

air conditioning ventilation and accessories for electric enclosures



PROFILE

ALFA ELECTRIC is a division of Alfa Plastic, specialized in manufacturing accessories for electric enclosures, in particular Thermal Management Products.

Since the early Nineties, ALFA ELECTRIC has been gaining recognition and developing and introducing new products. Currently, the range of products allows the full coverage of customer needs.

Careful attention to customer needs, highly qualified technical staff and a vertical, flexible organization have allowed the company to become partner of important manufacturing and commercial firms.

Advanced manufacturing equipment and careful quality controls during development and manufacturing allow to offer cost-effective and high quality products.

ALFA ELECTRIC policy is to offer a full support to Clients:

- pre-after sales assistance
- customized products
- fast delivery
- monitoring of customers' satisfaction

Rather than a supplier, ALFA ELECTRIC aims to be a Client's industrial PARTNER!

COMPANY HISTORY 1973 - Alfa Plastic starts as a thermoplastic processing industry, specialised in injection-moulding. During this thirty-year period, Alfa Plastic develops an extensive know-how in design and manufacturing of plastic injection-moulded parts. The focus is on customised parts for the automotive and electric industry

1993 - ALFA ELECTRIC is established as a division of Alfa Plastic specialised in manufacturing accessories for electric enclosures.

2000 - The intense development of ALFA ELECTRIC leads to the expansion of the production facilities. A new manufacturing plant is acquired and exclusively devoted to the assembly of electrical products.

Since then, new products have been deployed and international and domestic sales expanded.

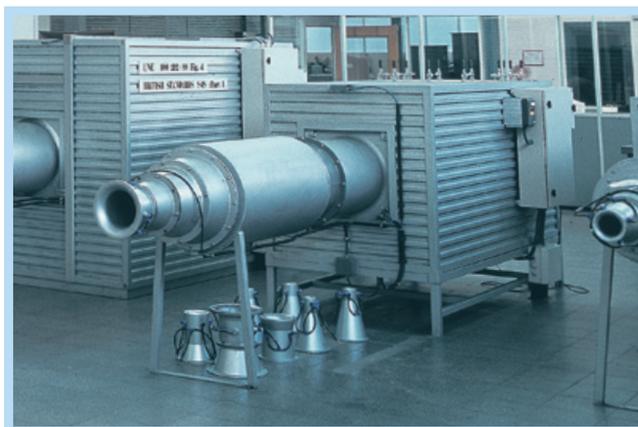
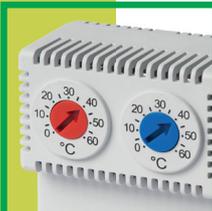


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Air Conditioning

MODELS AND POWER

The range of air conditioners ALFA ELECTRIC includes several productions depending on voltages and different type of thermostat mounted. The code varies about voltage and control instrumentation.

CODE EXAMPLE AND COMPOSITION:

AVC 035.01



- (a) Cooling power at 35°C inside the cabinet and 35°C outside cabinet (x 10W)
- (b) Power supply:
0=230 V monophase 50/60 Hz
1=115 V monophase 50/60 Hz
2=400 V monophase 50/60 Hz
- (c) Type of thermostat:
0=mechanical thermostat
1=digital thermostat

DIGITAL THERMOSTAT

The version with the number 1 as the last digit coding are equipped with digital thermostat that allows to implement various control operations:

- 1 setting ignition temperature compressor
- 2 setting temperature compressor shutdown
- 3 Set delay on / off the compressor in terms of temperature
- 4 Setting the standard period of the compressor to avoid the phenomenon of intermittent on/off. This phenomenon is very detrimental to the proper operation of the air conditioner.
- 5 Setting the maximum value allowed for the overcoming of the maximum temperature in the cabinet, after which the thermostat emits an alarm
- 6 Setting the delay time of the alarm switch



LOW MAINTENANCE

ALFA ELECTRIC air conditioners require little maintenance on all models through the adoption of heat exchanger with a pitch between the fins is not less than 4 mm. The fins are treated to reduce the adhesion of dirt.

ROTARY COMPRESSOR

ALFA ELECTRIC air conditioners are distinguished by the adoption on most models of rotary compressors. This type of compressors, unlike the more common alternative compressors allowed to contain the clutter in favour of a greater distance between inlet hot air from the context and delivery of fresh air into the framework. The greater distance allows the reduction of the phenomenon of by-pass, using a greater amount of fresh air produced.

OUTDOOR VERSION

For all models is available the outdoor version. These units have a special cover designed to protect internal components, a condenser fan controller in according to the condensation pressure and pressure controller for the safety of compressor. On request is available a heater band to protect compressor in low ambient temperature.

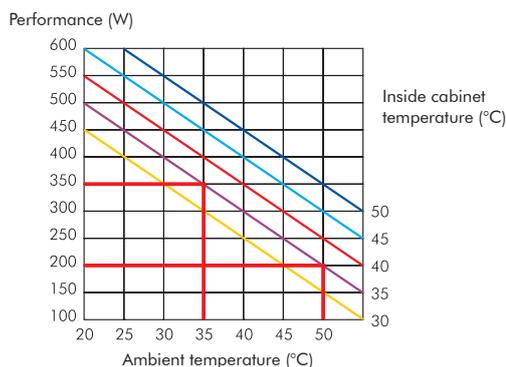
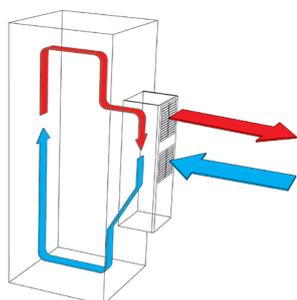
LESS WEIGHT AND LESS VIBRATION

The rotary compressor also reduces the weight of the unit with obvious benefits in the transport, handling and installation of the machine. The lower vibrations due to a lower inertia of the moving parts make this component quiet and durable.

GREATER EFFICIENCY

The rotary compressor has considerable advantages over the alternative compressor: among them being the biggest isentropic efficiency mainly due to different internal cooling which favors compression. The absence of valves in suction and dead volumes, typical of alternative systems, reduces the loss of gas pressure.

AVC 035



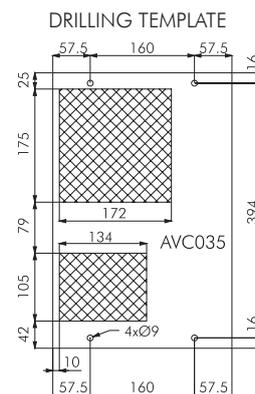
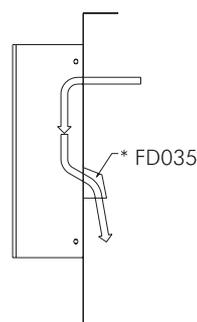
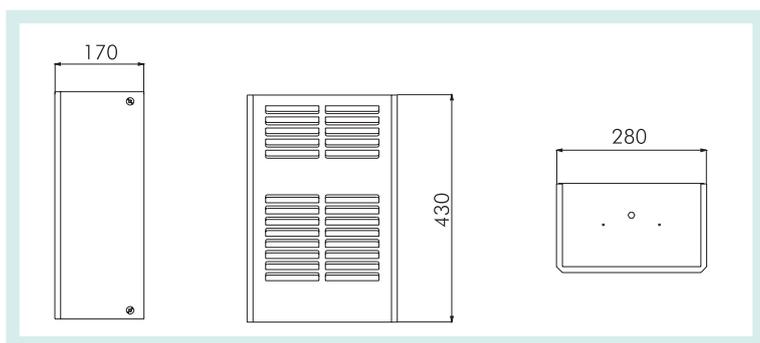
Features	Unit	AVC035.00	AVC035.01	AVC035.10	AVC035.11	AVC035.20	AVC035.21
Power supply	V/Hz	230V/1ph/50-60		115V/1ph/50-60		400V/2ph/50-60	
Dimensions HxWxD	mm	430x280x170					
Cooling capacity EN814 A35A35	W	350/370					
Cooling capacity EN814 A35A50	W	200/220					
Air flow rate (free blow)	inside	m3/h					
	outside	m3/h					
Max current	A	1.8/1.9		3.6/3.8		1/1.1	
Delayed fuse	A	4		6		4	
Absorbed electric power EN814 A35A35	W	260/270					
Absorbed electric power EN814 A35A50	W	280/300					
Refrigerant (type/charge)	kg	R134a/0,3					
Maximum Pressure	bar	25					
Operating temperature (ambient)	°C	+20/+55					
Operating temperature (enclosure)	°C	+20/+45					
Temperature controller (factory set at 35°C)	-	Integrated mechanical thermostat	Integrated digital thermostat	Integrated mechanical thermostat	Integrated digital thermostat	Integrated mechanical thermostat	Integrated digital thermostat
Compressor type	-	Rotative compressor					
Noise level	dB(A)	60					
Electrical connection	-	Three-pole connector					
Protection degree EN60529/1 enclosure inside	-	IP54					
Protection degree EN60529/1 ambient inside	-	IP34					
Weight (with packaging)	kg	15(16)		17(18)			
Colour	-	RAL 7035					
Conformity/Certifications	-	CE					

Versions

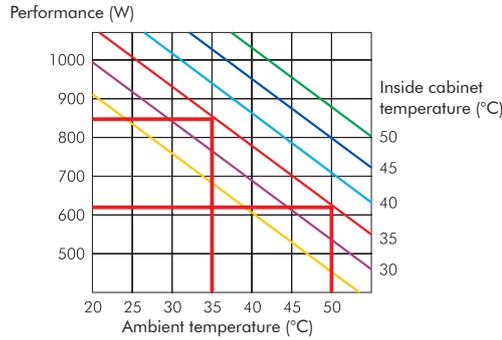
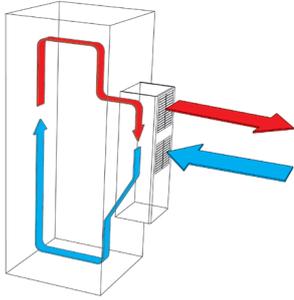
Outdoor	AVC035.00.E	AVC035.10.E	AVC035.20.E
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Accessories

Door limit switch	FINCOR
Door limit switch with mechanical lock	FINRIP
Flashing safety device	FSL
Flow diverter*	FD035



AVC 085



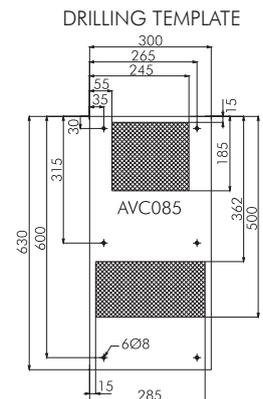
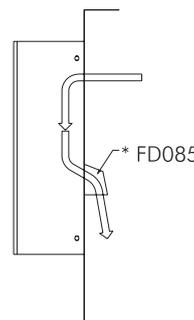
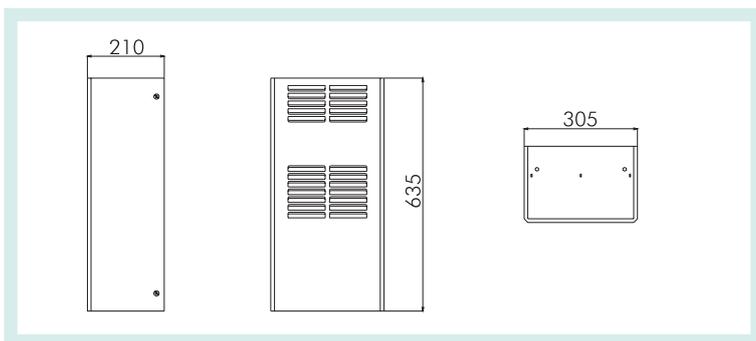
Features	Unit	AVC085.00	AVC085.01	AVC085.10	AVC085.11	AVC085.20	AVC085.21
Power supply	V/Hz	230V/1ph/50-60		115V/1ph/50-60		400V/2ph/50-60	
Dimensions HxWxD	mm	635x305x210					
Cooling capacity EN814 A35A35	W	850/900					
Cooling capacity EN814 A35A50	W	625/650					
Air flow rate (free blow)	inside	m3/h					
	outside	m3/h					
Max current	A	2.65/2.75		5.3/5.4		1.65/1.75	
Delayed fuse	A	6		10		4	
Absorbed electric power EN814 A35A35	W	450/470					
Absorbed electric power EN814 A35A50	W	530/560					
Refrigerant (type/charge)	kg	R134a/0,3					
Maximum Pressure	bar	25					
Operating temperature (ambient)	°C	+20/+55					
Operating temperature (enclosure)	°C	+20/+45					
Temperature controller (factory set at 35°C)	-	Integrated mechanical thermostat	Integrated digital thermostat	Integrated mechanical thermostat	Integrated digital thermostat	Integrated mechanical thermostat	Integrated digital thermostat
Compressor type	-	Rotative compressor					
Noise level	dB(A)	62					
Electrical connection	-	Three-pole connector					
Protection degree EN60529/1 enclosure inside	-	IP54					
Protection degree EN60529/1 ambient inside	-	IP34					
Weight (with packaging)	Kg	23(24)		30(31)			
Colour	-	RAL 7035					
Conformity/Certifications	-	CE					

Versions

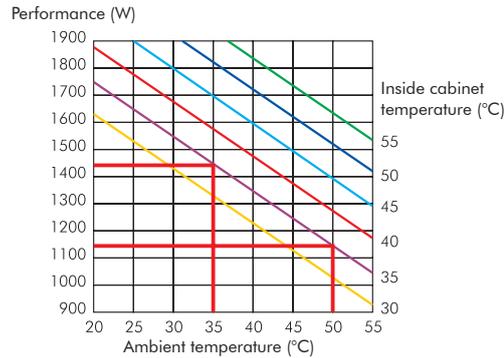
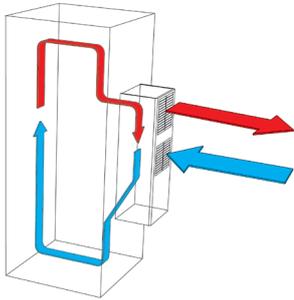
Outdoor	AVC085.00.E	AVC085.10.E	AVC085.20.E
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Accessories

Door limit switch	FINCOR
Door limit switch with mechanical lock	FINRIP
Flashing safety device	FSL
Flow diverter*	FD085



AVC 145



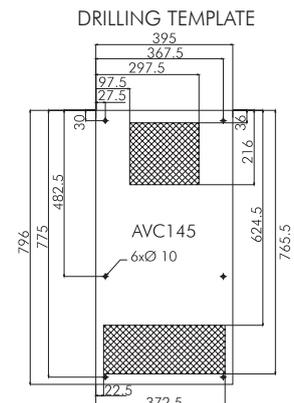
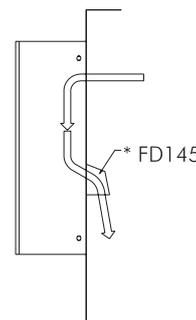
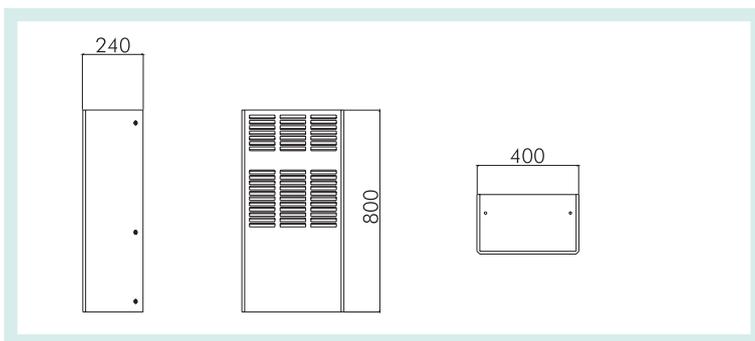
Features	Unit	AVC145.00	AVC145.01	AVC145.10	AVC145.11	AVC145.20	AVC145.21
Power supply	V/Hz	230V/1ph/50-60		115V/1ph/50-60		400V/2ph/50-60	
Dimensions HxWxD	mm	800x400x240					
Cooling capacity EN814 A35A35	W	1450/1500					
Cooling capacity EN814 A35A50	W	1150/1200					
Air flow rate (free blow)	inside	m3/h					
	outside	m3/h					
Max current	A	3.7/4.2		7.4/8.4		1.35/2.1	
Delayed fuse	A	6		10		4	
Absorbed electric power EN814 A35A35	W	650/700					
Absorbed electric power EN814 A35A50	W	770/850					
Refrigerant (type/charge)	kg	R134a/0,55					
Maximum Pressure	bar	25					
Operating temperature (ambient)	°C	+20/+55					
Operating temperature (enclosure)	°C	+20/+45					
Temperature controller (factory set at 35°C)	-	Integrated mechanical thermostat	Integrated digital thermostat	Integrated mechanical thermostat	Integrated digital thermostat	Integrated mechanical thermostat	Integrated digital thermostat
Compressor type	-	Rotative compressor					
Noise level	dB(A)	65					
Electrical connection	-	Three-pole connector					
Protection degree EN60529/1 enclosure inside	-	IP54					
Protection degree EN60529/1 ambient inside	-	IP34					
Weight (with packaging)	Kg	37(38)		49(50)			
Colour	-	RAL 7035					
Conformity/Certifications	-	CE					

Versions

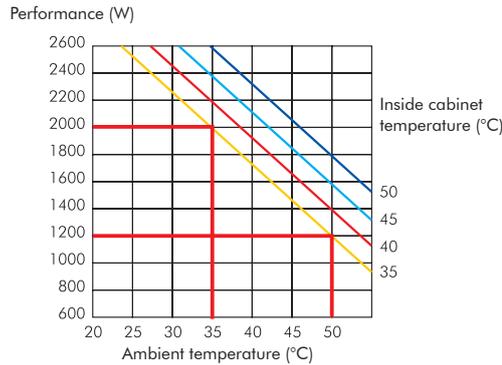
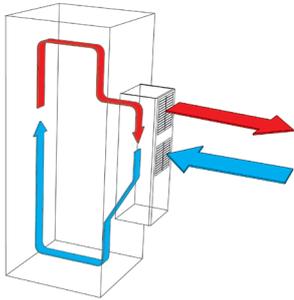
Outdoor	AVC145.00.E	AVC145.10.E	AVC145.20.E
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Accessories

Door limit switch	FINCOR
Door limit switch with mechanical lock	FINRIP
Flashing safety device	FSL
Flow diverter*	FD145



AVC 200



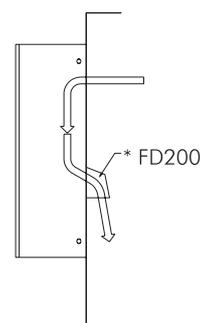
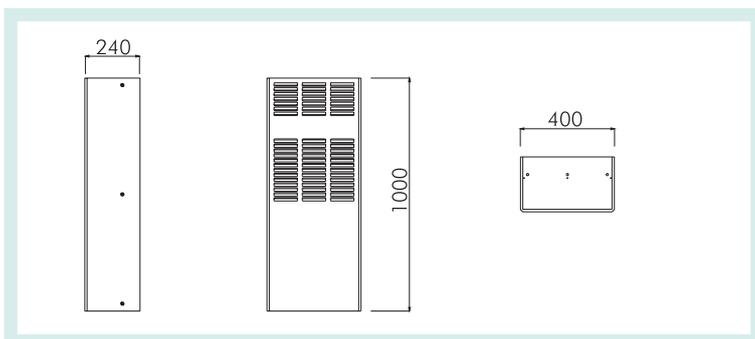
Features	Unit	AVC200.00	AVC200.01	AVC200.10	AVC200.11	AVC200.20	AVC200.21
Power supply	V/Hz	230V/1ph/50-60		115V/1ph/50-60		400V/2ph/50-60	
Dimensions HxWxD	mm	1000x400x240					
Cooling capacity EN814 A35A35	W	2000/2100					
Cooling capacity EN814 A35A50	W	1200/1250					
Air flow rate (free blow)	inside	m3/h					
	outside	m3/h					
Max current	A	6.6/6.9		13.0/13.8		3.3/3.5	
Delayed fuse	A	10		16		6	
Absorbed electric power EN814 A35A35	W	1060/1100					
Absorbed electric power EN814 A35A50	W	1240/1300					
Refrigerant (type/charge)	kg	R134a/0,6					
Maximum Pressure	bar	27					
Operating temperature (ambient)	°C	+20/+50					
Operating temperature (enclosure)	°C	+20/+45					
Temperature controller (factory set at 35°C)	-	Integrated mechanical thermostat	Integrated digital thermostat	Integrated mechanical thermostat	Integrated digital thermostat	Integrated mechanical thermostat	Integrated digital thermostat
Compressor type	-	Alternative compressor					
Noise level	dB(A)	70					
Electrical connection	-	Three-pole connector					
Protection degree EN60529/1 enclosure inside	-	IP54					
Protection degree EN60529/1 ambient inside	-	IP34					
Weight (with packaging)	Kg	49(50)		57(58)			
Colour	-	RAL 7035					
Conformity/Certifications	-	CE					

Versions

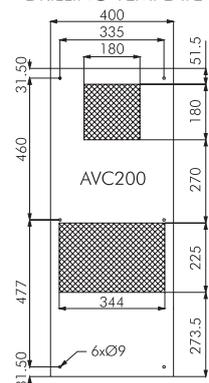
Outdoor	AVC200.00.E	AVC200.10.E	AVC200.20.E
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Accessories

Door limit switch	FINCOR
Door limit switch with mechanical lock	FINRIP
Flashing safety device	FSL
Flow diverter*	FD200



DRILLING TEMPLATE



ael-cat-en-15_01 - Specifications, values and drawings are subject to change without notice.



Filter Fans

High performance and fast mounting

Modern design

A positive visual impact is given by the up-to-date design of the grills and the minimal external projection. All moulded parts are made of highly resistant and self-extinguishing ABS, UL94 VO grade. The standard color is RAL 7035. RAL 7032 is also available. On request and for substantial quantities, non standard colors are also available.

Fast installation

Installation is fast thanks to the simple square cut-out on the enclosure panel and to the snap-in fixing system. No screws are needed. The snap-in fixing system can be used on panels with thickness in the range 1.2 - 2.4 mm. For different thickness, fixing can still be done with the screw kit included in each pack for this purpose.

Wide range of air flow ratings

The range of air flow ratings goes from 24 to 630 m³/h. For all filter fans, default air flow direction is from the outside towards the inside of the enclosure. If needed the user can easily reverse the direction by simply re-assembling the fan in the opposite way (only on specified models).

No interference outside the enclosure

5 mm is the maximum projection outside the enclosure. This means no problems during transportation and enclosure operational life, typical instead of the bigger and cumbersome traditional units.

High reliability

Alfa Electric only uses the best quality ball bearing fans. They ensure a high efficiency and have an expected life of 30.000 working hours at an ambient temperature of 55°C. They are all designed to ensure a quick and safe electrical connection.

Optimal enclosure protection

The special configuration of the grill, the self-adhesive gasket and the filter mat ensure an IP54 protection degree towards the enclosure.

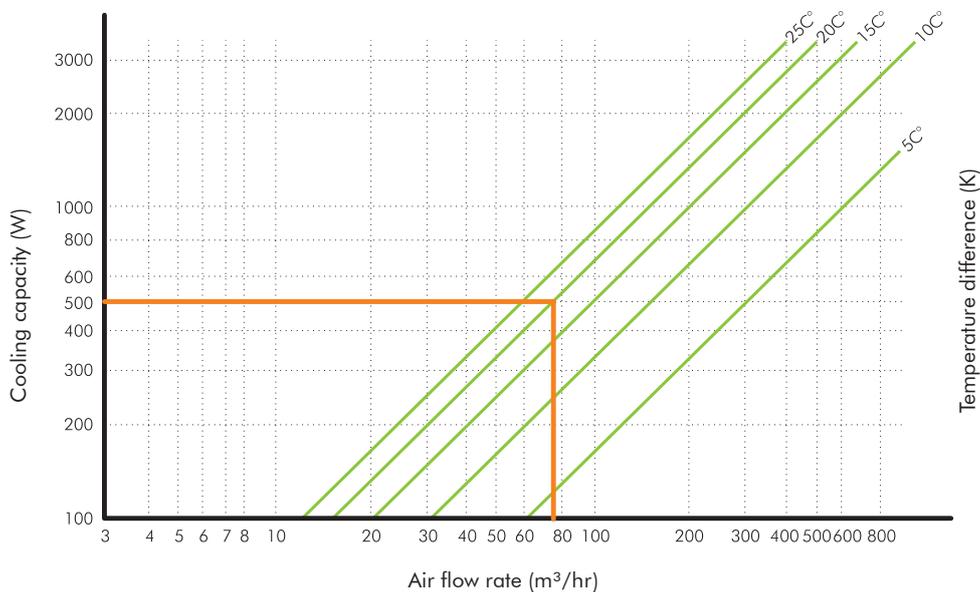
Power supply

Alfa Electric filter fans are available in the following AC supply voltages: 230V single-phase, 115V single-phase and 400V three-phase, all bi-frequency 50-60 Hz. In addition, 24 and 48VDC versions are available up to 230 m³/h. On request they can also be available with other rated voltages not shown in this catalogue.

Filter units

To achieve optimal cooling air circulation, filter fans are used together with filter units. Filter units are available in four different sizes and have the same design of the external part of a filter fan.

Cooling performance diagram

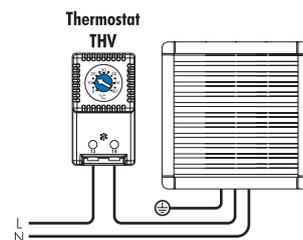


Example:

Waste heat to be removed 500W
 Temperature difference 20K
 Air flow required 78m³/hr

Filter fan unit solution: n. 1 ALFA2300BPB
 +
 n. 1 ALFA2000BPB

When selecting a Filter Fan unit, always keep a margin of at least 10% to compensate for any air flow decay due to filter mat clogging.





ALFAA5



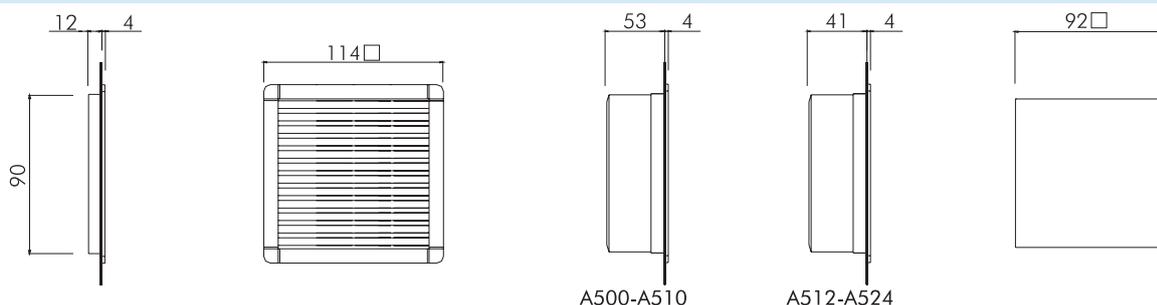
Features	Unit	ALFAA000BPB	ALFAA500BPB	ALFAA510BPB	ALFAA512BPB	ALFAA524BPB
Air flow rate (free blow)	m ³ /h	-	24(28)		24	
Flow rate with exit filter	m ³ /h	-	14(17)		14	
Power supply	V/Hz	-	230/50-60	115/50-60	12DC	24DC
Dimensions HxWxD	mm	114x114x17	114x114x57		114x114x45	
Power consumption	W	-	13(12)		3	4
Current consumption	A	-	0.10(0.08)	0.14(0.12)	0.25	0.16
Overcurrent protection	-	-	impedance			
Electric connection	-	-	faston 2.8x0.5 mm		2-pole terminal 1.5 mm ²	
Duty cycle	-	-	100%			
Operating temperature	°C	-	-10/+70			
Protection degree/class	-	IP54	IP54/Class I			
Noise level	dB(A)	-	30(35)		35	
Flow direction	-	-	outside-in			
Bearing	-	-	ball			
Filter mat (Eurovent)	-	-	EU2			
Service life (at 40°C)	hr	-	50,000			
Material	-	ABS UL94V-0 Color RAL7035				
Wall thickness	mm	1.2-2.4				
Gasket	-	self-adhesive				
Weight (with packaging)	kg	0.06(0.10)	0.38(0.43)		0.18(0.23)	
Package dimensions	mm	120x120x20	120x120x60			
Mounting	-	Fast Clip-on				
Conformity/Approvals	-	CE				



TIP

If possible it is better to use the units with the air flow from the outside to the enclosure inside. The slight pressurization of the panel prevents dust from getting through any openings.

Versions	ALFAA000BPUB	ALFAA500BPUB	ALFAA510BPUB	ALFAA512BPUB	ALFAA524BPUB
UL File n. E301228	delete B				
RAL7032 - Gray - Code ending	delete B, add N (available on request)				
RAL9005 - Black - Code ending	M				
EMC - Code ending	PR				
Reverse flow - Code ending	-	K		-	
Connection with terminals	-	K		-	
Accessories					
Filter mat, standard type	ALFAFBP00				
Filter mat, high efficiency	ALFAFBP00X				
Thermostat 0-60°C, NO contact	-	THV2			
Power cord 1m	-	SPINOTTOA2-10		-	
Fan speed controller	-	FSC			
Hood for IP55	CUFF10B				



A500-A510

A512-A524



ALFA15 - ALFA16



Features	Unit	ALFA1000BPB	ALFA1600BPB	ALFA1610BPB	ALFA1524BPTB	ALFA1548BPTB
Air flow rate (free blow)	m ³ /h	-	55(60)		55	
Flow rate with exit filter	m ³ /h	-	40(45)		40	
Power supply	V/Hz	-	230/50-60	115/50-60	24DC	48DC
Dimensions HxWxD	mm	150x150x28	150x150x77			
Power consumption	W	-	22(21)		9	13
Current consumption	A	-	0.14(0.12)	0.26(0.24)	0.37	0.27
Overcurrent protection	-	-	impedance			
Electric connection	-	-	faston 2.8x0.5 mm		2-pole terminal 1.5 mm ²	
Duty cycle	-	-	100%			
Operating temperature	°C	-	-10/+70			
Protection degree/class	-	IP54	IP54/Class I			
Noise level	dB(A)	-	43(49)		45	
Flow direction	-	-	outside-in			
Bearing	-	-	ball			
Filter mat (Eurovent)	-	EU3				
Service life (at 40°C)	hr	-	50,000			
Material	-	ABS UL94V-0 Color RAL7035				
Wall thickness	mm	1.2-2.4				
Gasket	-	self-adhesive				
Weight (with packaging)	kg	0.16(0.21)	0.78(0.85)		0.47(0.54)	
Package dimensions	mm	165x165x45	165x165x85			
Mounting	-	Fast Clip-on				
Conformity/Approvals	-	CE				

Versions

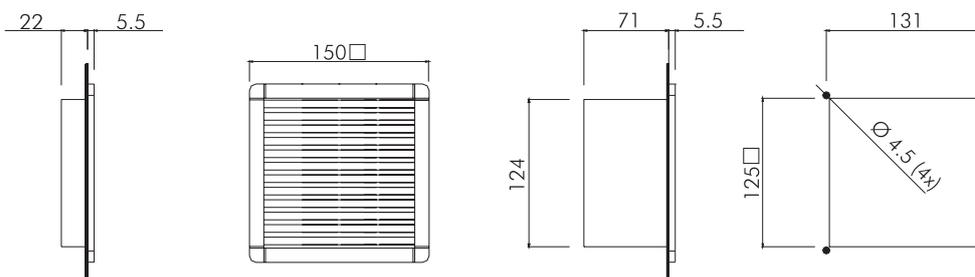
UL e-File n. E301228	ALFA1000BPUB	ALFA1600BPUB	ALFA1610BPUB	ALFA1524BPTUB	ALFA1548BPTUB
RAL7032 - Gray - Code ending	delete B				
RAL9005 - Black - Code ending	delete B, add N (available on request)				
EMC - Code ending	M				
Reverse flow - Code ending	-	-	-	PR	-
Connection with terminals	-	-	K	-	-

Accessories

Filter mat, standard type	ALFAFBP10				
Filter mat, high efficiency	ALFAFBP10X				
Thermostat 0-60°C, NO contact	-	-	-	THV2	-
Power cord 1m	-	-	SPINOTTOA2-10	-	-
Fan speed controller	-	-	-	FSC	-
Hood for IP55	CUFF10B				

TIP

If you are using the high filtering capacity filter mat remember that air flow rate will decrease.





ALFAB5



Features	Unit	ALFAB000BPB	ALFAB500BPB	ALFAB510BPB	ALFAB524BPTB	ALFAB548BPTB
Air flow rate (free blow)	m ³ /h	-	110(120)		110	
Flow rate with exit filter	m ³ /h	-	80(92)		80	
Power supply	V/Hz	-	230/50-60	115/50-60	24DC	48DC
Dimensions HxWxD	mm	204x204x30	204x204x98			
Power consumption	W	-	22(21)		9	13
Current consumption	A	-	0.14(0.12)	0.26(0.24)	0.37	0.27
Overcurrent protection	-	-	impedance			
Electric connection	-	-	faston 2.8x0.5 mm		2-pole terminal 1.5 mm ²	
Duty cycle	-	-	100%			
Operating temperature	°C	-	-10/+70			
Protection degree/class	-	IP54	IP54/Class I			
Noise level	dB(A)	-	43(49)		45	
Flow direction	-	-	outside-in			
Bearing	-	-	ball			
Filter mat (Eurovent)	-	-	EU3			
Service life (at 40°C)	hr	-	50,000			
Material	-	ABS UL94V-0 Color RAL7035				
Wall thickness	mm	1.2-2.4				
Gasket	-	self-adhesive				
Weight (with packaging)	kg	0.26(0.36)	1.00(1.20)		0.70(0.90)	
Package dimensions	mm	220x220x40	220x220x110			
Mounting	-	Fast Clip-on				
Conformity/Approvals	-	CE				

Versions

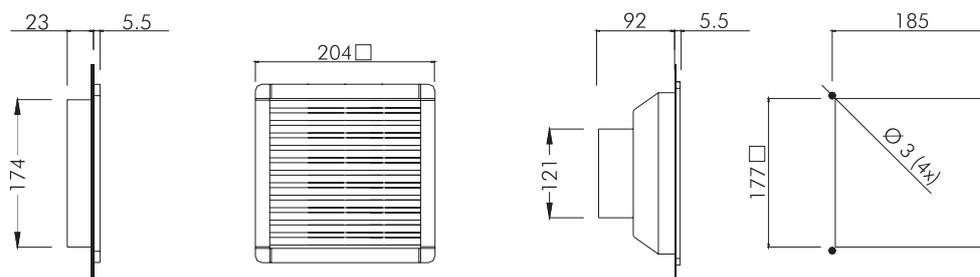
UL File n. E301228	ALFAB000BPUB	ALFAB500BPUB	ALFAB510BPUB	ALFAB524BPTUB	ALFAB548BPTUB
RAL7032 - Gray - Code ending	delete B				
RAL9005 - Black - Code ending	delete B, add N (available on request)				
EMC - Code ending	M				
Reverse flow - Code ending	-	-	-	PR	-
Connection with terminals	-	-	K	-	-

Accessories

Filter mat, standard type	ALFABPB0				
Filter mat, high efficiency	ALFABPB0X				
Thermostat 0-60°C, NO contact	-	-	-	THV2	-
Power cord 1m	-	-	SPINOTTOA2-10	-	-
Fan speed controller	-	-	-	FSC	-
Hood for IP55	CUFF20B				

TIP

The filter fan unit can be switched on by a thermostat that will power it only when the temperature exceeds a set threshold (e.g. 35°C). The fan works only when cooling is needed which saves energy, increases the lifetime of the filter mat and reduce maintenance frequency.





ALFA23



Features	Unit	ALFA2000BPB	ALFA2300BPB	ALFA2310BPB	ALFA2324BPTB	ALFA2348BPTB
Air flow rate (free blow)	m ³ /h	-	120(130)		120	
Flow rate with exit filter	m ³ /h	-	100(110)		100	
Power supply	V/Hz	-	230/50-60	115/50-60	24DC	48DC
Dimensions HxWxD	mm	250x250x30	250x250x111			
Power consumption	W	-	22(21)		9	13
Current consumption	A	-	0.14(0.12)	0.26(0.24)	0.37	0.27
Overcurrent protection	-	-	impedance			
Electric connection	-	-	faston 2.8x0.5 mm		2-pole terminal 1.5 mm ²	
Duty cycle	-	-	100%			
Operating temperature	°C	-	-10/+70			
Protection degree/class	-	IP54	IP54/Class I			
Noise level	dB(A)	-	43(49)		45	
Flow direction	-	-	outside-in			
Bearing	-	-	ball			
Filter mat (Eurovent)	-	EU3				
Service life (at 40°C)	hr	-	50,000			
Material	-	ABS UL94V-0 Color RAL7035				
Wall thickness	mm	1.2-2.4				
Gasket	-	self-adhesive				
Weight (with packaging)	kg	0.42(0.52)	1.20(1.40)		0.90(1.10)	
Package dimensions	mm	270x270x40	270x270x140			
Mounting	-	Fast Clip-on				
Conformity/Approvals	-	CE				

Versions

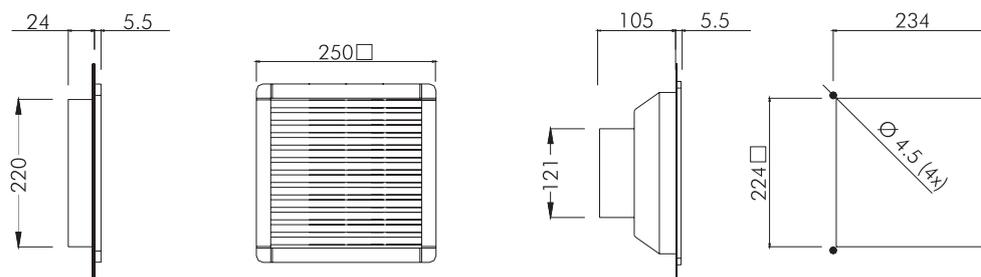
UL File n. E301228	ALFA2000BPUB	ALFA2300BPUB	ALFA2310BPUB	ALFA2324BPTUB	ALFA2348BPTUB
RAL7032 - Gray - Code ending	delete B				
RAL9005 - Black - Code ending	delete B, add N (available on request)				
EMC - Code ending	M				
Reverse flow - Code ending	-	-	-	PR	-
Connection with terminals	-	-	K	-	-

Accessories

Filter mat, standard type	ALFAFBP20				
Filter mat, high efficiency	ALFAFBP20X				
Thermostat 0-60°C, NO contact	-	-	-	THV2	-
Power cord 1m	-	-	SPINOTTOA2-10	-	-
Fan speed controller	-	-	-	FSC	-
Hood for IP55	CUFF20B				

TIP

DC powered filter fan units can be the best way to prevent EMC interference to monitors and other sensitive equipment inside the enclosure.





ALFA25 - ALFA26



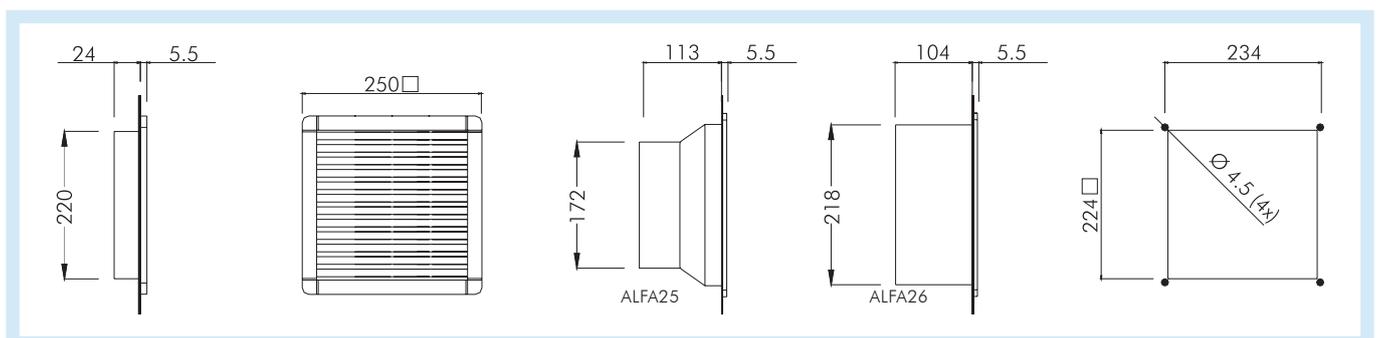
Features	Unit	ALFA2000BPB	ALFA2500BPB	ALFA2510BPB	ALFA2524BPTB	ALFA2548BPTB	ALFA2600BPB	ALFA2610BPB	ALFA2640BPB
Air flow rate (free blow)	m ³ /h	-	230(260)		230		370(400)		
Flow rate with exit filter	m ³ /h	-	180(210)		180		250(270)		
Power supply	V/Hz	-	230/50-60	115/50-60	24DC	48DC	230/50-60	115/50-60	400/50-60
Dimensions HxWxD	mm	250x250x30	250x250x119				250x250x110		
Power consumption	W	-	40(38)		26	33	70(90)		60(70)
Current consumption	A	-	0.17(0.16)	0.34(0.32)	1.08	0.68	0.40(0.38)	0.80(0.76)	0.18(0.15)
Overcurrent protection	-	-	thermal		impedance		thermal		
Electric connection	-	-	3-pole terminal 2.5 mm ²				4-pole terminal 1.5 mm ²		
Duty cycle	-	-	100%						
Operating temperature	°C	-	-10/+70						
Protection degree/class	-	IP54	IP54/Class I						
Noise level	dB(A)	-	53(58)		61		65(68)		
Flow direction	-	-	outside-in						
Bearing	-	-	ball						
Filter mat (Eurovent)	-	-	EU3						
Service life (at 40°C)	hr	-	50,000						
Material	-	-	ABS UL94V-0 Color RAL7035						
Wall thickness	mm	-	1.2-2.4						
Gasket	-	-	self-adhesive						
Weight (with packaging)	kg	0.42(0.52)	1.60(1.80)		1.20(1.40)		2.50(2.70)		
Package dimensions	mm	270x270x40	270x270x140						
Mounting	-	-	Fast Clip-on						
Conformity/Approvals	-	-	CE						

Versions

UL File n. E301228	ALFA2000BPUB	ALFA2500BPUB	ALFA2510BPUB	ALFA2524BPTUB	ALFA2548BPTUB	ALFA2600BPUB	ALFA2610BPUB	-
RAL7032 - Gray - Code ending	delete B							
RAL9005 - Black - Code ending	delete B, add N (available on request)							
EMC - Code ending	M							
Reverse flow - Code ending	-							PR

Accessories

Filter mat, standard type	ALFAFBP20							
Filter mat, high efficiency	ALFAFBP20X							
Thermostat 0-60°C, NO contact	-							THV2
Fan speed controller	-							FSC
Hood for IP55	CUFF20B							



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ALFA35 - ALFA36



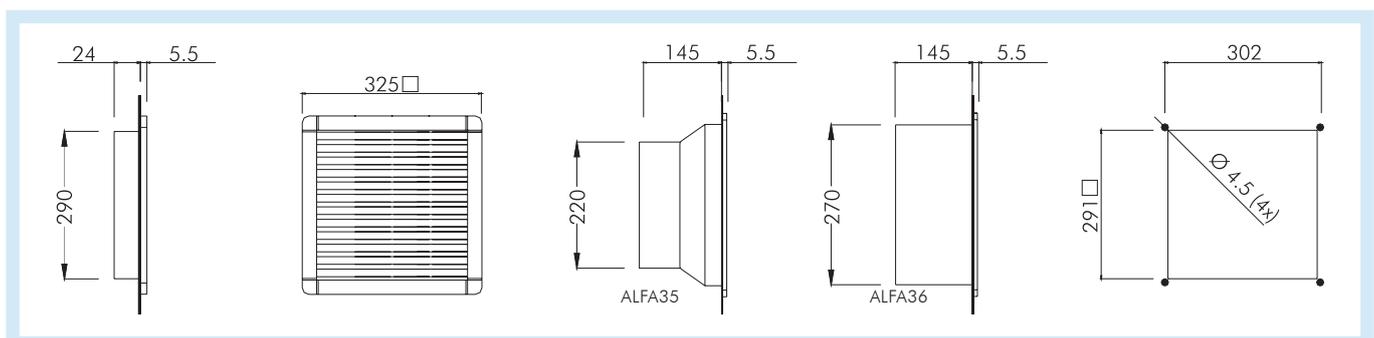
Features	Unit	ALFA3000BPB	ALFA3500BPB	ALFA3510BPB	ALFA3540BPB	ALFA3600BPB	ALFA3610BPB
Air flow rate (free blow)	m ³ /h	-	500(570)			630(700)	
Flow rate with exit filter	m ³ /h	-	370(410)			470(520)	
Power supply	V/Hz	-	230/50-60	115/50-60	400/50-60	230/50-60	115/50-60
Dimensions HxWxD	mm	325x325x30		325x325x151			
Power consumption	W	-	70(90)		60(70)	130(180)	
Current consumption	A	-	0.40(0.38)	0.80(0.76)	0.18(0.15)	0.55(0.81)	1.10(1.62)
Overcurrent protection	-	-	thermal				
Electric connection	-	-	3-pole terminal 2.5 mm ²			4-pole terminal 1.5 mm ²	
Duty cycle	-	-	100%				
Operating temperature	°C	-	-10/+70				
Protection degree/class	-	IP54	IP54/Class I				
Noise level	dB(A)	-	65(68)			72(73)	
Flow direction	-	-	outside-in				
Bearing	-	-	ball				
Filter mat (Eurovent)	-	EU3					
Service life (at 40°C)	hr	-	50,000				
Material	-	ABS UL94V-0 Color RAL7035					
Wall thickness	mm	1.2-2.4					
Gasket	-	self-adhesive					
Weight (with packaging)	kg	0.64(0.78)	3.00(3.25)			3.65(3.90)	
Package dimensions	mm	340x340x45	340x340x175				
Mounting	-	Fast Clip-on					
Conformity/Approvals	-	CE					

Versions

UL File n. E301228	ALFA3000BPUB	ALFA3500BPUB	ALFA3510BPUB	-	ALFA3600BPUB	-
RAL7032 - Gray - Code ending	delete B					
RAL9005 - Black - Code ending	delete B, add N (available on request)					
EMC - Code ending	M					
Reverse flow - Code ending	-	PR				

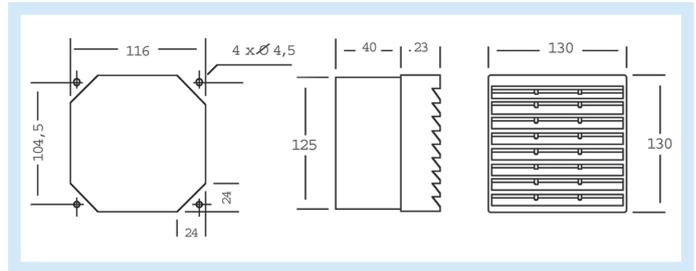
Accessories

Filter mat, standard type	ALFAFBP30					
Filter mat, high efficiency	ALFAFBP30X					
Thermostat 0-60°C, NO contact	-	THV2				
Fan speed controller	-	FSC				
Hood for IP55	CUFF30B					

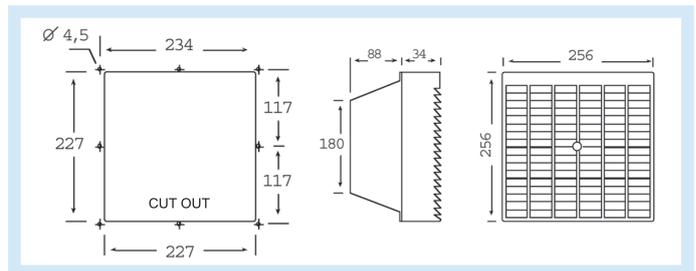
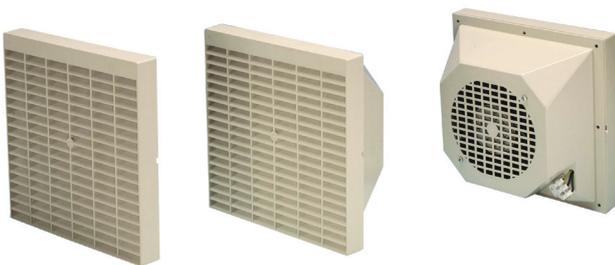


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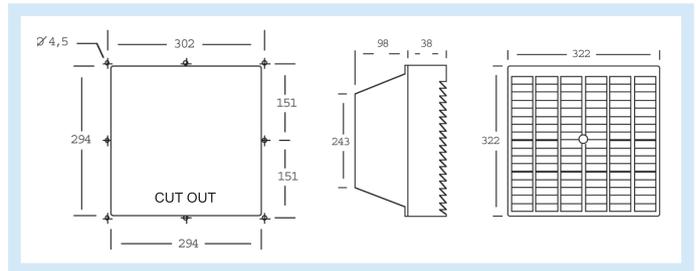
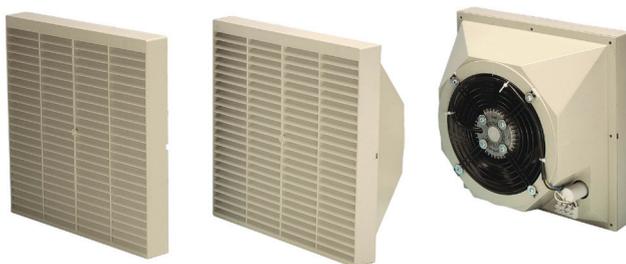
ALFA 1000 series



ALFA 2000 series



ALFA 3000 series



Model	Description	Voltage (V)	Frequency (Hz)	Power (W)	Absorbed current (A)	Noise level dB (A)	Filter fan air volume free blowing m³/h	Filter fan air volume with exit filter **m³/h
ALFA 1000 AP	Filter 130x130							
ALFA 1524 APT	Filter fan 130x130	24 DC		9	0.37	47	55	40
ALFA 1548 APT	Filter fan 130x130	48 DC		13	0.27	47	55	40
ALFA 1600 AP	Filter fan 130x130	230	50/60	19/18	0.14/0.12	46/50	55/60	40/45
ALFA 1610 AP	Filter fan 130x130	115	50/60	19/18	0.25/0.19	46/50	55/60	40/45
ALFA 2000 AP	Filter 256x256							
ALFA 2324 APT	Filter fan 256x256	24 DC		9	0.37	47	105	80
ALFA 2348 APT	Filter fan 256x256	48DC		13	0.27	47	105	80
ALFA 2400 AP	Filter fan 256x256	230	50/60	19/18	0.14/0.12	47/53	120/130	95/105
ALFA 2410 AP	Filter fan 256x256	115	50/60	19/18	0.25/0.19	47/53	120/130	95/105
ALFA 2500 AP	Filter fan 256x256	230	50/60	40/38	0.30/0.27	56/58	230/260	175/200
ALFA 2510 AP	Filter fan 256x256	115	50/60	40/38	0.60/0.55	56/58	230/260	175/200
ALFA 2524 APT	Filter fan 256x256	24 DC		22	1.08	56	230	175
ALFA 2548 APT	Filter fan 256x256	48 DC		33	0.68	56	230	175
ALFA 3000 AP	Filter 325x325							
ALFA 3500 AP	Filter fan 325x325	230	50/60	70/90	0.40/0.38	65/68	480/530	350/380
ALFA 3510 AP	Filter fan 325x325	115	50/60	70/90	0.80/0.76	65/68	480/530	350/380
ALFA 3540 AP	Filter fan 325x325	400-3	50/60	60/70	0.18/0.15	65/68	500/550	350/380

**Jointed an exit filter of equal dimension

TECHNICAL FEATURES: products comply with directives 73/23/EEC and 89/336/EEC; ball bearing axial fans marked CE (some models available with UL and CSA approval); plastic material self-extinguish ABS V0 RAL 7032/7035 black on request; high efficiency dust filters made of self-extinguish acrylic fibre; protection degree IP54.

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ALFATORR ROOF FAN AND VENT



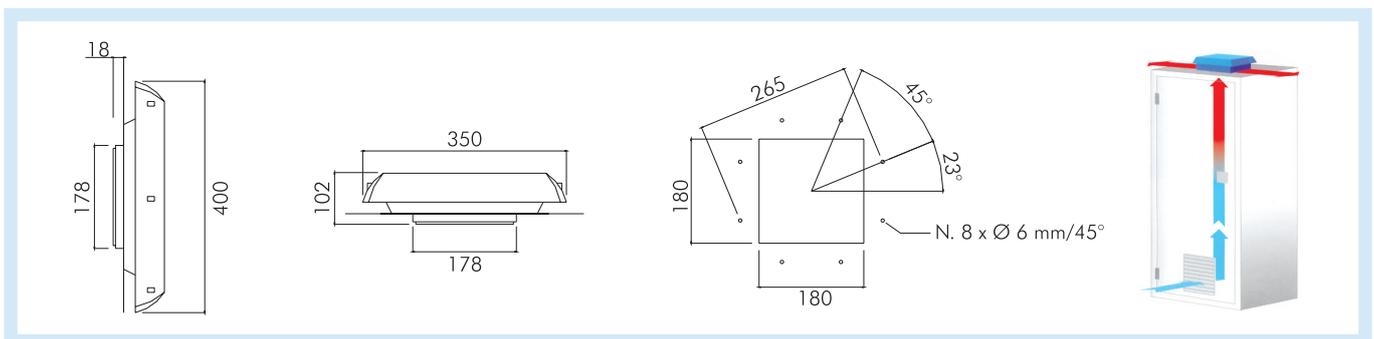
Features	Unit	ALFATORRB	ALFATORR0600B	ALFATORR0610B	ALFATORR0860B	ALFATORR0861B	ALFATORR1000B	ALFATORR1010B
Air flow rate (free blow)	m ³ /h	-	600(625)		860(950)		1,000(1,050)	
Flow rate with inlet filter	m ³ /h	-	430(450)		580(640)		700(720)	
Power supply	V/Hz	-	230/50-60	115/50-60	230/50-60	115/50-60	230/50-60	115/50-60
Dimensions HxWxD	mm	400x350x102	400x350x102					
Power consumption	W	-	70(90)		85(115)		120(170)	
Current consumption	A	-	0.32(0.40)	0.64(0.80)	0.43(0.50)	0.86(1.00)	0.50(0.75)	1.00(1.50)
Overcurrent protection	-	-	thermal					
Electric connection	-	-	4-pole terminal 2.5 mm ²					
Duty cycle	-	-	100%					
Operating temperature	°C	-	-10/+70					
Protection degree enclosure side	-	-	IP44					
Protection class	-	-	Class I					
Noise level	dB(A)	-	64(65)		72(73)			
Flow direction	-	-	inside-out					
Bearing	-	-	ball					
Service life (at 40°C)	hr	-	50,000					
Material	-	-	ABS UL94V-0 Color RAL7035					
Gasket	-	-	Polythene					
Weight (with packaging)	kg	2.30(2.50)	3.65(3.85)		4.00(4.20)		4.75(4.95)	
Package dimensions	mm	410x360x130						
Mounting	-	Screws						
Conformity/Approvals	-	CE						

Versions

UL File n. E301228	ALFATORRUB	ALFATORR0600UB	ALFATORR0610UB	ALFATORR0860UB	ALFATORR0861UB	-
RAL7032 - Gray - Code ending						delete B
EMC - Code ending		M				-
IP54 - Code ending				F		

Accessories

Thermostat 0-60°C, NO contact	-			THV2
Grill with filter mat				ALFA3000BPB
Fan speed controller	-			FSC
Spare filter mat				ALFAFT10



ael-cat-ent-15_01 - Specifications, values and drawings are subject to change without notice.



ALFATORR14 ROOF FANS



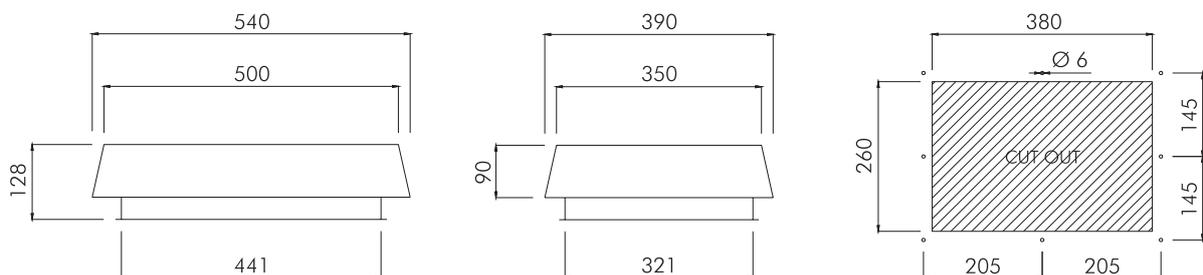
Features	Unit	ALFATORRMETB	ALFATORR1450B	ALFATORR1451B
Air flow rate (free blow)	m ³ /h	-	1500/(1550)	
Flow rate with filter fan	m ³ /h	-	900/(950)	
Power supply	V/Hz	-	230-50/60	115-50/60
Dimensions HxWxD	mm	540x390x128	540x390x128	
Power consumption	W	-	160/(215)	
Current consumption	A	-	0.70/(0.98)	1.40/(1.96)
Overcurrent protection	-	-	thermal	
Electric connection	-	-	4-pole terminal	
Duty cycle	-	-	100%	
Operating temperature	°C	-	-20/+50	
Protection degree enclosure side/class	-	-	IP44/Class I	
Noise level	dB(A)	-	74/(75)	
Flow direction	-	-	inside-out	
Bearing	-	-	ball	
Service life (at 40°C)	hr	-	50,000	
Material	-	metal RAL7035		
Gasket	-	PVC	PVC	
Weight (with packaging)	kg	5.2(5.5)	11.3(12.3)	
Package dimensions	mm	550x400x140	550x400x140	
Mounting	-	Screws	Screws	
Conformity/Approvals	-	CE		

Versions

RAL7032 - Gray - Code ending	delete B
IP54 - Code ending	F

Accessories

Thermostat 0-60°C, NO contact	THV2
Grill with filter mat	ALFA3000BPB
Fan speed controller	FSC
Spare filter mat	ALFAFT15





RACK

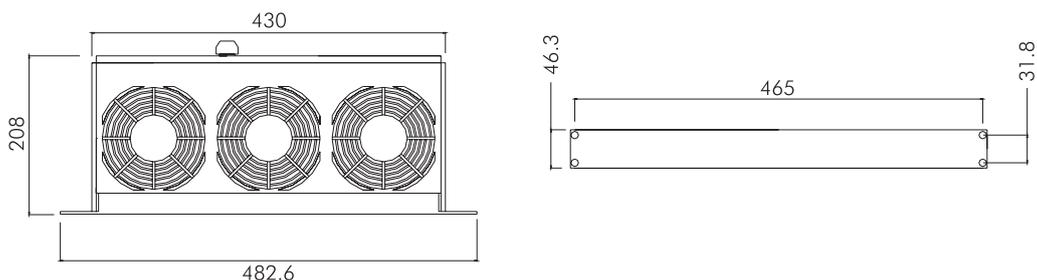
FAN TRAYS FOR 19" ENCLOSURES



Features	Unit	RACK0222	RACK0212	RACK0224	RACK0248	RACK0322	RACK0312	RACK0324	RACK0348
Air flow rate (free blow)	m ³ /h	300(360)		300		450(540)		450	
Power supply	V/Hz	230/50-60	115/50-60	24DC	48DC	230/50-60	115/50-60	24DC	48DC
Dimensions HxWxD	mm	482x44x208							
Power consumption	W	36(34)		18	28	54(51)		27	42
Current consumption	A	0.26(0.22)	0.48(0.36)	0.75	0.58	0.39(0.33)	0.72(1.08)	1.12	0.88
Overcurrent protection	-	impedance							
Electric connection	-	3-pole terminal 2.5 mm ²							
Duty cycle	-	100%							
Operating temperature	°C	-10/+70							
Protection degree/class	-	IP30/Class I							
Noise level	dB(A)	51(52)							
Flow direction	-	bottom to top							
Bearing	-	ball							
Service life (at 40°C)	hr	50,000							
Material	-	PC-ABS UL94V-0 Color RAL7035							
Weight (with packaging)	kg	2.10(2.30)		1.60(1.80)		2.60(2.80)		1.85(2.05)	
Package dimensions	mm	510x220x65							
Mounting	-	Screws							
Conformity/Approvals	-	CE							

Accessories

Thermostat 0-60°C, NO contact	THV2
Fan speed controller	FSC





AC/DC FANS



AC Fans

DC Fans

Code	m ³ /hr	Bearing	Power supply V/Hz	Connection	Dim. mm.
V1081BT230VAC	160	ball	220-240/50-60	fast-on	119x119x38
V1081BT115VAC	160	ball	110-120/50-60	fast-on	119x119x38
V1081BT24VAC	160	ball	24/50-60	fast-on	119x119x38
V1081BT48VAC	160	ball	48/50-60	fast-on	119x119x38
V1081ST230VAC	160	sleeve	220-240/50-60	fast-on	119x119x38
V1081ST115VAC	160	sleeve	110-120/50-60	fast-on	119x119x38
V1081ST24VAC	160	sleeve	24/50-60	fast-on	119x119x38
V1081ST48VAC	160	sleeve	48/50-60	fast-on	119x119x38
V1087BT230VAC	190	ball	220-240/50-60	fast-on	127x127x38
V1087BT115VAC	190	ball	110-120/50-60	fast-on	127x127x38
V108XB230VAC	105	ball	220-240/50-60	fast-on	120x120x25
V108XB115VAC	105	ball	110-120/50-60	fast-on	120x120x25
V108JCSW230VA	65	sleeve	220-240/50-60	wires	92x92x38
V108JCSW115VA	65	sleeve	110-120/50-60	wires	92x92x38
V108JCBT230VA	65	ball	220-240/50-60	fast-on	92x92x38
V108JCBT115VA	65	ball	110-120/50-60	fast-on	92x92x38
V108BBT230VAC	50	ball	220-240/50-60	fast-on	92x92x25
V108BBT115VAC	50	ball	110-120/50-60	fast-on	92x92x25
V108BST230VAC	50	sleeve	220-240/50-60	fast-on	92x92x25
V108BST115VAC	50	sleeve	110-120/50-60	fast-on	92x92x25
V108ABT230VAC	45	ball	220-240/50-60	fast-on	80x80x38
V108ABW230VAC	45	ball	220-240/50-60	wires	80x80x38
V108ABT115VAC	45	ball	110-120/50-60	fast-on	80x80x38
V108AST230VAC	45	sleeve	220-240/50-60	fast-on	80x80x38
V108AST115VAC	45	sleeve	110-120/50-60	fast-on	80x80x38
V108AXBT230VA	35	ball	220-240/50-60	fast-on	80x80x25
V108AXBW230VA	35	ball	220-240/50-60	wires	80x80x25
V108AXBT115VA	35	ball	110-120/50-60	fast-on	80x80x25
V108AXST230VA	35	sleeve	220-240/50-60	fast-on	80x80x25
V108AXST115VA	35	sleeve	110-120/50-60	fast-on	80x80x25
V108EXBT230VA	325	ball	220-240/50-60	fast-on	172x150x51
V108EXBW230VA	325	ball	220-240/50-60	wires	172x150x51
V108EXBT115VA	325	sleeve	110-120/50-60	fast-on	172x150x51
V108EXBW115VA	325	ball	110-120/50-60	wires	172x150x51
V108EXST230VA	325	sleeve	220-240/50-60	fast-on	172x150x51
V108EXST115VA	325	ball	110-120/50-60	fast-on	172x150x51
V108EXMBT230V	340	ball	220-240/50-60	fast-on	172x150x38
V108EXMBT115V	340	ball	110-120/50-60	fast-on	172x150x38
V108CBW230VA	350	ball	220-240/50-60	wires	162x150x55
V108CBW115VA	350	ball	110-120/50-60	wires	162x150x55
V108KBW230VAC	600	ball	220-240/50	wires	220x60
V108KBW115VAC	600	ball	110-120/50	wires	220x60
V108HHBT230VA	800	ball	220-240/50-60	fast-on	254x89
V108HHBT115VA	800	ball	110-120/50-60	fast-on	254x89

Code	m ³ /hr	Bearing	Power supply V/Hz	Connection	Dim. mm.
V108EXBW24VDC	460	ball	24 DC	wires	172x150x51
V108EXBW48VDC	460	ball	48 DC	wires	172x150x51
V1087BW24VDC	240	ball	24 DC	wires	127x127x38
V1087BW48VDC	240	ball	48 DC	wires	127x127x38
V1081BW12VDC	180	ball	12 DC	wires	119x119x38
V1081BW24VDC	180	ball	24 DC	wires	119x119x38
V1081BW48VDC	180	ball	48 DC	wires	119x119x38
V1081SW12VDC	180	sleeve	12 DC	wires	119x119x38
V1081SW24VDC	180	sleeve	24 DC	wires	119x119x38
V1081SW48VDC	180	sleeve	48 DC	wires	119x119x38
V108MBW12VDC	150	ball	12 DC	wires	120x120x25
V108MBW24VDC	150	ball	24 DC	wires	120x120x25
V108MSW12VDC	150	sleeve	12 DC	wires	120x120x25
V108MSW24VDC	150	sleeve	24 DC	wires	120x120x25
V108BBW24VDC	100	ball	24 DC	wires	92x92x25
V108DBW12VDC	65	ball	12 DC	wires	80x80x25
V108DBW24VDC	65	ball	24 DC	wires	80x80x25
V108DSW12VDC	65	sleeve	12 DC	wires	80x80x25
V108DSW24VDC	65	sleeve	24 DC	wires	80x80x25
V108FSW24VDC	35	sleeve	24 DC	wires	60x60x25
V108GBW24VDC	15	ball	24 DC	wires	40x40x20

Other articles available on demand

ALFAKF



COMPACT FILTER UNITS

Suitable for direct screw mounting on axial fans. They can also be mounted with the fan inside the enclosure.

The mounting holes have diameter $\varnothing 6.0-6.5$ mm. The material is black ABS, self-extinguishing, according to UL94 V-O.

Code	Description	Dim. mm.	Pcs in 1 pack
ALFAKF060	Compact filter unit	60x60	1
ALFAKF080	Compact filter unit	80x80	1
ALFAKF092	Compact filter unit	92x92	1
ALFAKF120	Compact filter unit	120x120	1
ALFAKF150	Compact filter unit	150x150	1

ALFAKR120



COMPACT FILTER UNITS - HIGH PERFORMANCE

Compact filter unit with reduced pressure drop. Filter media, steel or acrylic, is easy accessible and cleanable. Available in three versions:

Code	Description	Dim. mm.	Pcs in 1 pack
ALFAKR120	Compact filter unit w/ standard filter mat	125x125x10	20
ALFAKR120R	Compact filter unit w/metallic filter mesh	125x125x10	20
ALFAKR120RF	Compact filter unit w/standard filter mat and metallic filter mesh	125x125x10	20

SPINOTTO

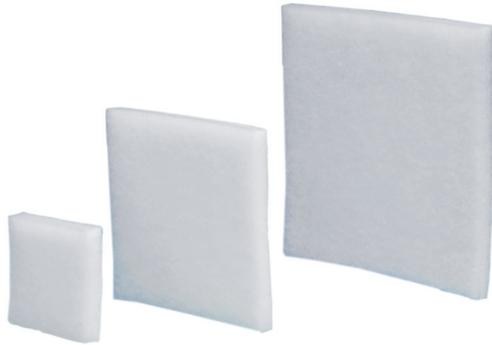


FAN POWER CORDS

Suitable to all fast-on connection fans. Black cable with injection moulded straight plug for 2,8x0,5 mm pins.

Code	Description	Pcs in 1 pack
SPINOTTOA2-06	Straight power cord 600 mm.	1
SPINOTTOA2-10	Straight power cord 1000 mm.	1
SPINOTTOA2-20	Straight power cord 2000 mm.	1

ALFAF



ALFAFBP0 - Spare filter mats for filter fans

Standard filter mats for ALFAxxxxBPB filter fans and filter only units. To keep high performance it is necessary to periodically check the level of filter mat clogging and, if necessary, replace it with a new one. These filters are made of self-extinguishing synthetic fibres with a progressive filtering capacity.

Code	Description	Pcs in 1 pack
ALFAFBPA0	Filter mat for ALFAA000BPB	10
ALFAFBP10	Filter mat for ALFA1000BPB	10
ALFAFBP00	Filter mat for ALFAB000BPB	10
ALFAFBP20	Filter mat for ALFA2000BPB	10
ALFAFBP30	Filter mat for ALFA3000BPB	10

ALFAFBP0X - High efficiency spare filter mats for filter fans

High efficiency filter mats are used in is very fine dust environments. However, air flow rates is substantially reduced and should be accounted for when selecting the filter fan.

Code	Description	Pcs in 1 pack
ALFAFBPA0X	Filter mat for ALFAA000BPB, high efficiency	10
ALFAFBP10X	Filter mat for ALFA1000BPB, high efficiency	10
ALFAFBP00X	Filter mat for ALFAB000BPB, high efficiency	10
ALFAFBP20X	Filter mat for ALFA2000BPB, high efficiency	10
ALFAFBP30X	Filter mat for ALFA3000BPB, high efficiency	10

ALFAFT1x

Code	Description	Pcs in 1 pack
ALFAFT10	Filter mat for ALFATORRO600B-1010B	5
ALFAFT15	Filter mat for ALFATORR1450B-1451B	5

GRV190/GRV250

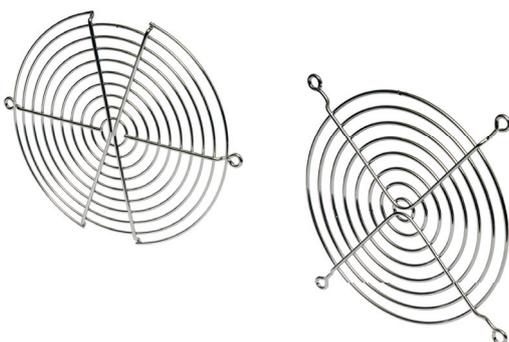


GRV190/GRV250

Grilled shroud for radial fans. They allow safe operation and increased air flow rate on radial fans.

Features	Unit	GRV190	GRV250
a	mm	170	214
b	mm	156	196
c	mm	5.8	5
d	mm	13	15
e	mm	130	166

ALFAGM



METALLIC PROTECTION GRILLS

Finger guard metallic protection grills for axial fans. Range Ø 40-254 mm.

Complying with international safety norms.

Code	Description	Dim. mm.	Pcs in 1 pack
ALFAGM040	Metallic finger protection grill	Ø 40	100
ALFAGM060	Metallic finger protection grill	Ø 60	100
ALFAGM080	Metallic finger protection grill	Ø 80	100
ALFAGM092	Metallic finger protection grill	Ø 92	100
ALFAGM120	Metallic finger protection grill	Ø 120	100
ALFAGM127	Metallic finger protection grill	Ø 127	100
ALFAGM150	Metallic finger protection grill	Ø 150	100
ALFAGM220	Metallic finger protection grill	Ø 220	100
ALFAGM254	Metallic finger protection grill	Ø 254	100



Anticondensation Heaters

Application

Enclosure heaters are often necessary to prevent failures or corrosion caused by low temperatures or high humidity inside the enclosure. Such conditions are likely to occur when ambient temperature is low and the equipment inside the enclosure is not powered or fails to dissipate enough heat to keep enclosure temperature above the minimum threshold. Outdoor enclosures, for instance, are almost always in such conditions.

Safety

According to the type of heater, surface temperature is limited either by a PTC or by an over temperature safety switch. This allows a safe operation and a self-adjusted heating power. All heaters are in Class II, except FSHT, FPH and FMHT series in Class I.

Wide range of solutions

Alfa Electric offers a wide range of solutions, all for DIN rail mounting:

SHT – PTC heaters with connection on terminals, 25-150W

SHT/W – PTC heaters with wire connection, 15-50W

FSHT – Resistor heaters, fan assisted, 250-750W

MHT – PTC mini heaters, 5-30W

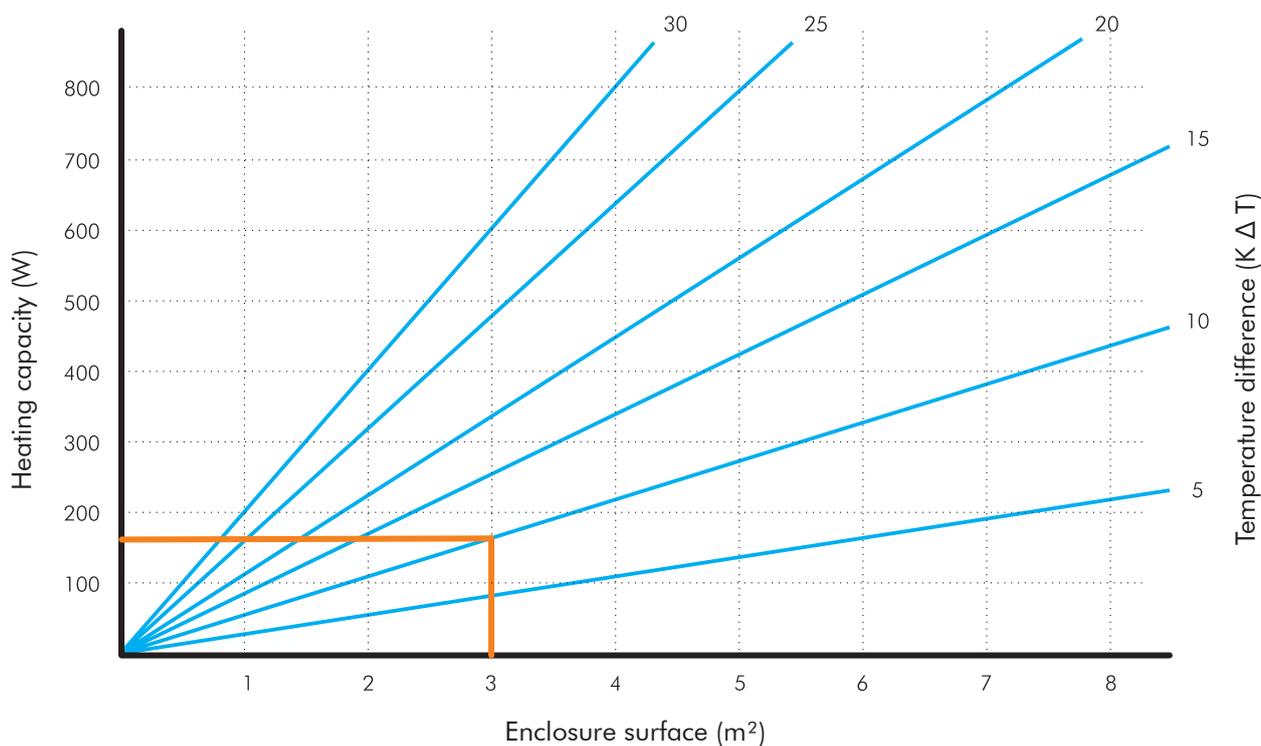
FMHT – PTC mini heaters, fan assisted, 75-300W

FPH – PTC fan heaters, 1200-2000W

Fast installation

Installation is fast and simple. All units are designed for fast mounting on 35mm DIN EN 50022 rail.

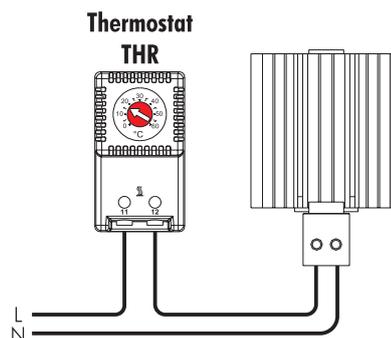
Anticondensation heaters selection diagram



Example:

Enclosure surface 3m²
 Temperature difference 10K
 Heating capacity required 170W

Possible heater solutions: n. 2 SHT100
 n. 1 FSHT250
 n. 1 FMHT230





SHT

PTC HEATERS, TERMINAL CONNECTION



Features	Unit	SHT25	SHT50	SHT75	SHT100	SHT125	SHT150
Heating Capacity*	W	25	50	75	100	125	150
Power supply	V	110-250V AC or DC					
Inrush current	A	2.5	3.5	4	5	7	9.5
Delayed fuse (advised)	A	4	4	6.3	8	8	10
Heating element type	-	PTC resistor, self regulating					
Electrical connections	-	2 screw terminals for stranded or rigid wire 2.5 mm ²					
Protection class IEC	-	Class II					
Protection degree EN60529	-	IP20					
Operating temperature	°C (°F)	-45/+70 (-49/+158)					
Storage temperature	°C (°F)	-45/+80 (-49/+176)					
Radiator	-	Extruded aluminium profile, anodized					
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022					
Installation position	-	Best efficiency in vertical position					
Dimensions HxWxD	mm	90x50x80	110x50x80	160x50x80	110x90x80	160x90x80	220x90x80
Weight	kg	0.25	0.30	0.45	0.50	0.85	1.1
Conformity	-	CE					

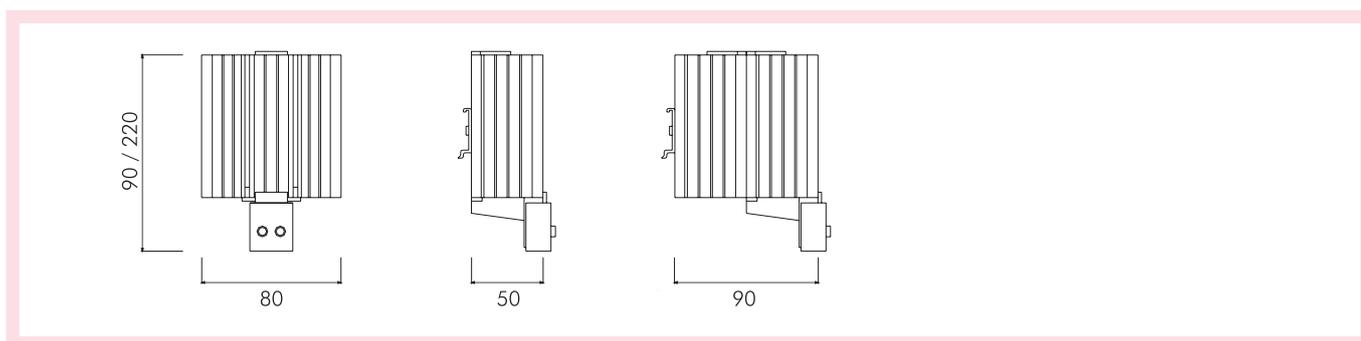
*at 20°C (68°F) ambient temperature

Versions

with integrated fixed thermostat NC 5°C	SHT25T	SHT50T	SHT75T	SHT100T	SHT125T	SHT150T
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Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THR22
Hygrothermostat 0-60°C 30-90%RH	ETUH22
Hygrostat 10-90%RH	MUH



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SHT W

PTC HEATERS, WIRE CONNECTION

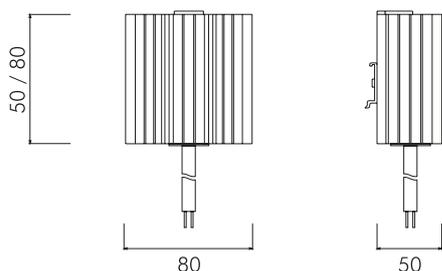


Features	Unit	SHT15W	SHT25W	SHT50W
Heating Capacity*	W	15	25	50
Power supply	V	110-250V AC or DC		
Inrush current	A	2	2.5	3.5
Delayed fuse (advised)	A	4	4	6.3
Heating element type	-	PTC resistor, self regulating		
Electrical connections	-	Silicon cable, 2x0.5 mm ² , length 400 mm		
Protection class IEC	-	Class II		
Protection degree EN60529	-	IP20		
Operating temperature	°C (°F)	-45/+70 (-49/+158)		
Storage temperature	°C (°F)	-45/+80 (-49/+176)		
Radiator	-	Extruded aluminium profile, anodized		
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022		
Installation position	-	Best efficiency in vertical position		
Dimensions HxWxD	mm	50x50x80	60x50x80	80x50x80
Cable length	mm	400	400	400
Weight	kg	0.20	0.24	0.29
Conformity	-	CE		

*at 20°C (68°F) ambient temperature

Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THR22
Hygrothermostat 0-60°C 30-90%RH	ETUH22
Hygrostat 10-90%RH	MUH





HT

COMPACT PTC HEATERS

Compact heaters series with minimum DIN rail foot-print.



Features	Unit	HT25	HT50	HT75	HT100	HT150
Heating Capacity*	W	25	50	75	100	150
Power supply	V	110-250V AC or DC				
Inrush current	A	2.5	3.5	4	5	9.5
Delayed fuse (advised)	A	4	4	6.3	8	10
Heating element type	-	PTC resistor, self regulating				
Electrical connections	-	Silicon cable, 2x0.5 mm ² , l. 400 mm		2 screw terminals for stranded or rigid wire 2.5 mm ²		
Protection class IEC	-	Class II				
Protection degree EN60529	-	IP20				
Operating temperature	°C (°F)	-45/+70 (-49/+158)				
Storage temperature	°C (°F)	-45/+80 (-49/+176)				
Radiator	-	Extruded aluminium profile				
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022				
Installation position	-	Best efficiency in vertical position				
Dimensions HxWxD	mm	100x40x40		140x59x61		220x59x61
Weight	kg	0.19		0.34		0.57
Conformity	-	CE - UL us				

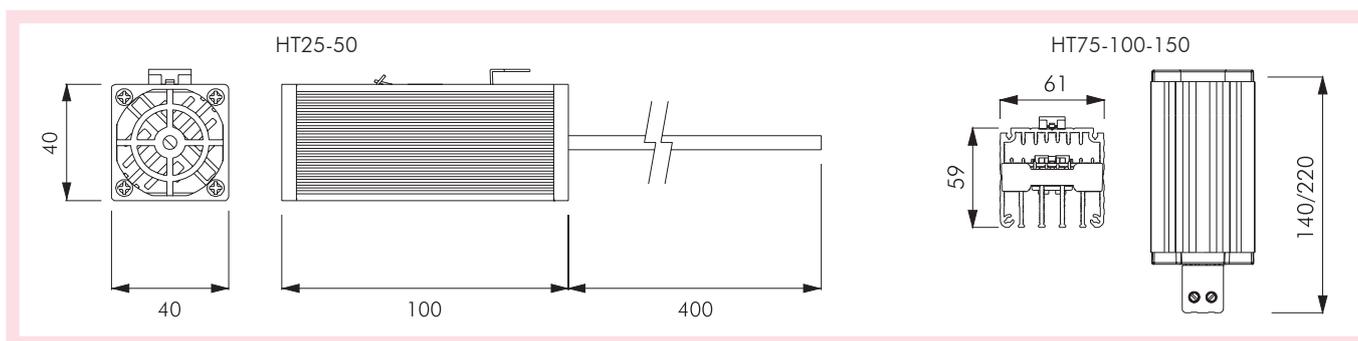
*at 20°C (68°F) ambient temperature

Versions

with integrated fixed thermostat NC 5°C	-	HT75T	HT100T	HT150T
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Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THR22
Hygrothermostat 0-60°C 30-90%RH	ETUH22
Hygrostat 10-90%RH	MUH



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STHT

TOUCH SAFE PTC HEATERS

Optimized design to achieve lower surface temperature and increased heat transfer efficiency. A thermo-resistant plastic shield surrounds the unit to prevent direct contacts with high temperature internal parts.



Features	Unit	STHT25	STHT50	STHT75	STHT100	STHT150
Heating Capacity*	W	25	50	75	100	150
Power supply	V	110-250V AC or DC				
Inrush current	A	2.5	3.5	4	5	9.5
Delayed fuse (advised)	A	4	4	6.3	8	10
Heating element type	-	PTC resistor, self regulating				
Electrical connections	-	2 screw terminals for stranded or rigid wire 2.5 mm ²				
Protection class IEC	-	Class II				
Protection degree EN60529	-	IP20				
Operating temperature	°C (°F)	-45/+70 (-49/+158)				
Storage temperature	°C (°F)	-45/+80 (-49/+176)				
Radiator	-	Extruded aluminium profile, with plastic cover				
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022				
Installation position	-	Best efficiency in vertical position				
Dimensions HxWxD	mm	125x41x41		140x63x70		220x63x70
Weight	kg	0.16		0.39		0.66
Conformity	-	CE - UL us				

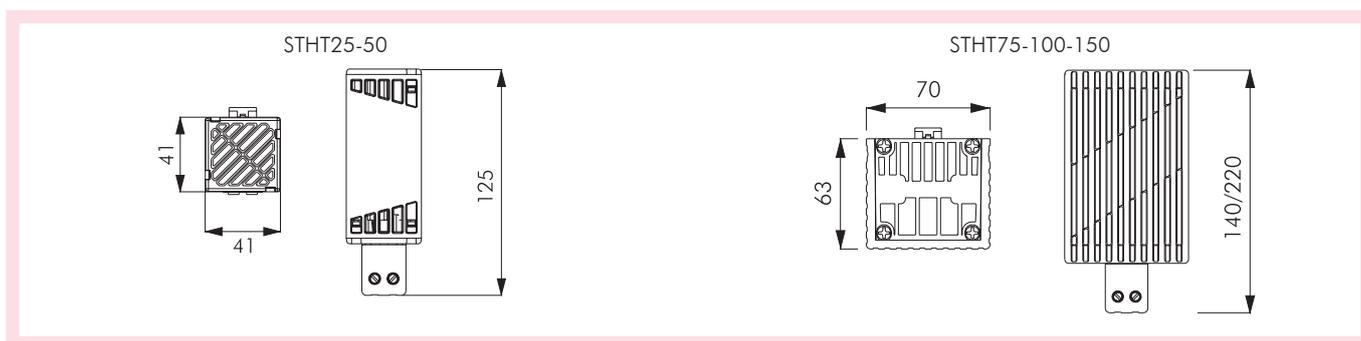
*at 20°C (68°F) ambient temperature

Versions

with integrated fixed thermostat NC 5°C	STHT25T	STHT50T	STHT75T	STHT100T	STHT150T
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Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THR22
Hygrothermostat 0-60°C 30-90%RH	ETUH22
Hygrostat 10-90%RH	MUH



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FSHT

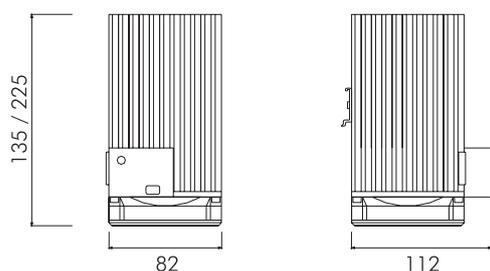
FAN ASSISTED, RESISTOR HEATERS



Features	Unit	FSHT250	FSHT251	FSHT400	FSHT401	FSHT500	FSHT501	FSHT750	FSHT751
Heating Capacity	W	250	250	400	400	500	500	750	750
Power supply	V/Hz	230/50-60	115/50-60	230/50-60	115/50-60	230/50-60	115/50-60	230/50-60	115/50-60
Max. current	A	1.2	2.4	1.9	3.8	2.4	4.8	3.6	7.2
Heating element type	-	Resistor							
Thermal protection	-	Thermal cut out fuse in case of fan failure							
Radiator	-	Extruded aluminium profile, anodized							
Axial fan	-	Ball bearing, service life 50.000 hrs at 25°C (77°F) air flow rate 35 m ³ /h, free flow						air flow rate 44 m ³ /h, free flow	
Signalling	-	Green LED power ON							
Electrical connections	-	3 screw terminals for stranded or rigid wire 2.5 mm ²							
Protection class IEC	-	Class I, earthed							
Protection degree EN60529	-	IP20							
Operating temperature	°C (°F)	-25/+70 (-13/+158)							
Storage temperature	°C (°F)	-45/+80 (-49/+176)							
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022							
Installation position	-	Best performance with vertical installation							
Dimensions HxWxD	mm	135x112x82	135x112x82	165x112x82	165x112x82	165x112x82	165x112x82	225x112x82	225x112x82
Weight (with packaging)	kg	0.88(0.94)	0.88(0.94)	0.97(1.04)	0.97(1.04)	0.97(1.04)	0.97(1.04)	1.35(1.42)	1.35(1.42)
Conformity	-	CE - UL us							

Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THR22
Hygrothermostat 0-60°C 30-90%RH	ETUH22
Hygrostat 10-90%RH	MUH





FPH

FAN ASSISTED PTC HEATERS



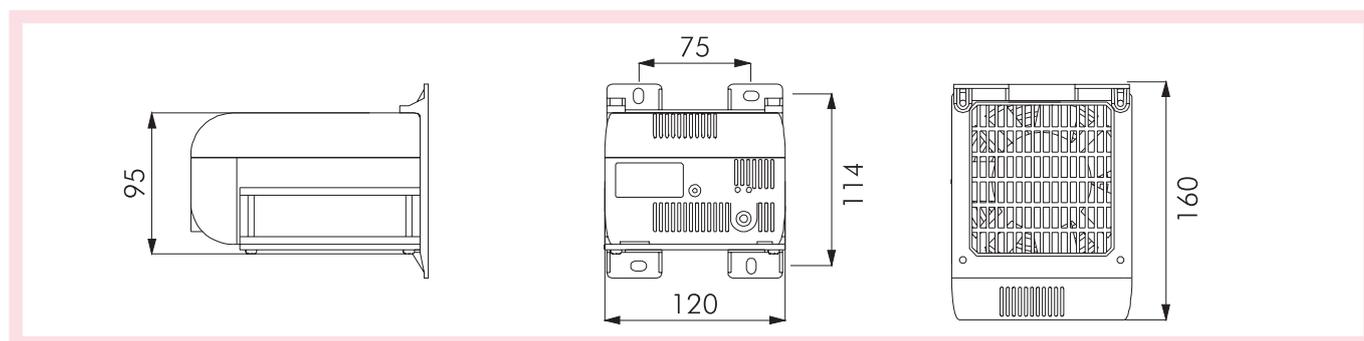
Features	Unit	FPH1200	FPH1201	FPH1500	FPH1501	FPH2000	FPH2001
Heating Capacity	W	1200	1200	1500	1500	2000	2000
Power supply	V/Hz	230/50-60	115/50-60	230/50-60	115/50-60	230/50-60	115/50-60
Heating element type	-	PTC resistor, self regulating					
Thermal protection	-	Thermal cut out in case of fan failure (auto-reset for 100,000 cycles)					
Casing	-	Plastic according to UL94 V-0, black					
Axial fan	-	Ball bearing, service life 50.000 hrs at 25°C (77°F), air flow rate 160 m3/h, free flow					
Control operation	-	optional					
Electrical connections	-	3 screw terminals for stranded or rigid wire 2.5 mm ²					
Alarm output	-	optional 2 screw terminals for alarm signal 5-30V DC / 0,5A					
Protection class IEC	-	Class I, earthed					
Protection degree EN60529	-	IP20					
Operating temperature	°C (°F)	-40/+70 (-13/+158)					
Storage temperature	°C (°F)	-45/+80 (-49/+176)					
Mounting	-	Screw fixing (M4)					
Installation position	-	Best performance with horizontal installation					
Dimensions HxWxD	mm	95x160x120					
Weight (with packaging)	kg	1.20(1.27)					
Conformity	-	CE					

Versions

without bimetallic thermostat	FPH1200.00	FPH1201.00	FPH1500.00	FPH1501.00	FPH2000.00	FPH2001.00
with bimetallic thermostat integrated	FPH1200.01	-	FPH1500.01	-	-	-
with electronic board integrated	FPH1200.02	-	FPH1500.02	-	FPH2000.02	-

Functions of electronic board

1. electronic temperature control
2. green LED on for proper operation, red LED on for malfunction
3. 2 screw terminals for alarm signal 5-30V DC / 0,5A



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MHT

COMPACT PTC HEATERS

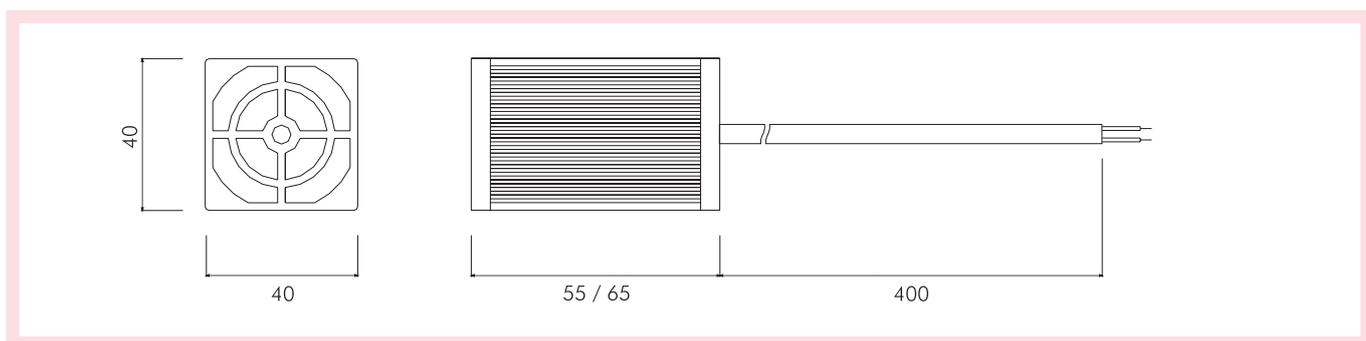


Features	Unit	MHT5	MHT15	MHT30
Heating Capacity*	W	5	15	30
Power supply	V	110-250V AC or DC		
Inrush current	A	1.5	2	3
Delayed fuse (advised)	A	4	4	4
Heating element type	-	PTC resistor, self regulating		
Electrical connections	-	Silicon cable, 2x0,5 mm ² , length 400 mm		
Protection class IEC	-	Class II		
Protection degree EN60529	-	IP20		
Operating temperature	°C (°F)	-45/+70 (-49/+158)		
Storage temperature	°C (°F)	-45/+80 (-49/+176)		
Radiator	-	Extruded aluminium profile, anodized		
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022		
Installation position	-	Best efficiency in vertical position		
Dimensions HxWxD	mm	55x40x40	55x40x40	65x40x40
Cable length	mm	400	400	400
Weight (with packaging)	kg	0.11(0.12)	0.11(0.12)	0.13(0.14)
Conformity	-	CE		

*at 20°C (68°F) ambient temperature

Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THR22
Hygrothermostat 0-60°C 30-90%RH	ETUH22
Hygrostat 10-90%RH	MUH



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FMHT

FAN ASSISTED, COMPACT HEATERS



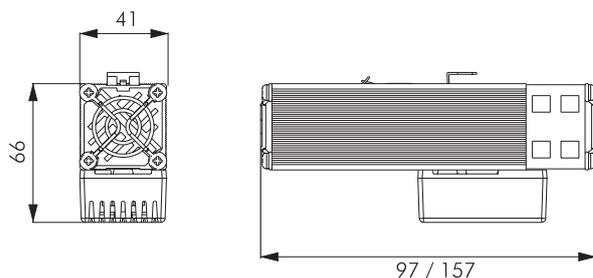
Features	Unit	FMHT75	FMHT100	FMHT150	FMHT230	FMHT300
Heating Capacity	W	75	100	150	230	300
Power supply	V/Hz	Heater 230V AC - Fan 24V DC				
Max. current	A	0.35	0.45	0.65	1.00	1.30
Heating element type	-	resistor				
Radiator	-	Extruded aluminium profile, anodized				
Axial fan	-	Ball bearing, service life 50.000 hrs at 25°C (77°F)				
		air flow rate 11 m ³ /h, free flow				air flow rate 33 m ³ /h, free flow
Electrical connections	-	4 springs terminal for stranded or rigid wire*				
Protection class IEC	-	Class I				
Protection degree EN60529	-	IP20				
Operating temperature	°C (°F)	-25/+55 (-13/+131)				
Storage temperature	°C (°F)	-45/+80 (-49/+176)				
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022				
Installation position	-	Best performance in vertical installation				
Dimensions HxWxD	mm	97x41x66	97x40x40	132x40x40	142x40x40	157x40x40
Weight (with packaging)	kg	0.20(0.21)	0.20(0.21)	0.26(0.28)	0.28(0.30)	0.40(0.42)
Conformity	-	CE				

*0.5-2.5 mm² solid wire

0.5-1.5 mm² fine stranded wire with ferrule

Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THR22
Hygrothermostat 0-60°C 30-90%RH	ETUH22
Hygrostat 10-90%RH	MUH





FMHT S

FAN ASSISTED, COMPACT HEATERS

Extremely compact design and high heating capacity density. A built-in power supply and control system allows a single mains voltage power supply and provide a safe disconnection of the heating element in case the fan fails.



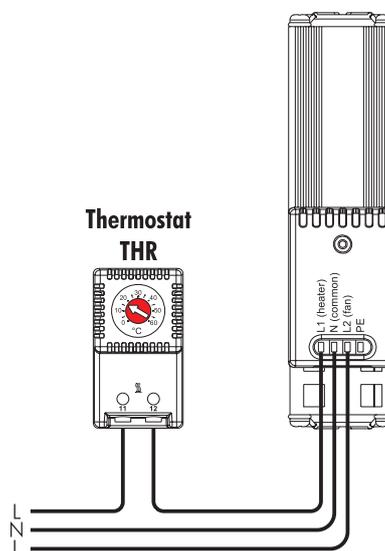
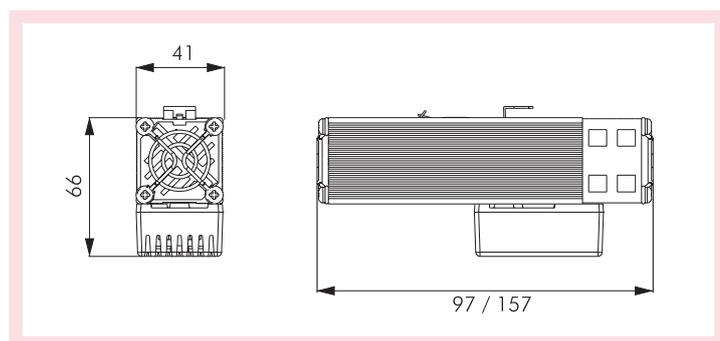
Features	Unit	FMHT100S	FMHT150S	FMHT230S	FMHT300S
Heating Capacity	W	100	150	230	300
Power supply	V/Hz	230/50-60			
Max. current	A	0.45	0.65	1.00	1.30
Heating element type	-	resistor			
Radiator	-	Extruded aluminium profile, anodized			
Axial fan	-	Ball bearing, service life 50.000 hrs at 25°C (77°F)			air flow rate 33 m³/h, free flow
		air flow rate 11 m³/h, free flow			
Electrical connections	-	4 springs terminal for stranded or rigid wire*			
Protection class IEC	-	Class I			
Protection degree EN60529	-	IP20			
Operating temperature	°C (°F)	-20/+70 (-4/+158)			
Storage temperature	°C (°F)	-45/+80 (-49/+176)			
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022			
Installation position	-	Best performance in vertical installation			
Dimensions HxWxD	mm	97x41x66	132x41x66	142x41x66	157x41x66
Weight (with packaging)	kg	0.20(0.21)	0.26(0.28)	0.28(0.30)	0.40(0.42)
Conformity	-	CE			

*0.5-2.5 mm² solid wire

0.5-1.5 mm² fine stranded wire with ferrule

Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THR22
Hygrothermostat 0-60°C 30-90%RH	ETUH22
Hygrostat 10-90%RH	MUH





THV - THR THERMOSTATS

Compact Thermostat for DIN 35 mm. rail mounting.
Based on bimetallic junction, provides high capacity NO or NC contact.
Two versions available:

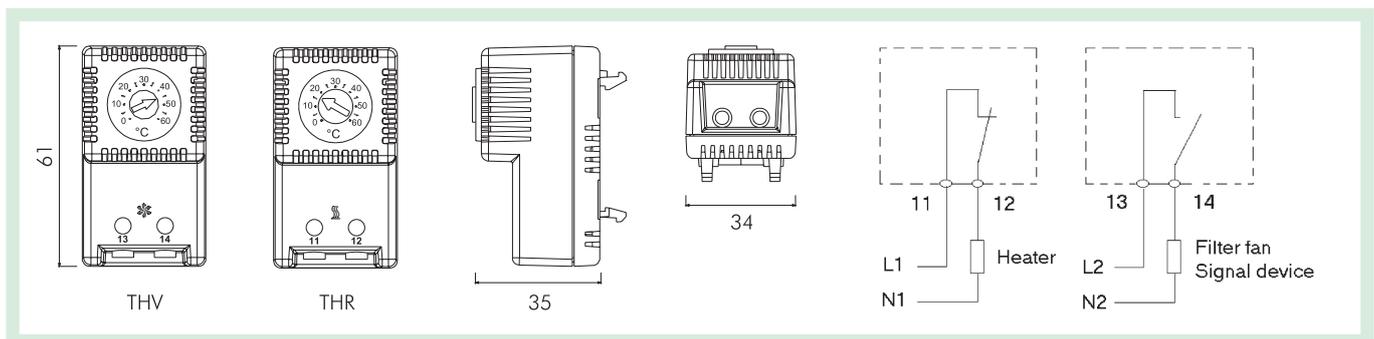
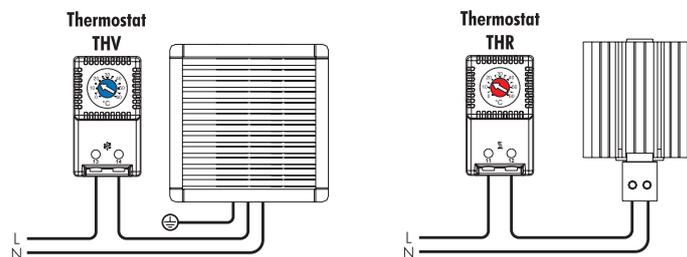


THVx	NO Contact	●	Typically used for controlling ventilation devices
THRx	NC Contact	●	Typically used for controlling heaters

Features	Unit	THR1	THR2	THR3	THV1	THV2	THV3
Contact function	-	NC	NC	NC	NO	NO	NO
Temperature setting range	°C	-10/+50	0/+60	+20/+80	-10/+50	0/+60	+20/+80
Precision	°C	±4					
Hysteresis	°C	7					
Max. switching current	-						
250Vac resistive load (inductive load)	A	10 (1.6)					
125Vac resistive load (inductive load)	A	15 (2.5)					
Max. switching power in Vdc	W	30					
Temperature sensor type	-	Thermostatic bimetal					
Contact type	-	Snap action					
Contact resistance	mOhm	< 10					
Service life	cycles	> 100,000					
Electrical connections	-	2-pole terminal for 2.5 mm ² wire					
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035					
Protection degree EN60529	-	IP20					
Operating temperature	°C (°F)	-25/+80 (-13/+176)					
Storage temperature	°C (°F)	-45/+80 (-49/+176)					
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022					
Installation position	-	Variable					
Conformity	-	CE - UL File n. E348803					
Dimensions HxWxD	mm	61x34x35					
Weight	g	48					

Accessories

DIN rail bracket	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL
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THR - THV DOUBLE-THERMOSTATS

Compact double thermostat for DIN 35 mm. rail mounting.
Based on bimetallic junction, provide high capacity and separated
NO and NC contacts in different combinations.
Three versions available:

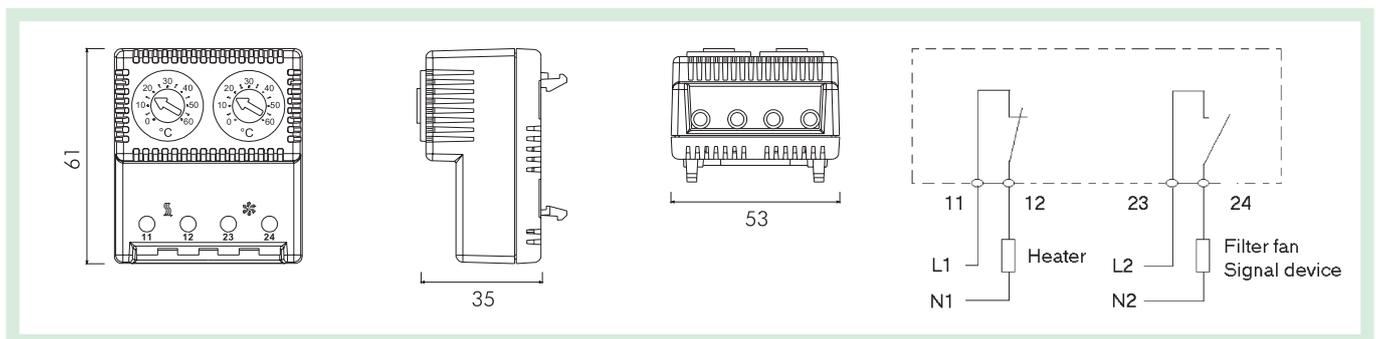
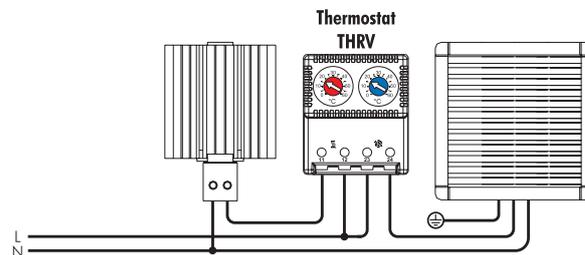


THR13	NC	NO
THR22	NC	NO
THV22	NO	NO

Features	Unit	THR13		THR22		THV22	
		NC	NO	NC	NO	NO	NO
Contact function	-	NC	NO	NC	NO	NO	NO
Temperature setting range	°C	-10/+50	+20/+80	0/+60	0/+60	0/+60	0/+60
Precision	°C	±4					
Hysteresis	°C	7					
Max. switching current:							
at 250Vac resistive load (inductive load)	A	10 (1.6)					
at 125Vac resistive load (inductive load)	A	15 (2.5)					
Max. switching power in Vdc	W	30					
Temperature sensor type	-	Thermostatic bimetal					
Contact type	-	Snap action					
Contact resistance	mOhm	< 10					
Service life	cycles	> 100,000					
Electrical connections	-	2-pole terminal for 2.5 mm ² wire					
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035					
Protection degree EN60529	-	IP20					
Operating temperature	°C (°F)	-25/+80 (-13/+176)					
Storage temperature	°C (°F)	-45/+80 (-49/+176)					
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022					
Installation position	-	variable					
Conformity	-	CE - UL File n. E348803					
Dimensions HxWxD	mm	61x53x35					
Weight	g	80					

Accessories

DIN rail bracket	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL
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THVF - THRF

BIMETALLIC THERMOSTAT FIXED SET

Fixed set point compact thermostat for DIN 35 mm. rail mounting.
Based on bimetallic junction, provides high capacity NO or NC contact.
Two versions available:

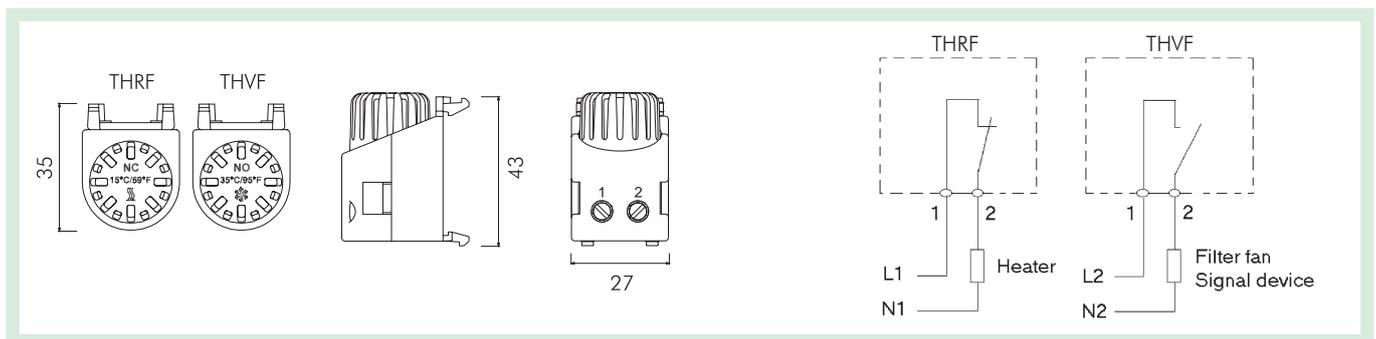
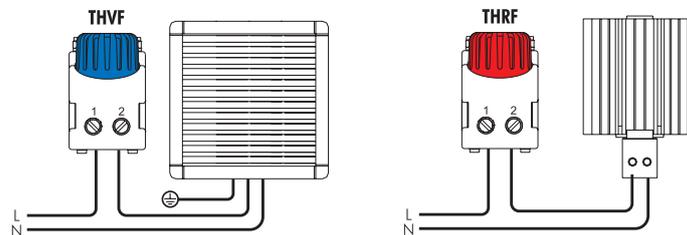


THVF	NO Contact	●	Typically used for controlling ventilation devices
THRF	NC Contact	●	Typically used for controlling heaters

Features	Unit	THRF05	THVF35	THVF50
Contact function	-	NC	NO	NO
Temperature set (hysteresis)	°C	+5 (10)	+35 (10)	+50 (10)
Precision	°C		±4	
Max. switching current	-			
240Vac resistive load (inductive load)	A		5 (1.6)	
120Vac resistive load (inductive load)	A		10 (2.0)	
Max switching power in Vdc	W		30	
Temperature sensor type	-		Thermostatic bimetal	
Contact type	-		Snap action	
Contact resistance	mOhm		< 10	
Service life	cycles		> 100,000	
Electrical connections	-		2-pole terminal for 2.5 mm ² wire	
Casing	-		PA6, UL94 V0 self-extinguishing, light grey RAL 7035	
Protection degree EN60529	-		IP20	
Operating temperature	°C (°F)		-40/+80 (-40/+176)	
Storage temperature	°C (°F)		-45/+80 (-49/+176)	
Mounting	-		Clip for mounting on DIN rail 35 mm EN50022	
Installation position	-		Variable	
Conformity	-		CE	
Dimensions HxWxD	mm		43x27x35	
Weight	g		35	

Accessories

DIN rail bracket	GUIDADINPL	GUIDADINPL	GUIDADINPL
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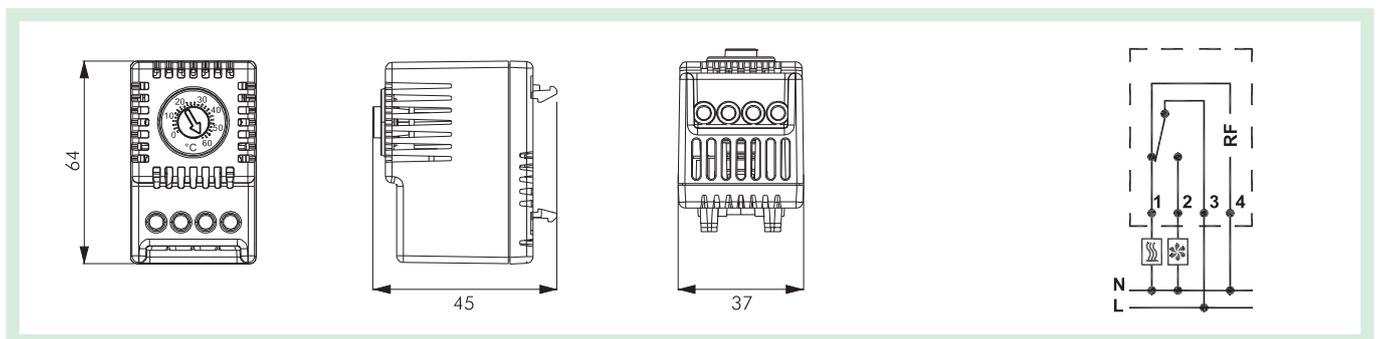


THS

THERMOSTAT CHANGE-OVER CONTACT WITH LOW HYSTERESIS



Features	Unit	THS2
Contact function	-	Change-over contact
Temperature setting range	°C	0/+60
Precision	°C	±3
Hysteresis	°C	1
Max. switching current:		
NC 100-250Vac (inductive load cos phi 0.6)	A	10 (2)
NO 100-250Vac (inductive load cos phi 0.6)	A	5 (2)
Max. switching power in Vdc	W	30
Temperature sensor type	-	Thermostatic bimetal
Service life	cycles	> 100,000
Electrical connections	-	4-pole terminal for 2.5 mm ² wire
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035
Protection degree EN60529	-	IP20
Operating temperature	°C (°F)	-40/+80 (-40/+176)
Storage temperature	°C (°F)	-45/+80 (-49/+176)
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022
Installation position	-	variable
Conformity	-	CE
Dimensions HxWxD	mm	64x37x45
Weight	g	100



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EUH HYGROSTAT

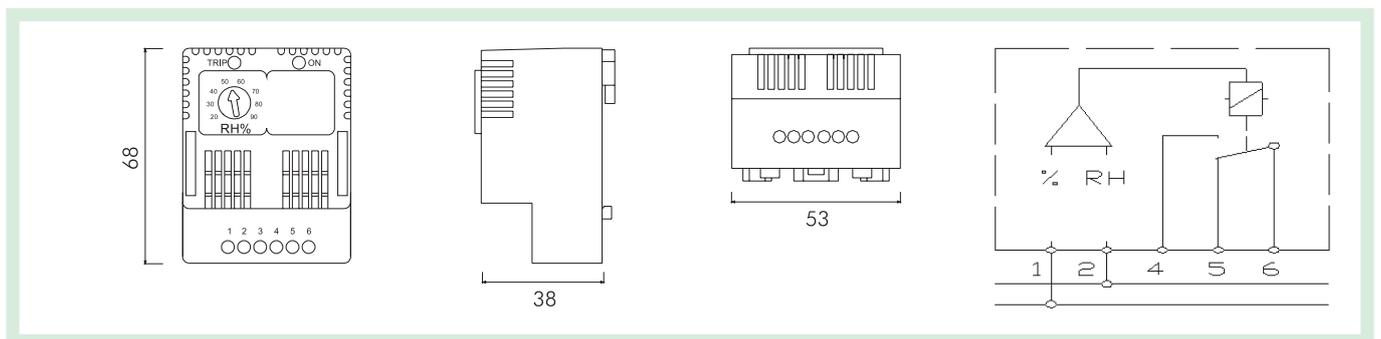
Electronic Hygrostat for DIN 35 mm. rail mounting.
Typically used to control enclosure heaters.
LED display of power on and status.



Features	Unit	EUH11	EUH22
Power supply	V/Hz	115/50-60	230/50-60
Relative Humidity setting range	RH%	30-90	
Relative Humidity Hysteresis	%	5	
Reaction time	sec	60	
Max. switching current			
NO at 250Vac resistive load	A	10	
NO at 30Vdc resistive load	A	8	
NO at 240Vac motor load	Hp	1/2	
NO at 120Vac motor load	Hp	1/4	
NC at 250Vac resistive load	A	10	
NC at 30Vdc resistive load	A	8	
Contact type	-	Change over	
Contact resistance	mOhm	< 10	
Service life, n. cycles	cycles	> 100,000	
Electrical connections	-	5-pole terminal for 2.5 mm ² wire	
Optical signal	-	LED	
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035	
Protection degree EN60529	-	IP20	
Operating/Storage temperature	°C (°F)	-40/+80 (-40/+176)	
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022	
Installation position	-	Vertical	
Conformity	-	CE	
Dimensions HxWxD	mm	68x53x38	
Weight	g	105	

Accessories

DIN rail bracket	GUIDADINPL	GUIDADINPL
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ETUH

THERMO-HYGROSTAT

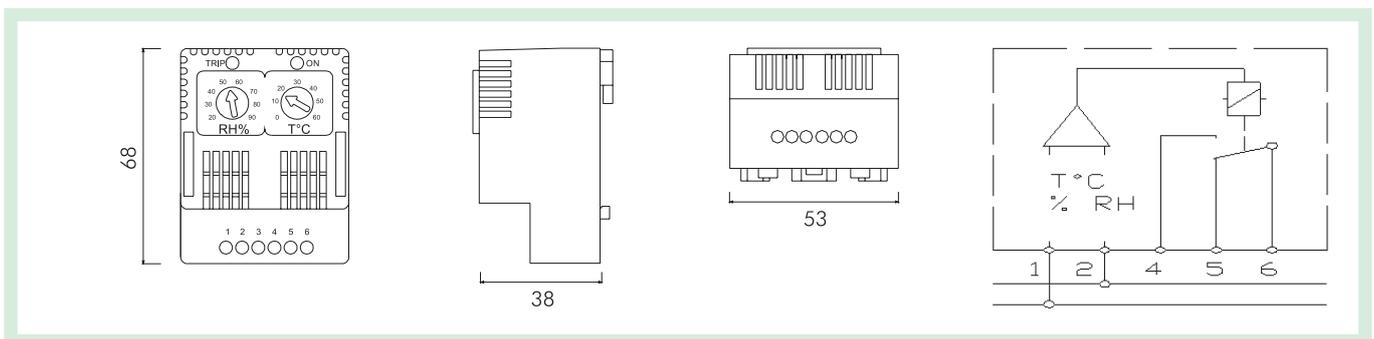
Electronic Hygrothermostat for DIN 35 mm. rail mounting. Typically used to control enclosure heaters. The change over contact triggers either for high humidity or low temperature, independently set adjustable. LED display of power on and status.



Features	Unit	ETUH11	ETUH22
Power supply	V/Hz	115/50-60	230/50-60
Temperature setting range	°C	0/+60	
Precision	°C	±1	
Temperature Hysteresis	°C	2	
Relative Humidity setting range	RH%	30-90	
Relative Humidity Hysteresis	%	5	
Reaction time	sec	60	
Max. switching current			
NO at 250Vac resistive load	A	10	
NO at 30Vdc resistive load	A	8	
NO at 240Vac motor load	Hp	1/2	
NO at 120Vac motor load	Hp	1/4	
NC at 250Vac resistive load	A	10	
NC at 30Vdc resistive load	A	8	
Contact type	-	Change over	
Contact resistance	mOhm	< 10	
Service life, n. cycles	cycles	> 100,000	
Electrical connections	-	5-pole terminal for 2.5 mm ² wire	
Optical signal	-	LED	
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035	
Protection degree EN60529	-	IP20	
Operating/Storage temperature	°C (°F)	-40/+80 (-40/+176)	
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022	
Installation position	-	Vertical	
Conformity	-	CE - UL File n. E348803	
Dimensions HxWxD	mm	68x53x38	
Weight	g	105	

Accessories

DIN rail bracket	GUIDADINPL	GUIDADINPL
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MUH

MECHANICAL HYGROSTAT

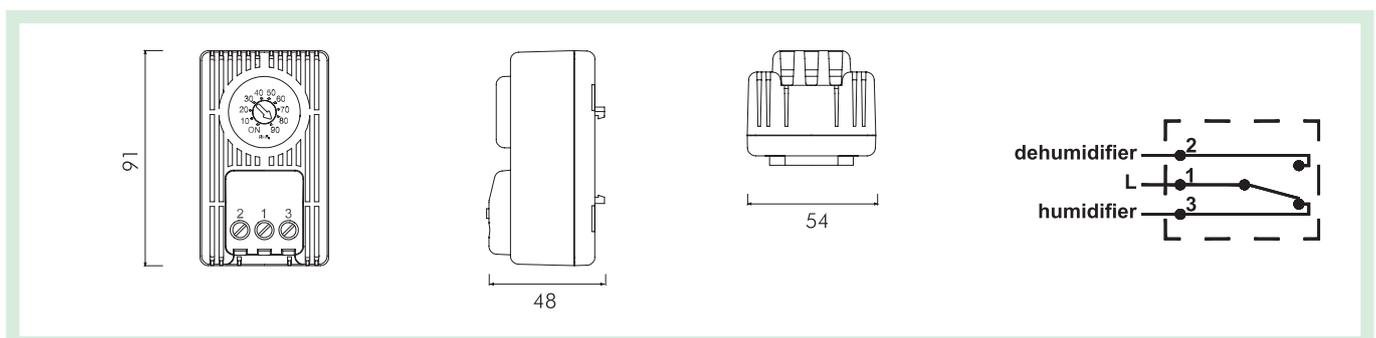
Hygrostat for DIN 35 mm. rail mounting.
Typically used to control enclosure heaters.



Features	Unit	MUH
Relative Humidity setting range	RH%	10-90
Relative Humidity Hysteresis	RH%	5 (max 10)
Precision	RH%	±5
Max. switching current		
NC at 240Vac resistive load	A	2.2
NC at 120Vac resistive load	A	4.4
NO at 240Vac resistive load	A	5
NO at 120Vac resistive load	A	10
Electrical connections	-	3-pole terminal for 2.5 mm ² wire
Contact type	-	Change over
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035
Protection degree EN60529	-	IP20
Operating temperature	°C (°F)	-10/+50 (+50/+122)
Storage temperature	°C (°F)	-45/+80 (-49/+176)
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022
Installation position	-	Vertical
Conformity	-	CE
Dimensions HxWxD	mm	91x54x48
Weight	g	170

Accessories

DIN rail bracket	GUIDADINPL
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ETHM - ETHDM

TEMPERATURE CONTROLLERS

Compact Size - 1 DIN Module (17,5mm) or 2 DIN modules (35mm)

Supply 20-30 VAC/DC or 200-240 VAC

Din rail mounting

Analog temperature adjustment

Suitable for temperature control inside electric panel (Fan control and resistor control)

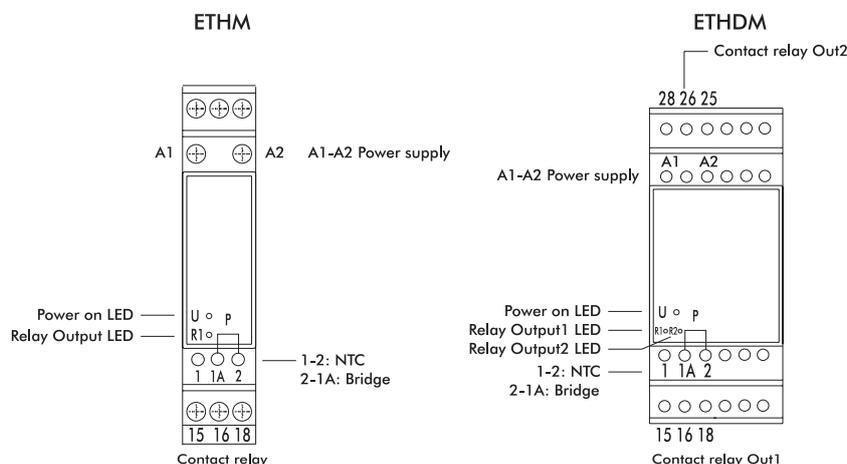
One or two independent NTC probe inputs

1 relay output x 8A (ETHM10,ETHM14),

2 relay outputs x 16A (ETHDM10, ETHDM14)

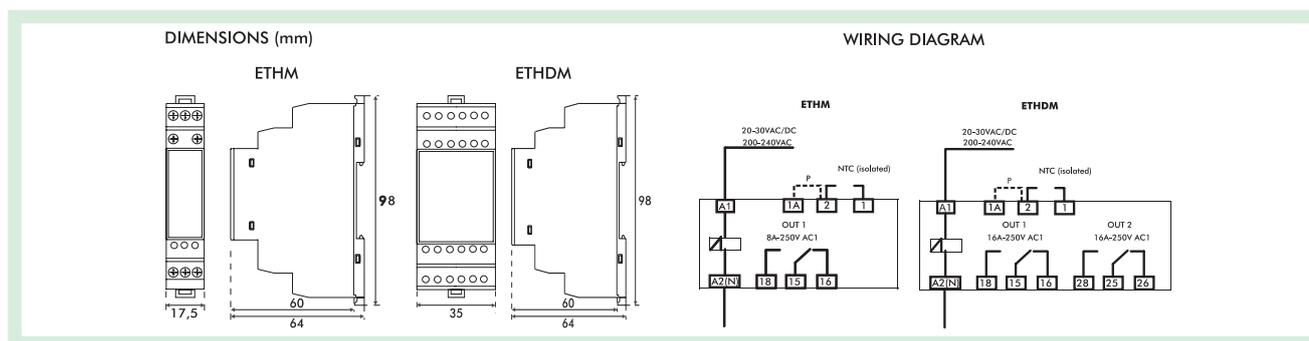


Features	Unit	ETHM10	ETHM14	ETHDM10	ETHDM14
Power supply	V	200-240 VAC	20-30 VAC/DC	200-240 VAC	20-30 VAC/DC
Input	-	NTC (10k - 25°C)			
Relay	-	1 SPDT output (8A)		2 SPDT outputs (16A-AC1)	
Control	-	ON/OFF			
Measurement range	°C	NTC -20 ~ +60°C			
Sampling rate	Hz	12			
Symmetric hysteresis	-	Adjustable from +1 to +5°C on both outputs			
Operating temperature	°C	-20 ~ +65			
Operating humidity (no condensate)	RH%	30 ~ 95			
Housing	-	self-extinguishing plastic UL94V0			
Dimensions HxWxD	mm	17.5x64x98mm - 1 Din rail module		35x64x98mm - 2 Din rail module	
Connections	-	2.5 mm ² screw terminal block			
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022			
Conformity	-	CE			
Weight	g	45		70	



The ETHDM10 and ETHDM14 are factory equipped with an integral NTC on the thermostat (terminals 1-2) and a bridge between terminals 2 and 1A. In this configuration the two set points of outputs OUT1 and OUT2 will refer to the temperature measured by the integrated NTC probe.

Replacing the bridge between terminals 2 and 1A with a second NTC probe, output OUT1 will be controlled by the temperature measured at NTC probe 1 (on the thermostat), output OUT2 will be controlled by the temperature measured at NTC probe 2 (terminals 2 and 1A).



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ETH - ETHD

TEMPERATURE CONTROLLERS

Compact Size - 1 DIN Module (17,5mm) or 2 DIN modules (35mm)

Supply 10-30AC/DC or 200-240VAC

Din rail mounting

Digital adjustment of temperature (2 red digit)

Appropriate for temperature control inside electric panel (fan and resistor control)

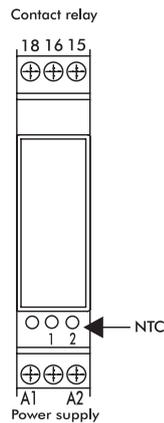
NTC probe input

1 or 2 relay outputs

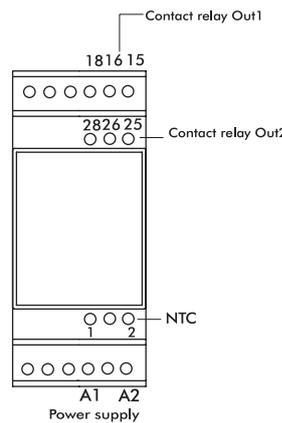


Features	Unit	ETH10	ETH14	ETHD10	ETHD14
Power supply	V	200-240 VAC	10-30 VAC/DC	200-240 VAC	10-30 VAC/DC
Input	-	NTC (10k - 25°C)			
Relay	-	1 SPDT output (10A-AC1)		2 SPDT outputs (10A-AC1)	
Control	-	ON/OFF			
Overall accuracy	%	+/- 0.5 full scale			
Display resolution	-	1			
Measurement range	°C	NTC -20 ~ +65°C probe on the controller / NTC -35 ~ +99°C external probe			
Sampling rate	Hz	12			
Display	-	2 red digit			
Parameters programming	-	by keyboard			
Operating temperature	°C	-20 ~ +65			
Operating humidity (no condensate)	RH%	30 ~ 95			
Housing	-	self-extinguishing plastic			
Dimensions HxWxD	mm	17.5x64x98mm - 1 Din rail module		35x64x98mm - 2 Din rail module	
Connections	-	2.5 mm ² screw terminal block			
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022			
Conformity	-	CE			
Weight	g	45		70	

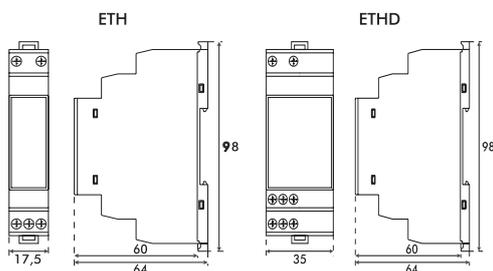
ETH



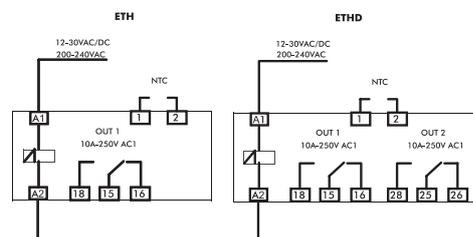
ETHD



DIMENSIONS (mm)



WIRING DIAGRAM





FSC

FAN SPEED CONTROLLER

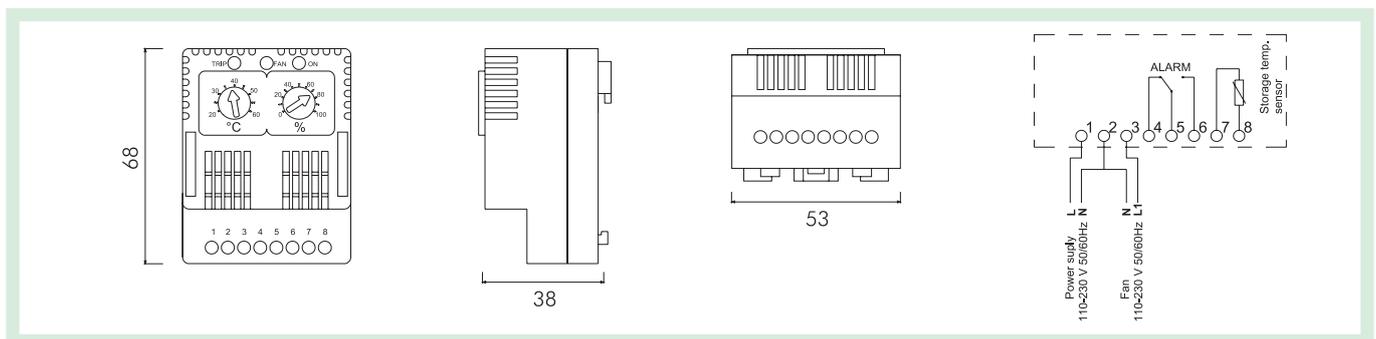
Electronic temperature-regulated fan speed controller for DIN 35 mm. rail mounting. Speed controller helps to reduce fan noise, air flow rate is reduced to the optimum speed required.



Features	Unit	FSC
Power supply	V/Hz	100-230/50-60
Temperature setting range	°C	+20/+60
Fan speed setting range	%	0-100
Speed controller	-	partialization of wave
Input	-	NTC sensor
Max. output fan	-	300W (100-230/50-60Hz)
Electrical connections	-	terminal for 2.5 mm ² wire
Optical signal	-	LED
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035
Protection degree EN60529	-	IP20
Operating/Storage temperature	°C (°F)	-10/+70 (+14/+158)
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022
Installation position	-	Vertical
Conformity	-	CE
Dimensions HxWxD	mm	68x53x38
Weight	g	105

Accessories

DIN rail bracket	GUIDADINPL
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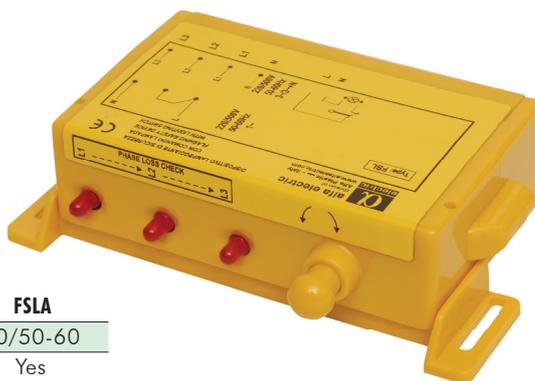


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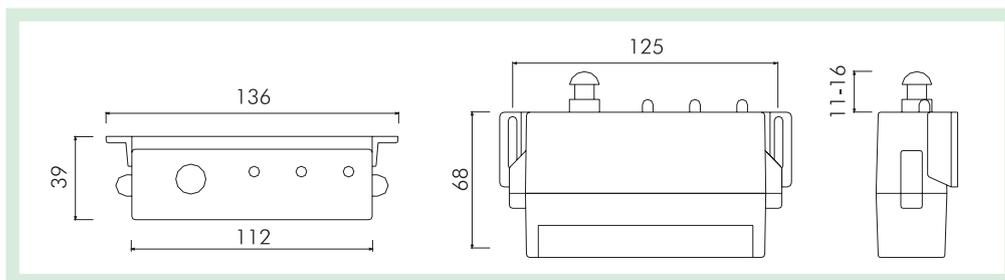
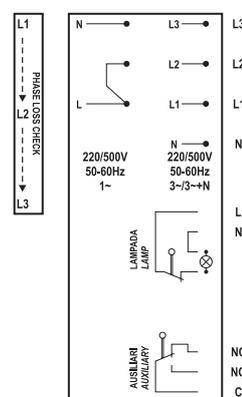
FS

FLASHING SAFETY DEVICE

The flashing safety devices series FS prevents accidents, alerting the operator that the electrical system is live. The FS devices are suitable for connection to three or single-phase lines. FS is also a phase-loss and phase-sequence control device: in case of failure, it points out the missing phase. The device functions can be increased with auxiliary contacts that allow to switch-on the lamp when opening the cabinet door or to control other equipment inside the cabinet (air conditioner, etc.)



Features		Unit	FS	FSL	FSLA
Power supply		V/Hz	1ph 115-230/50-60 or 3ph 400/50-60		
FUNCTIONS	Power on, Phase sequence, Phase loss	Yes/No	Yes	Yes	Yes
	Signal	-	n° 3 LEDs, red	n° 3 LEDs, red	n° 3 LEDs, red
	Contact for lamp	Yes/No	No	Yes	Yes
	Contact type	-	-	NC	NC
	Max current	A	-	5	5
	Service life	Cycles	-	> 25.000	> 25.000
	Auxiliary Contact	Yes/No	No	No	Yes
	Contact type	-	-	-	Change over
	Max current	A	-	-	5
	Service life	Cycles	-	-	> 25.000
Probe extension	mm	Adjustable 11-16			
Casing	-	Poly-carbonate, Yellow			
Connection on terminals	mm ²	n. 6x4	n. 8x4	n. 11x4	
Mounting	-	Adjustable fixing bracket 125 mm interlock			
Protection degree EN60529	-	IP20			
Protection class	-	I			
Operating/Storage temperature	°C(°F)	-10 +70 (+14 +158)/-20 +80(-4 +176)			
Installation position	-	Variable			
Dimensions HxWxD	mm	34x112x68 (+16)			
Weight	kg	0.15			
Package dimensions HxWxD	mm	46x145x88			
Conformity	-	CE			



FIN - DOOR LIMIT SWITCH

Required on most enclosures for safety and operation of auxiliary circuits, such as switching on lamps or switching off ventilation/air conditioning when the door is open. FIN Limit switches can be equipped with the optional bracket FINSTAFF for fixing and positioning.

Features	Unit	FINCOR	FINRIP
Contacts type	-	Zb type snap action (1NO+1NC)	
Rated current at 230V(400V) AC15	A	3.1(1.9)	
Protection degree EN60529	-	IP65	
Protection Class	-	II	
Operating temperature	°C	-25 +70	
Rated insulation voltage Ui	V	690	
Service life	Cycles	> 25.000	
Cable inlet	-	PG13,5 cable gland	
Mechanical lock	Yes/No	No	Yes
Dimensions HxWxD	mm	75x31x31	91x31x39
Weight	kg	0.04	0.05
Conformity	-	CE EN60947-5-1, IEC 947-5-1	



FINRIP



FINSTAFF



LAMP CP22

COMPACT, HIGH EFFICIENCY ENCLOSURE LAMP

Fitted with Schuko socket and switch, it can be mounted with clips on DIN rail, on a bracket (ALFASTAFF) with screws or with magnetic fixing.

It fits exactly one 19" height/unit (44 mm).



Features	Unit	LAMPCP22	LAMPSP22
Power supply	V/Hz	230/50	230/50
Schuko socket	-	Yes 6A	No
Luminosity	Lm	900	
Lamp type	-	high efficiency fluorescent lamp	
Power consumption	W	11	
Service life	hrs	5000	
Switch	-	On/Off for the lamp only	
Connection	-	3-pole terminal for 1.5 mm ² wire	
Casing	-	Aluminium profile and ABS, UL94 V0, light grey	
Protection degree EN60529	-	IP20	
Protection class	-	Class I, earthed	
Operating temperature	°C(°F)	-20/+50 (-4/+122)	
Storage temperature	°C(°F)	-45/+80 (-49/+176)	
Mounting	-	Clip on DIN rail, magnet or bracket, see ordering code below	
Installation position	-	variable	
Dimensions HxWxD	mm	95x43x268	
Weight	kg	0.76	
Package dimensions HxWxD	mm	105x58x310	
Conformity	-	CE	

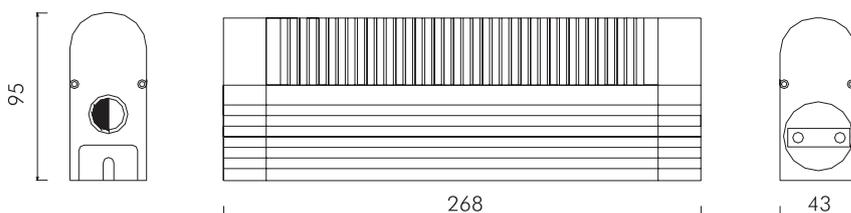


Versions

Clip mounting on DIN rail	LAMPCP22+CLIP	LAMPSP22+CLIP
Magnet mounting	LAMPCP22+MAGN	LAMPSP22+MAGN
Bracket mounting	LAMPCP22+STAF	LAMPSP22+STAF

Accessories

Bracket for lamp	ALFASTAFF	ALFASTAFF
Magnet for lamp	ALFAMAGNETE	ALFAMAGNETE
Door limit switch without block	FINCOR	FINCOR
Door limit switch	FINRIP	FINRIP
Safety flashing device with lamp switch	FSL	FSL
Safety flashing device with lamp and auxiliary switches	FSLA	FSLA





LED LAMP CP22

COMPACT, HIGH EFFICIENCY ENCLOSURE LED LAMP WITH MOTION SENSOR

Fitted with Schuko socket and switch, it can be mounted with clips on DIN rail, on a bracket (ALFASTAFF) with screws or with magnetic fixing.

It fits exactly one 19" height/unit (44 mm).

Models LED LAMP CP22S and LED LAMP SP22S are fitted with motion sensor.



Features	Unit	LED LAMP CP22	LED LAMP SP22	LED LAMP CP22S	LED LAMP SP22S
Power supply*	V/Hz	100-230 VAC (±10%)/50-60			
Schuko socket	-	Yes 6A	No	Yes 6A	No
Luminosity	Lm	380			
Lamp type	-	LED			
Power consumption	W	5			
Service life	hrs	45000			
Switch	-	On/Off for the lamp only		Motion sensor	
Connection	-	3-pole terminal for 1.5 mm ² wire			
Casing	-	Aluminium profile and ABS, UL94 V0, light grey			
Protection degree EN60529	-	IP20			
Protection class	-	Class I, earthed			
Operating temperature	°C(°F)	-20/+60 (-4/+140)			
Storage temperature	°C(°F)	-40/+80 (-40/+176)			
Mounting	-	Clip on DIN rail, magnet or bracket, see ordering code below			
Installation position	-	variable			
Dimensions HxWxD	mm	95x43x268			
Weight	kg	0.76			
Package dimensions HxWxD	mm	105x58x310			
Conformity	-	CE			

* DC voltage on request

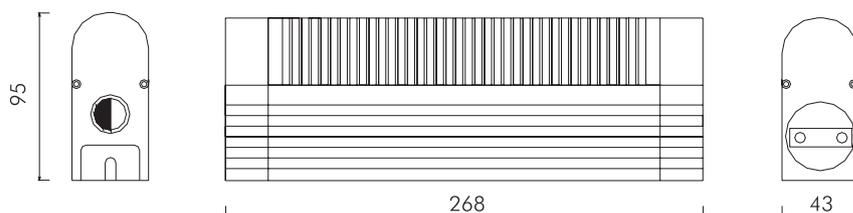
Versions

Clip mounting on DIN rail - Code ending	model code+CLIP	model code+CLIP
Magnet mounting	model code+MAGN	model code+MAGN
Bracket mounting	model code+STAF	model code+STAF

Accessories

Bracket for lamp	ALFASTAFF	ALFASTAFF
Magnet for lamp	ALFAMAGNETE	ALFAMAGNETE
Door limit switch without block	FINCOR	FINCOR
Door limit switch	FINRIP	FINRIP
Safety flashing device with lamp switch	FSL	FSL
Safety flashing device with lamp and auxiliary switches	FSLA	FSLA

MOTION SENSOR





LAMP 36

SLIM ENCLOSURE LAMP

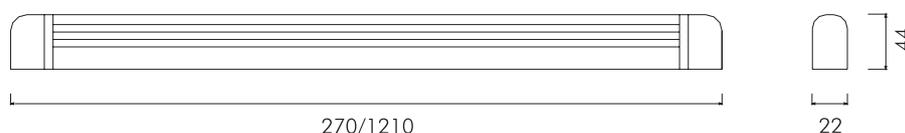
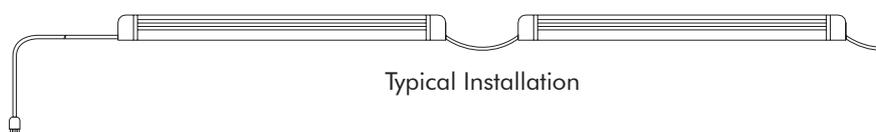
Slim and versatile fluorescent lamp. More units can be connected together in a chain up to a total power of 100W, by using the addition interconnection cable including in the packaging.



Features	Unit	LAMP3604	LAMP3605	LAMP3605-115V	LAMP3606	LAMP3606-115V	LAMP3607	LAMP3608
Power supply	V/Hz	230/50	230/50	115/60	230/50	115/60	230/50	230/50
Lamp type	-	T5 fluorescent lamp with integrated electronic ballast						
Power consumption	W	6	8		13		21	28
Service life	hrs	5000						
Connection	-	Plug-in cable 1.8 m long inside the package						
Series of lamps	-	Possible with male/male extension cable, max 100W total series						
Casing	-	Plastic, white						
Protection degree/class	-	IP20/Class II						
Operating temperature	°C(°F)	-20/+50 (-4/+122)						
Storage temperature	°C(°F)	-45/+80 (-49/+176)						
Mounting	-	Screws, hidden behind the lamp						
Dimensions HxWxD	mm	270x44x22	345x44x22		570x44x22		910x44x22	1210x44x22
Weight	kg	0.33	0.36		0.50		0.53	0.60
Conformity	-	CE						

Accessories

Door limit switch without block	FINCOR
Door limit switch	FINRIP
Safety flashing device with lamp switch	FSL
Safety flashing device with lamp and auxiliary switches	FSLA
Plastic bracket	STAF36
Plastic clip	CLIP36





LAMP 3012

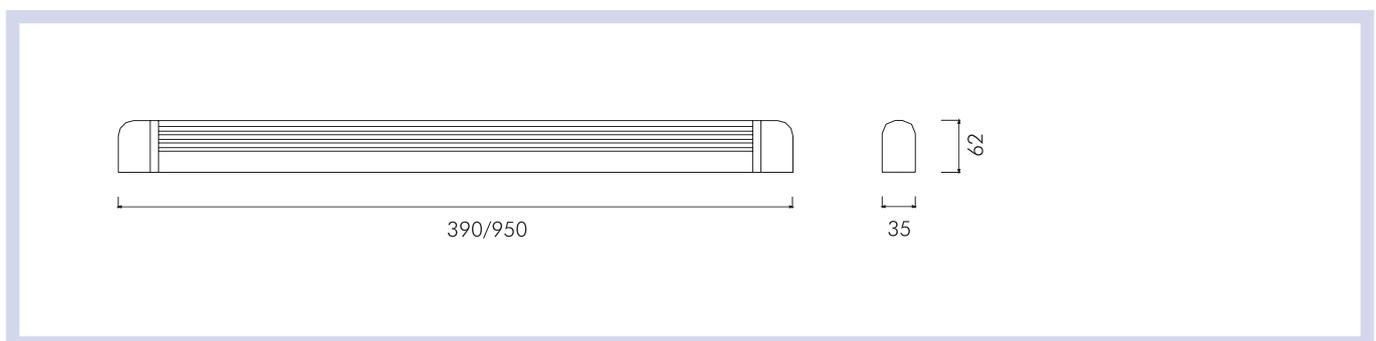
ENCLOSURE LAMP



Features	Unit	LAMP3012-10W	LAMP3012-15W	LAMP3012-18W	LAMP3012-30W
Power supply	V/Hz	230/50			
Lamp type	-	T8 fluorescent lamp with integrated electronic ballast			
Power consumption	W	10	15	18	30
Service life	hrs	5000			
Connection	-	3-pole terminal for 2.5 mm ² wire			
Casing	-	Plastic, white			
Protection degree/class	-	IP20/Class I, earthed			
Operating temperature	°C(°F)	-20/+50 (-4/+122)			
Storage temperature	°C(°F)	-45/+80 (-49/+176)			
Mounting	-	Screws, hidden behind the lamp			
Dimensions HxWxD	mm	390x62x35	490x62x35	645x62x35	950x62x35
Weight	kg	0.45	0.70	0.85	1.25
Conformity	-	CE			

Accessories

Door limit switch without block	FINCOR	FINCOR	FINCOR	FINCOR
Door limit switch	FINRIP	FINRIP	FINRIP	FINRIP
Safety flashing device with lamp switch	FSL	FSL	FSL	FSL
Safety flashing device with lamp and auxiliary switches	FSLA	FSLA	FSLA	FSLA



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LAMP 2005

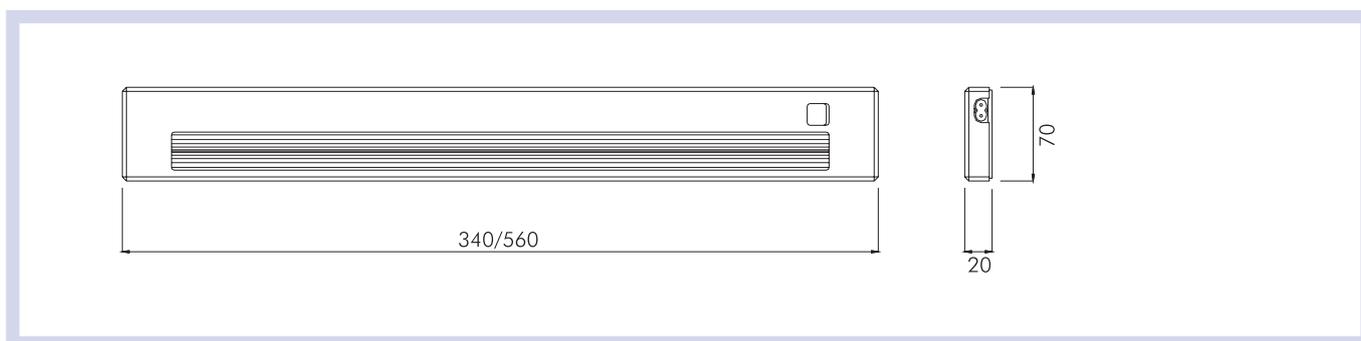
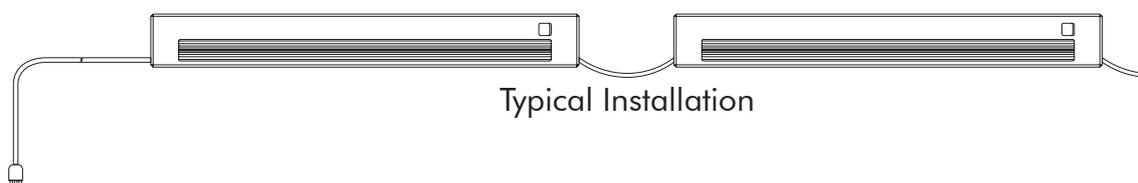
Slim and versatile fluorescent lamp. More units can be connected together in a chain up to a total power of 100W, by using the addition interconnection cable including in the packaging.



Features	Unit	LAMP2005-8W	LAMP2005-13W
Power supply	V/Hz	230/50	
Lamp type	-	T5 fluorescent lamp with integrated electronic ballast	
Power consumption	W	8	13
Service life	hrs	5000	
Connection	-	Plug-in cable 1.8 m long inside the package	
Series of lamps	-	Possible with male/male extension cable, max 100W total series	
Casing	-	Plastic, white	
Protection degree/class	-	IP20/Class II	
Operating temperature	°C(°F)	-20/+50 (-4/+122)	
Storage temperature	°C(°F)	-45/+80 (-49/+176)	
Mounting	-	Screws, hidden behind the lamp	
Dimensions HxWxD	mm	340x70x20	560x70x20
Weight	kg	0.50	0.70
Conformity	-	CE	

Accessories

Door limit switch without block	FINCOR	FINCOR
Door limit switch	FINRIP	FINRIP
Safety flashing device with lamp switch	FSL	FSL
Safety flashing device with lamp and auxiliary switches	FSLA	FSLA



ael-cat-01-15_01 - Specifications, values and drawings are subject to change without notice.

ALFASOCKET

DIN RAIL SOCKET

For mounting on 35 mm DIN rail. Wire connections on terminals. It provides a power supply for electrical tools or instruments during installation, operation and maintenance. Available in four different national standards and in two basic versions: without and with limiting fuse 6.3A.



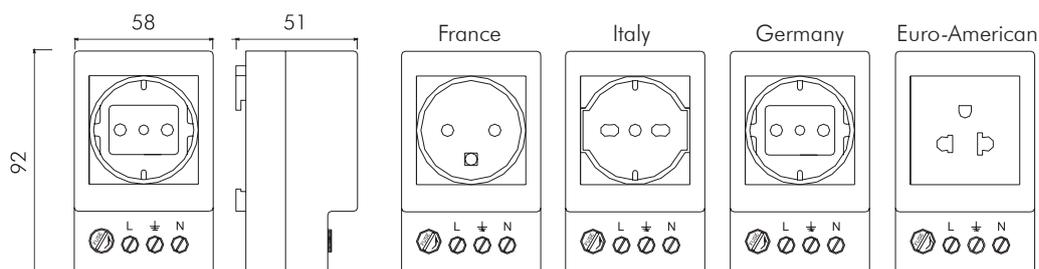
Features	Unit	ALFASOCKET01	ALFASOCKET02	ALFASOCKET03	ALFASOCKET04
Standard	-	Germany	Italy	France	Euro-American
Voltage	V	250	250	250	125
Max current	A	16	16	16	16
Electrical connections	-	3-pole terminal for 2.5 mm ² wire			
Casing	-	ABS, UL94 V0 self-extinguishing, light grey RAL 7035			
Protection degree	-	IP20			
Protection class	-	Class I			
Operating temperature	-	-25/+60 (-13/+140)			
Storage temperature	°C (°F)	-45/+60 (-49/+140)			
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022			
Conformity	-	CE			
Dimensions HxWxD	mm	92x57x51			
Weight	g	105			

Versions

with fuse 6.3 A	ALFASOCKET01F	ALFASOCKET02F	ALFASOCKET03F	ALFASOCKET04F

Accessories

	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL





ALFAPRSCH



DIN RAIL SOCKET

Cost-effective Schuko socket for DIN rail mounting.

Features	Unit	PRSCH01	PRSCH03
Type	-	schuko	two-pin + schuko
Rated voltage, max	V	250	250
Maximum current	A	16	10/16
Dimensions HxWxD	mm	70x53x60	70x53x60
Weight	kg	0.04	0.04
Conformity	-	CE	CE

ALFATASC



WIRING DIAGRAM HOLDER

Suitable for holding documents max. A4 format (297x210 mm).

Clean carefully the mounting surface and wait at least 12 hr. before loading.

Features	Unit	
Material	-	ABS
Color	-	RAL 7032 or 7035
Fixing	-	bi-adhesive tape or screws
Dimensions HxWxD	mm	264x235x35
Weight	kg	0.185
Conformity	-	CE

PRESSCOMP



PRESSURE EQUALIZER

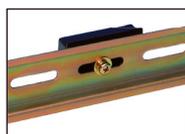
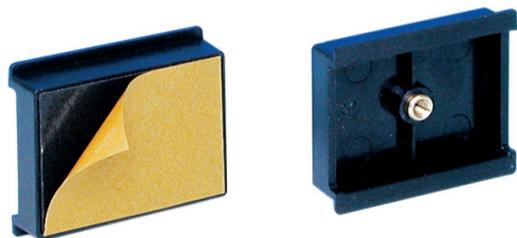
Sealed enclosures when subject to external temperature fluctuations develop pressure differential toward the ambient. As a consequence entrance of dust and/or humidity is likely to happen through leakage points. Installing a PRESSCOMP prevents this risk while preserving a high protection degree for the enclosure.

Features	Unit	
Material	-	ABS self-extinguishing RAL 7035
Protection degree	-	IP45
Fixing	-	screws with rubber gasket
Dimensions HxWxD	mm	70x50x21
Weight	kg	0.022
Conformity	-	CE

ACCESSORIES



GUIDADINPL



FIXING DEVICE

A practical solution for mounting small devices or DIN 35 mm rail without the necessity of drilling holes on the cabinet. The double-sided adhesive band can bear a continuous load of 0,5 kg. Before fixing, clean carefully the mounting surface and wait at least 24hr before loading.

Features	Unit	
Material	-	ABS self-extinguishing Black
Maximun load	kg	0.5
Application temperature	°C	+10 min.
Operating temperature	°C	-30 +70
Mounting surfaces	-	all, except poly-ethylene, poly-propylene and rubber
Dimensions HxWxD	mm	42x36x11
Weight	kg	0.015
Conformity	-	CE

CLIP



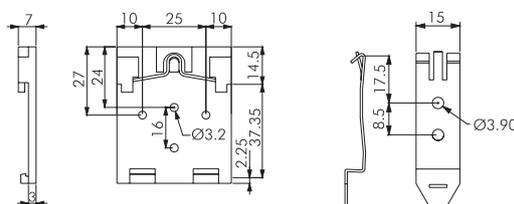
CLIPP

CLIPM

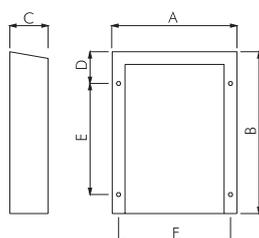
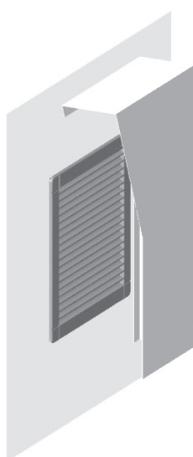
CLIP

Practical solution to mount devices on 35mm DIN rail. CLIP can be joined to the device by screw or rivet.

Features	Unit	CLIPP	CLIPM
Material	-	Polycarbonate	Steel
Mounting (on device)	-	Rivet or screw	
Operating temperature	°C	100°	200°
Conformity	-	CE	



CUFF

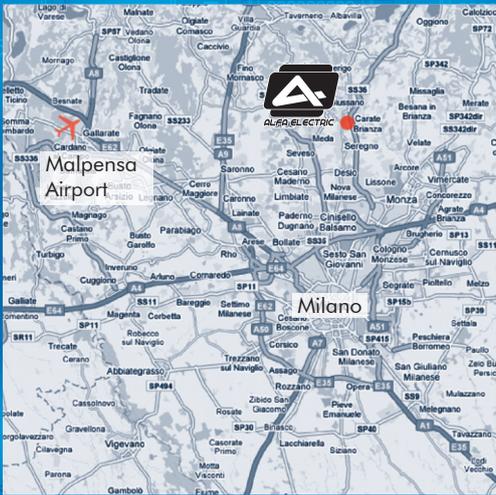


CUFF

Hood for increased protection degree on filter fans and air filters.

They allow to achieve IP55 according to EN60529/10.91

Features	Unit	CUFF10B	CUFF20B	CUFF30B	
Dimensions	A	mm	195	325	410
	B	mm	255	425	540
	C	mm	60	60	110
	D	mm	50	30	50
	E	mm	175	285	440
	F	mm	175	305	390
Material	-	Painted steel sheet			
Color	-	RAL 7035			
Mounting	-	4 screws M4			
Weight	Kg	0.8	1.9	3.3	
Conformity/Certifications	-	CE			
For use on	-	ALFAA, ALFA1000	ALFAB, ALFA2000	ALFA 3000	



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