermostatic expansion valve.
- ❄ Proportional control of condensing pressure (optional for slim-type).
- ❄ Refrigerant pre-load.
- ❄ Units exempt from leak checks.

## Control pad

*Sigilus* split systems feature XM670K electronic control as standard:



- Remote control keyboard with digital display.
- Temperature control with maximum and minimum temperature value recording.
- Possibility of interconnection and synchronization of up to 8 devices by LAN, managed from a single control.

## Triple noise insulation

*Sigilus* units feature triple noise insulation:

- Noise insulated compressor compartment, separated from the air flow.
- Hermetic reciprocating compressor with insulation cover (three-phase models) and discharge muffler.
- Low-noise and low-speed fan on shock absorbing structure.

## Proportional control of condensing pressure

Proportional control of condensing pressure, for prolonged operation at under low ambient temperature, standard for *Sigilus* series (optional for slim-type).

## Electrical interconnections

For the interconnection of the condenser and evaporator units, the following cable sections must be provided for a length of 10 m (hoses not included):

Power supply	230 V-I-50 Hz	400 V-III-50 Hz
Probes	4 x 1 mm <sup>2</sup>	
Manoeuvre	2 x 1 mm <sup>2</sup>	3 x 1 mm <sup>2</sup>
Defrost	2 x 1.5 mm <sup>2</sup> + G	4 x 1.5 mm <sup>2</sup> + G
Control pad	2 x 1 mm <sup>2</sup>	
Switch door*	2 x 1 mm <sup>2</sup>	
Door heater cable	2 x 1 mm <sup>2</sup> at NT	
Cold room light*	2 x 1 mm <sup>2</sup> + G	

\* Optional not included.

To know electrical interconnections of each model: see technical manual.

230 V-I-50 Hz / 400 V-III-50 Hz | Positive temperature | R-134a / R-449A

Series / Model	Compressor		Cooling capacity / Cold room volume according to cold room temperature <sup>(1)</sup>								Input power (kW)	Max. current (A)	Evap. fan	Evap. air flow (m³/h)	Conden. air flow (m³/h)	Liq-Gas cooling connection	Refrig. load (kg) <sup>(2)</sup>	Weight (kg)	SPL dBA <sup>(3)</sup>	Price (€)
	HP	Power supply	-5 °C		0 °C		5 °C		10 °C											
			W	m³	W	m³	W	m³	W	m³										
<b>MSF-NY-00 010</b>	3/8	230 V-I	497	2.9	<b>637</b>	<b>5.0</b>	788	8.8	945	13	0.41	4.2	1x Ø 172	300	350	1/4"-3/8"	< 1.5	46+12	28	
<b>MSF-NY-00 015</b>	1/2	230 V-I	653	3.6	<b>832</b>	<b>7.4</b>	1 004	11	1 188	16	0.51	5.2	1x Ø 172	300	350	1/4"-3/8"	< 1.5	49+12	29	
<b>MSF-NY-11 015</b>	1/2	230 V-I	805	4.7	<b>1 031</b>	<b>10</b>	1 296	14	1 582	28	0.56	5.6	1x Ø 200	550	1 700	1/4"-1/2"	< 2.0	57+16	34	
<b>MSF-NY-11 026</b>	3/4	230 V-I	1 076	9.0	<b>1 412</b>	<b>16</b>	1 738	25	2 084	40	0.80	9.2	1x Ø 200	550	1 700	1/4"-1/2"	< 2.0	65+16	34	
<b>MSF-NY-12 033</b>	1	230 V-I	1 475	13	<b>1 859</b>	<b>20</b>	2 289	35	2 741	57	1.02	9.7	2x Ø 200	1 050	1 700	1/4"-5/8"	< 2.0	67+24	34	
<b>MSF-NY-12 053</b>	1 1/2	230 V-I *	1 811	22	<b>2 347</b>	<b>33</b>	2 872	50	3 439	79	1.42	12.3	2x Ø 200	1 050	1 700	1/4"-5/8"	< 2.0	77+24	35	
<b>MSF-NY-13 074</b>	2	230 V-I *	2 772	30	<b>3 528</b>	<b>50</b>	4 363	76	5 229	125	1.94	17.2	3x Ø 254	1 725	1 700	1/4"-3/4"	< 3.5	79+45	37	
<b>MSF-NY-23 086</b>	4	400 V-III	3 355	39	<b>4 384</b>	<b>65</b>	5 376	108	6 437	160	2.18	14.1	3x Ø 254	1 725	3 700	3/8"-7/8"	< 4.5	96+45	38	
<b>MSF-NY-24 108</b>	5	400 V-III	4 347	58	<b>5 649</b>	<b>90</b>	6 920	138	8 316	220	2.83	18.2	4x Ø 300	3 100	3 700	3/8"-7/8"	< 5.0	98+45	35	
<b>MSF-NY-24 136</b>	6 1/2	400 V-III	5 486	75	<b>6 899</b>	<b>110</b>	8 363	150	9 949	280	3.55	22.2	4x Ø 300	3 100	3 700	3/8"-1 1/8"	< 5.5	101+55	34	
<b>MSF-NY-34 171</b>	8	400 V-III	6 080	88	<b>7 613</b>	<b>130</b>	9 240	200	10 978	350	4.16	25.2	4x Ø 300	3 100	4 000	3/8"-1 1/8"	< 5.5	140+55	40	
<b>MSF-NG-0 008</b>	1/3	230 V-I	611	2.9	<b>759</b>	<b>5.0</b>	915	8.8	1 103	13	0.43	5.1	1x Ø 172	300	350	1/4"-3/8"	< 1.5	47+12	29	
<b>MSF-NG-0 010</b>	3/8	230 V-I	739	3.6	<b>894</b>	<b>6.1</b>	1 056	10	1 254	15	0.53	4.8	1x Ø 172	300	350	1/4"-3/8"	< 1.5	49+12	29	
<b>MSF-NG-0 012</b>	1/2	230 V-I	818	4.7	<b>981</b>	<b>7.4</b>	1 153	12	1 358	21	0.63	5.6	1x Ø 172	300	350	1/4"-3/8"	< 1.5	50+12	29	
<b>MSF-NG-1 014</b>	1/2	230 V-I	882	8.0	<b>1 095</b>	<b>12</b>	1 322	20	1 585	34	0.77	6.5	1x Ø 200	550	1 700	1/4"-1/2"	< 2.0	59+16	34	
<b>MSF-NG-1 016</b>	5/8	230 V-I	972	10	<b>1 210</b>	<b>15</b>	1 462	24	1 759	40	0.81	7.4	1x Ø 200	550	1 700	1/4"-1/2"	< 2.0	67+16	34	
<b>MSF-NG-1 018</b>	3/4	230 V-I	1 397	12	<b>1 649</b>	<b>19</b>	1 915	28	2 245	45	0.94	8.7	1x Ø 200	550	1 700	1/4"-1/2"	< 2.0	68+16	34	
<b>MSF-NG-2 024</b>	1	230 V-I	1 513	14	<b>1 958</b>	<b>22</b>	2 420	35	2 958	57	1.26	11.1	2x Ø 200	1 050	1 700	1/4"-1/2"	< 2.5	82+24	34	
<b>MSF-NG-2 026</b>	1 1/4	230 V-I *	1 712	16	<b>2 147</b>	<b>25</b>	2 611	39	3 157	64	1.44	11.5	2x Ø 200	1 050	1 700	1/4"-1/2"	< 2.5	83+24	34	
<b>MSF-NG-2 034</b>	1 1/2	230 V-I *	2 120	21	<b>2 606</b>	<b>33</b>	3 117	50	3 730	79	1.83	16.1	2x Ø 200	1 050	1 700	1/4"-5/8"	< 2.5	83+24	35	
<b>MSF-NG-3 038</b>	1 3/4	400 V-III	2 770	29	<b>3 394</b>	<b>46</b>	4 078	71	4 894	112	1.89	8.1	3x Ø 254	1 725	3 200	1/4"-5/8"	< 3.0	82+45	29	
<b>MSF-NG-4 048</b>	2	400 V-III	3 368	39	<b>4 231</b>	<b>62</b>	5 158	92	6 225	145	2.34	9.6	3x Ø 254	1 725	3 700	3/8"-3/4"	< 4.5	84+45	26	
<b>MSF-NG-4 054</b>	2 1/2	400 V-III	3 792	47	<b>4 671</b>	<b>70</b>	5 640	105	6 780	160	2.54	10.1	3x Ø 254	1 725	3 700	3/8"-3/4"	< 4.5	85+45	26	

230 V-I-50 Hz / 400 V-III-50 Hz | Negative temperature | R-449A

Series / Model	Compressor		Cooling capacity / Cold room volume according to cold room temperature <sup>(1)</sup>				Input power (kW)	Max. current (A)	Evap. fan	Evap. air flow (m³/h)	Conden. air flow (m³/h)	Liq-Gas cooling connection	Refrig. load (kg) <sup>(2)</sup>	Weight (kg)	SPL dBA <sup>(3)</sup>	Price (€)		
	HP	Power supply	-25 °C		-20 °C												-15 °C	
			W	m³	W	m³											W	m³
<b>BSF-NG-0 018</b>	5/8	230 V-I	486	1.1	<b>613</b>	<b>2.3</b>	749	4.1	0.50	4.7	1x Ø 172	300	350	1/4"-1/2"	< 1.5	50+12	28	
<b>BSF-NG-1 026</b>	3/4	230 V-I	763	3.2	<b>952</b>	<b>7.0</b>	1 155	13	0.82	8.5	1x Ø 200	550	1 700	1/4"-1/2"	< 2.0	67+16	34	
<b>BSF-NG-2 034</b>	1 1/4	230 V-I	930	3.9	<b>1 107</b>	<b>8.1</b>	1 437	15	1.18	11.3	2x Ø 200	1 050	1 700	1/4"-1/2"	< 2.0	83+16	34	
<b>BSF-NG-2 055</b>	1 3/4	230 V-I *	1 260	9.0	<b>1 710</b>	<b>16</b>	2 190	30	1.70	17.5	2x Ø 200	1 050	1 700	1/4"-5/8"	< 2.5	85+24	36	
<b>BSF-NG-2 075</b>	2 1/2	230 V-I *	1 655	13	<b>2 130</b>	<b>22</b>	2 625	38	2.10	25.5	2x Ø 200	1 050	1 700	1/4"-5/8"	< 3.5	90+24	37	
<b>BSF-NG-3 075</b>	2 1/2	230 V-I *	1 755	14	<b>2 450</b>	<b>27</b>	3 080	48	2.30	26.3	3x Ø 254	1 725	1 700	1/4"-5/8"	< 3.5	90+45	37	
<b>BSF-NG-4 096</b>	3 1/2	400 V-III	2 139	19	<b>2 670</b>	<b>39</b>	3 523	68	2.48	12.0	3x Ø 254	1 725	3 700	3/8"-3/4"	< 4.5	97+45	39	
<b>BSF-NG-4 108</b>	4 1/4	400 V-III	2 463	29	<b>3 276</b>	<b>50</b>	4 118	78	2.82	14.6	3x Ø 254	1 725	3 700	3/8"-7/8"	< 5.0	97+45	37	
<b>BSF-NG-4 136</b>	5	400 V-III	2 949	37	<b>3 775</b>	<b>61</b>	4 648	100	3.64	16.8	3x Ø 254	1 725	3 700	3/8"-7/8"	< 5.0	100+45	32	

Options

- ▶ Change to 400 V-III-50 Hz power supply. + 5
- ▶ Proportional control of condensing pressure through fan speed variation (except O series). + 295 €
- ▶ Coil protection grille. + 108 €
- ▶ Built-in oil separator. + 695 €
- ▶ Anti-corrosion evaporator coil coating. + 6
- ▶ Anti-corrosion condenser coil coating. + 4
- ▶ Larger sized multifunction electronic control. + 178

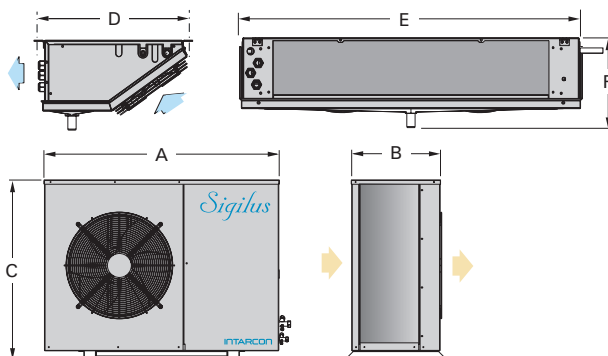
<sup>(1)</sup> Nominal performances refer to operation with cold room temperatures of 0 °C (PT) and -20 °C (NT), and ambient temperature of 35 °C. Estimated cold room volume according to conditions of the calculation bases (page 8).

<sup>(2)</sup> Units with refrigerant load less than 5 tons of CO<sub>2</sub> equivalent (3.5 kg of R-134a or R-449A) exempt from leak checking, Regulation (EU) No 517/2014.

<sup>(3)</sup> Sound pressure in dB (A) in open field at 10 m from the unit.

\* Available units with 400 V-III-50 Hz power supply.

Dimensions



Dimensions (mm)	A	B	C	D	E	F	Evaporator fans
0 and 00 series	670	308	450	417	549	185	1x Ø 172
1 and 11 series	1 030	375	580	430	643	235	1x Ø 200
2 and 12 series	1 030	375	580	430	993	235	2x Ø 200
3 and 13 series	1 030	375	580	508	1 691	235	3x Ø 254
4 and 23 series	1 080	415	830	508	1 691	235	3x Ø 254
24 series	1 080	415	830	547	2 064	285	4x Ø 300
34 series	1 150	480	1 100	547	2 064	285	4x Ø 300

**230 V-I-50 Hz / 400 V-III-50 Hz | Positive temperature | R-134a / R-449A**

Series / Model	Compressor		Cooling capacity / Cold room volume according to cold room temperature <sup>(1)</sup>								Input power (kW)	Max. current (A)	Fan evap.	Evap. air flow (m³/h)	Conden. air flow (m³/h)	Liq-Gas cooling connection	Refrig. load (kg) <sup>(2)</sup>	Weight (kg)	SPL dB(A) <sup>(3)</sup>	Price (€)
	HP	Power supply	-5 °C		0 °C		5 °C		10 °C											
			W	m³	W	m³	W	m³	W	m³										
<b>R-134a</b>	<b>MSF-QY-10 068</b>	3 1/2	400 V-III	3 281	42	<b>4 106</b>	<b>60</b>	4 998	69	5 985	110	1.98	12.8	1x Ø 350	2 100	3 200	1/4"-3/4"	< 4.0	82+43	25
	<b>MSF-QY-20 086</b>	4	400 V-III	3 523	45	<b>4 442</b>	<b>65</b>	5 429	75	6 515	120	2.19	14.8	1x Ø 350	2 100	3 700	3/8"-7/8"	< 4.5	96+43	38
	<b>MSF-QY-21 108</b>	5	400 V-III	4 226	58	<b>5 334</b>	<b>81</b>	6 521	130	7 807	210	2.56	16.3	1x Ø 350	2 700	3 700	3/8"-7/8"	< 5.0	98+56	35
	<b>MSF-QY-22 136</b>	6 1/2	400 V-III	5 749	80	<b>7 277</b>	<b>120</b>	8 831	186	10 553	290	3.63	21.1	2x Ø 350	4 150	3 700	3/8"-1 1/8"	< 5.0	101+72	34
	<b>MSF-QY-33 171</b>	8	400 V-III	6 746	100	<b>8 484</b>	<b>172</b>	10 295	197	12 306	354	4.42	24.1	2x Ø 350	5 200	4 000	3/8"-1 1/8"	< 7.0	140+89	40
	<b>MSF-QY-33 215</b>	10	400 V-III	8 426	130	<b>10 563</b>	<b>241</b>	12 857	268	15 419	440	5.24	30.5	3x Ø 350	6 200	6 500	3/8"-1 1/8"	< 7.5	147+94	39
<b>R-449A</b>	<b>MSF-QG-10 038</b>	1 3/4	400 V-III	3 280	31	<b>3 919</b>	<b>48</b>	4 625	75	5 472	120	1.77	7.4	1x Ø 350	2 100	3 200	1/4"-5/8"	< 3.0	82+43	29
	<b>MSF-QG-20 048</b>	2	400 V-III	3 964	43	<b>4 736</b>	<b>63</b>	5 572	95	6 605	150	2.21	8.8	1x Ø 350	2 100	3 700	3/8"-3/4"	< 5.0	84+43	26
	<b>MSF-QG-20 054</b>	2 1/2	400 V-III	4 395	48	<b>5 197</b>	<b>72</b>	6 078	110	7 158	170	2.38	9.4	1x Ø 350	2 100	3 700	3/8"-3/4"	< 5.0	85+43	26
	<b>MSF-QG-21 060</b>	3	400 V-III	5 081	61	<b>6 032</b>	<b>89</b>	7 055	130	8 328	200	2.84	10.4	1x Ø 350	2 700	3 700	3/8"-3/4"	< 5.0	88+56	26
	<b>MSF-QG-21 068</b>	3 1/2	400 V-III	5 519	78	<b>6 528</b>	<b>110</b>	7 601	160	8 942	250	3.21	11.4	1x Ø 350	2 700	3 700	3/8"-3/4"	< 5.0	88+56	25
	<b>MSF-QG-32 086</b>	4	400 V-III	6 787	91	<b>8 180</b>	<b>130</b>	9 707	190	11 545	300	4.13	13.6	2x Ø 350	4 150	4 000	1/2"-7/8"	< 7.0	115+72	38
	<b>MSF-QG-32 108</b>	5	400 V-III	8 623	125	<b>10 181</b>	<b>175</b>	11 880	255	13 969	400	5.05	16.7	2x Ø 350	4 150	6 500	1/2"-7/8"	< 7.0	120+72	35
	<b>MSF-QG-43 136</b>	6 1/2	400 V-III	11 105	160	<b>13 146</b>	<b>220</b>	15 399	320	18 145	500	6.63	21.5	3x Ø 350	6 200	7 000	1/2"-1 1/8"	< 10.0	135+89	34
	<b>MSF-QG-44 160</b>	8	400 V-III	11 597	170	<b>14 009</b>	<b>230</b>	16 660	340	19 806	530	7.59	26.0	4x Ø 350	8 300	7 000	5/8"-1 1/8"	< 10.0	157+118	40

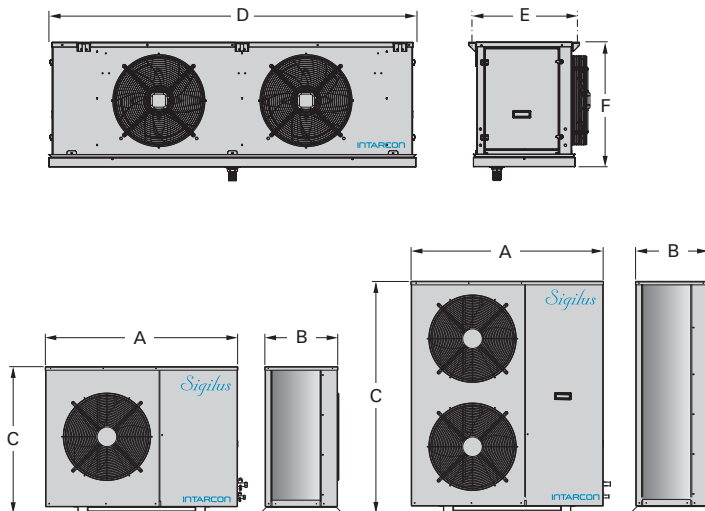
**230 V-I-50 Hz / 400 V-III-50 Hz | Negative temperature | R-449A**

Series / Model	Compressor		Cooling capacity / Cold room volume according to cold room temperature <sup>(1)</sup>						Input power (kW)	Max. current (A)	Fan evap.	Evap. air flow (m³/h)	Conden. air flow (m³/h)	Liq-Gas cooling connection	Refrig. load (kg) <sup>(2)</sup>	Weight (kg)	SPL dB(A) <sup>(3)</sup>	Price (€)
	HP	Power supply	-25 °C		-20 °C		-15 °C											
			W	m³	W	m³	W	m³										
<b>R-449A</b>	<b>BSF-QG-10 075</b>	2 1/2	230 V-I *	1 760	14	<b>2 465</b>	<b>27</b>	3 110	48	2.30	25.1	1x Ø 350	2 100	1 700	1/4"-5/8"	< 3.0	90+43	37
	<b>BSF-QG-20 096</b>	3 1/2	400 V-III	2 456	20	<b>3 135</b>	<b>43</b>	3 881	74	2.39	11.5	1x Ø 350	2 100	3 700	1/4"-3/4"	< 4.0	97+43	39
	<b>BSF-QG-21 108</b>	4 1/4	400 V-III	3 023	28	<b>3 883</b>	<b>50</b>	4 772	86	2.76	13.5	1x Ø 350	2 700	3 700	1/4"-7/8"	< 5.0	97+56	37
	<b>BSF-QG-22 136</b>	5	400 V-III	4 159	53	<b>5 116</b>	<b>83</b>	6 146	130	4.02	16.4	2x Ø 350	4 150	3 700	3/8"-1 1/8"	< 5.0	97+72	32
	<b>BSF-QG-33 215</b>	7 1/2	400 V-III	5 970	80	<b>7 605</b>	<b>130</b>	9 334	200	5.63	25.8	3x Ø 350	6 200	6 500	1/2"-1 1/8"	< 7.5	147+94	39
	<b>BSF-QG-34 271</b>	10	400 V-III	8 005	120	<b>9 839</b>	<b>185</b>	11 798	230	7.15	28.2	4x Ø 350	8 300	6 500	1/2"-1 3/8"	< 8.5	147+118	39

**Options**

- ▶ Change to 400 V-III-50 Hz power supply.
- ▶ Coil protection grille.
- ▶ Built-in oil separator.
- ▶ Anti-corrosion evaporator coil coating.
- ▶ Anti-corrosion condenser coil coating.
- ▶ Larger sized multifunction electronic control.

**Dimensions**



<sup>(1)</sup> Nominal performances refer to operation with cold room temperatures of 0 °C (PT) and -20 °C (NT), and ambient temperature of 35 °C. Estimated cold room volume according to conditions of the calculation bases (page 8).

<sup>(2)</sup> Units with refrigerant load less than 5 tons of CO<sub>2</sub> equivalent (3.5 kg of R-134a or R-449A) exempt from leak checking, Regulation (EU) No 517/2014.

<sup>(3)</sup> Sound pressure in dB (A) in open field at 10 m from the unit.

\* Available units with 400 V-III-50 Hz power supply.

**Electrical interconnections**

For the interconnection of the condenser and evaporator units, the following cable sections must be provided for a length of 10 m (except series 43 and 44).

Power supply	230 V-I-50 Hz	400 V-III-50 Hz
Probes	4 x 1 mm <sup>2</sup>	
Manoeuvre	2 x 1 mm <sup>2</sup>	3 x 1 mm <sup>2</sup>
Defrost	2 x 1.5 mm <sup>2</sup> + G	4 x 1.5 mm <sup>2</sup> + G
Control pad	2 x 1 mm <sup>2</sup>	
Switch door*	2 x 1 mm <sup>2</sup>	
Door heater cable	2 x 1 mm <sup>2</sup> at NT	
Cold room light*	2 x 1 mm <sup>2</sup> + G	

\* Optional not included.

To know electrical interconnections of each model: see technical manual.

Dimensions (mm)	A	B	C	D	E	F
10 series	1 030	375	580	881	455	553
20 series	1 080	415	830	881	455	553
21 series	1 080	415	830	1 231	455	553
22 series	1 080	415	830	1 531	455	553
32 series	1 150	480	1 100	1 531	455	553
33 series	1 150	480	1 100	1 932	455	553
34 series	1 150	480	1 100	2 432	455	553
43 series	1 150	480	1 350	1 932	455	553
44 series	1 150	480	1 350	2 432	455	553

230 V-I-50 Hz / 400 V-III-50 Hz | High temperature | R-134a / R-449A

Series / Model	Compressor		Cooling capacity / Cold room volume according to cold room temperature <sup>(1)</sup>				Input power (kW)	Max. current (A)	Evap. air flow (m <sup>3</sup> /h)	Conden. air flow (m <sup>3</sup> /h)	Liq-Gas cooling connection	Refrig. load (kg) <sup>(2)</sup>	Weight (kg)	SPL dB(A) <sup>(3)</sup>	Price (€)		
	HP	Power supply	9 °C		12 °C											15 °C	
			W	m <sup>3</sup>	W	m <sup>3</sup>										W	m <sup>3</sup>
<b>ASF-DY-11 015</b>	1/2	230 V-I	1 687	16	<b>1 922</b>	<b>21</b>	2 160	29	0.69	4.7	1 100	1 700	1/4"-1/2"	< 2.5	57+32	34	
<b>ASF-DY-11 026</b>	3/4	230 V-I	2 342	23	<b>2 678</b>	<b>30</b>	2 977	41	1.05	8.4	1 100	1 700	1/4"-1/2"	< 2.5	65+32	34	
<b>ASF-DY-12 033</b>	1	230 V-I	2 840	27	<b>3 176</b>	<b>36</b>	3 533	48	1.33	10.4	1 800	1 700	1/4"-5/8"	< 3.0	67+45	34	
<b>ASF-DY-13 053</b>	1 1/2	230 V-I *	4 226	42	<b>4 730</b>	<b>56</b>	5 271	72	2.04	13.6	3 150	1 700	3/8"-3/4"	< 4.0	77+65	35	
<b>ASF-DY-13 074</b>	2	230 V-I *	6 053	62	<b>6 825</b>	<b>83</b>	7 634	112	2.61	17.6	3 150	3 200	3/8"-3/4"	< 4.5	79+65	34	
<b>ASF-DY-23 086</b>	4	400 V-III	7 151	75	<b>8 033</b>	<b>99</b>	8 957	131	2.90	14.4	3 150	3 700	3/8"-7/8"	< 5.0	96+65	38	
<b>ASF-DY-24 108</b>	5	400 V-III	8 936	99	<b>10 028</b>	<b>122</b>	11 146	165	3.80	17.5	5 700	3 700	3/8"-7/8"	< 5.5	98+70	35	
<b>ASF-DY-24 136</b>	6 1/2	400 V-III	11 093	128	<b>12 332</b>	<b>168</b>	13 645	224	5.00	21.2	5 700	3 700	1/2"-1 1/8"	< 6.0	98+70	34	
<b>ASF-DY-34 171</b>	8	400 V-III	13 424	146	<b>14 989</b>	<b>186</b>	16 669	251	5.88	25.2	5 700	6 500	1/2"-1 1/8"	< 6.0	120+70	40	
<b>ASF-DY-44 215</b>	10	400 V-III	15 771	171	<b>17 593</b>	<b>218</b>	19 546	294	6.61	30.2	5 700	7 000	1/2"-1 3/8"	< 9.5	120+70	39	
<b>ASF-DG-1 016</b>	5/8	230 V-I	2 161	19	<b>2 387</b>	<b>25</b>	2 635	35	0.99	7.5	1 100	1 700	1/4"-1/2"	< 2.5	67+32	38	
<b>ASF-DG-1 018</b>	3/4	230 V-I	2 462	23	<b>2 709</b>	<b>30</b>	2 961	42	1.18	8.8	1 100	1 700	1/4"-1/2"	< 2.5	68+32	35	
<b>ASF-DG-1 024</b>	1	230 V-I	3 225	29	<b>3 539</b>	<b>39</b>	3 879	51	1.53	11.3	1 800	1 700	3/8"-5/8"	< 3.5	82+45	34	
<b>ASF-DG-1 026</b>	1 1/4	230 V-I *	3 709	35	<b>4 078</b>	<b>46</b>	4 466	63	1.75	12.0	1 800	3 200	3/8"-5/8"	< 3.5	83+45	40	
<b>ASF-DG-1 034</b>	1 1/2	230 V-I *	4 607	43	<b>5 046</b>	<b>58</b>	5 494	77	2.24	16.6	1 800	3 200	3/8"-5/8"	< 3.5	83+45	39	
<b>ASF-DG-1 038</b>	1 3/4	400 V-III	5 393	52	<b>5 885</b>	<b>68</b>	6 410	91	2.20	7.8	3 150	3 200	3/8"-5/8"	< 4.0	82+65	29	
<b>ASF-DG-2 048</b>	2	400 V-III	6 722	67	<b>7 343</b>	<b>87</b>	7 962	115	2.76	9.3	3 150	3 700	1/2"-3/4"	< 5.5	84+65	26	
<b>ASF-DG-2 054</b>	2 1/2	400 V-III	7 447	75	<b>8 113</b>	<b>97</b>	8 793	130	3.00	9.8	3 150	3 700	1/2"-3/4"	< 5.5	85+65	26	
<b>ASF-DG-3 060</b>	3	400 V-III	8 824	94	<b>9 673</b>	<b>115</b>	10 551	155	3.60	11.9	3 150	6 500	1/2"-7/8"	< 6.0	88+65	26	
<b>ASF-DG-3 068</b>	3 1/2	400 V-III	9 662	98	<b>10 578</b>	<b>125</b>	11 512	165	4.19	12.9	3 150	6 500	1/2"-7/8"	< 6.0	88+65	25	
<b>ASF-DG-4 086</b>	4	400 V-III	11 687	120	<b>12 829</b>	<b>155</b>	14 001	205	4.90	15.2	5 700	7 000	5/8"-1 1/8"	< 9.0	115+70	38	
<b>ASF-DG-4 108</b>	5	400 V-III	14 416	150	<b>15 702</b>	<b>190</b>	17 068	255	6.40	18.2	5 700	7 000	5/8"-1 1/8"	< 8.5	120+70	35	

Options

- ▶ Change to 400 V-III-50 Hz power supply.
- ▶ Proportional control of condensing pressure through fan speed variation (already included in 2/23 series and above).
- ▶ Coil protection grille.
- ▶ Built-in oil separator.
- ▶ Anti-corrosion evaporator coil coating.
- ▶ Anti-corrosion condenser coil coating.
- ▶ Condensed water pump.
- ▶ Larger sized multifunction electronic control.

<sup>(1)</sup> Nominal performances refer to operation with cold room temperatures of 12 °C (HT) ambient temperature of 35 °C. Estimated cold room volume according to conditions of the calculation bases (page 8).

<sup>(2)</sup> Units with refrigerant load less than 5 tons of CO<sub>2</sub> equivalent (3.5 kg of R-134a or R-449A) exempt from leak checking, Regulation (EU) No 517/2014.

<sup>(3)</sup> Sound pressure in dB (A) in open field at 10 m from the unit.

\* Available units with 400 V-III-50 Hz power supply.

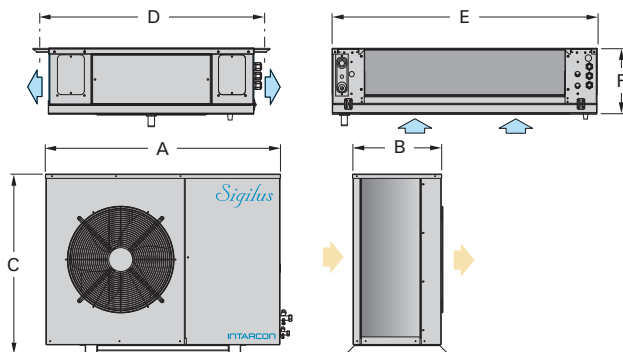
Electrical interconnections

For the interconnection of the condenser and evaporator units, the following cable sections must be provided for a length of 10 m (except series 4 and 44).

Power supply	230 V-I-50 Hz	400 V-III-50 Hz
Probes	4 x 1 mm <sup>2</sup>	
Manoeuvre	3 x 1 mm <sup>2</sup> + G	5 x 1 mm <sup>2</sup> + G
Control pad	2 x 1 mm <sup>2</sup>	
Condensed water pump*	3 x 1 mm <sup>2</sup>	

\* Optional not included.  
To know electrical interconnections of each model: see technical manual.

Dimensions



Dimensions (mm)		A	B	C	D	E	F	Evaporator fans
R-134a	11 series	1 030	375	580	798	706	245	1x Ø 360
	12 series	1 030	375	580	798	1 056	245	2x Ø 360
	13 series	1 030	375	580	798	1 756	245	3x Ø 360
	23 series	1 080	415	830	798	1 756	245	3x Ø 360
	24 series	1 080	415	830	888	2 156	295	3x Ø 450
	34 series	1 150	480	1 100	888	2 156	295	3x Ø 450
	44 series	1 150	480	1 350	888	2 156	295	3x Ø 450
R-449A	ASF-DG-1 016 and 1 018	1 030	375	580	798	706	245	1x Ø 360
	ASF-DG-1 024 up to 1 034	1 030	375	580	798	1 056	245	2x Ø 360
	ASF-DG-1 038	1 030	375	580	798	1 756	245	3x Ø 360
	2 series	1 080	415	830	798	1 756	245	3x Ø 360
	3 series	1 150	480	1 100	798	1 756	245	3x Ø 360
4 series	1 150	480	1 350	888	2 156	295	3x Ø 450	