

About Alfa Electric:

Alfa Electric is an Italian company where everything from design and manufacturing is made in Italy under Italian highly qualified technicians' supervision. Therefore, Alfa Electric can legitimately carry the label of a total and authentic "Made in Italy" and is proud to export Italian typical quality, care and attention to details, as well as artistic and technological excellence, to a foreign organization in search of the good and the beautiful.

Products:

Air Conditioner:

- **Wall Mounted**
 - AVC 035
 - AVC 085
 - AVC 145
 - AVC 200
 - AVC 300
 - AVC 400
- **Roof Mounted**
 - ARC 050
 - ARC 100/150
 - ARC 200
 - ARC 300/400

Heaters:

- **PTC Heater**
 - SHT
 - SHT-W
 - HT
 - STHT
 - MHT
- **Fan Assisted Heater**
 - FSHT
 - FPH
 - FMHT
 - FMHT-S
 - TMX

Control:



- **Bimetallic Thermostat**
 - Single Contact
 - Double Contact
 - Fixed Type
 - Adjustable
- **Hygrostat**
- **Temperature Controller**
- **Fan speed Controller**
- **Door Limit Switch**

Lighting:

- **LED Lamp**
- **Lamp Enclosure**
- **Fluorescent lamp**

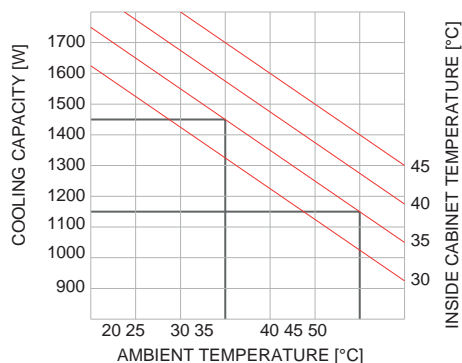
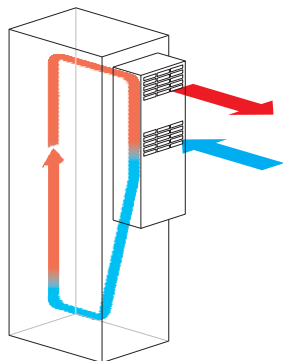
Air Conditioning: The range of air conditioners ALFA ELECTRIC includes several productions depending on voltages and different type of thermostat mounted. The code varies about voltage and control instrumentation.

CODE COMPOSITION	
AVC 035 . 00 1	
SERIES AVC Wall mount indoor installation ARC Roof mount AVE Wall mount outdoor installation ARK Rack 19" mount	INSTALLATION _ Standard as in data sheet (external) B Internal built in S semi-recess CONTROL SYSTEM 0 mechanic thermostat 1 digital thermostat POWER SUPPLY 00 230VAC/1ph/50-60Hz 01 115VAC/1ph/50-60Hz 02 400VAC/2ph/50-60Hz 41 400VAC/3ph/50Hz 42 400VAC/3ph/60Hz 43 400VAC/3ph/50Hz - 460VAC/3ph/60Hz COOLING CAPACITY Power

AIR CONDITIONER SELECTION WITH WATT-A-CALCULATOR	
	
<p>Watt-a-Calculator is a selection software that matches the best model to the specific customer application. Watt-a-Calculator is available on Alfa-electric web site. Please visit it and follow the easy instructions to find the solutions for you.</p> <p>www.alfaelectric.com/wattcalc</p>	

AVC 145

WALL MOUNT AIR CONDITIONER



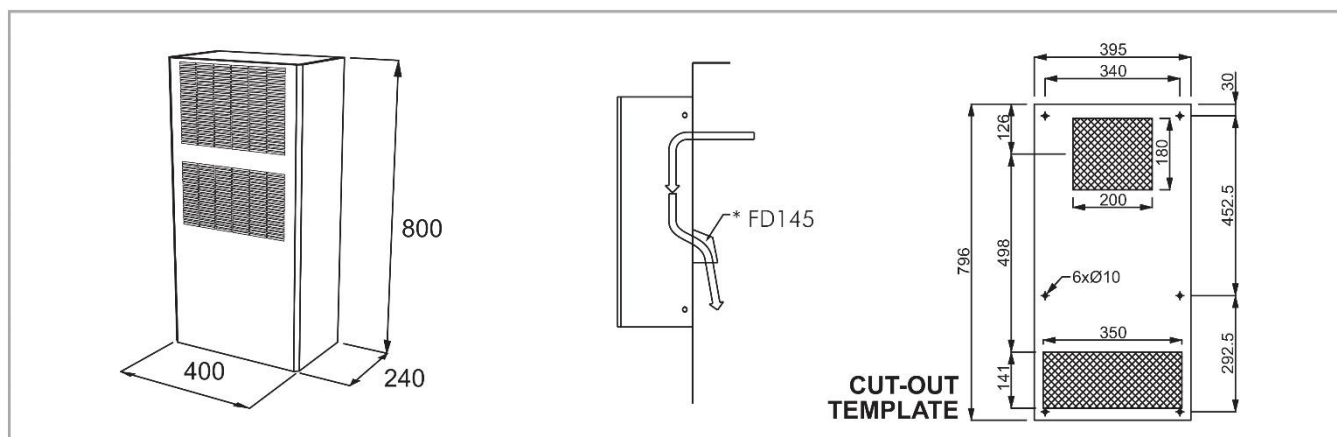
Features	Unit	AVC145.000	AVC145.001	AVC145.010	AVC145.011	AVC145.020	AVC145.021
Power supply	V/Hz	230V/1ph/50-60		115V/1ph/50-60		400V/2ph/50-60	
Dimensions HxWxD	Mm	800x400x240					
Cooling capacity A35A35	W	1450/1500					
Cooling capacity A35A50	W	1150/1200					
Max current	A	3.7/4.2		7.4/8.4		1.35/2.1	
Delayed fuse	A	6		10		4	
Absorbed electric power A35A35	W	600/630					
Absorbed electric power A35A50	W	710/760					
Refrigerant	-	R134a					
Operating temperature (ambient)	°C (°F)	+20/+55 (+68/+131)					
Operating temperature (enclosure)	°C (°F)	+20/+45 (+68/+113)					
Noise level	dB(A)	65					
Electrical connection	-	Three-pole connector					
Protection degree EN60529/1 (enclosure)	-	IP54					
Protection degree EN60529/1 (ambient)	-	IP34					
Weight (with packaging)	kg	37(38)		49(50)		49(50)	
Package Dimension H x W x D	mm	875 x 455 x 280					
Colour	-	RAL 7035					
Conformity/Certifications	-	CE					

Versions

Outdoor	AVE145.000	AVE145.010	AVE145.020
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Accessories

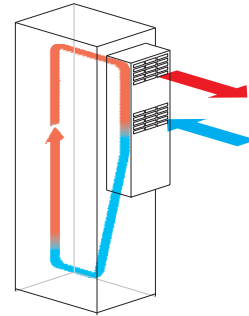
Door limit switch	FINCOR
Door limit switch with mechanical lock	FINRIP
Flashing safety device	FSL
Flow diverter*	FD145



OTHERS AIR CONDITIONER (On Request)

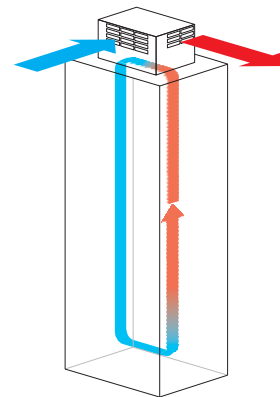
➤ WALL MOUNT AIR CONDITIONER

- AVC 085
- AVC 035
- AVC 200
- AVC 300
- AVC 400



➤ ROOF MOUNT AIR CONDITIONER

- ARC 050
- ARC 100/150
- ARC 200
- ARC 300/400



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, FMHT and FMHTS 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

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

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

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

TMX – PTC heaters, fan assisted, 150-400W

FPH – PTC fan heaters, 1200-2000W

MHT – PTC mini heaters, 5-30W

FMHT – Resistor heaters, fan assisted, 75-300W

FMHTS – Resistor heaters, fan assisted 100-300W

Fast installation

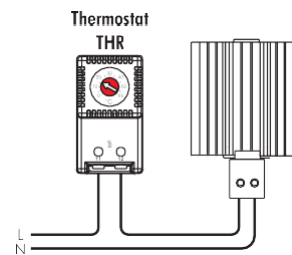
Installation is fast and simple. All units are designed for fast mounting on 35mm DIN EN 50022 rail.

ANTI CONDENSATION HEATER WITH WATT-A-CALCULATION



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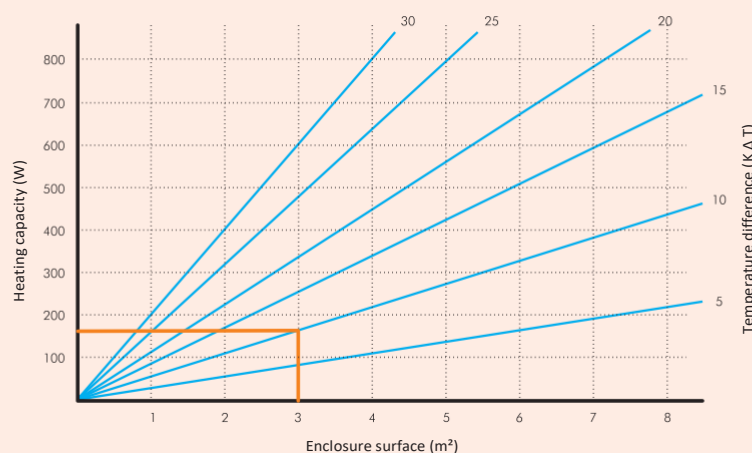
www.alfaelectric.com/wattcalc



Example:

Enclosure surface	3m ²
Temperature difference	10K
Heating capacity required	170W
Possible heater solutions	n. 2 SHT100 n. 1 FSHT250 n. 1 FMHT230

HEATING PERFORMANCE DIAGRAM



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	-	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 (with packaging)	kg	0.23 (0.25)	0.27 (0.30)	0.43 (0.47)	0.38 (0.43)	0.59 (0.65)	0.81 (0.88)
Conformity/Certifications	-	CE					

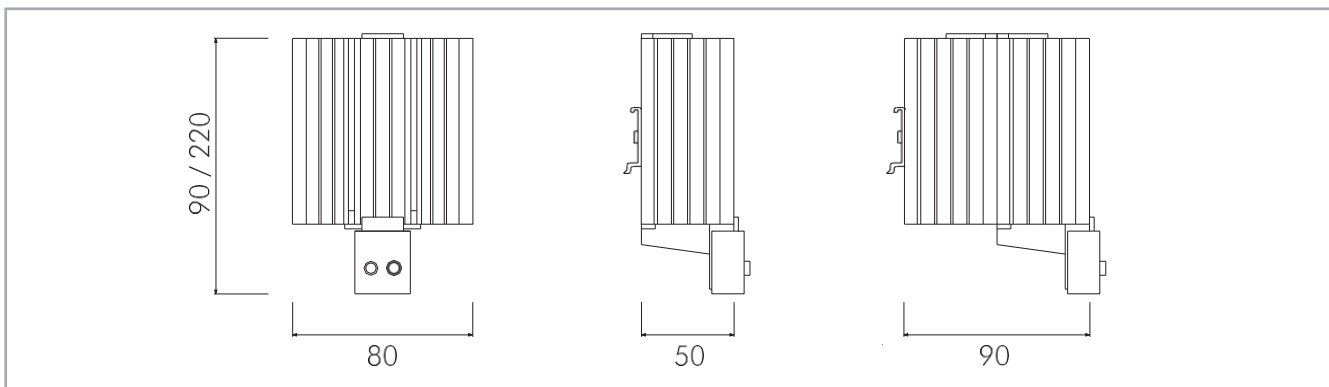
*at 20°C (68°F) ambient temperature

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°	THRV22
Hygrothermostat 0-60°C 20-90%RH	ETUH22
Hygrostat 10-90%RH	MUH



FSHT

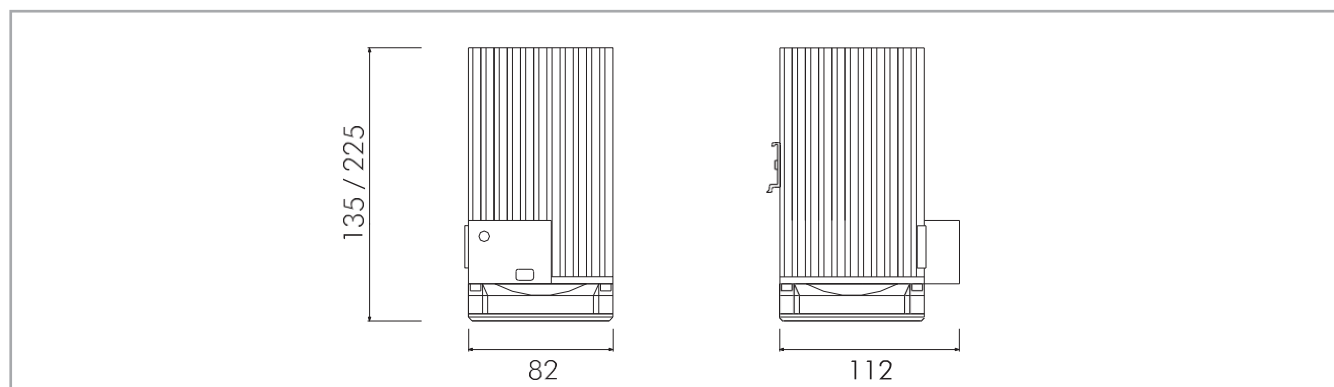
FAN ASSISTED, RESISTOR HEATER



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 m³/h, free flow							
Signalling	-	Green LED power ON							
Electrical connections	-	3 screw terminals for stranded or rigid wire 2.5 mm²							
Protection class	-	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 efficiency in vertical position							
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/Certifications	-	CE - UL File n. E301228							

Accessories

Thermostat NC 0-60°C	THR2
Double thermostat NC 0-60°C NO 0-60°	THRV22
Hygrothermostat 0-60°C 20-90%RH	ETUH22
Hygrostat 10-90%RH	MUH

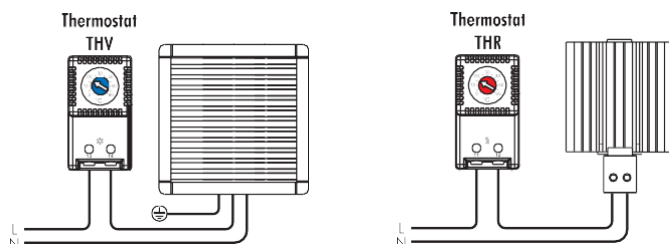


THV - THR

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

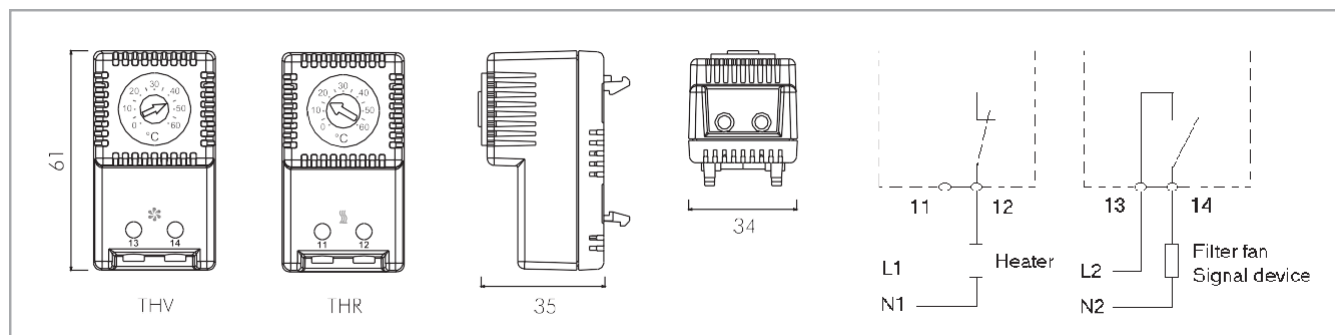


Features	Unit	THR1	THR2	THR3	THV1	THV2	THV3
Contact function	-	NC	NC	NC	NO	NO	NO
Temperature setting range	°C	-10/+50	0/+60	+20/+80	-10/+50	0/+60	+20/+80
Precision	°C	±4					
Hysteresis	°C	7					
Max switching current							
250Vac resistive load (inductive load)	A	10 (1.6)					
125Vac resistive load (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 mm² 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/Certifications	-	CE-UL c File n. E348803					
Dimensions HxWxD	mm	61x34x35					
Weight (with packaging)	kg	0.048 (0.055)					

Accessories

DIN rail bracket

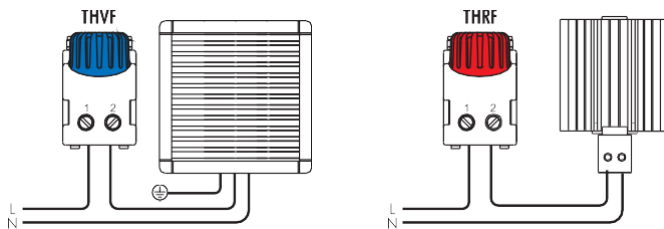
GUIDADINPL



THRF - THVF

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.

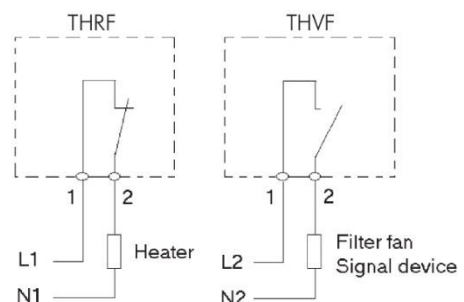
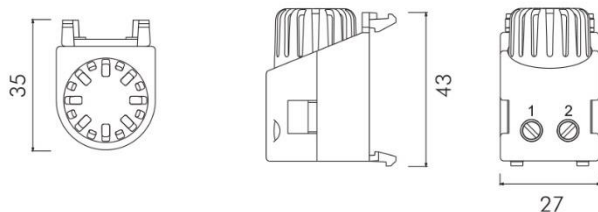


Features	Unit	THRF05	THVF35	THVF50
Contact function	-	NC	NO	NO
Temperature set (hysteresis)	°C	+5 (10)	+35 (10)	+50 (10)
Precision	°C	±4		
Max switching current				
240Vac resistive load (inductive load)	A	5 (1.6)		
120Vac resistive load (inductive load)	A	10 (2.0)		
Max. switching power in Vdc	W	30		
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/Certifications	-	CE		
Dimensions HxWxD	mm	43x27x35		
Weight (with packaging)	kg	0.024 (0.056 - 2pcs x pack)		

Accessories

DIN rail bracket

GUIDADINPL




ETUH

THERMO-HYGROSTAT

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

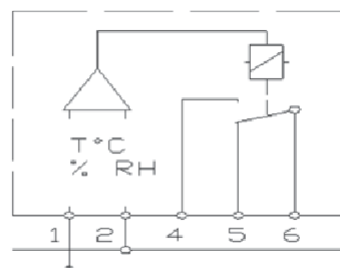
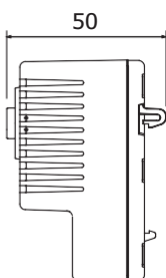
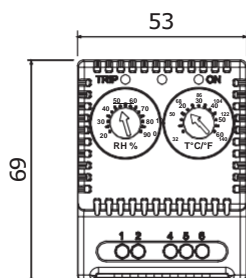


Features	Unit	ETUH11	ETUH22
Power supply	V/Hz	115/50-60	230/50-60
Temperature setting range	°C	0 / +60	
Precision	°C	±1	
Temperature Hysteresis	°C	2	
Relative Humidity setting range	RH%	20-90	
Relative Humidity Hysteresis	%	5	
Reaction time	sec	60	
Max switching current			
NO at 250Vac resistive load	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		< 10	
Service life	cycles	> 100 000	
Electrical connection	-	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/Certifications	-	CE-UL  File n. E348803	
Dimensions HxWxD	mm	69x53x50	
Weight (with packaging)	kg	0.11 (0.12)	

Accessories

DIN rail bracket

GUIDADINPL



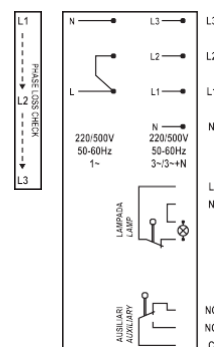
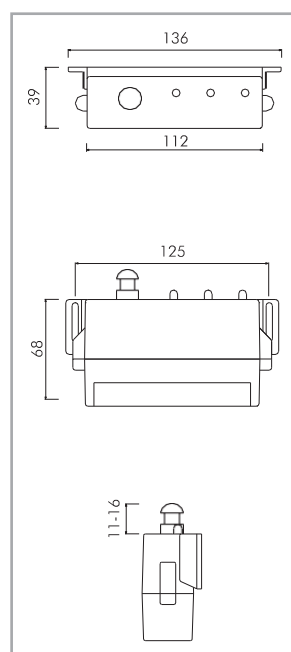
FS

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
	Signal	-	n° 3 LEDs, red	n° 3 LEDs, red
	Contact for lamp	Yes/No	No	Yes
	Contact type	-	-	NC
	Max current	A	-	5
	Service life	Cycles	-	> 25.000
	Auxiliary Contact	Yes/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 (with packaging)	kg	0.15 (0.25)		
Package dimensions HxWxD	mm	46x145x88		
Conformity/Certifications	-	CE		



FIN

DOOR LIMIT SWITCH

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 (°F)	-25/+70 (-13/+158)	
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 (with packaging)	kg	0.04 (0.10)	0.05 (0.11)
Conformity/Certifications	-	CE EN60947-5-1, IEC 947-5-1	



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.

LEDLAMP 32

SLIM, HIGH EFFICIENCY ENCLOSURE LED LAMP WITH MOTION SENSOR

Wide voltage range from 20VDC up to 265VAC in a single model.

Spring terminal. More units can be connected together in a chain.

Fixing clips in each model permit to rotate the lamp according to lighting needs.

Magnet fixing or screw fixing. Motion sensor or switch ON/OFF available.



SPRING
TERMINAL




MOTION
SENSOR



CLIP FIXING
WITH
MAGNET
OR SCREW

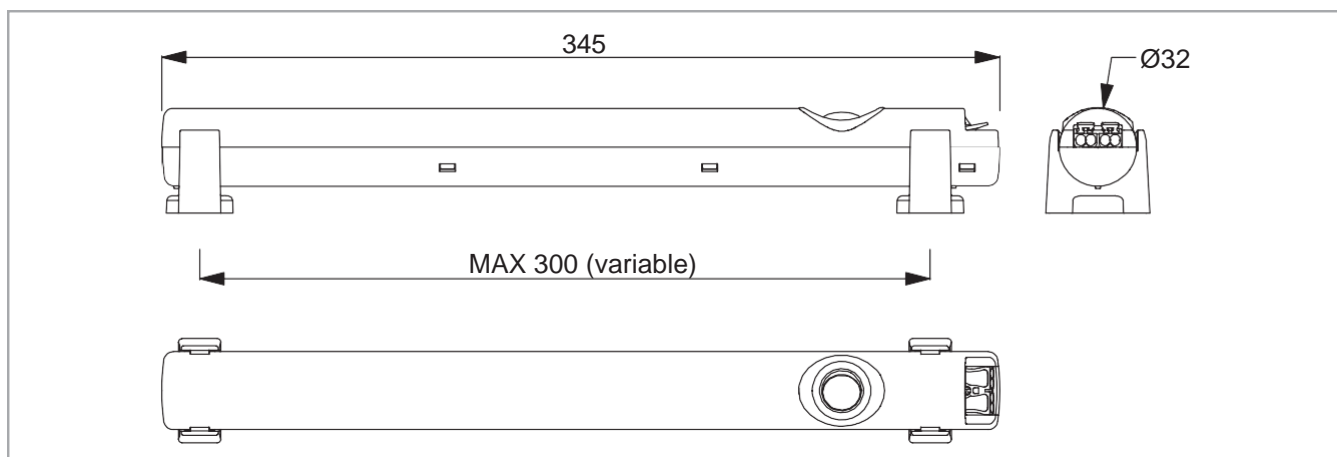


ORIENTABLE

Features	Unit	LEDLAMP3200	LEDLAMP3201	LEDLAMP3210	LEDLAMP3211
Power supply	V/Hz	24-48 VDC / 100-240 VAC 50-60 Hz			
Luminosity	Lm	400			
Lamp type	-	LED			
Power consumption	W	2,5			
Service life (@ 20°C)	hr	60 000			
Switch	-	on/off switch		Motion sensor*	
Electrical connection	-	2-poles spring terminals **			
Casing	-	Plastic			
Protection degree / Class	-	IP20 / Class II			
Operating temperature	°C (°F)	-30 / +60 (-22 / +140)			
Storage temperature	°C (°F)	-40 / +85 (-40 / +185)			
Mounting	-	screw fixing	magnet fixing	screw fixing	magnet fixing
Installation position	-	Variable			
Dimensions	mm	Ø32x345			
Weight (with packaging)	kg	0.155 (0.205)	0.175 (0.225)	0.155 (0.205)	0.175 (0.225)
Package dimensions	mm	415x50x43			
Conformity/Certifications	-	CE,  File n° E301228			

* 5min switched on after last detection

** 0.5-2.5mm



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).



ALFASTAFF

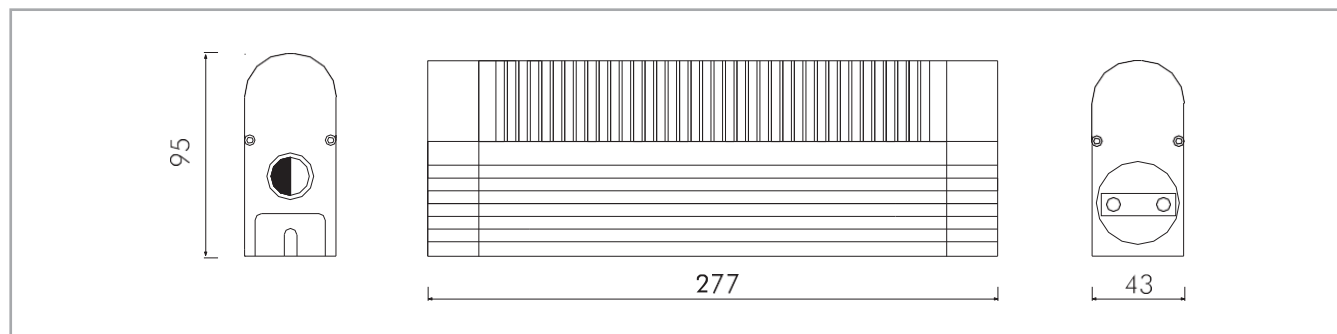
Features	Unit	LAMPCP22	LAMPSP22
Power supply	V/Hz	230/50	230/50
Schuko socket	-	Yes 6A	No
Luminosity	Lm	900	
Lamp type	-	high efficiency fluorescent lamp	
Power consumption	W	11	
Service life	hrs	5000	
Switch	-	On/Off for the lamp only	
Connection	-	3-pole terminal for 1.5 mm ² wire	
Casing	-	Aluminium 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	95x43x277	
Weight (with packaging)	kg	0.76(0.84)	
Package dimensions HxWxD	mm	105x58x310	
Conformity/Certifications	-	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



LL

SLIM ENCLOSURE LED LAMP

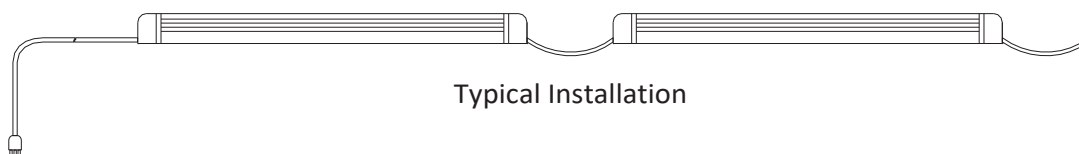
Slim and versatile led lamp. More units can be connected together in a chain up to a total power of 100W, by using the addition interconnection cable including in the packaging.



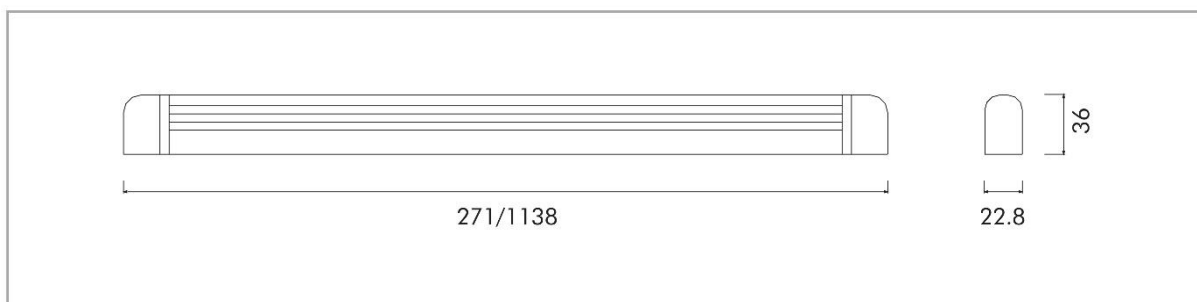
Features	Unit	LL44 W 100-230V	LL49 W 100-230V	LL413 W 100-230V	LL418 W 100-230V
Power supply	V/Hz	100-230/50	100-230/50	100-230/50	100-230/50
Lamp type	-	LED			
Power consumption	W	4	9	13	18
Service life	hrs	10000			
Connection	-	Plug-in cable 1.5 m long inside the package			
Series of lamps	-	Possible 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	277x22.8x36	538x22.8x36	838x22.8x36	1138x22.8x36
Weight	kg	0.1	0.16	0.24	0.33
Conformity/Certifications	-	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



Typical Installation





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