

# Quick selection guide

## Solutions to provide protection against heat

### Cooling devices



### Heat exchangers



### Filter fans/outlet fans



### Thermostats



## Solutions to provide protection against cold

### Heater units



### Fan heaters



### Thermostats



## Solutions to provide protection against corrosion and condensation

### Heater units/ fan heaters



### Filter fans/outlet filters



### Thermostats



### Hygrostats/ hygrotherms



## SIMARIS therm

Number	Order number	Description	Quantity	Number	Connected poles	Rated current [A]	RDF (rated dissipation)	Power loss, split-off
000	69L210-1411-BA	SIVAMEL 0130...	1	0	0	0,00		-
000	69L210-1411-BA	SIVAMEL 0130...	1	0	0	0,00		-
80000	JW1208	AIR CIRCUL. BR...	1	3	3	500,00		2
00000	3VA210-1610-0...	MICR. RC-PSU...	1	3	3	20,00		1
0000	3VA210-1610-0...	MICR. RC-PSU...	1	3	3	20,00		1
0000	3VA210-1610-0...	MICR. RC-PSU...	1	3	3	20,00		1

Busbars

Amperage [A] | Cross-section [mm²] | Length [mm] | Resistance [mΩ] | Number of poles | Calculated power L...

Power loss, devices [W] 145,4 with RDF 80 % (Einsätze Geräte können ebenso abschirmendes Anstattungsgerät haben)

Power loss, wiring [W] 43,6

Power loss, busbars [W] 0,0

Disippatable power loss for cooling [W] selection of devices: 6MR423-3E008

Total power loss [W] -453,0

Disippatable power loss [W] at the maximum 238,0 corresponds to 20 K at 75% height of the enclosure

The SIMARIS therm calculation tool helps you to easily and precisely dimension the heat dissipation of your control panels, simply by selecting the relevant devices in the panel. If necessary, you can immediately select the necessary cooling devices and air conditioners. You can also define the heating power that may be required for anti-condensation heating.

For a free download and further information, visit: [www.siemens.com/simaristherm](http://www.siemens.com/simaristherm)

# Filter fans and outlet filters

## Filter fans

Cutout	Voltage	Input rating at 50 Hz	Standard	Color	Degree of protection IP54		Degree of protection IP55	
					Air current, free-blowing at 50 Hz	Article No.	Air current, free-blowing at 50 Hz	Article No.
<b>Filter fans with EC technology</b>								
	125 × 125 mm	115 V AC, 50/60 Hz	4.4 W	VDE	RAL 7035	62 m³/h	8MR6411-5LE25	–
		230 V AC, 50/60 Hz	4.4 W	VDE	RAL 7035	62 m³/h	8MR6423-5LE25	–
	177 × 177 mm	115 V AC, 50/60 Hz	4.4 W	VDE	RAL 7035	120 m³/h	8MR6411-5LE30	–
		230 V AC, 50/60 Hz	4.4 W	VDE	RAL 7035	120 m³/h	8MR6423-5LE30	–
<b>Standard filter fans</b>								
	92 × 92 mm	115 V AC, 50/60 Hz	12 W	VDE	RAL 7035	25 m³/h	8MR6411-5LV10	–
		230 V AC, 50/60 Hz	12 W	VDE, UL	RAL 7032	25 m³/h	8MR6423-2LV10	–
				VDE, UL	RAL 7035	25 m³/h	8MR6423-5LV10	–
		24 V DC	2.2 W	VDE	RAL 7035	25 m³/h	8MR6402-5LV10	–
	125 × 125 mm	115 V AC, 50/60 Hz	20 W	VDE, UL	RAL 7035	63 m³/h	8MR6411-5LV25	58 m³/h
		230 V AC, 50/60 Hz	20 W	VDE, UL	RAL 7032	63 m³/h	8MR6423-2LV25	–
				VDE, UL	RAL 7035	63 m³/h	8MR6423-5LV25	58 m³/h
	24 V DC	4.1 W	VDE	RAL 7035	63 m³/h	8MR6402-5LV25	–	
	177 × 177 mm	115 V AC, 50/60 Hz	20 W	VDE, UL	RAL 7035	115 m³/h	8MR6411-5LV30	105 m³/h
		230 V AC, 50/60 Hz	20 W	VDE, UL	RAL 7035	115 m³/h	8MR6423-5LV30	105 m³/h
		24 V DC	4.1 W	VDE	RAL 7035	115 m³/h	8MR6402-5LV30	–
	223 × 223 mm	115 V AC, 50/60 Hz	18 W	VDE, UL	RAL 7035	160 m³/h	8MR6411-5LV45	147 m³/h
			43 W	VDE, UL	RAL 7035	250 m³/h	8MR6411-5LV41	230 m³/h
		24 V DC	6.5 W	VDE	RAL 7035	160 m³/h	8MR6402-5LV45	–
		230 V AC, 50/60 Hz	18 W	VDE, UL	RAL 7032	160 m³/h	8MR6423-2LV45	–
				VDE, UL	RAL 7035	160 m³/h	8MR6423-5LV45	147 m³/h
			45 W	VDE, UL	RAL 7032	250 m³/h	8MR6423-2LV41	–
			VDE, UL	RAL 7035	250 m³/h	8MR6423-5LV41	230 m³/h	
	24 V DC	16 W	VDE, UL	RAL 7032	250 m³/h	8MR6402-2LV41	–	
			VDE	RAL 7035	250 m³/h	8MR6402-5LV41	–	
	292 × 292 mm	115 V AC, 50/60 Hz	64 W	VDE, UL	RAL 7035	580 m³/h	8MR6411-5LV60	531 m³/h
			115 W	VDE, UL	RAL 7035	930 m³/h	8MR6411-5LV80	850 m³/h
		230 V AC, 50/60 Hz	64 W	VDE, UL	RAL 7032	580 m³/h	8MR6423-2LV60	–
				VDE, UL	RAL 7035	580 m³/h	8MR6423-5LV60	531 m³/h
		135 W	VDE, UL	RAL 7035	930 m³/h	8MR6423-5LV80	850 m³/h	
<b>EMC filter fans</b>								
	177 × 177 mm	115 V AC, 50/60 Hz	20 W	VDE, UL	RAL 7035	115 m³/h	8MR6411-6LV30	105 m³/h
		230 V AC, 50/60 Hz	20 W	VDE, UL	RAL 7035	115 m³/h	8MR6423-6LV30	105 m³/h
	223 × 223 mm	115 V AC, 50/60 Hz	18 W	VDE, UL	RAL 7035	160 m³/h	8MR6411-6LV45	147 m³/h
			43 W	VDE, UL	RAL 7035	250 m³/h	8MR6411-6LV41	230 m³/h
		230 V AC, 50/60 Hz	18 W	VDE, UL	RAL 7035	160 m³/h	8MR6423-6LV45	147 m³/h
			45 W	VDE, UL	RAL 7035	250 m³/h	8MR6423-6LV41	230 m³/h

# Filter fans and outlet filters

## Outlet filters without fan

Cutout	External dimensions W × H	Mounting depth	Cover grille height	Color	Standard	Degree of protection IP54		Degree of protection IP55	
						Article No.	Article No.		
	<b>Standard outlet filters</b>								
	68 × 68 mm	80 × 80 mm	11 mm	4 mm	RAL 7035	VDE	8MR6400-5GV08	–	–
	92 × 92 mm	105 × 105 mm	12 mm	4.5 mm	RAL 7032	VDE, UL	8MR6400-2GV10	–	–
					RAL 7035	VDE, UL	8MR6400-5GV10	–	–
	116 × 116 mm	130 × 130 mm	24 mm	5 mm	RAL 7035	VDE	8MR6400-5GV20	–	–
	125 × 125 mm	148 × 148 mm	23 mm	5.5 mm	RAL 7032	VDE, UL	8MR6400-2GV25	–	–
					RAL 7035	VDE, UL	8MR6400-5GV25	8MR6500-5GV25	8MR6500-5GV30
	177 × 177 mm	204 × 204 mm	26 mm	6 mm	RAL 7035	VDE, UL	8MR6400-5GV30	8MR6500-5GV30	8MR6500-5GV30
	223 × 223 mm	250 × 250 mm	32 mm	6 mm	RAL 7032	VDE, UL	8MR6400-2GV45	–	–
					RAL 7035	VDE, UL	8MR6400-5GV45	8MR6500-5GV45	8MR6500-5GV45
	292 × 292 mm	323 × 323 mm	33 mm	6.5 mm	RAL 7032	VDE, UL	8MR6400-2GV67	–	–
					RAL 7035	VDE, UL	8MR6400-5GV67	8MR6500-5GV67	8MR6500-5GV67
	<b>EMC outlet filters</b>								
	177 × 177 mm	204 × 204 mm	26 mm	6 mm	RAL 7035	VDE, UL	8MR6400-6GV30	8MR6500-6GV30	8MR6500-6GV30
223 × 223 mm	250 × 250 mm	32 mm	6 mm	RAL 7035	VDE, UL	8MR6400-6GV45	8MR6500-6GV45	8MR6500-6GV45	

## Filter mats for filter fans and outlet filters

Dimensions W × H	Degree of protection IP54		Degree of protection IP55	
	Standard	Article No.	Dimensions W × H	Standard Article No.
	<b>Standard filter mats</b>			
	65 × 65 mm	VDE	8MR6000-0AM08	VDE –
	92 × 92 mm	VDE	8MR6000-0AM10	VDE –
	112 × 112 mm	VDE	8MR6000-0AM20	VDE –
	125 × 125 mm	VDE	8MR6000-0AM25	116 × 116 mm VDE 8MR6000-0CF25
	177 × 177 mm	VDE	8MR6000-0AM30	169 × 169 mm VDE 8MR6000-0CF30
	223 × 223 mm	VDE	8MR6000-0AM45	215 × 215 mm VDE 8MR6000-0CF45
	292 × 292 mm	VDE	8MR6000-0AM67	281 × 281 mm VDE 8MR6000-0CF67

# Roof filter fans and roof outlet filters

## Roof filter fans

	Air current, free-blowing at 50 Hz	External dimensions W × H × D	Voltage	Input rating	Standard	Degree of protection IP44	Degree of protection IP54		
	<b>For cutout 223 × 223 mm, color RAL 7035</b>								
	71 m³/h	287 × 287 × 104 mm	230 V AC, 50/60 Hz	40 W	VDE, UL	–	8MR6423-5VL44		
			115 V AC, 50/60 Hz	48 W	VDE	–	8MR6411-5VL44		
			24 V DC	8.8 W	VDE, UL	–	8MR6402-5VL44		
	240 m³/h	287 × 287 × 174 mm	230 V AC, 50/60 Hz	45 W	VDE, UL	–	8MR6423-5VL41		
			115 V AC, 50/60 Hz	43 W	VDE	–	8MR6411-5VL41		
			24 V DC	16 W	VDE, UL	–	8MR6402-5VL41		
	300 m³/h	287 × 287 × 174 mm	230 V AC, 50/60 Hz	45 W	VDE, UL	–	8MR6423-5VL55		
		<b>For cutout 292 × 292 mm, color RAL 7035</b>							
232 m³/h		361 × 361 × 114 mm	230 V AC, 50/60 Hz	68 W	VDE, UL	–	8MR6423-5VL64		
			115 V AC, 50/60 Hz	68 W	VDE	–	8MR6411-5VL64		
			24 V DC	14 W	VDE, UL	–	8MR6402-5VL64		
550 m³/h		361 × 361 × 211 mm	230 V AC, 50/60 Hz	64 W	VDE, UL	–	8MR6423-5VL60		
			115 V AC, 50/60 Hz	64 W	VDE	–	8MR6411-5VL60		
			24 V DC	55 W	VDE, UL	–	8MR6402-5VL60		
840 m³/h		361 × 361 × 203 mm	230 V AC, 50/60 Hz	135 W	VDE, UL	–	8MR6423-5VL80		
			115 V AC, 50/60 Hz	115 W	VDE	–	8MR6411-5VL80		
			24 V DC	105 W	VDE, UL	–	8MR6402-5VL80		
		<b>For cutout 345 × 265 mm, color RAL 7035, metal</b>							
		405 m³/h	420 × 340 × 108 mm	115 V AC, 50/60 Hz	40/45 W	VDE, UL	8MR6311-5DL40	–	
	230 V AC, 50/60 Hz			40/45 W	VDE, UL	8MR6323-5DL40	–		
	690 m³/h	420 × 340 × 108 mm	115 V AC, 50/60 Hz	100/130 W	VDE, UL	8MR6311-5DL42	–		
230 V AC, 50/60 Hz			100/130 W	VDE, UL	8MR6323-5DL42	–			

## Roof outlet filters without fan

	External dimensions W × H × D	Standard	Degree of protection IP44	Degree of protection IP54
	<b>For cutout 223 × 223 mm, color RAL 7035</b>			
	287 × 287 × 85 mm	VDE, UL	–	8MR6400-5VE45
	<b>For cutout 292 × 292 mm, color RAL 7035</b>			
	361 × 361 × 96 mm	VDE, UL	–	8MR6400-5VE67
	<b>For cutout 345 × 265 mm, color RAL 7035, metal</b>			
	420 × 340 × 83 mm	VDE, UL	8MR6000-5DE40	–

# Air conditioners/cooling devices

For roof mounting, degree of protection inside IP54/outside IP34, color RAL 7035



	Cooling capacity	Rated power	Dimensions W × H × D	Air capacity		Design	Mounting		Standard	Article No.
				Inside	Outside		Undrilled	Part		
<b>230 V, 50/60 Hz</b>										
	410 W	270 W	259 × 264 × 486 mm	235 m <sup>3</sup> /h	330 m <sup>3</sup> /h	■	■	–	VDE	8MR6423-5DE04
	820 W	510 W	340 × 340 × 600 mm	330 m <sup>3</sup> /h	570 m <sup>3</sup> /h	■	■	–	VDE	8MR6423-5DE08
	1150 W	550 W	401 × 415 × 567 mm	570 m <sup>3</sup> /h	1010 m <sup>3</sup> /h	■	■	–	VDE	8MR6423-5DE12
	1550 W	810 W	401 × 415 × 567 mm	860 m <sup>3</sup> /h	1820 m <sup>3</sup> /h	■	■	–	VDE	8MR6423-5DE15
	2050 W	1190 W	401 × 415 × 567 mm	1050 m <sup>3</sup> /h	1820 m <sup>3</sup> /h	■	■	–	VDE	8MR6423-5DE20
<b>400 V, 50/60 Hz</b>										
	2900 W	1210 W	492 × 496 × 797 mm	860 m <sup>3</sup> /h	3410 m <sup>3</sup> /h	■	■	–	VDE	8MR6440-5DE30
	3850 W	1630 W	492 × 496 × 797 mm	1450 m <sup>3</sup> /h	3410 m <sup>3</sup> /h	■	■	–	VDE	8MR6440-5DE40

# Heat exchangers

Air/air heat exchangers, degree of protection IP54, color RAL 7035



	Thermal power	Rated power	Dimensions W × H × D	Air capacity		Design	Mounting		Standard	Article No.
				Inside	Outside		Undrilled	Part		
<b>230 V, 50/60 Hz</b>										
	36 W/K	140 W	316 × 771 × 103 mm	570 m <sup>3</sup> /h	570 m <sup>3</sup> /h	■	■	–	VDE	8MR6423-5ML36
	80 W/K	240 W	317 × 1260 × 148 mm	1050 m <sup>3</sup> /h	1050 m <sup>3</sup> /h	■	■	–	VDE	8MR6423-5ML80

# Heater units

	Rated value	Rated power	Shutdown temperature	Standard	Article No.	
	<b>Heater units with PTC thermistor, UL-approved</b>					
	120 ... 240 V AC/DC	15 W	–		VDE, UL	8MR2130-1A
		30 W	–		VDE, UL	8MR2130-3A
		45 W	–		VDE, UL	8MR2130-4A
		60 W	–		VDE, UL	8MR2130-6A
		75 W	–		VDE, UL	8MR2130-7A
		100 W	–		VDE, UL	8MR2130-0A
150 W		–		VDE, UL	8MR2130-5A	
	<b>Semiconductor heater units without thermostat, compact design, UL-approved</b>					
	120 ... 240 V AC/DC	50 W	–		VDE	8MR2131-4A
		100 W	–		VDE	8MR2131-0A
150 W		–		VDE	8MR2131-5A	
	<b>Semiconductor heater units with thermostat, compact design</b>					
	120 ... 240 V AC/DC	50 W	15 °C	VDE	8MR2132-1A	
			25 °C	VDE	8MR2132-1AB	
		100 W	15 °C	VDE	8MR2132-0A	
			25 °C	VDE	8MR2132-0AB	
		150 W	15 °C	VDE	8MR2132-5A	
25 °C			VDE	8MR2132-5AB		
	<b>Semiconductor heater units</b>					
	12 ... 30 V AC/DC	15 W	–		VDE	8MR2130-1BA
		30 W	–		VDE	8MR2130-3BA
		45 W	–		VDE	8MR2130-4BA
		60 W	–		VDE	8MR2130-6BA

# Fan heaters

## Fan heaters

	Version	Voltage	Continuous heat output	Parameter	Standard	Article No.
	<b>Standard version</b>					
	Without fan	230 V AC	100 W	–	VDE, UL	8MR2140-0A
			150 W	–	VDE, UL	8MR2140-1A
			200 W	–	VDE, UL	8MR2140-2A
			300 W	–	VDE, UL	8MR2140-3A
			400 W	–	VDE, UL	8MR2140-4A
	With fan	230 V AC	100 W	–	VDE, UL	8MR2140-0B
			150 W	–	VDE, UL	8MR2140-1B
			200 W	–	VDE, UL	8MR2140-2B
			300 W	–	VDE, UL	8MR2140-3B
			400 W	–	VDE, UL	8MR2140-4B
		<b>Compact fan heater</b>				
Without fan		230 V AC	250 W	–	VDE, UL	8MR2122-4A
			400 W	–	VDE, UL	8MR2122-8A
		120 V AC	250 W	–	VDE, UL	8MR2122-4B
			400 W	–	VDE, UL	8MR2122-8B
With fan		24 V DC	250 W	–	VDE, UL	8MR2122-4AB
			400 W	–	VDE, UL	8MR2122-8AB
		48 V DC	250 W	–	VDE, UL	8MR2122-4AC
	400 W		–	VDE, UL	8MR2122-8AA	
	<b>With integrated thermostat</b>					
	For floor mounting	230 V AC	950 W	0 ... +60 °C	VDE, UL	8MR2150-0A
For wall mounting	230 V AC	950 W	0 ... +60 °C	VDE, UL	8MR2150-0C	
	<b>With integrated hygrostat</b>					
For wall mounting	230 V AC	950 W	65% R.H.	VDE, UL	8MR2150-0CA	

## Semiconductor fan heaters

	Mounting	Voltage	Continuous heat output	Version	Standard	Article No.
	<b>Fan heaters</b>					
	Clip fixing	230 V AC	150 W	–	VDE, UL	8MR2150-2C
			250 W	–	VDE, UL	8MR2150-5A
			400 W	–	VDE, UL	8MR2150-4A
		120 V AC	250 W	–	VDE, UL	8MR2150-5AA
			400 W	–	VDE, UL	8MR2150-4AA
			400 W	–	VDE, UL	8MR2150-4AB
	Screw fixing	230 V AC	150 W	–	VDE, UL	8MR2150-2D
			250 W	–	VDE, UL	8MR2150-5B
			400 W	–	VDE, UL	8MR2150-4B
		120 V AC	250 W	–	VDE, UL	8MR2150-5AB
			400 W	–	VDE, UL	8MR2150-4AB
400 W			–	VDE, UL	8MR2150-4AB	
	<b>PTC fan heaters for wall mounting</b>					
	Screw fixing	230 V AC	1200 W	With thermostat 0 ... +60 °C	VDE, UL	8MR2150-3A
			1200 W	Without thermostat	VDE, UL	8MR2150-3B
	Clip fixing	120 V AC	1200 W	With thermostat +32 ... +140 °F	VDE, UL	8MR2151-3A
			1200 W	Without thermostat	VDE, UL	8MR2151-3B
		<b>PTC fan heaters for floor mounting</b>				
Screw fixing		230 V AC	1200 W	With thermostat 0 ... +60 °C	VDE, UL	8MR2150-2A
			1200 W	Without thermostat	VDE, UL	8MR2150-2B
Clip fixing		120 V AC	1200 W	With thermostat +32 ... +140 °F	VDE, UL	8MR2151-2A
			1200 W	Without thermostat	VDE, UL	8MR2151-2B

# Thermostats

## Adjustable thermostats

	Version	Max. switching power	Temperature range	Standard	Article No.
	<b>Mini thermostat</b>				
	NC with red adjusting knob	250 V AC, 10 (2) A	0 ... +60 °C	VDE	8MR2170-1KA
			-10 ... +50 °C	VDE	8MR2170-1KB
			+20 ... +80 °C	VDE	8MR2170-1KC
			+32 ... +140 °F	VDE	8MR2170-1KD
			+14 ... +122 °F	VDE	8MR2170-1KE
	NO with blue adjusting knob	250 V AC, 10 (2) A	0 ... +60 °C	VDE	8MR2170-2KA
			-10 ... +50 °C	VDE	8MR2170-2KB
			+20 ... +80 °C	VDE	8MR2170-2KC
			+32 ... +140 °F	VDE	8MR2170-2KD
+14 ... +122 °F			VDE	8MR2170-2KE	
	<b>Mechanical thermostat</b>				
	CO	250 V AC, 10 (4) A	+5 ... +60 °C	VDE, UL	8MR2170-1A
			-20 ... +30 °C	VDE, UL	8MR2170-1B
	<b>Electronic thermostat</b>				
	CO	230 V AC, 8 (1.6) A	-20 ... +60 °C	VDE	8MR2170-1GA
		120 V AC, 8 (1.6) A	-4 ... +140 °F	VDE	8MR2170-1GB
		24 V DC, 16 A	0 ... +60 °C	VDE	8MR2170-2A
	CO, integrated	230 V AC, 8 (1.6) A	-20 ... +60 °C	VDE	8MR2170-1GC
	<b>Zwillings-Thermostat</b>				
	NC and NO	250 V AC, 10 (2) A	0 ... +60 °C	VDE, UL	8MR2170-1E
	NO and NO	250 V AC, 10 (2) A	0 ... +60 °C	VDE, UL	8MR2170-1EA

# Thermostats

## Tamper-proof thermostats

	Version	Max. switching power	Shutdown temperature	Standard	Article No.
	<b>Tamper-proof thermostat</b>				
	NC	250 V AC, 5 (1.6) A	15 °C	VDE, UL	8MR2171-1BA
			25 °C	VDE, UL	8MR2171-2BA
	NO	250 V AC, 5 (1.6) A	35 °C	VDE, UL	8MR2171-3BB
			50 °C	VDE, UL	8MR2171-1BB
60 °C			VDE, UL	8MR2171-2BB	
	<b>Twin thermostat</b>				
	NC and NO	250 V AC, 5 (1.6) A	15 °C   50 °C (NC   NO)	VDE, UL	8MR2172-1A
			25 °C   60 °C (NC   NO)	VDE, UL	8MR2172-2A
	NO and NO	250 V AC, 5 (1.6) A	50 °C   60 °C (NO   NO)	VDE, UL	8MR2172-1AB

# Hygrostats and hygrotherms

## Hygrostats

	Version	Relative air humidity	Voltage	Max. switching power	Standard	Article No.
	<b>Mechanical hygrostat</b>					
	CO	35 ... 95%	230 V AC	250 V AC, 5 (0.2) A/20 W DC	VDE, UL	8MR2170-1C
	<b>Electronic hygrostat</b>					
	CO	40 ... 90%	230 V AC	240 V AC, 8 (1.6) A	VDE	8MR2170-1AF
			120 V AC	240 V AC, 8 (1.6) A	VDE	8MR2170-2AF
		65%	230 V AC	240 V AC	VDE	8MR2170-1BF
120 V AC			120 V AC	VDE	8MR2170-2BF	

## Hygrotherms

	Version	Relative air humidity	Temperature range	Voltage	Max. switching power	Standard	Article No.
	<b>Electronic hygrotherm</b>						
	NC and NO	50 ... 90%	+32 ... +140 °F	100 ... 240 V AC	NC: 120 V AC, 6 (1) A NO: 120 V AC, 8 (1.6) A	VDE, UL	8MR2170-4F
			0 ... +60 °C	100 ... 240 V AC	NC: 100 ... 240 V AC, 6 (1) A NO: 100 ... 240 V AC, 8 (1.6) A	VDE, UL	8MR2170-4E