

Main Catalogue

Edition 23

4. Climate control



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Climate control

19" fans

Push fans
circulation fans
cooling capacity up to 2000 W



Air filtered fans

Easy assembly by clipping-in
Ingress protection to IP 55
cooling capacity up to 600 W



Air conditioners

Side-mounted air conditioner
Indoor application
Cooling capacity up to 2600 W



36108005 (01192002, 01192009, 01194003, 01108012 00902001 00908001)

Climate control

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Accessories

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Accessories

Heaters
Speed controllers
Thermostats
Hygrostats



Heat exchanger

Air/water heat exchanger
cooling capacity up to 40000 W

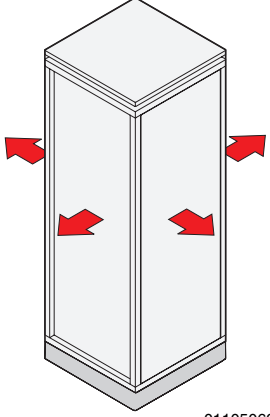
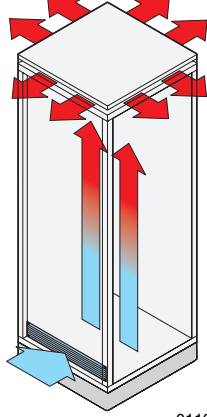
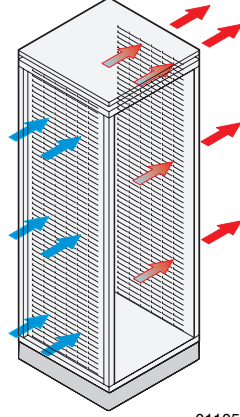
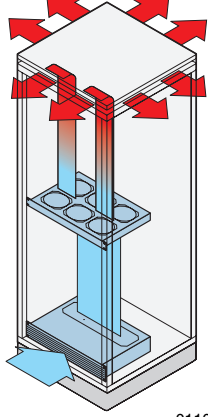


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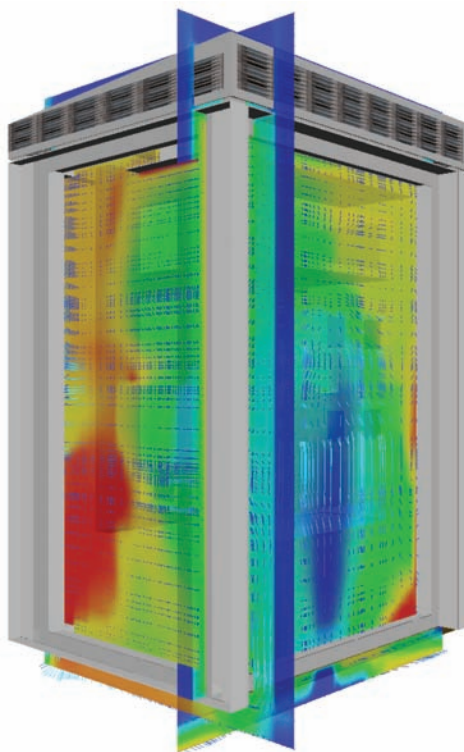
Climate control

Products / cooling concepts

Product	Plain cabinet	Raised top cover, vent slots	Perforated doors	19" fans, top cover fans
Cooling concept				
Description	Natural convection through radiation 01105060	Free convection through top cover opening 01105058	Free convection through opening in the doors/rear panels 01105056	Air cooling 01105057
Type of protection	$\leq$ IP 55	$\leq$ IP 20	$\leq$ IP 20	$\leq$ IP 20
Noise level approx.	0	0	55 ... 65 dB(A)	34 ... 67 dB(A)
Ambient conditions	$T_i > T_a$	$T_i > T_a$	$T_i > T_a$	$T_i > T_a$
Cooling capacity approx ¹⁾	< 500 W	500 W ... 800 W	500 W ... 6000 W ²⁾	< 2000 W

1) depending on cabinet size, electronic components, location and room cooling concept
 2) > 800 W are only possible with own, active cooling through components like server etc.
 T_i = cabinet inner temperature T_a = cabinet ambient temperature

FLOTHERM simulation



Project support via simulation software

With the simulation software FLOTHERM hot spots and problem areas can already be detected during the concept phase. Cooling concepts for plug-in units up to complete case and cabinet systems can be analysed in advance. Our FLOTHERM specialists will help you in finding the right concept.

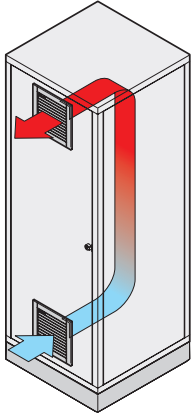
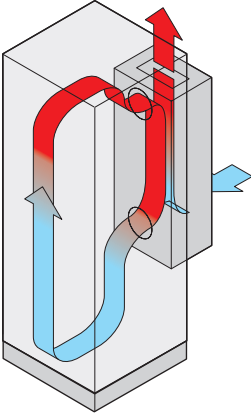
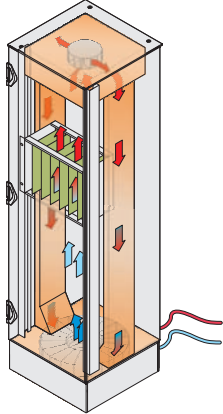
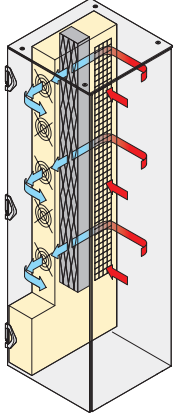
Your advantage:

- Detailed analysis detects problems during the concept/prototype phase
- Short development times
- High efficiency and reliability of your systems

01103050

Climate control

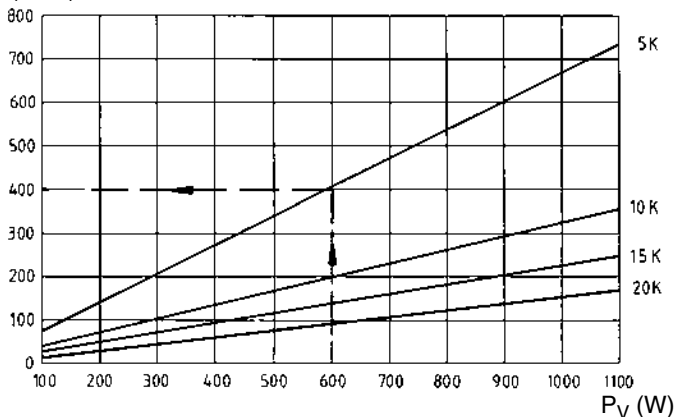
Products / cooling concepts

Product	Air filtered fan	Climate equipment	Air / air-heat exchanger LHX 3	Air / water-heat exchanger LHX 20/40
Cooling concept				
Description	Cooling with air 01102050	Cooling with air 01105061	Air conditioner 01007055	Cooling with water 01005081
Type of protection	$\leq$ IP 54	$\geq$ IP 55	$\geq$ IP 55	$\geq$ IP 55
Noise level approx.	39 ... 71 dB(A)	60 ... 81 dB(A)	45,2 dB(A)	50 ... 70 dB(A)
Ambient conditions	$T_i > T_a$	$T_a \leq 55^\circ\text{C}$	$T_a \leq 70^\circ\text{C}$	$T_a \leq 70^\circ\text{C}$
Cooling capacity approx. ¹⁾	< 1500 W	< 2600 W	< 3000 W	< 40000 W

1) depending on cabinet size, electronic components, location and room cooling concept
 T_i = cabinet inner temperature T_a = cabinet ambient temperature

Calculation on the Internet (www.schroff.biz)

V (m³/h)



Cooling with air, e.g. by means of filter fans

a41771

On our Internet website support is available to select off-the-shelf components. Describe your basic conditions:

- the installed heat dissipation capacity
- the desired cabinet inner temperature
- the maximum local ambient temperature
- the set-up type

Thus you enhance the performance and reliability of your system and we lead you to possible alternatives of our standard program.

Overview 0

Cabinets 1

Wall mounted
cases 2

Accessories for
cabinets and wall
mounted cases 3

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Desk-top cases 5

Subracks/
19" chassis 6

Front panels,
plug-in units 7

Systems 8

Power supply
units 9

Backplanes 10

Connectors, front
panel component
system 11

Appendix 12

Climate control – 19" fan trays

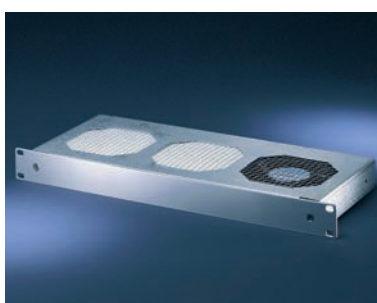


01102012



01197002

Mechanical locking device for the
connecting cable



01194004

19" individually configured
fan trays



01194006

Pusher fan with additional fans

Standards/certifications

- 19" assembly area in accordance with:
IEC 60297-3-101
- Mechanical protection to EN 292
Contact protection to EN 294
Electrical safety to EN 60335 part 1
Plastics self-extinguishing to UL 94 V-0



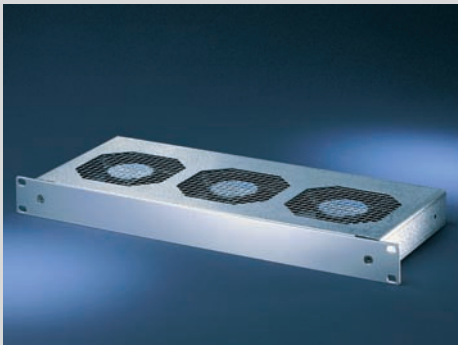
Downloads and further important information can be found
on the Internet under www.schroff.biz



Climate control – 19" fan trays

19" fan trays

- Effective heat dissipation
- High airflow rate and operational performance
- Mechanical contact protection
- Adaptation onto subrack possible
- With TÜV, CE approvals



01104002

19" fans

- For the cooling of components and modules
- Height 1 U
- With or without mains switch (illuminated)
- Version with temperature dependent speed control
- Individual configurations are possible by means of the configurator on our website



19" blower fans

- For the cooling of components and modules
- Height 2 U and 3 U
- To mount into 19" cabinets
- Optimum heat dissipation, also if several subracks (each with blower fan) are mounted one above the other



01192009 01102016



30407004

ServicePLUS from page 4.17

- e.g. other airflow capacities
- e.g. other supply voltages
- e.g. other dimensions
- e.g. custom solutions

www.schroff.biz/serviceplus/

Overview 4.4

19" fans

- 1 U with/without front switch. 4.6
- 1 U speed-controlled 4.8
- and monitored 4.8

19" blower units

- 2 U with tangential fan . . . 4.9
- 2 U (160, 220 mm deep) 4.10
- 3 U 4.12

ServicePLUS

- configuration . . . 4.14

Accessories

- AC fans 4.15
- DC fans 4.15

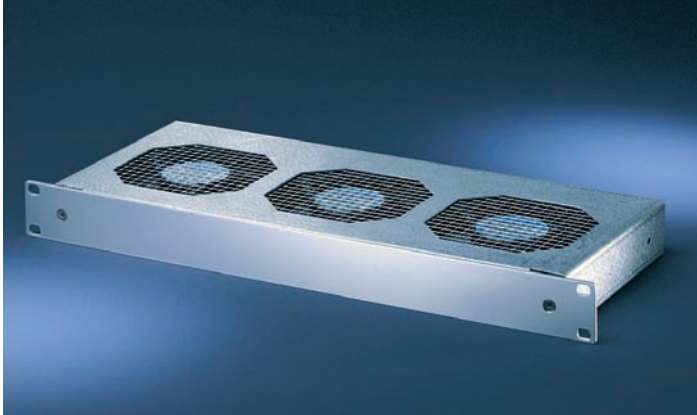
ServicePLUS . 4.17

- 19" fan dimensioning . . . 4.17

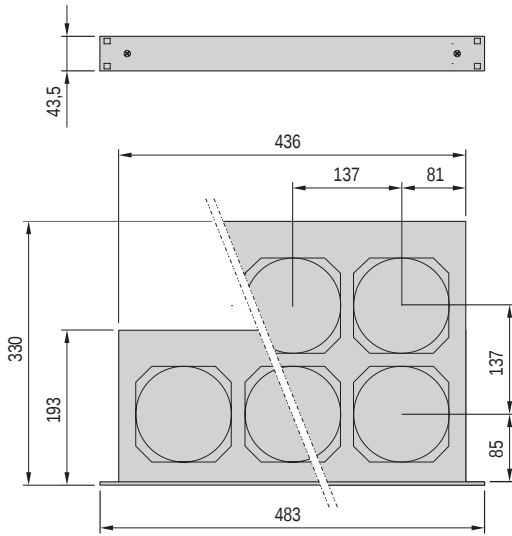


Climate control – 19" fan trays

19" fan 1 U



01194002



KTA44306



ServicePLUS see page 4.17

- Mechanical strain relief for mains cable connection
- Adaptation onto subracks possible
- Contact protection in accordance with EN 294 (ISO 13857)



Delivery comprises (ready to connect)

Item	Qty	Description
1	1	19" circulation fan, 1 U, cover/base plate, St, 1 mm, finish AlZn, with perforation; front panel 1 U, Al, 3 mm, anodised
2	3 / 6	Fan, see Order Information
3a	1	AC with IEC connector (mains input IEC 320), incl. safety clamp for mechanical strain relief
b3	1	DC version with connecting cable, cable length 2.5 m

Order Information

	24 V _{DC} Part no.	115 V _{AC} Part no.	230 V _{AC} Part no.
 KTA44857	10713-103	10713-102	10713-100

 KTA44858	10713-107	10713-106	10713-104
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Replacement fan 1 piece	20713-240	20713-244	20713-243
Side panel connecting bracket for subrack europacPRO, incl. assembly kit			21101-954
Equipment cable SCHUKO/UTE SCHUKO/UTE plug, IEC 320 C13 female connector, 2.5 m, 1 piece			60103-131
Equipment cable, BS British standard plug, IEC 320 C13 female connector, 2.5 m, 1 piece			60103-137
Equipment cable, USA USA plug, IEC 320 female connector 2 m, 1 piece			60103-141

Technical data

Voltage	230 V _{AC}	115 V _{AC}	24 V _{DC}
Frequency in Hz	50 60	50 60	-
Number of fans	3/6	3/6	3/6
Airflow volume in m ³ /h (3/6 fans)	440/845 520/1000	440/845 520/1000	506/970
Noise level in dB(A) (3/6 fans)	56.5/59.4 60.2/62.9	56.5/59.4 60.2/62.9	60.5/63.3
Power consumption in W (3/6 fans)	45/90 42/84	46.5/93 43.5/87	24/48
Max. stat. pressure in Pa	73 88	73 88	68
Permissible ambient temperature in °C	-40 ... +70 °C		
Lifespan in h L ₁₀ 40 °C	43500		
Lifespan in h L ₁₀ 55 °C	20000		

Note

- Replacement fans, see chapter Climate control - Accessories
- Versions with multiple fans see ServicePLUS configuration page 4.14

Climate control – 19" fan trays

19" fan 1 U with front switch



01194003



01197002

- Illuminated mains switch to front on AC units, coupled with additional mains/line voltage output to the rear; mechanical strain relief for mains input and output cable
- Adaptation onto subrack possible
- Contact protection to EN 294 (ISO 13857)



Delivery comprises (ready to connect)

Item	Qty	Description
1	1	19" circulation fan, 1 U, top/base plate, St, 1 mm, finish AlZn, with perforation; front panel 1 U, Al, 3 mm, anodised
2	3 / 6	Fan, see Order Information
3a	1	AC version with mains switch, illuminated green; plug (mains input IEC 320) incl. safety clamp for mechanical strain relief; coupled mains output socket (IEC 320)
b3	1	DC version with mains switch and connecting cable, cable length 2.5 m

Order Information

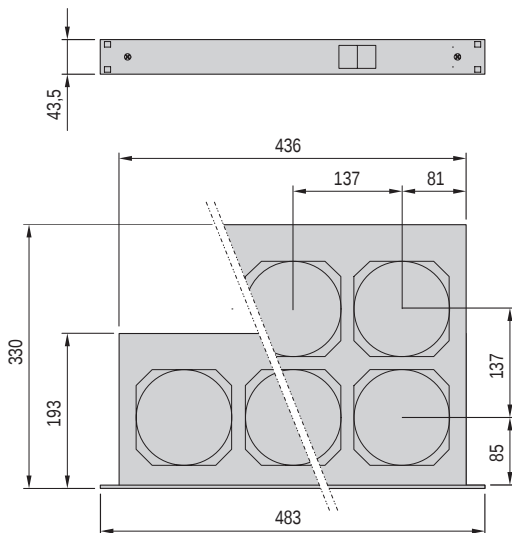
	24 V _{DC}	115 V _{AC}	230 V _{AC}
Part no.	Part no.	Part no.	
	10713-111	10713-110	10713-108

KTA44857

	24 V _{DC}	115 V _{AC}	230 V _{AC}
Part no.	Part no.	Part no.	
	10713-115	10713-114	10713-112

KTA44858

Replacement fan 1 piece	20713-240	20713-244	20713-243
Side panel connecting bracket for subrack europacPRO, incl. assembly kit			21101-954
Equipment cable SCHUKO/UTE SCHUKO/UTE plug, IEC 320 C13 female connector, 2.5 m, 1 piece			60103-131
Equipment cable, BS British standard plug, IEC 320 C13 female connector, 2.5 m, 1 piece			60103-137
Equipment cable, USA USA plug, IEC 320 female connector, 2 m, 1 piece			60103-141
Equipment cable IEC 320 C14 plug, IEC 320 C13 female connector, 2.5 m, 1 piece			60197-053



KTA45963



ServicePLUS see page 4.17

Technical data

Voltage	230 VAC		115 VAC		24 VDC
Frequency in Hz	50	60	50	60	-
Number of fans	3/6		3/6		3/6
Airflow volume in m ³ /h (3/6 fans)	440/845	520/1000	440/845	520/1000	506/970
Noise level in dB(A) (3/6 fans)	56.5/59.4	60.2/62.9	56.5/59.4	60.2/62.9	60.5/63.3
Power consumption in W (3/6 fans)	45/90	42/84	46.5/93	43.5/87	24/48
Max. stat. pressure, Pa	73	88	73	88	68
Permissible ambient temperature in °C	-40 ... +70 °C				
Lifespan in h L ₁₀ 40 °C	43500				
Lifespan in h L ₁₀ 55 °C	20000				

- Replacement fans, see chapter Climate control - Accessories
- Versions with multiple fans see ServicePLUS configuration page 4.14

Climate control – 19" fan trays

19" fans 1 U, 24 V_{DC}, speed controlled and monitored for functioning



Photo shows 19" fan units with 3 fans

- Noise optimisation through temperature dependent speed control
- Temperature range selectable: 20 ... 40 °C and 30 ... 50 °C
- External sensor; in case of sensor break, the maximum speed adjusts automatically
- Function control with LEDs and via potential free contacts
- Contact protection to EN 294 (ISO 13857)



Delivery comprises (ready to connect)

Item	Qty	Description
1	1	19" circulation fan, 1 U; cover /base plate, St, 1 mm, finish AlZn, with perforation; front panel 1 U, Al, 3 mm, anodised
2	3 / 6	DC fan, see Order Information
3	1	Connecting cable, length 2.5 m, open-ended
4	1	Temperature sensor for speed control, NTC resistor, cable length 1.5 m

Order Information

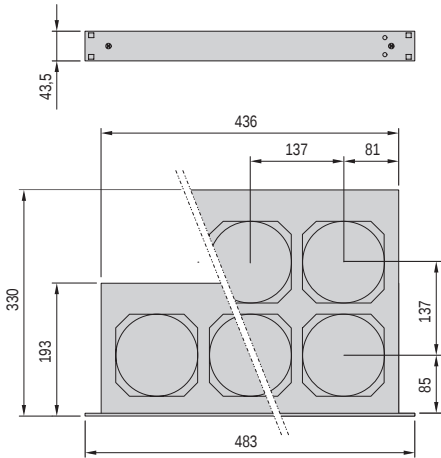
Description	Description	Part no.
	KTA44857	10713-099
	KTA44858	10713-098
Filter mat G2 for 19" fan unit with 3 fans, PU 3 pieces (please order separately)		60713-169
Filter mat G2 for 19" fan unit with 6 fans, PU 3 pieces (please order separately)		60713-170

Dimensions

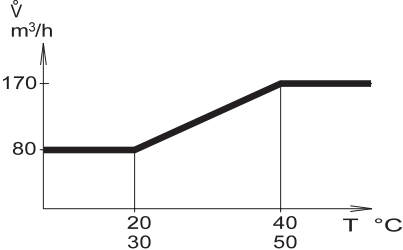
Voltage	24 V _{DC} (21 ... 27)	
Number of fans	3	6
Airflow volume in m ³ /h	467	895
Noise level in dB(A)	63.5	66.4
Max. stat. pressure in Pa	70	70
Power consumption in W	15.9	31.8 W
Permissible ambient temperature °C	-20 ... +65 °C	
Lifespan in h L ₁₀ 40 °C	70000	

Technical data Control/monitoring

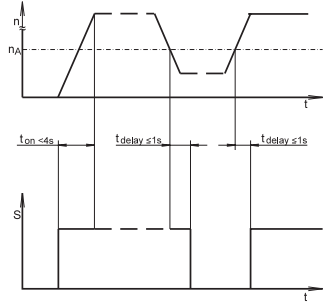
Control range	Change-over switch between 20 ... 40 °C and 30 ... 50 °C
Sensor	External NTC resistor, cable length 1.5 m
Sensor connector	Rear-mounted plug-in contact, max. rotation speed in case of sensor breakage
Signal at	Speed <30 % nominal speed; switch-on delay <4 s, signal delay <1 s (see monitoring signal)
Signalling	Display via LEDs; potential free contact (change-over contact), switch power 5 W, switch voltage max. 170 V, open collector available on request



Control range



Control signal



n = speed, S = signal,
n_A = speed threshold value "alarm"



ServicePLUS see page 4.17

Climate control – 19" fan trays

Blower unit 2 U, with tangential fan



- High air supply volume
- Integrated filter mat
- 2 versions:
 - LE1: 19" bolt-on dimension, fan unit is wider than 19"
 - LE2: 19" reduced width, for easy assembly



Delivery comprises (ready to connect)

Item	Qty	Description
1	1	Blower unit 2 U, with grille, PA 6.6, UL 94 V-0, front grille 2 U, PPO, UL 94 V-0; filter mat, synthetic fibre, filter class G 2
2	1	Fan
3	1	Terminal block

Order Information

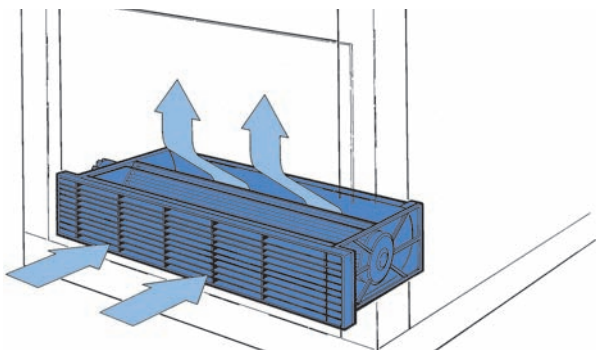
Description	115 V _{AC} Part no.	230 V _{AC} Part no.
LE1 blower unit 2 U with tangential fan	60713-003	60713-001
LE2 blower unit 2 U with tangential fan	60713-004	60713-002
Spare filter mat PU 10 pieces		20705-008

Dimensions

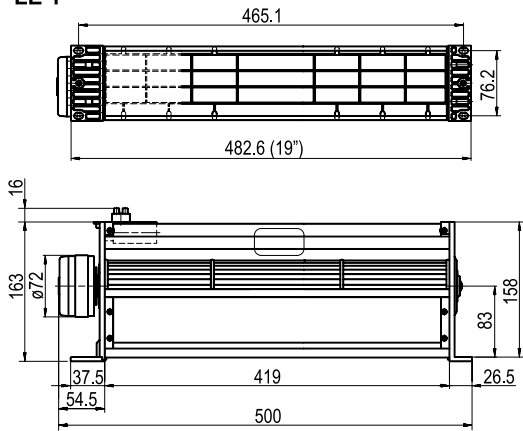
Voltage	230 V _{AC}		115 V _{AC}	
Frequency in Hz	50	60	50	60
Airflow volume in m ³ /h	320	330	320	330
Noise level in dB(A)	59	62	59	62
Max. stat. pressure in Pa	65	70	65	70
Power consumption in W	37	46	30	40
Permissible ambient temperature in °C	-20 ... +65 °C			
Lifespan in h	30000			



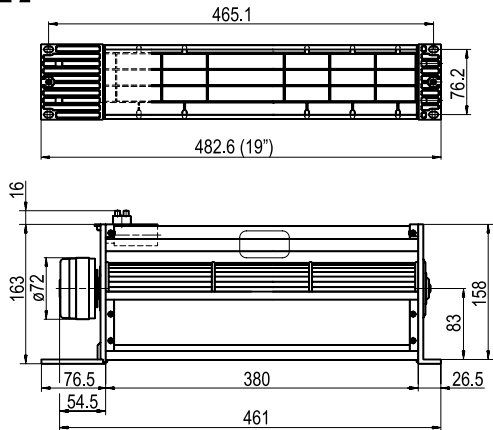
For further information www.schroff.biz/oneclick
oneClick search code = Part no.



LE 1



LE 2



ServicePLUS see page 4.17

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Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

Climate control – 19" fan trays

19" blower unit 2 U (depth 160 mm or 220 mm)



- Integrated air baffle prevents heat build-up in sub-assemblies positioned underneath
- Optionally with rear supplementary fan 2 U for active heat removal from the sub-assemblies underneath the blower fan
- Adaptation onto sub racks possible

Delivery comprises (ready to connect)

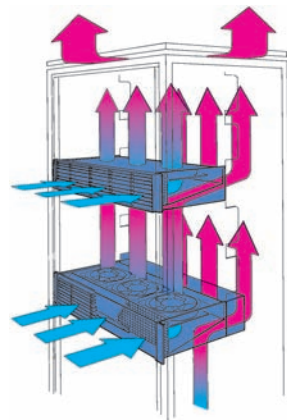
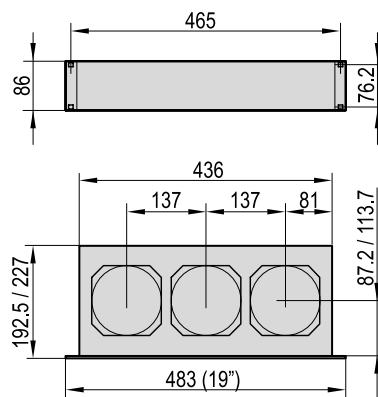
Item	Qty	Description
1	1	19" blower fan, 2 U, case, St, 1 mm, finish AlZn; front grille, 2 U, PPO, UL 94 V-0; filter mat, synthetic fibre, filterclass G 2
2	3	Fan
3a	1	AC-version with plug (mains input, IEC 320), incl. safety clamp, mechanical strain relief for mains input cable; connector socket for connection of an optional supplementary fan
b3	1	DC version with connecting cable, cable length 2.5 m

Note

- Supplementary fan for AC version see page 4.11



For further information www.schroff.biz/oneclick
oneClick search code = Part no.



01103054A3527V



ServicePLUS see page 4.17

Order Information

Description	24 V _{DC}	115 V _{AC}		230 V _{AC}	230 V _{AC}
	515 m ³ /h	300/330 m ³ /h	445/530 m ³ /h	300/330 m ³ /h	445/530 m ³ /h
	Part no.	Part no.	Part no.	Part no.	Part no.
for board depth 160 mm	10713-537	10713-520	10713-536	10713-518	10713-534
for board depth 220 mm	10713-529	-	10713-528	-	10713-526
Replacement fan 1 piece	20713-240	20713-147	20713-244	20700-001	20713-243
Equipment cable SCHUKO/UTE SCHUKO/UTE plug, IEC 320 C13 female connector, 2.5 m, 1 piece					60103-131
Equipment cable, BS British standard plug, IEC 320 C13 female connector, 2.5 m, 1 piece					60103-137
Equipment cable, USA USA plug, IEC 320 female connector, 2 m, 1 piece					60103-141
Side panel connecting bracket For subrack europac, incl. assembly kit					21101-104
Side panel connecting bracket For subrack europacPRO, incl. assembly kit					21101-954
Spare filter mat PU 3 pieces					60713-501

Dimensions	with 3 fans							
Voltage	24 V _{DC}		115 V _{AC}				230 V _{AC}	
Frequency in Hz	-	-	50	60	50	60	50	60
Airflow volume in m ³ /h	515	515	300	330	445	530	300	330
Noise level in dB(A)	59.8	59.8	52.2	56.1	55.2	58.2	52.2	56.1
Max. stat. pressure in Pa	68	68	41	41	78	88	41	41
Power consumption in W	24	24	42	33	46.5	43.5	42	33
Permissible ambient temperature in °C	-20 ... +70 °C	-20 ... +70 °C	-40 ... +70 °C				-40 ... +70 °C	
Lifespan in h, ¹⁾ at 20 °C, ²⁾ at 55 °C	20000 ²⁾	20000 ²⁾	50000 ¹⁾		20000 ²⁾		50000 ¹⁾	

Climate control – 19" fan trays

Supplementary fan for blower unit
2 U



- 2 U mounting space gained:
By using a supplementary fan the plug-in units underneath the 19" blower unit can be cooled
- No additional power supply necessary:
Connection via 19" blower unit 2 U



Delivery comprises (ready to fit and connect)

Item	Qty	Description
1	1	Case with grille, St, 1 mm, finish AlZn
2	4	Fan
3	1	Cable with plug (electrical connection via socket on 19" blower fan); safety clamp (mechanical strain relief for mains input cable)

Order Information

Description	115 V _{AC} Part no.	230 V _{AC} Part no.
Supplementary fan for blower unit 2 U	10713-532	10713-530

Dimensions with 3 fans

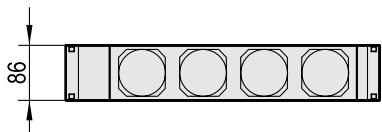
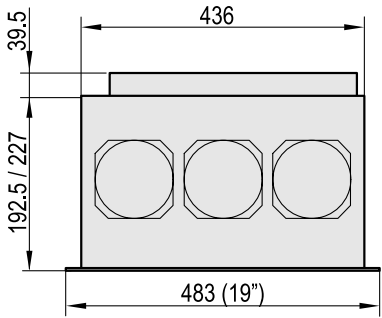
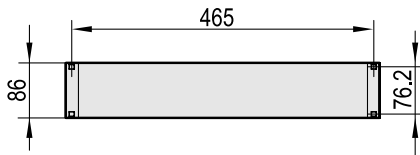
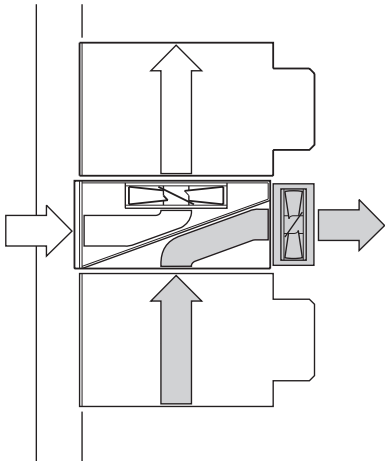
Voltage	230 V _{AC}		115 V _{AC}	
Frequency in Hz	50	60	50	60
Airflow volume in m ³ /h	130	155	130	155
Noise level in dB(A)	51	54	51	54
Max. stat. pressure in Pa	44	62	44	62
Permissible ambient temperature in °C	-40 ... +70		-40 ... +70	
Power consumption in W	27	21	30	24
Lifespan in h at 55 °C	20000		20000	

Note

- 24 V_{DC} version available on request
- Replacement fans see page 4.15



For further information www.schroff.biz/oneclick
oneClick search code = Part no.



ServicePLUS see page 4.17

Climate control – 19" fan trays

19" blower unit 3 U



Using different cover plates these blower units can be re-equipped for different cooling concepts

- Specific air supply to individual sub-assemblies
- Air supply from front, air outlet upwards in rear cabinet area (to rear or upwards via cover plates or to rear and upwards via ducts)



Delivery comprises (ready for connection)

Item	Qty	Description
1	1	Case, St, 1 mm, AlZn; perforated hinged front panel, Al, 2.5 mm; filter mat, synthetic fibre, filter class G 2 to DIN EN 779
2	1	Radial fan with mains fuse
3	1	Plug (mains input, IEC 320); safety clamp, mechanical strain relief for mains input cable

Order Information

Description	115 V _{AC} Part no.	230 V _{AC} Part no.
19" blower unit 3 U	10713-547	10713-546
Equipment cable SCHUKO/UTE SCHUKO/UTE plug, IEC 320 C13 female connector, 2.5 m, 1 piece		60103-131
Equipment cable, BS British standard plug, IEC 320 C13 female connector, 2.5 m, 1 piece		60103-137
Equipment cable, USA USA plug, IEC 320 female connector, 2 m, 1 piece		60103-141
Side panel connecting bracket for subrack europac with fan, incl. assembly kit		21101-958
Side panel connecting bracket for subrack europacPRO, incl. assembly kit		21101-954
Spare filter mat PU 3 pieces		60713-868

Dimensions

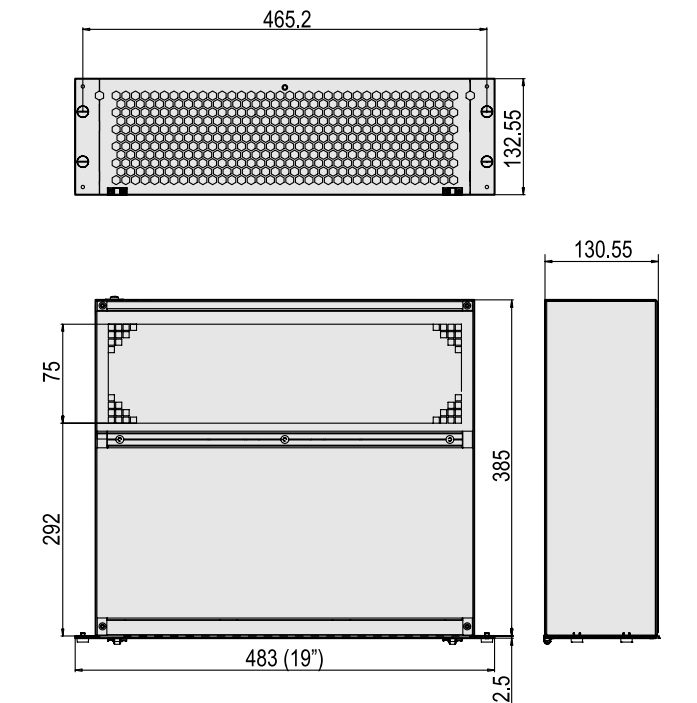
Voltage	230 V _{AC}		115 V _{AC}	
Frequency in Hz	50	60	50	60
Airflow volume in m ³ /h	510	570	510	570
Noise level je Fan in dB(A)	62	64	62	64
Max. stat. pressure in Pa	320	410	320	410
Power consumption in W	58	75	55	65
Max. ambient temperature in °C	-20 ... +50		-20 ... +50	
Lifespan in h at 55 °C	20000		20000	

Note

- Wide input voltage range 90 V ... 260 V_{AC} available on request
- Temperature control and function monitoring (alarm via RS 232) on request
- See next page for fan trays for further cooling concepts



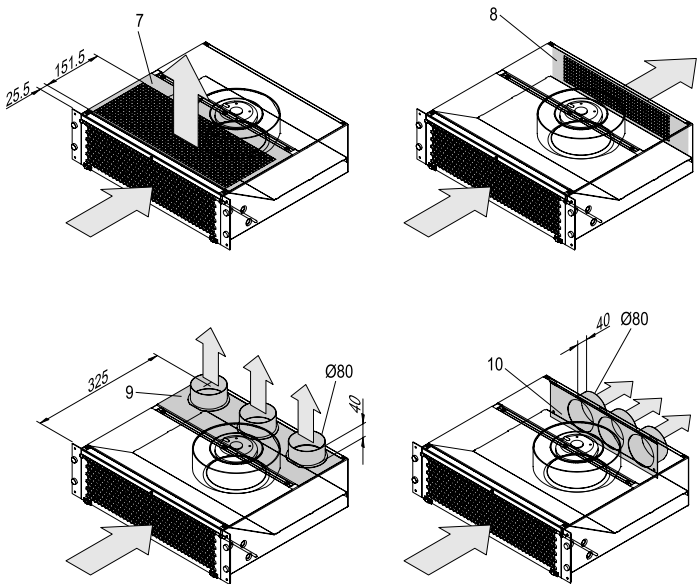
For further information www.schroff.biz/oneclick
oneClick search code = Part no.



ServicePLUS see page 4.17

Climate control – 19" fan trays

Fan tray for 19" blower unit
3 U



■ For 19 " blower units 3 U

Order Information

Item	Description	Qty/PU	Part no.
7	Air baffle to front, St, 1 mm, AlZn finish	1	20713-504
8	Air outlet to rear: upper cover plate without perforation, 1 mm, finish AlZn	1	20713-505
9	Air baffle with duct connection on upper rear, external diameter 80 mm, St, 1 mm, 1 finish AlZn	1	20713-503
10	Air baffle with duct connection to rear, external diameter 80 mm, St, 1 mm, finish AlZn	1	20713-502



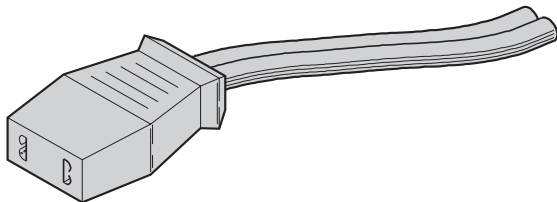
For further information www.schroff.biz/oneclick
oneClick search code = Part no.



ServicePLUS see page 4.17

01103053

Connecting cable with connector socket



KTA43091

■ Connecting cable with connector socket for AC fans (25 mm and 38 mm high) and DC fans (38 mm high), cable length 1 m

Delivery comprises

Item	Qty	Description
1	1	Cable, PVC (2 x 0.75 mm²), 1 m long, with 2 FASTON connectors 2.8 x 0.5 mm, DIN 46343 T1

Order Information

Description	Part no.
Connecting cable with connector socket	21101-246



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – 19" fan trays

ServicePLUS: configuration and assembly



01102012

- You can plan and build up your product yourself using the following order table

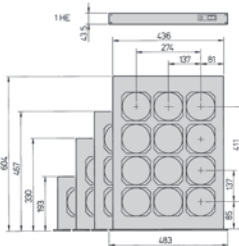
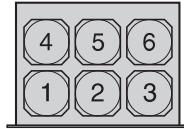
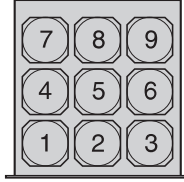
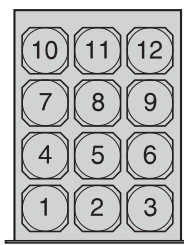
- Dimensions
 - Height 1 U
 - Width 19"
 - Depth 193, 300, 467, 604 mm for 3, 6, 9 or 12 fans

- Configure your 19" fan out of individual parts (for assembly please add /05 at the end of each order number;) assembly within 10 working days

Example configuration

Qty	Description	Order no.
1	Case, 1 piece	20713-213
1	Front panel with switch, AC, 1 piece	20713231/05
1	Filter mat, 3 pieces	60713-246/05
6	Fans, AC, height 25 mm; mounted at position 1, 3, 5, 7, 9, 11	20700-001/05

Order Information

	Fan height	Fan housings 1)	AC	DC	AC	DC	Filter mat G2	Fans
		cover/baseplate, St, 1 mm, finish AlZn, with perforation	1 U, Al, 3 mm, anodised; includes cable harness	1 U, Al, 3 mm, anodised; connecting cable, 2.5 m; includes cable harness	1 U, Al, 3 mm, anodised; mains switch, illuminated green; includes cable harness	1 U, Al, 3 mm, anodised; mains switch, illuminated green; connecting cable, 2.5 m; includes cable harness	can only be fitted on 28 mm height	
a44537	mm	1 piece	1 piece	1 piece	1 piece	1 piece	PU 3 pieces	see page
	25	20713-212	20713-223/05	20713-224/05	20713-228/05	20713-236/05	60713-243	4.15
	38	20713-216	20713-223/05	20713-224/05	20713-228/05	20713-236/05	-	4.15
	25	20713-213	20713-221/05	20713-225/05	20713-229/05	20713-237/05	60713-244	4.15
	38	20713-217	20713-221/05	20713-225/05	20713-229/05	20713-237/05	-	4.15
	25	20713-214	20713-222/05	20713-226/05	20713-230/05	20713-238/05	60713-245	4.15
	38	20713-218	20713-222/05	20713-226/05	20713-230/05	20713-238/05	-	4.15
	25	20713-215	20713-223/05	20713-227/05	20713-231/05	20713-239/05	60713-246	4.15
	38	20713-219	20713-223/05	20713-227/05	20713-231/05	20713-239/05	-	4.15

kta44860

1) Fan housing cannot be ordered without fans

Note

- Unused fan assembly space will be covered with foam pieces
- 115 V or versions with switch available on request

Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

Climate control – 19" fan trays

AC fans/replacement fans



01108005

Delivery comprises

Item	Qty	Description
1	1	Fan (width 119 mm, depth 119 mm)

Order Information

Description	Height mm	Airflow volume m³/h	115 V _{AC} Part no.	230 V _{AC} Part no.
Type A	25	84	20713-146	20713-142
Type B	25	108	20713-147	20700-001
Type C	38	162	20713-244	20713-243
Assembly kit for fan PU 1 kit				21102-013

Dimensions AC fans

Type	Type A		Type B		Type C	
Frequency in Hz	50	60	50	60	50	60
Airflow volume in m³/h	84	90	108	120	162	192
Noise level per fan in dB(A)	29	30	34	38	37	41
Max. static pressure in Pa	23	21	41	41	73	88
Max. ambient temperature in °C	70	70	70	70	70	70
Power consumption in W	8	7	14	11	15	14
Dimensions: height in mm (width 119 mm × depth 119 mm)	25		25		38	

- Please order connecting cable separately, see page 4.13
- Please order protective grille separately, see page 4.16

DC fans/replacement fans



01108005

Delivery comprises

Item	Qty	Description
1a	1	Fan, height 38 mm, with plug connection
1b	1	Fan, height 25.5 mm, connecting cable, length 55 mm, connector with 2 x FASTON connectors (2.8 x 0.8 mm)

Order Information

Height mm	Airflow volume m³/h	Power consumption W	Input voltage V	Part no.
25.5	171	5.3	24	20713-172
38	184	8	24	20713-240
38	184	8	12	20713-241
38	184	8	48	20713-242
Assembly kit for fan PU 1 kit				21102-013

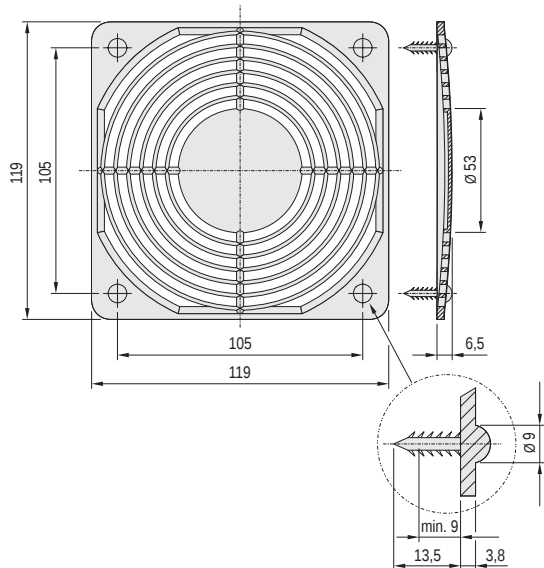
Dimensions DC fans

Voltage in V _{DC}	24	24	12	48
Dimensions: height in mm (width 119 mm × depth 119 mm)	25	38	38	38
Airflow volume in m³/h	195	184	184	184
Noise level per fan in dB(A)	41,5	42	42	42
Max. static pressure in Pa	50,5	68	68	68
Max. ambient temperature in °C	70	70	70	70
Power consumption in W	7	8	8	8

- Please order connecting cable for 38 mm fans separately, see page 4.13
- Please order protective grille separately, see page 4.16

Climate control – 19" fan trays

Protective grille to snap-in



- Protective grill for direct mounting on AC and DC fans

Delivery comprises

Item	Qty	Description
1	1	Fibre glass reinforced plastic (PA), black, conforms to DIN 31001, UL 94 V-0

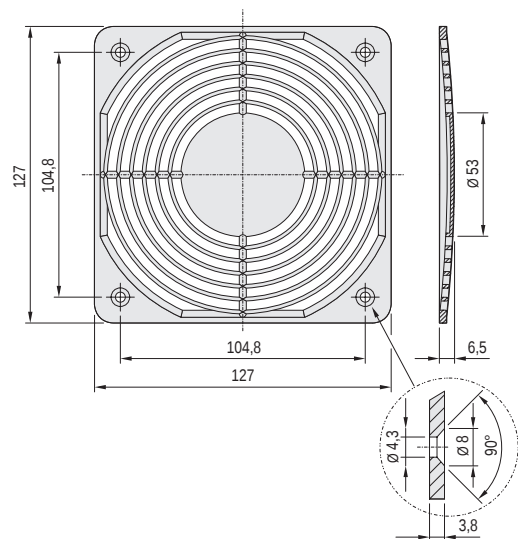
Order Information

Description	Part no.
Protective grille, plastic, to snap-in	60225-052



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Protective grille, plastic, to screw-on



- Protective grilles for AC and DC fans
- Grille may be mounted on a front panel or wall of the case

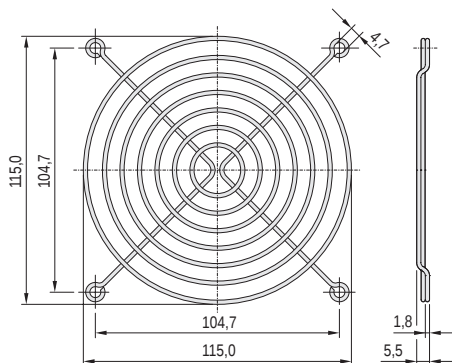
Delivery comprises

Item	Qty	Description
1	1	Fibre glass reinforced plastic (PA), black, conforms to DIN 31001, UL 94 V-0

Order Information

Description	Part no.
Protective grille, plastic, to screw-on	60225-053
Assembly kit for plastic grille (4 screws, 4 washers, 4 nuts M4), PU 1 set	21102-014

Protective grille, metal, to screw-on



- Protective grille for direct mounting on AC and DC fans
- Optimised noise level and air resistance

Delivery comprises

Item	Qty	Description
1	1	St, 1 mm

Order Information

Description	Part no.
Protective grille, metal, to screw-on	60197-019
Assembly kit for metal grille (4 screws, 4 washers, 4 nuts M4), PU 1 set	21102-015

Climate control – 19" fan trays ServicePLUS



configuration

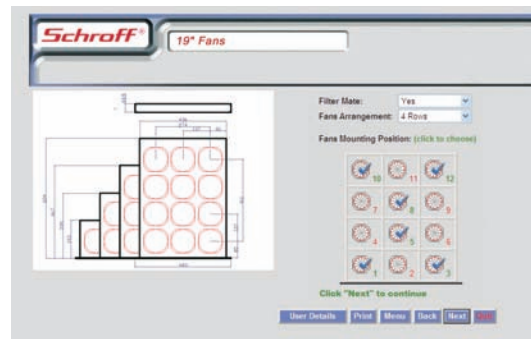
Components can be varied and combined freely



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configuration

- Online configuration: www.schroff.co.uk/configuration



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assembly

Fitting of all mechanical, electrical and electronic components by our specialists

Assembled by professionals. Double benefit!

- Without extra cost
- Ready for despatch within 10 working days
- Further information: www.schroff.co.uk/assembly



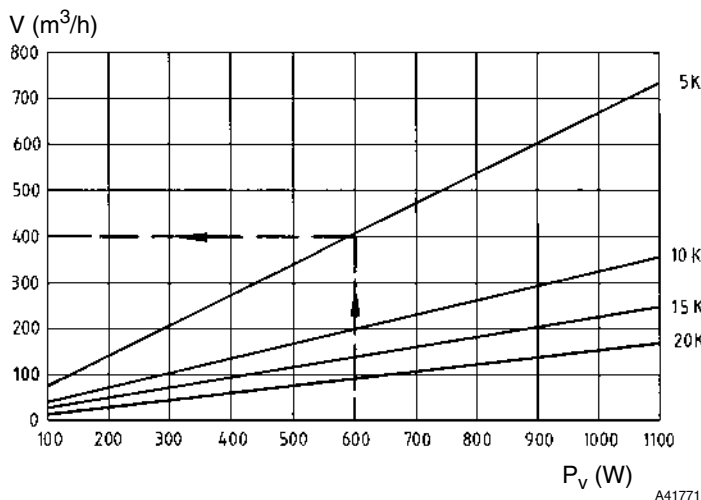
modification

Custom drillings, cut-outs and special colours for off-the-shelf products

Small changes. Large impact.

- Download CAD data, then send in your modifications
- Ready for despatch within 15 working days
- Further information: www.schroff.co.uk/modification

19" fan dimensions



A41771

For local heat dissipation, the airflow volume that is required to expell the generated heat is calculated.

Note

The cabinet ventilation is not taken into account here. The required airflow volume is calculated as follows:

$$V = (f \times P_v) / \Delta T$$

The air constant $f = 3.3 \text{ m}^3\text{K}/\text{Wh}$.

ΔT is the temperature difference between the ambient temperature of the sub-assembly and that of the air sucked in.

Reading example

- $P_v = 600 \text{ W}$
- Air sucked in: 25°C
- Permissible ambient temperature of the sub-assembly = 30°C

- $\Delta T = T_i - T_a = 30^\circ\text{C} - 25^\circ\text{C} = 5\text{K}$
- From $P_v = 600 \text{ W}$ to curve for $\Delta T = 5\text{K}$
- From the point of intersection down to the airflow volume $V = 400 \text{ m}^3/\text{h}$

Overview	0
Cabinets	1
Wall mounted cases	2
Accessories for cabinets and wall mounted cases	3
Climate control	4
Desk-top cases	5
Subracks/ 19" chassis	6
Front panels, plug-in units	7
Systems	8
Power supply units	9
Backplanes	10
Connectors, front panel component system	11
Appendix	12

Climate control – Air filtered fan



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Easy tool-less assembly through clip-on

01108014



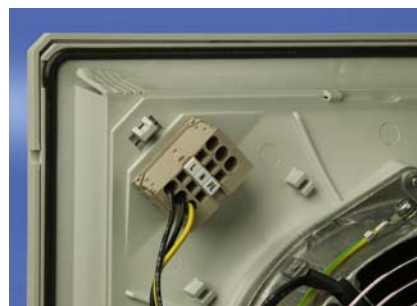
Easy tool-less change of filter mat

01108015



Fluted filter to increase degree of ingress protection from IP 54 to IP 55

01108016



Easy tool-less wiring with spring clamp connector

01108013



Downloads and further important information can be found on the Internet under www.schroff.biz



**Air filtered fans, ingress protection from IP 54 to IP 55
in accordance with IEC 60529**

NEW

- Easy tool-less assembly by clip on (screw on also possible)
- Easy conversion from pressure to suction operation
- Easy tool-less change of filter mat
- 7 performance classes with 6 different assembly dimensions

How to dimension
air filtered fans . . 4.20
Reading example 4.20
EMC solutions . . . 4.20



Air filtered fans

01108017

Air filtered fans

- Airflow capacity of 25 m³/h ... 640 m³/h (FL 100 ... FL 600)
- 3 supply voltages (230 V_{AC}, 115 V_{AC}, 24 V_{DC})
- Outlet/inlet filter
- Fluted filter to increase degree of ingress protection from IP 54 to IP 55

Air filtered fans

FL 100	4.21
FL 200	4.22
FL 225	4.23
FL 250	4.24
FL 300	4.25
FL 500	4.26
FL 600	4.27



Outlet/inlet filters

01108026



Fluted filters

01108016



30407004

ServicePLUS

- e.g. special colours (RAL 7032)
- e.g. other supply voltages
- e.g. EMC solutions
- e.g. custom solutions

www.schroff.biz/ServicePLUS

Climate control – Air filtered fans



Air filtered fan calculations

To establish the size of the air filtered fan required, calculate the air throughput necessary to dissipate the amount of heat contained in the cabinet.

The required airflow volume is calculated as follows:

$$V = f \times (P_V - P_S) / \Delta T \text{ with}$$

V = airflow volume

f = air constant = 3.3 m³ K/Wh

P_V = thermal power loss

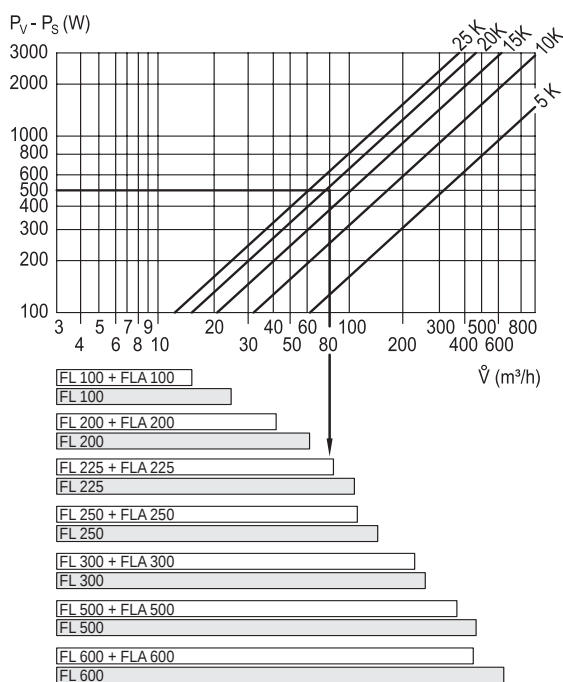
(sum of heat losses of the devices in the cabinet)

P_S = radiant power

(heat which is dissipated by the cabinet without additional cooling)

ΔT = difference between inlet air (ambient temperature T_a) and maximum acceptable cabinet internal temperature

$$(T_i), \Delta T = T_i - T_a$$



Reading example

The devices in the cabinet produce e.g. a power loss of 840 W. Of these 840 W, the cabinet releases 340 W to the environment via its surfaces. The air sucked in from outside the cabinet has a temperature of 20 °C. A maximum temperature of 40 °C is to be permitted in the cabinet.

So which air filtered fan should be employed?

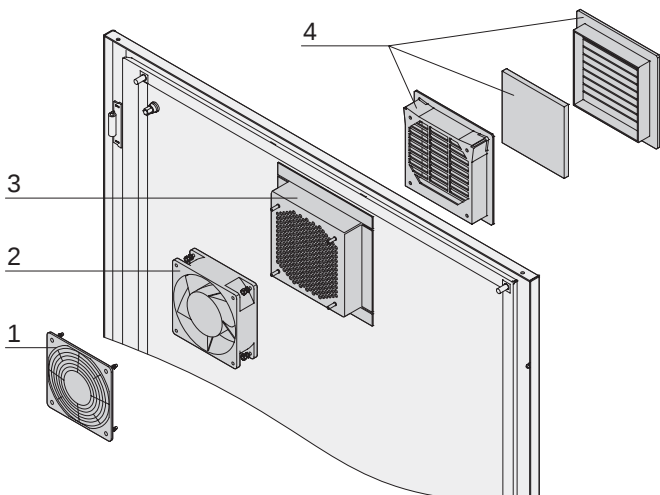
1. $P_V = 840$ W, $P_S = 340$ W, read-off point $P_V - P_S = 500$ W
2. $\Delta T = T_i - T_a = 40$ °C - 20 °C = 20 °C = 20 K
3. On the characteristic for 20 K we obtain, at $P_V - P_S = 500$ W, a minimum necessary airflow volume of $V = 80$ m³/h.
4. An FL 250 air filtered fan should be used that gives an airflow volume of 131 m³/h or, if used in combination with the FLA 250 exhaust filter, of 95 m³/h.

EMC solutions

- EMC shielding in accordance with your requirements
- Customised developments

Delivery comprises

Item	Description
1	Protective fan grille
2	Fan
3	EMC hood
4	FLA outlet/inlet filter



Climate control – Air filtered fans

Air filtered fan FL 100



01108018

- Airflow volume 25 m³/h
- Easy conversion from pressure to suction operation
- Ingress protection IP 54



NEW

Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	2 wire connection, length 310 mm



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Air outlet/inlet filter FLA 100



01108020

Replacement filter IP 54

Order Information

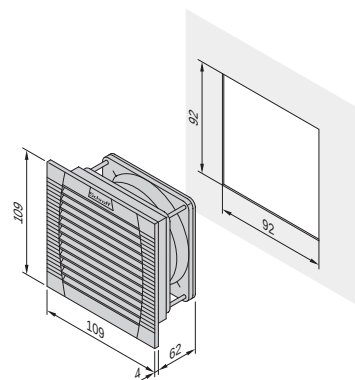
Description	24 V _{DC} Part no.	115 V _{AC} Part no.	230 V _{AC} Part no.
Air filtered fan FL 100	60715-142	60715-141	60715-140
Air outlet/inlet filter FLA 100 (Items 1 + 2 included), 1 piece			60715-156
Replacement filter IP 54 for FL 100 and FLA 100, filter class G 3 (EN 779), PU 5 piece			60715-182

Technical data

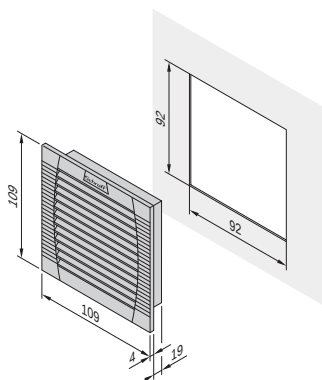
Voltage	230 V _{AC}	115 V _{AC}	24 V _{DC}
Frequency	50/60 Hz	50/60 Hz	DC
Airflow volume with filter (free blowing)	25/29 m ³ /h	25/29 m ³ /h	25 m ³ /h
Combination FL + FLA	16/18 m ³ /h	16/18 m ³ /h	16 m ³ /h
Max. static pressure	38 Pa	38 Pa	38 Pa
Operating temperature	-15 ... +55 °C	-15 ... +55 °C	-15 ... +55 °C
Power consumption	12/11 W	11/11 W	2,0 W
Filter efficiency	88 %	88 %	88 %



For further information www.schroff.biz/oneclick
oneClick search code = Part no.



Air filtered fan FL 100



01108057 01108058

Air outlet/inlet filter
FLA 100

Climate control – Air filtered fans

Air filtered fan FL 200



01108018

- Airflow volume 61 m³/h
- Easy conversion from pressure to suction operation
- Ingress protection IP 54, with fluted filter IP 55

NEW

Delivery comprises (Completely assembled)

Item	Qty	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection AC (terminal strip) connection DC (2 wires, 310 mm long)

Order Information

Description	24 V _{DC} Part no.	115 V _{AC} Part no.	230 V _{AC} Part no.
Air filtered fan FL 200	60715-145	60715-144	60715-143
Air outlet/inlet filter FLA 200 (items 1 + 2 included), 1 piece			60715-157
Replacement filter IP 54 for FL 200 and FLA 200, filter class G 3 (EN 779), PU 5 piece			60715-183
Fluted filter IP 55 for FL 200 and FLA 200, filter class G4 (EN 779), PU 5 piece			60715-187



Air outlet/inlet filter FLA 200



Fluted filter IP 55

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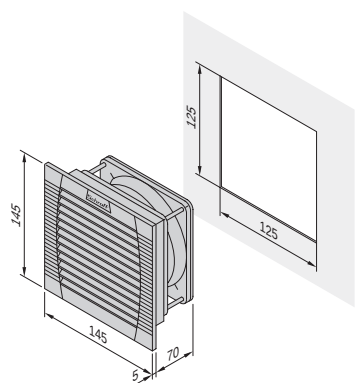
Replacement filter IP 54

Technical data

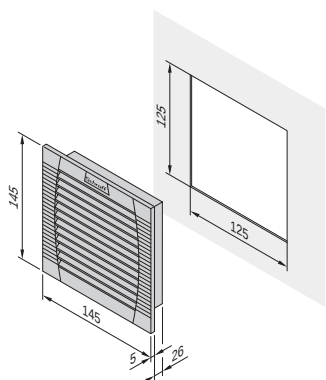
Voltage	230 V _{AC}	115 V _{AC}	24 V _{DC}
Frequency	50/60 Hz	50/60 Hz	DC
Airflow volume with IP 54 filter (free blowing)	61/70 m ³ /h	61/70 m ³ /h	61 m ³ /h
Airflow volume with IP 55 filter (free blowing)	56/64 m ³ /h	56/64 m ³ /h	56 m ³ /h
Combination FL + FLA IP 54	44/52 m ³ /h	44/52 m ³ /h	44 m ³ /h
Combination FL + FLA IP 55	40/46 m ³ /h	40/46 m ³ /h	40 m ³ /h
Max. static pressure IP 54	60 Pa	60 Pa	60 Pa
Max. static pressure IP 55	57 Pa	57 Pa	61 Pa
Max. ambient temperature	-15 ... +55 °C	-15 ... +55 °C	-25 ... +55 °C
Power consumption	19/18 W	20/20 W	5 W
Filter efficiency IP 54	83 %	83 %	83 %
Filter efficiency IP 55	91 %	91 %	91 %



For further information www.schroff.biz/oneclick
oneClick search code = Part no.



Air filtered fan FL 200



Air outlet/inlet filter FLA 200

01108059 01108060

Climate control – Air filtered fans

Air filtered fan FL 225



01108022

- Airflow volume 110 m³/h
- Easy conversion from pressure to suction operation
- Ingress protection IP 54, with fluted filter IP 55

NEW

Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection AC terminal block DC spring terminal strip

Order Information

Description	115 V _{AC} Part no.	230 V _{AC} Part no.
Air filtered fan FL 225	60715-147	60715-146
Air outlet/inlet filter FLA 225 (items 1 + 2 included), 1 piece		60715-158
Replacement filter IP 54 for FL 225 and FLA 225, filter class G 3 (EN 779), PU 5 piece		60715-184
Fluted filter IP 55 for FL 225 and FLA 225, filter class G4 (EN 779), PU 5 piece		60715-188



01108019 01108021

Air outlet/inlet filter FLA 225

Fluted filter IP 55



01108020

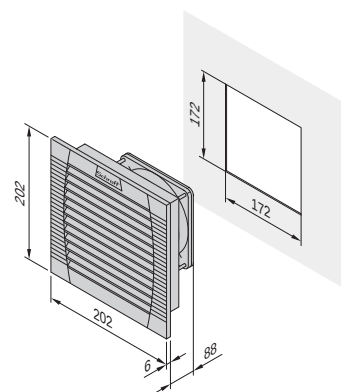
Replacement filter IP 54

Technical data

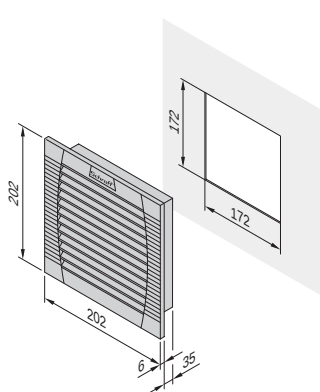
Voltage	230 V _{AC}	115 V _{AC}
Frequency	50/60 Hz	50/60 Hz
Airflow volume with IP 54 filter (free blowing)	110/125 m ³ /h	110/125 m ³ /h
Airflow volume with IP 55 filter (free blowing)	100/110 m ³ /h	100/110 m ³ /h
Combination FL + FLA IP 54	82/93 m ³ /h	83/92 m ³ /h
Combination FL + FLA IP 55	55/64 m ³ /h	55/64 m ³ /h
Max. static pressure IP 54	66 Pa	66 Pa
Max. static pressure IP 55	61 Pa	61 Pa
Max. ambient temperature	-15 ... +55 °C	-15 ... +55 °C
Power consumption	19/18 W	20/20 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %



For further information www.schroff.biz/oneclick
oneClick search code = Part no.



Air filtered fan FL 225



Air outlet/inlet filter FLA 225

01108061 01108062

Climate control – Air filtered fans

Air filtered fan FL 250



01108022

- Airflow volume 156 m³/h
- Easy conversion from pressure to suction operation
- Ingress protection IP 54, with fluted filter IP 55

NEW

Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection spring terminal strip

Order Information

Description	115 V _{AC} Part no.	230 V _{AC} Part no.
Air filtered fan FL 250	60715-149	60715-148
Air outlet/inlet filter FLA 250/300 (items 1 + 2 included), 1 piece		60715-159
Replacement filter IP 54 for FL 250/300 and FLA 250/300, filter class G 3 (EN 779), PU 5 pieces		60715-185
Fluted filter IP 55 for FL 250/300 and FLA 250/300, filter class G4 (EN 779), PU 5 pieces		60715-189

Technical data

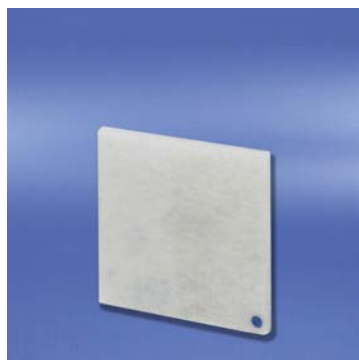
Voltage	230 V _{AC}	115 V _{AC}
Frequency	50/60 Hz	50/60 Hz
Airflow volume with IP 54 filter (free blowing)	156/171 m ³ /h	151/170 m ³ /h
Airflow volume with IP 55 filter (free blowing)	145/160 m ³ /h	140/160 m ³ /h
Combination FL + FLA IP 54	116/127 m ³ /h	116/127 m ³ /h
Combination FL + FLA IP 54	109/113 m ³ /h	109/113 m ³ /h
Max. static pressure IP 54	52 Pa	52 Pa
Max. static pressure IP 55	49 Pa	49 Pa
Max. ambient temperature	-15 ... +55 °C	-15 ... +55 °C
Power consumption	19/18 W	20/20 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %



01108019 01108021

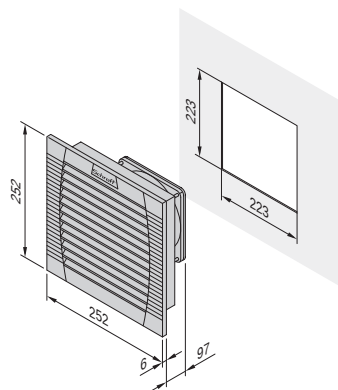
Air outlet/inlet filter FLA 250

Fluted filter IP 55

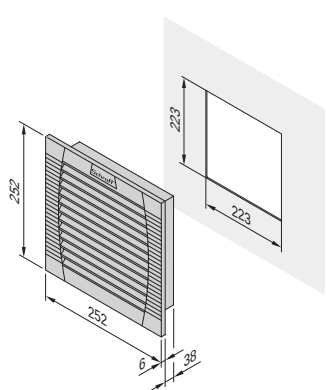


01108020

Replacement filter IP 54



Air filtered fan FL 250



01108063 01108064

Air outlet/inlet filter
FLA 250/300



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – Air filtered fans

Air filtered fan FL 300



01108024

- Airflow volume 256 m³/h
- Easy conversion from pressure to suction operation
- Ingress protection IP 54, with fluted filter IP 55

NEW

Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 3 (EN 779)
3	1	Fan
4	1	Connection spring terminal strip

Order Information

Description	115 V _{AC} Part no.	230 V _{AC} Part no.
Air filtered fan FL 300	60715-151	60715-150
Air outlet/inlet filter FLA 250/300 (items 1 + 2 included), 1 piece		60715-159
Replacement filter IP 54 for FL 250/300 and FLA 250/300, filter class G 3 (EN 779), PU 5 pieces		60715-185
Fluted filter IP 55 for FL 250/300 and FLA 250/300, filter class G4 (EN 779), PU 5 pieces		60715-189



011080190 01108021

Air outlet/inlet filter FLA 300

Fluted filter IP 55



01108020

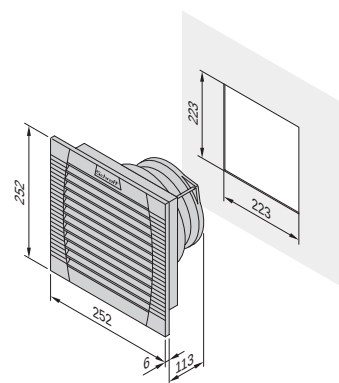
Replacement filter IP 54

Technical data

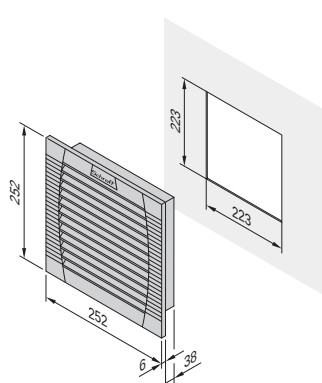
Voltage	230 V _{AC}	115 V _{AC}
Frequency	50/60 Hz	50/60 Hz
Airflow volume with IP 54 filter (free blowing)	256/292 m ³ /h	256/292 m ³ /h
Airflow volume with IP 55 filter (free blowing)	233/265 m ³ /h	233/265 m ³ /h
Combination FL + FLA IP 54	231/265 m ³ /h	231/265 m ³ /h
Combination FL + FLA IP 55	180/207 m ³ /h	180/207 m ³ /h
Max. static pressure IP 54	116 Pa	116 Pa
Max. static pressure IP 55	112 Pa	112 Pa
Max. ambient temperature	-15 ... +55 °C	-15 ... +55 °C
Power consumption	45/39 W	40/40 W
Filter efficiency IP 54	88 %	88 %
Filter efficiency IP 55	91 %	91 %



For further information www.schroff.biz/oneclick
oneClick search code = Part no.



Air filtered fan FL 350



01108065 01108064

Air outlet/inlet filter
FLA 250/350

Climate control – Air filtered fans

Air filtered fan FL 500



01108025

- Airflow volume 480 m³/h
- Easy conversion from pressure to suction operation
- Ingress protection IP 54, with fluted filter IP 55

NEW

Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing UL 94 V-0
2	1	Filter, filter class G 4 (EN 779)
3	1	Fan
4	1	Connection spring terminal strip

Order Information

Description	115 V _{AC} Part no.	230 V _{AC} Part no.
Air filtered fan FL 500	60715-153	60715-152
Air outlet/inlet filter FLA 500/600 (items 1 + 2 included), 1 piece		60715-160
Replacement filter IP 54 for FL 500/600 and FLA 500/600, filter class G 3 (EN 779), PU 5 piece		60715-186
Fluted filter IP 55 for FL 500/600 and FLA 500/600, filter class G4 (EN 779), PU 5 piece		60715-190

Technical data

Voltage	230 V _{AC}	115 V _{AC}
Frequency	50/60 Hz	50/60 Hz
Airflow volume with IP 54 filter (free blowing)	480/480 m ³ /h	480/480 m ³ /h
Airflow volume with IP 55 filter (free blowing)	505/505 m ³ /h	505/505 m ³ /h
Combination FL + FLA IP 54	370/370 m ³ /h	370/370 m ³ /h
Combination FL + FLA IP 55	380/380 m ³ /h	380/380 m ³ /h
Max. static pressure IP 54	76 Pa	76 Pa
Max. static pressure IP 55	74 Pa	74 Pa
Max. ambient temperature	-15 ... +55 °C	-15 ... +55 °C
Power consumption	115/150 W	75/90 W
Filter efficiency IP 54	91 %	91 %
Filter efficiency IP 55	91 %	91 %



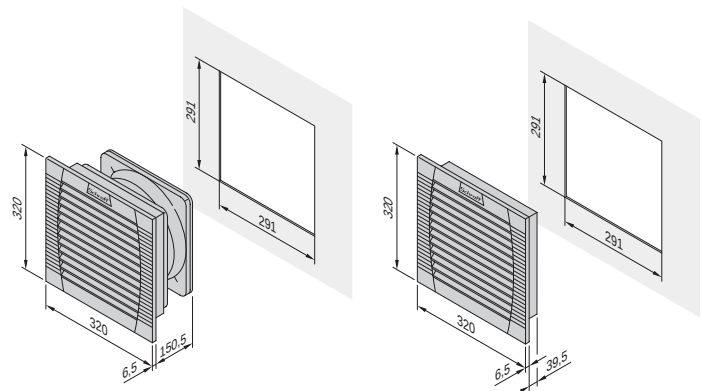
01108019 01108021

Air outlet/inlet filter FLA 500/600 Fluted filter IP 55



01108020

Replacement filter IP 54



01108067 01108068

Air filtered fan FL 500

Air outlet/inlet filter
FLA 500/600



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – Air filtered fans

Air filtered fan FL 600



01108025

- Airflow volume 640 m³/h
- Easy conversion from pressure to suction operation
- Ingress protection IP 54, with fluted filter IP 55

NEW

Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Front grille and case, plastic, ABS, RAL 7035, self-extinguishing, UL 94 V-0
2	1	Filter, filter class G 4 (EN 779)
3	1	Fan
4	1	Connection spring terminal strip

Order Information

Description	115 V _{AC} Part no.	230 V _{AC} Part no.
Air filtered fan FL 600	60715-155	60715-154
Air outlet/inlet filter FLA 500/600 (items 1 + 2 included), 1 piece		60715-160
Replacement filter IP 54 for FL 500/600 and FLA 500/600, filter class G 3 (EN 779), PU 5 piece		60715-186
Fluted filter IP 55 for FL 500/600 and FLA 500/600, filter class G4 (EN 779), PU 5 piece		60715-190



01108019 01108021

Air outlet/inlet filter FLA 500/600 Fluted filter IP 55



01108020

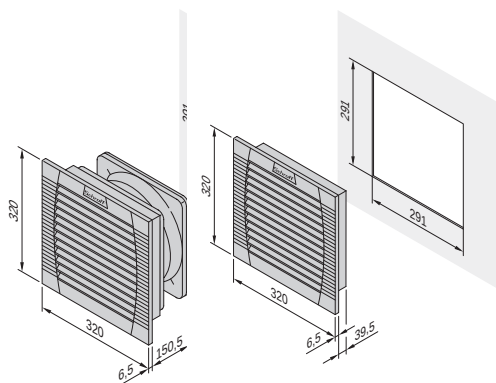
Replacement filter IP 54

Technical data

Voltage	230 V _{AC}	115 V _{AC}
Frequency	50/60 Hz	50/60 Hz
Airflow volume with IP 54 filter (free blowing)	640/653 m ³ /h	640/653 m ³ /h
Airflow volume with IP 55 filter (free blowing)	770/785 m ³ /h	770/785 m ³ /h
Combination FL + FLA IP 54	445/445 m ³ /h	445/445 m ³ /h
Combination FL + FLA IP 55	490/501 m ³ /h	490/501 m ³ /h
Max. static pressure IP 54	134 Pa	134 Pa
Max. static pressure IP 55	134 Pa	134 Pa
Max. ambient temperature	-15 ... +55 °C	-15 ... +55 °C
Power consumption	115/150 W	110/160 W
Filter efficiency IP 54	91 %	91 %
Filter efficiency IP 55	91 %	91 %



For further information www.schroff.biz/oneclick
oneClick search code = Part no.



01108067 01108068

Air filtered fan FL 600

Air outlet/inlet filter
FLA 500/600

Overview 0

Cabinets 1

Wall mounted
cases 2

Accessories for
cabinets and wall
mounted cases 3

Climate control 4

Desk-top cases 5

Subracks/
19" chassis 6

Front panels,
plug-in units 7

Systems 8

Power supply
units 9

Backplanes 10

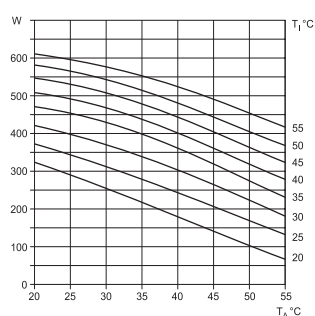
Connectors, front
panel component
system 11

Appendix 12

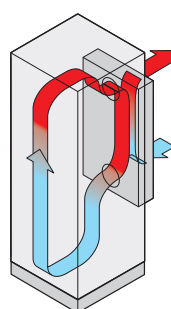
Climate control – Air conditioners



00901015



KT6741



00902050

Cooling principle



00901014

Please also refer to the
selection assistant under
www.schrack.biz

Fields of application

Side-mounted air conditioners are used for the cooling of electronic and switchgear cabinets. The air conditioners are mounted on the outside of the door or the side panel.

Function

The cabinet air conditioner is an air conditioning compressor transporting the heat inside the cabinet to the outside, thus keeping the internal temperature in the cabinet on the desired level and within the range of the hysteresis.

The fan for the internal circuit circulates the air inside the cabinet permanently; the temperature is monitored by a thermostat. The thermostat activates the compressor and the external circuit fan when the pre-set temperature is reached.

Standards/Certifications

- Performance values (usable cooling capacity) measured to DIN 3168



Downloads and further important information can be found
on the Internet under www.schrack.biz

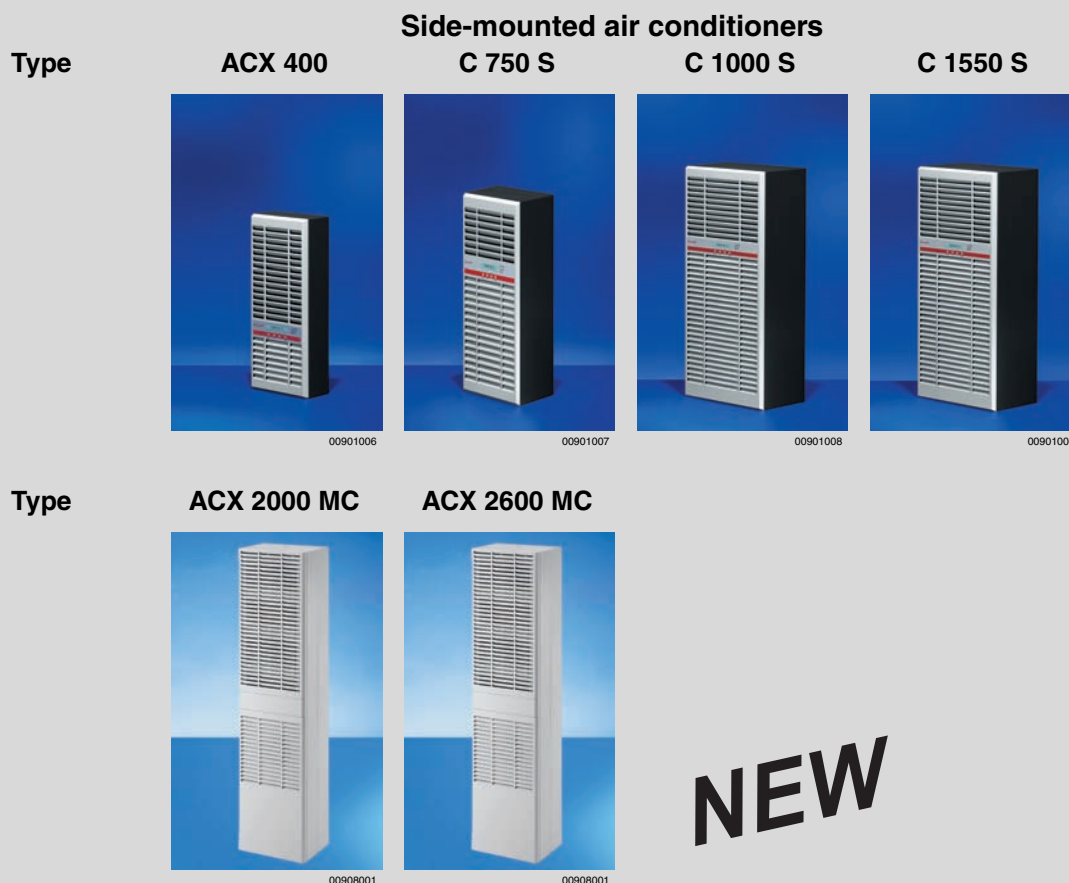


Climate control – Air conditioners

Overview 4.28

Side-mounted air conditioners from 400 to 2600 W

- Compact and flat construction
- Optimal performance ratio of usable cooling capacity to power consumption
- Integrated condensation evaporation
- Regulation with thermostat or microcontroller



Side-mounted air conditioners

400 Watt	4.30
750 Watt	4.31
1000 Watt	4.32
1550 Watt	4.33
2000 Watt	4.34
2600 Watt	4.35



ServicePLUS from page 4.36

e.g. modifications (special voltages, microcontrollers, other usable cooling capacities)

www.schroff.biz/serviceplus/

30407004

ServicePLUS . 4.36



Main Catalogue

www.schroff.biz

E 03/2009

4.29

Climate control – Air conditioners

Side-mounted air conditioner ACX 400



00901002

- Cooling capacity 400 W
- Compact and extremely flat construction



Delivery comprises (completely wired, ready for connection)

Item	Qty	Description
1	1	Air conditioner, see technical data
2	1	Cover hood, St, 1 mm, RAL 7021
3	1	Grille, St, 1 mm, silver-metallic
4	1	Mains cable, length 2 m, open end
5	1	Thermostat for setting of cabinet internal temperature; preset to 35 °C
6	1	Assembly kit incl. drilling template and user manual

Order Information

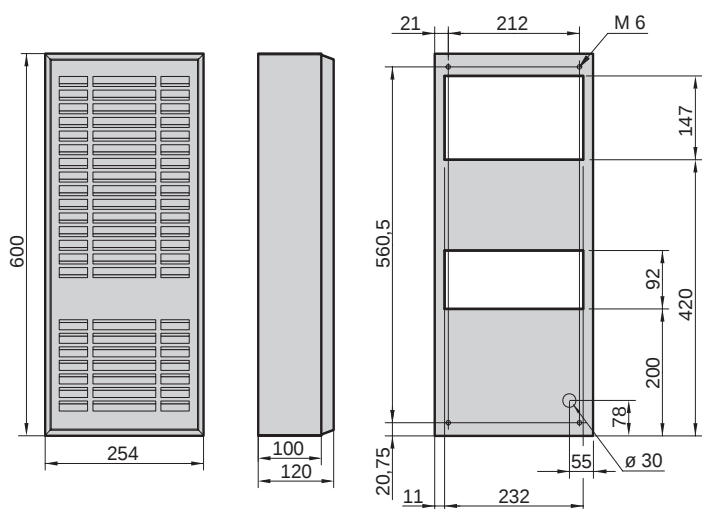
Description	Input voltage V	Frequency Hz	Part no.
Side-mounted air conditioner ACX 400	230	50/60	10710-100

Technical data

Voltage	230 V
Frequency	50/60 Hz
Usable cooling capacity at L 35 (internal temperature T_i) and L 35 (ambient temperature T_a) to DIN 3168 (EN 814 part 5)	400 W
Usable cooling capacity at L 35 (T_i) and L 50 (T_a) to DIN 3168 (EN 814 part 5)	275 W
Power consumption for L 35 (T_i) and L 35 (T_a)	260 W
Power consumption for L 35 (T_i) and L 50 (T_a)	310 W
Performance index EER at L 35 (T_i) and L 35 (T_a) (usable cooling capacity/eff. power consumption)	1.54
Airflow volume internal system (measured)	265 m ³ /h
Nominal current max.	1.8 A
Inrush current	3 A
Temperature range	+20 °C...+55 °C
Type of protection to EN 60 529 for internal system	IP 54
Type of protection to EN 60 529 for external circuit	IP 34
Duty rating	100 %
Noise pressure level (LPA)	52.8 dB(A)
Coolant	R 134a
Connecting type	Mains cable 2 m
Weight	Approx. 16 kg
Dimensions H x W x D	600 x 254 x 120 mm
Test certificate	CE

Note

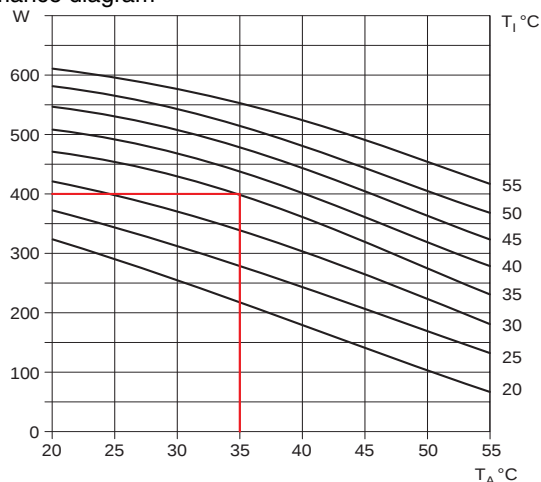
- 115 V_{AC} and special voltages available on request
- Microcontroller version available on request
- Outdoor version available on request



KT6740

Dimensions drilling template

Performance diagram



T_a = ambient temperature, T_i = cabinet inner temperature

KT6741



ServicePLUS see page 4.36



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – Air conditioners

Side-mounted air conditioner C 750 S



- Cooling capacity 750 W
- Compact construction



Delivery comprises (completely wired, ready for connection)

Item	Qty	Description
1	1	Air conditioner, see technical data
2	1	Cover cap, St, 1 mm, RAL 7021
3	1	Grille, St, 1 mm, silver-metallic
4	1	Mains cable, length 2 m, open end
5	1	Thermostat for setting of cabinet internal temperature; preset to 35 °C
6	1	Assembly kit incl. drilling template and user manual

Order Information

Description	Input voltage V	Frequency Hz	Part no.
Side-mounted air conditioner C 750 S	230	50/60	10710-200

Technical data

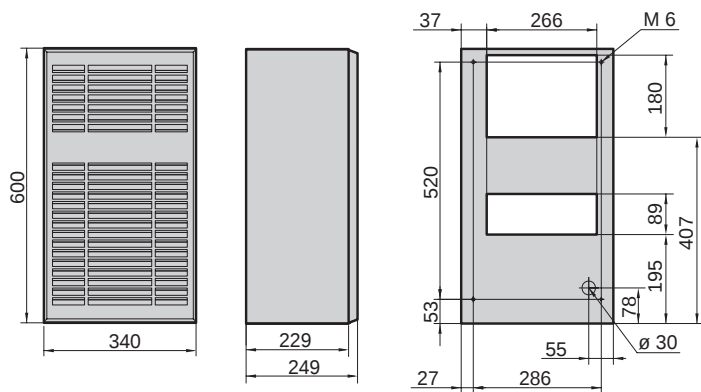
Voltage	230 V
Frequency	50/60 Hz
Usable cooling capacity at L 35 (internal temperature T_i) and L 35 (ambient temperature T_a) to DIN 3168 (EN 814 part 5)	750 W
Usable cooling capacity at L 35 (T_i) and L 50 (T_a) to DIN 3168 (EN 814 part 5)	585 W
Power consumption for L 35 (T_i) and L 35 (T_a)	420 W
Power consumption for L 35 (T_i) and L 50 (T_a)	470 W
Performance index EER at L 35 (T_i) and L 35 (T_a) (usable cooling capacity/eff. power consumption)	1.79
Airflow volume internal system (measured)	360 m ³ /h
Nominal current max.	2.5 A
Inrush current	7.9 A
Temperature range	+20 °C...+55 °C
Type of protection to EN 60 529 for internal system	IP 54
Type of protection to EN 60 529 for external circuit	IP 34
Operating time	100 %
Noise pressure level (LPA)	60.6 dB(A)
Coolant	R 134a
Connecting type	Mains cable 2 m
Weight	Approx. 32.5 kg
Dimensions H x W x D	600 x 340 x 249 mm
Test certificate	CE

Note

- 115 V_{AC} and special voltages available on request
- Microcontroller version available on request

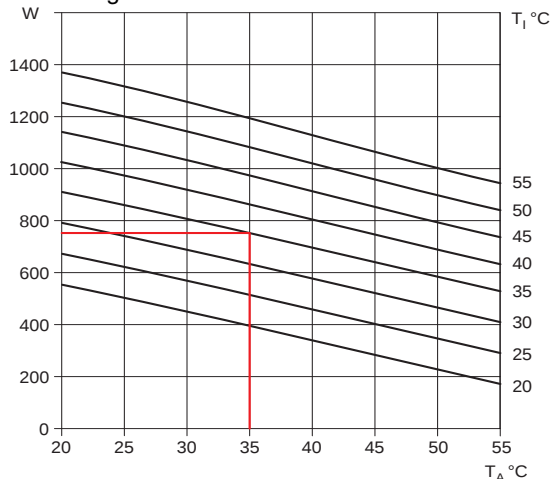


For further information www.schroff.biz/oneclick
oneClick search code = Part no.



Dimensions drilling template

Performance diagram



T_a = ambient temperature, T_i = cabinet inner temperature



ServicePLUS see page 4.36

Climate control – Air conditioners

Side-mounted air conditioner C 1000 S



- Cooling capacity 1000 W
- Compact construction



Delivery comprises (completely wired, ready for connection)

Item	Qty	Description
1	1	Air conditioner, see technical data
2	1	Cover hood, St, 1 mm, RAL 7021
3	1	Grille, St, 1 mm, silver-metallic
4	1	Mains cable, length 2 m, open end
5	1	Thermostat for setting of cabinet internal temperature; preset to 35 °C
6	1	Assembly kit incl. drilling template and user manual

Order Information

Description	Input voltage V	Frequency Hz	Part no.
Side-mounted air conditioner C 1000 S	230	50/60	10710-210

Technical data

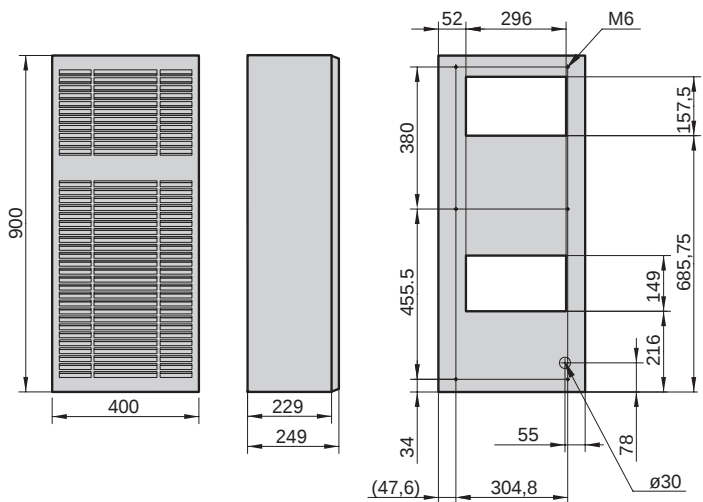
Voltage	230 V
Frequency	50/60 Hz
Usable cooling capacity at L 35 (internal temperature T_i) and L 35 (ambient temperature T_a) to DIN 3168 (EN 814 part 5)	1010 W
Usable cooling capacity at L 35 (T_i) and L 50 (T_a) to DIN 3168 (EN 814 part 5)	800 W
Power consumption for L 35 (T_i) and L 35 (T_a)	475 W
Power consumption for L 35 (T_i) and L 50 (T_a)	545 W
Performance index EER at L 35 (T_i) and L 35 (T_a) (usable cooling capacity/eff. power consumption)	2.13
Airflow volume internal system (measured)	620 m ³ /h
Nominal current max.	2.7 A
Inrush current	7.9 A
Temperature range	+20 °C...+55 °C
Type of protection to EN 60 529 for internal system	IP 54
Type of protection to EN 60 529 for external circuit	IP 34
Duty rating	100 %
Noise pressure level (LPA)	61.1 dB(A)
Coolant	R 134a
Connection type	Mains cable 2 m
Weight	46.5 kg
Dimensions H x W x D	900 x 400 x 249 mm
Test certificate	CE

Note

- 115 V_{AC} and voltages available on request
- Microcontroller version available on request

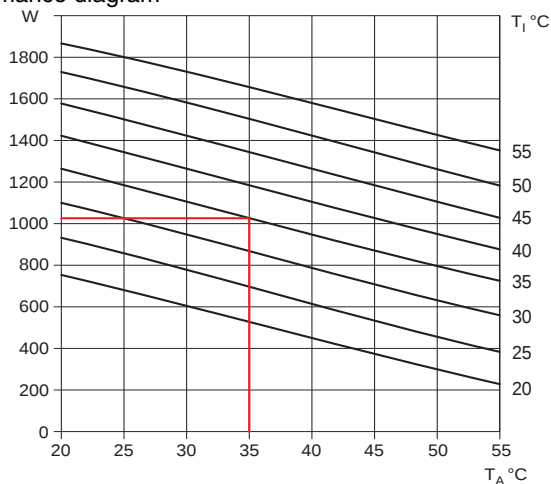


For further information www.schroff.biz/oneclick
oneClick search code = Part no.



Dimensions drilling template

Performance diagram



T_a = ambient temperature, T_i = cabinet inner temperature



ServicePLUS see page 4.36

Climate control – Air conditioners

Side-mounted air conditioner C 1550 S



- Cooling capacity 1550 W
- Compact construction



Delivery comprises (completely wired, ready for connection)

Item	Qty	Description
1	1	Air conditioner, see technical data
2	1	Cover hood, St, 1 mm, RAL 7021
3	1	Grille, St, 1 mm, silver-metallic
4	1	Mains cable, length 2 m, open end
5	1	Thermostat for setting of cabinet internal temperature; preset to 35 °C
6	1	Assembly kit incl. drilling template and user manual

Order Information

Description	Input voltage V	Frequency Hz	Part no.
Side-mounted air conditioner C 1550 S	230	50/60	10710-220

Technical data

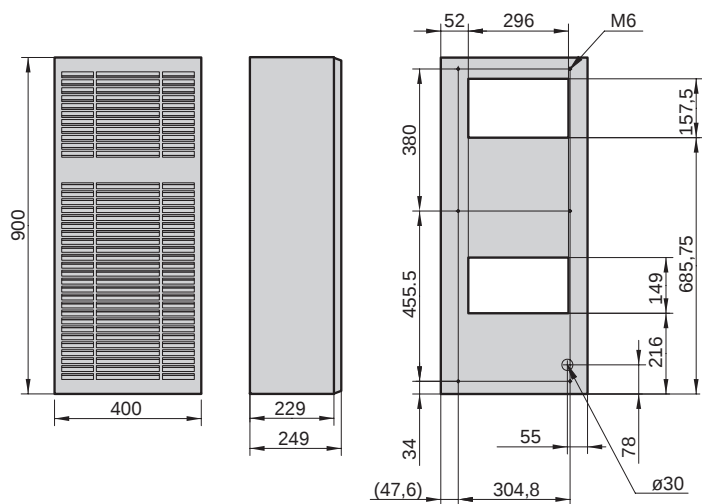
Voltage	230 V
Frequency	50/60 Hz
Usable cooling capacity at L 35 (internal temperature T_i) and L 35 (ambient temperature T_a) to DIN 3168 (EN 814 part 5)	1560 W
Usable cooling capacity at L 35 (T_i) and L 50 (T_a) to DIN 3168 (EN 814 part 5)	1100 W
Power consumption for L 35 (T_i) and L 35 (T_a)	855 W
Power consumption for L 35 (T_i) and L 50 (T_a)	955 W
Performance index EER at L 35 (T_i) and L 35 (T_a) (usable cooling capacity/eff. power consumption)	1.82
Airflow volume internal system (measured)	860 m ³ /h
Nominal current max.	4.9 A
Inrush current	9.2 A
Temperature range	+20 °C...+55 °C
Type of protection to EN 60 529 for internal system	IP 54
Type of protection to EN 60 529 for external circuit	IP 34
Duty rating	100 %
Noise pressure level (LPA)	64.4 dB(A)
Coolant	R 134a
Connecting type	Mains cable 2 m
Weight	48 kg
Dimensions H x W x D	900 x 400 x 249 mm
Test certificate	CE

Note

- 115 V_{AC} and voltages available on request
- Microcontroller version available on request

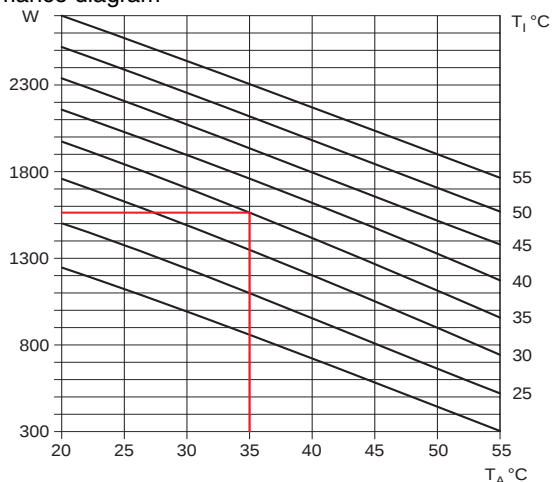


For further information www.schroff.biz/oneclick
oneClick search code = Part no.



Dimensions drilling template

Performance diagram



T_a = ambient temperature, T_i = cabinet inner temperature



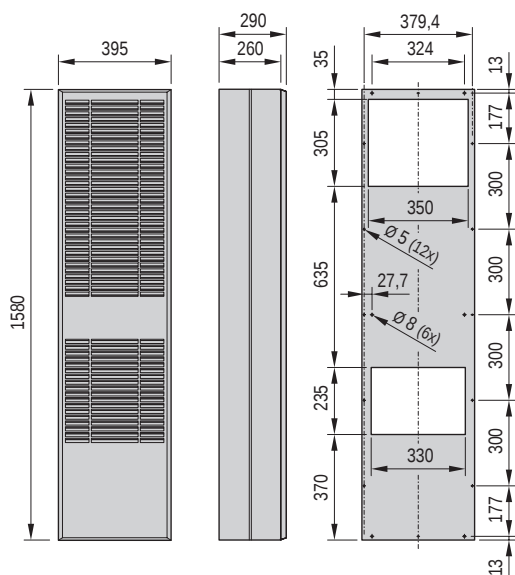
ServicePLUS see page 4.36

Climate control – Air conditioners

Side-mounted air conditioner ACX 2000 MC



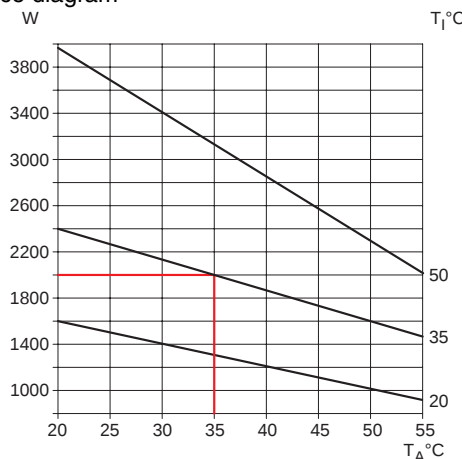
00908001



00908050

Dimensions drilling template

Performance diagram



T_a = Ambient temperature, T_i = Cabinet inner temperature

00908051

- Cooling capacity 2000 W
- Cooling unit can be side-mounted, partly recessed or built-in
- Maintenance friendly design
- Metal filter available optionally



NEW

Delivery comprises (assembled)

Item	Qty	Description
1	1	Air conditioning, see technical data
2	1	Case, steel plate, RAL 7035
3	1	Microcontroller
4	1	Assembly kit incl. drilling template and user manual

Order Information

Description	Input voltage V	Frequency Hz	Part no.
Side-mounted air conditioner ACX 2000 MC	230	50/60	10710-186
Metal filter for side-mounted air conditioner 2000/2600 W, 1 piece			60710-317

Technical data

Voltage	230 V
Frequency	50/60 Hz
Usable cooling capacity at L 35 (internal temperature T_i) and L 35 (ambient temperature T_a) to DIN 3168 (EN 814 part 5)	2000 W
Usable cooling capacity at L 35 (T_i) and L 50 (T_a) to DIN 3168 (EN 814 part 5)	1600 W
Power consumption for L 35 (T_i) and L 35 (T_a)	1000 W
Power consumption for L 35 (T_i) and L 50 (T_a)	1150 W
Performance index EER at L 35 (T_i) and L 35 (T_a) (usable cooling capacity/eff. power consumption)	2.0
Airflow volume inner loop	580 m ³ /h
Airflow volume external loop	575 m ³ /h
Max. nominal current at 1500 W	5.0 A
Inrush current at 1500 W	24.0 A
Temperature range	+20 °C...+55 °C
Type of protection of internal circuit to EN 60 529	IP 54
Type of protection of external circuit to EN 60 529	IP 24
Operating time	100 %
Noise level	78 dB(A)
Coolant	R 134a
Connecting type	Terminal clamps
Weight	67 kg
Dimensions H x W x D (mm)	1580 x 395 x 290
Test certificate	CE

Note

- Other voltages available on request
- Thermostat version available on request



ServicePLUS see page 4.36



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – Air conditioners

Side-mounted air conditioner ACX 2600 MC



- Cooling capacity 2600 W
- Cooling unit can be side-mounted, partly recessed or built-in
- Maintenance friendly design
- Metal filter available optionally



NEW

Delivery comprises (assembled)

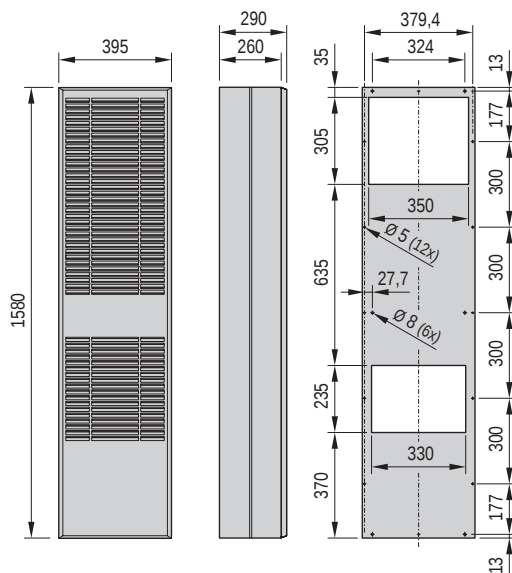
Item	Qty	Description
1	1	Air conditioning, see technical data
2	1	Case, steel plate, RAL 7035
3	1	Microcontroller with display
4	1	Assembly kit incl. drilling template and user manual

Order Information

Description	Input voltage V	Frequency Hz	Part no.
Side-mounted air conditioner ACX 2600 MC	230	50/60	10710-182
Side-mounted air conditioner ACX 2600 MC	400	60	10710-184
Metal filter for side-mounted air conditioner 2000/2600 W, 1 piece			60710-317

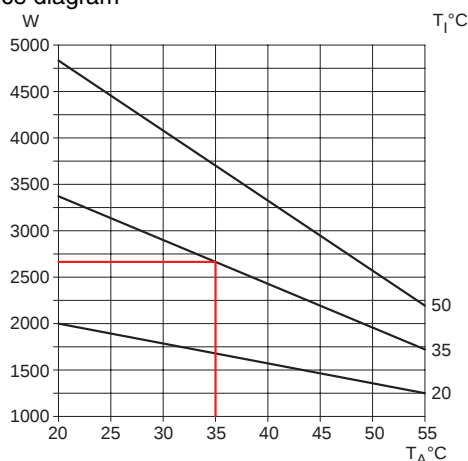
Technical data

Voltage	230 V	400 V
Frequency	50/60 Hz	50/60 Hz
Usable cooling capacity at L 35 (internal temperature T_i) and L 35 (ambient temperature T_a) to DIN 3168 (EN 814 part 5)	2600 W	2600 W
Usable cooling capacity at L 35 (T_i) and L 50 (T_a) to DIN 3168 (EN 814 part 5)	1900 W	1900 W
Power consumption for L 35 (T_i) and L 35 (T_a)	1300 W	1400 W
Power consumption for L 35 (T_i) and L 50 (T_a)	1500 W	1650 W
Performance index EER at L 35 (T_i) and L 35 (T_a) (usable cooling capacity/eff. power consumption)	2.0	1.9
Airflow volume inner loop	685 m ³ /h	
Airflow volume external loop	670 m ³ /h	
Max. nominal current at 1500 W	7.0 A	2.0 A
Inrush current at 1500 W	32.0 A	21 A
Temperature range	+20 °C...+55 °C	
Type of protection of internal circuit to EN 60 529	IP 54	
Type of protection of external circuit to EN 60 529	IP 24	
Operating time	100 %	
Noise level	81 dB(A)	
Coolant	R 134a	
Connecting type	Terminal clamps	
Weight	70 kg	
Dimensions H x W x D (mm)	1580 x 395 x 290	
Test certificate	CE	



Dimensions drilling template

Performance diagram



T_a = Ambient temperature, T_i = Cabinet inner temperature



ServicePLUS see page 4.36

Note

- Other voltages available on request
- Thermostat version available on request

Climate control – Air conditioners



solution

Integration and custom developments

Simple. Fast. From one source.

- Testing, integration in cabinet, incl. cabling
- Solutions: Special voltages, microcontrollers, EMC-shielded versions
- Heat simulation on FLOTHERM model and calculations by experts
- Further information: www.schroff.co.uk/solution



lifecycle

Flexible support throughout the product lifecycle

We are with you. For the entire product life.

- Exchange service, maintenance, GuaranteePLUS, replacement parts and recycling
- Further information: www.schroff.co.uk/lifecycle

Climate control – Air conditioners

Climate control – Accessories

Heaters from 30 W to 150 W



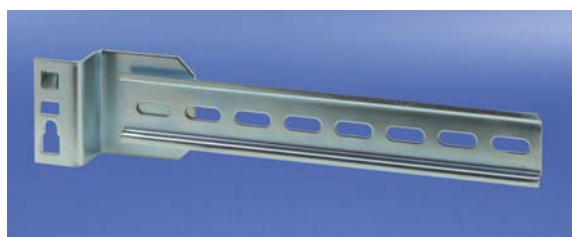
01102004

- Radiator heater (without fan)
- Simple and fast assembly with clip-on attachment and press-on terminal connection
- Wide input voltage range 110 ... 250 V_{AC}
- Temperature limiting with PTC resistor



Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Heater element, voltage range 110 ... 250 V _{AC} ; resistor (PTC), self-regulating
2	1	Heating body, Al extrusion anodised, assembly: clip for 35 mm DIN rail EN 50022
3	1	Connection type HGK 30, with connecting cable (3 x 0.5 mm ² , 300 mm long, black); type HG 45, 100, 150 with press-on terminal connection (for flexible/rigid wire 3 x 0.5 ... 2.5 mm ²)



00508013

Support rail

Order Information

Description	HGK 30 Part no.	HG 45 Part no.	HG 100 Part no.	HG 150 Part no.
Heaters from 30 W to 150 W	60715-020	60715-021	60715-023	60715-030
Support rail 1 piece DIN rail EN 50022 (35 mm), length 215 mm, 1 piece				20715-001
Supplied loose with cabinet or frame				Part no./35

Technical data

Type	HGK 30	HG 45	HG 100	HG 150
Heater output in W	30	45	100	150
Surface temperature in °C	approx. 100	approx. 105	approx. 130	approx. 140
Approx. current at switch-on in A	1.5	1	2.4	4
Type of protection	IP 54	IP 20	IP 20	IP 20
Class of protection	II	I	I	I
Dimensions h x w x d in mm	70 x 50 x 25	65 x 70 x 25	140 x 70 x 25	220 x 70 x 25
Weight in kg	0.12	0.3	0.5	0.8
Test symbols	VDE, CE	CE	CE	CE, CSA
Assembly	Clip-on attachment for 35 mm DIN rail (EN 50022)			

Note

- Thermostat for heating see page 4.43
- Hygostat see page 4.46



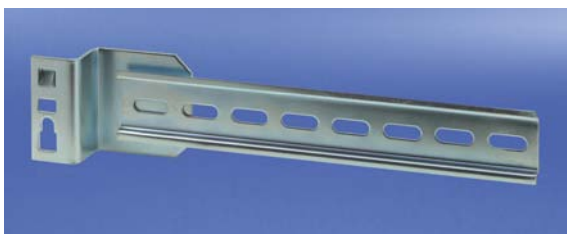
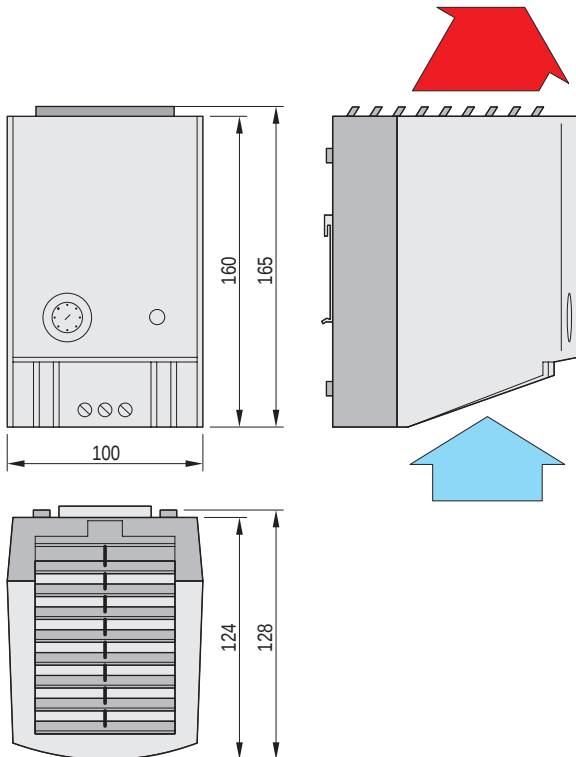
For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – Accessories

Heater fan 475/550 W



01108030



Support rail

01108069

00508013

- Heater with fan and thermostat
- Simple and fast assembly by clip-on attachment
- 3-pin terminal clamp, separate heater/fan connection
- Thermostat from 0 ... 60 °C
- Temperature limiting with PTC resistor



Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Plastic housing, polycarbonate (RAL 9002, grey white), clip for 35 mm DIN rail EN 50022
2	1	Heater element, 230 V _{AC} , resistor (PTC resistance) self-regulating
3	1	Thermostat
4	1	230 V _{AC} fan

Order Information

Description	Part no.
Heater 475 W	60715-017
Heater 550 W	60715-018
Support rail 1 piece DIN rail EN 50022 (35 mm), length 215 mm, 1 piece	20715-001
Supplied loose with cabinet or frame	Part no./35

Technical data

Voltage range	230 V _{AC}			
	50 Hz	60 Hz	50 Hz	60 Hz
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Heater output	475 W	550 W	550 W	650 W
Air capacity of axial fan	35 m ³ /h	39 m ³ /h	45 m ³ /h	50 m ³ /h
Current at switch-on approx.	11 A		13 A	
Weight	0.9 kg		1.1 kg	
Heater element	Resistor (PTC), self-regulating			
Connection	3-pin connecting terminal, 2.5 mm ² , separate connection heating/fan			
Thermostat	Adjustment range 0 ... 60 °C			
Control lamp of control system	Glow lamp			
Temperature control	In the event of fan failure			
Type of protection	IP 20			
Class of protection	II			
Assembly	Clip-on attachment for 35 mm DIN rail (EN 50022)			
Dimensions	Height 165 mm, width 100 mm, depth 128 mm			



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – Accessories

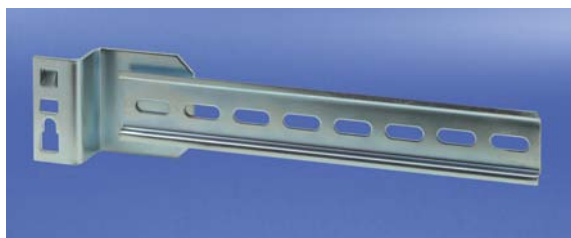
Heater fan 400 W, modular



Example of a complete heater unit:
1: heater, 2: fan, 3: protective grille, 4: connection cable



Heater element



Support rail

- Modular system consisting of:
heater element, fan, protective grille and connecting cable
- Fan not included in delivery extent; please order fan with
desired air capacity separately
- Simple and fast assembly with clip-on attachment
- Overheating protection through thermal switch



Delivery comprises (completely assembled)

Item	Qty	Description
1	1	Heater element, high-performance cartridge
2	1	Connecting cable fan - heating distributor, length 0.3 m
3	1	GND/earth cable, ring tag - open end, length 0.3 m
4	1	Clip-on attachment for DIN rail with assembly kit

Order Information

Description	115 V _{AC} Part no.	230 V _{AC} Part no.
Heater fan 400 W, modular	60715-028	60715-029
Support rail 1 piece DIN rail EN 50022 (35 mm), length 215 mm, 1 piece		20715-001
Supplied loose with cabinet or frame		Part no./35

Technical data

	115 V _{AC}	230 V _{AC}
Voltage range	115 V _{AC}	230 V _{AC}
Current at switch-on	3.5 A	1.8 A
Heater output	400 W	
Air capacity m ³ /h	Please choose desired fan	
Surface temperature with fan	Approx. 140 °C	
Type of protection	IP 20	
Class of protection	I, with GND/earthing	
Dimensions: height x width x depth in mm	22 x 120 x 160	
Assembly	Clip for 35 mm DIN rail EN 50022	

Note

- **Attention:** Danger of overheating, use heater only in connection
with fan
- Fan see page 4.41
- Thermostat for heating see page 4.43
- Hygrostat see page 4.46



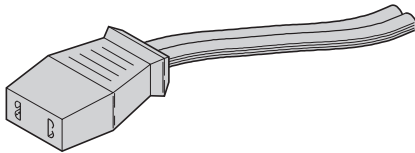
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Climate control – Accessories

AC fan for heating 400 W

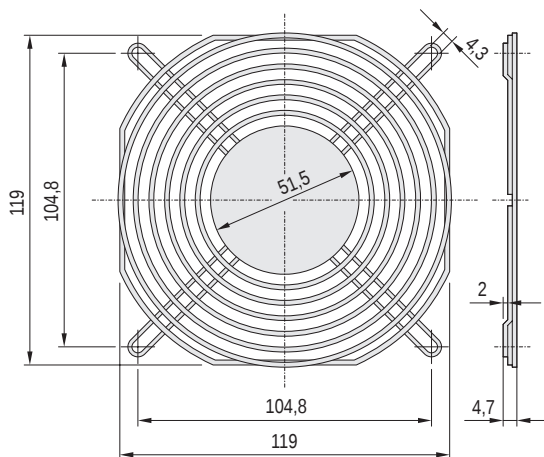


01108005



Connecting cable

KTA43091



Protective grille

01108055

- The fan is screwed below the heater and the cable is connected to the heater (please order connecting cable and protective grille separately)

Delivery comprises (individual part)

Item	Qty	Description
1	1	Fan (width 119 mm, depth 119 mm)

Order Information

	Height mm	Airflow volume m ³ /h	115 V _{AC} Part no.	230 V _{AC} Part no.
Type A	25	84	20713-146	20713-142
Type B	25	108	20713-147	20700-001
Type C	38	162	20713-244	20713-243

Connecting cable PVC (2 x 0.75 mm²), 1 m long with 2 Faston connectors 2.8 x 0.5 mm to DIN 46343 T1, 1 piece

21101-246

Protective grille, metal, screw-on

60197-019

Supplied loose with cabinet or frame

Part no./35

Dimensions AC fans

Type	Type A		Type B		Type C	
Frequency in Hz	50	60	50	60	50	60
Air flow volume in m ³ /h	84	90	108	120	162	192
Noise level per fan in dB(A)	29	30	34	38	37	41
Max. static pressure in Pa	23	21	41	41	73	88
Max. ambient temperature in °C	70	70	70	70	70	70
Power consumption in W	8	7	14	11	15	14
Dimensions: height in mm (width 119 mm x depth 119 mm)	25		25		38	

Note

- Please order connection cable and protective grille separately



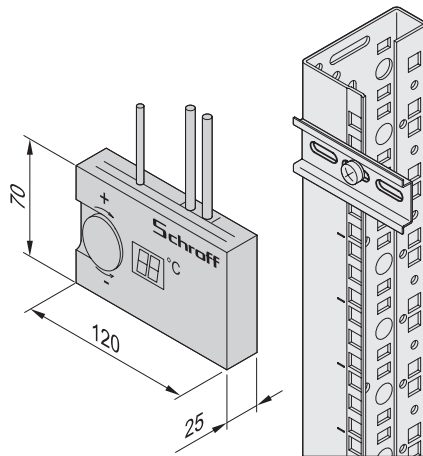
For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – Accessories

Speed control for fans



00505033



01105055

- Plug + play for all fans and fan units with IEC 320 connector system
- Fast assembly on cabinet with support rail
- Digital displays of ambient temperature
- Temperature setting simply with knob
- External sensor can be positioned near the critical sub-assembly

Delivery comprises (assembled)

Item	Qty	Description
1	1	Speed control; input/output voltage 110 ... 240 V _{AC} , see Technical Data
2	1	Temperature sensor, cable length 1.5 m
3	1	Fan cable, length 1.5 m, with IEC 320 female connector
4	1	Mains cable, length 3 m, SCHUKO/UTE connector
5	1	Support rail, St, zinc-plated (EN 50022)
6	1	Assembly kit

Order Information

Description	Part no.
Speed control for fans	10713-550
Delivery: mounted in cabinet or fixed on frame	Part no./05
Supplied loose with cabinet or frame	Part no./35

Technical data

Voltage range	110 ... 240 V _{AC}
Frequency	48 ... 62 Hz
Display	LCD display, height 13 mm, red
Assembly	On support rail
Dimensions	Width 120 mm, height 70 mm, depth 25 mm
Max. connection power	250 W
Adjustment range	+25 ... +50 °C with potentiometer
Fan speed frequency	50 ... 100 %
Sensor	External NTC resistor
Sensor connector	Plug contact and 1.5 m cable
In case of sensor failure	Max. speed
Fan connector	1.5 m cable with IEC 320 female connector
Power supply	3 m cable with SCHUKO/UTE plug



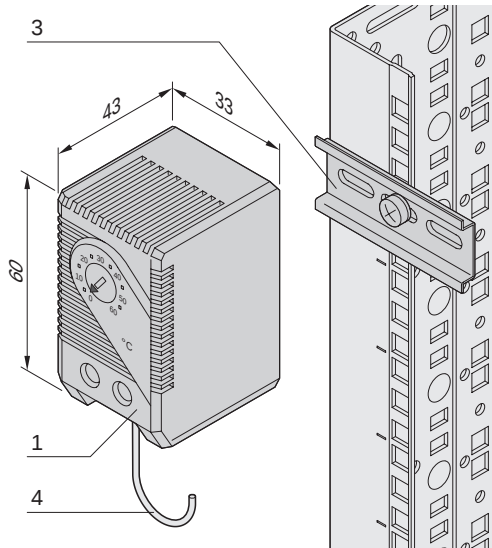
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oneClick search code = Part no.

Climate control – Accessories

Thermostat with integrated temperature sensor



01108004



01108050



Connection cable: 2-pin, ferrules - IEC socket



Connection cable: 2-pin, ferrules - 3-pole, ferrules

- For switching fans or heaters
- Adjustment range 5 ... 60 °C
- Individual adaptation with three separate components: thermostat (for cooling or heating), assembly material, connecting cable (IEC connector or ferrules)
- 2 versions
 - for heating
 - for cooling

Delivery comprises

Item	Qty	Description
1	1	Thermostat, width 33 mm, height 60 mm, depth 43 mm; clip-on attachment for 35 mm DIN rail EN 50022, switched voltage 120 ... 250 V _{AC}
2	1	User manual

Order Information

Description	Part no. for cooling	Part no. for heating
Thermostat for cooling, with integrated temperature sensor	60715-136	60715-137
Item 3 DIN rail (EN 50022) 35 mm; length 200 mm, with assembly kit, PU 1 kit		21120-178
Item 4 Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection at fan IEC female connector; 1 piece		62150-201
Item 4 Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection on fan/heater 3-pin, ferrules, 1 piece		62150-264
Supplied loose with cabinet or frame	Part no./35	

01108050

Dimensions

Thermostat	for cooling, blue control button	for heating, red control button
Adjustment range	0 ... 60 °C	
Switching temperature difference	7 K (± 4 K tolerance)	
Sensing element	Thermobimetal (snap-action contact)	
Contact resistance	<10 mΩ	
Lifespan	>100000 cycles	
Max. switch performance	10 A at 250 V _{AC} , 15 A at 120 V _{AC} ; 30 W at DC voltage	
Connection	2-pin clamp, up to 2.5 mm ² , torque max. 0.5 Nm	
Case	Plastic, in accordance with UL 94 V-0, light grey	
Dimensions	Height 60 mm, width 33 mm, depth 43 mm	
Assembly	Clip for 35 mm DIN rail, EN 50022	
Weight	40 g	
Operating/storage temperature	-20 ... +80 °C/-45 ... +80 °C	
Protection class	IP 20	

01108009

01108010



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

Climate control – Accessories

Thermostat with external temperature sensor



01102007

- To control heaters or fans
- External sensor can be positioned near the critical heat source
- Adjustment range 20 ... 60 °C, switching difference 3 ... 10 K



Delivery comprises

Item	Qty	Description
1	1	Thermostat with external temperature sensor, sensor length approx. 1.7 m
2	1	Mounting plate for cabinet assembly, Al, 2.5 mm
3	1	Assembly kit

Order Information

Description	Part no.
Thermostat with external temperature sensor	20715-003
Supplied loose with cabinet or frame	Part no./35

Technical data

Dimension (height x width x depth)	93 mm x 68 mm x 44 mm
Adjustment range	20 ... 60 °C
Switching difference	3 ... 10 K
Mains/line voltage	90 ... 260 V _{AC}
Contact load (ohmic load/inductive load)	24 A/10 A
Contacts	Change-over, single pin
Assembly	Screw-fixed



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

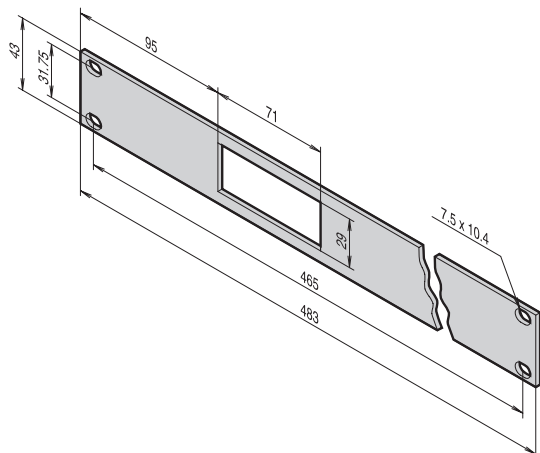
Climate control – Accessories

Thermostat with digital display



01197001

Front panel 1 U



SZA45550

- Adjustment range from -50 ... +100 °C (switching difference 0 ... 10 °C)
- Display can be converted from °C to °F
- Programmable (secured against unauthorised operation)
- 3-digit, red segment display



Order Information

Description	Part no.
Thermostat with digital display, 230 V _{AC}	60715-132
Thermostat with digital display, 115 V _{AC}	60715-133
Front panel 1 U, RAL 7035 With cut-out for thermostat	30118-315
Front panel 1 U, anodised With cut-out for thermostat	30118-267
Front panel 1 U, RAL 7021 With cut-out for thermostat	30118-360
Supplied loose with cabinet or frame	Part no./35

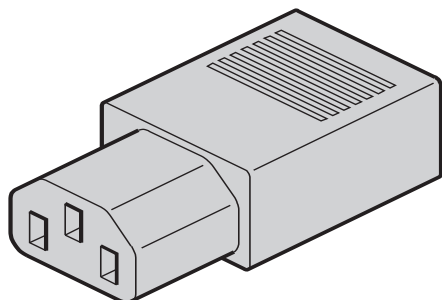
Technical data

Operating voltage	115 V _{AC} or 230 V _{AC}
Power consumption	Approx. 3.5 kg
Dimensions	Height: 35 mm, width: 76 mm, depth: 59 mm
Assembly cut-out	28.8 × 70.5 mm
Adjustment range	-50 ... +100 °C
Switch difference	0 ... 10 K selectable
Data safeguarding at power failure	Non-volatile memory
Contact load (ohmic load/inductive load)	8 A/3 A (ohmic/inductive load)
Input/sensor	PTC resistance, -55 ... +120 °C, cable length 3 m
Contacts	Relay, changeover contact, single pin
Protection class to front	IP 54
Connection	Screw-on terminals, 2.5 mm ²
Fixing	With clamping bracket
Type of assembly	Can be screwed on



For further information www.schroff.biz/oneclick
oneClick search code = Part no.

IEC input plug



KTA45246

- For connection of fans
- Bolted housing made of heat-resistant plastic (UL 94 V-0)
- 10 A/250 V_{AC}, protection class I

Order Information

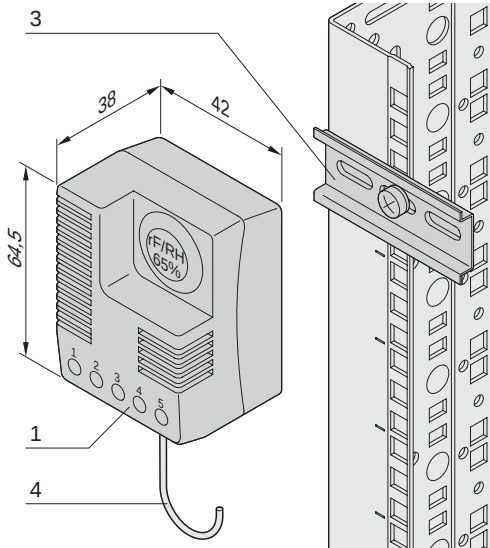
Description	Part no.
IEC input plug	60715-046
Supplied loose with cabinet or frame	Part no./35

Climate control – Accessories

Hygrostat



01108003



01108051



Connection cable: 2-pin, ferrules - IEC socket



Connection cable: 2-pin, ferrules - 3-pin, ferrules

- Switches fans or heaters when relative air humidity is exceeded or falls short of 65 %
- Visual display when relative air humidity exceeds 65 %
- Individual adaptation with three separate components: hygrostat, assembly material, connecting cable (input with SCHUKO connector; output with IEC connector or ferrules)
- 2 supply voltages
 - 115 V_{AC}
 - 230 V_{AC}



Delivery comprises

Item	Qty	Description
1	1	Hygrostat, width 42 mm, height 64.5 mm, depth 38 mm; clip-on attachment for 35 mm DIN rail EN 50022
2	1	User manual

Order Information

Description	Part no. 230 V _{AC}	Part no. 115 V _{AC}
Hygrostat	60715-138	60715-139
Item 3 DIN rail (EN 50022) 35 mm; length 200 mm, with assembly kit, PU 1 kit		21120-178
Item 4 Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection at fan IEC female connector; 1 piece		62150-201
Item 4 Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection on fan/heater 3-pin, ferrules, 1 piece		62150-264
Supplied loose with cabinet or frame		Part no./35

01108009

01108010

Dimensions

Supply voltage	115 V _{AC}	230 V _{AC}
Default setting	65 % relative air humidity	
Switch difference	5 % air humidity (W 1 % air humidity tolerance at 25 °C)	
Switch contact	Changeover contact (relay)	
Lifespan	> 100000 cycles	
Max. switch performance	8 A	8 A
Mains connection	2-pin clamp, up to 2.5 mm ² , torque max. 0.5 Nm	
Output change-over relays	3-pin clamp, up to 2.5 mm ² , torque max. 0.5 Nm	
Case	Plastic, in accordance with UL 94 V-0, light grey	
Dimensions	Height 64.5 mm, width 42 mm, depth 38 mm	
Assembly	Clip for 35 mm DIN rail, EN 50022	
Weight	65 g	
Operating/storage temperature	0 ... +60 °C/-20 ... +70 °C	
Max. storage humidity	90 % air humidity	
Type of protection	IP 20	

Climate control – Accessories

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