Dantherm®
CONTROL YOUR CLIMATE







FLEXIBOX 900, INDOOR
FREE COOLING FOR ELECTRONICS

Dantherm Flexibox Free Cooling is cost-effective controlled ventilation. The solution cools by means of ambient air without using a compressor, generating significant savings in all climates.

Flexibox Free Cooling 900 is designed with the Dantherm-developed CC3000 cooling controller, which allows settings configuration and live operation monitoring on any standard browser.

Free Cooling can be used stand-alone or combined with e.g. existing air conditioning. This ensures maximum use of passive cooling, prolongs the air conditioner service life and generates significant OPEX savings.

Contact Dantherm for non-binding, site-specific energy savings counselling in your network.

FEATURES AND BENEFITS

Benefits of Flexibox 900, indoor

• Significant energy savings:	Most energy-efficient cooling method within electronics cooling
• Total climate control:	Controls several external units
• Clean internal environment:	Overpressure system ensures no ingress of outside contaminants
• Long service life:	High-quality components
• Pollution ratio adaption:	Easy change of multiple filter types
• Prolongs service life of existing units:	Free Cooling operation reduces wear of other installed cooling units
• Operational safety:	Emergency cooling
• Wide geographical usage:	Ambient temperature operating range from -40 to +55°C
• Extended air inlet protection:	Ready for Dantherm AirMaze[pat.pend.]

Installation and operation

• Flexible installation:	Plug-and-play, new and legacy sites
• Minimum installation costs:	No need for cooling technician
• Anti-theft security:	No accessible screws, nuts or bolts

Controller

• Solution-specific controller:	Dantherm-developed, wall-mounted
• Flexible configuration:	Live monitoring and configuration on any standard browser
• Energy-saving strategy:	Max. use of controlled ventilation
• Intelligent climate control:	Automated change of cooling mode
• Stable operation:	Stepless fan speed control
• User-friendly configuration:	Built-in SD card reader and digital colour display
• Service minimization:	Digital filter status detector
• Strategy evaluation/planning:	Complete data logging

Application

- Telecom shelters, enclosures and rooms
- Drive stations
- Automation control cabinets
- Hybrid Telecom sites
- DC-powered sites
- Regions with extreme temperature fluctuations

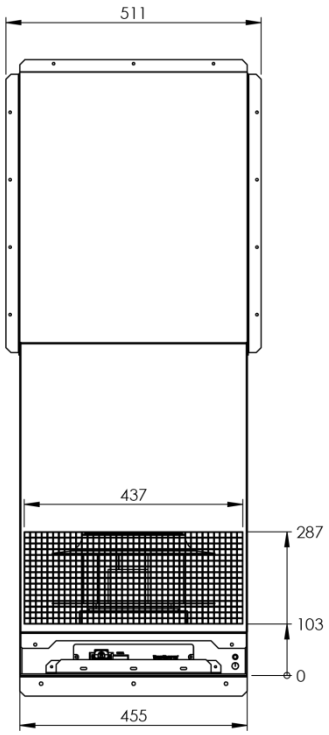
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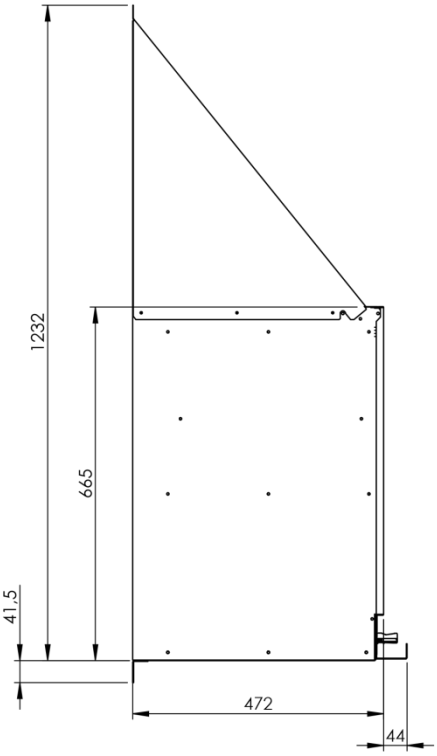
TECHNICAL SPECIFICATIONS
FLEXIBOX 900, INDOOR

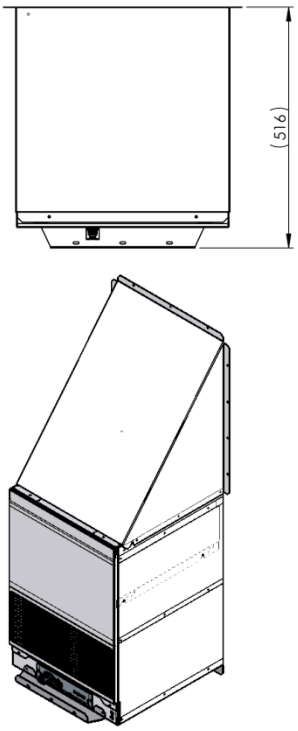
Product overview	**Category**		
Flexibox Free Cooling 900, Indoor version	Free Cooling		
Item number	368460		
Variant		**FB900-48V-G4**	**FB900-230V-G4**
Capacity & Performance			
Operational temperature range, min./max.	°C	-25 to + 55	- 25 to + 45
Cooling capacity at 25°C at Δt=10°C, 50/80%	W	4950 / 7210	5370 / 8340
Maximum cooling capacity at 25°C ambient, Δt=10°C, 100%	W	8140	8610
Airflow, maximum	m^3/h	2450	2590
Electrical connection	Type	Phoenix PC 4/2-STF-7.62	Ensto NAC32S.W
Input voltage range	VDC	48VDC (42-57VDC)	230V AC (200 to 277)
Power consumption 50/80/100%	W	78/239/366	71/284/400
Sound level, 50/80%, 3m distance*	dB(A)	47/56	49/59
Expected operation life	Min. years	10	10
*Sound power 50/80%	dB(A)	62/71	64/74
Shipment, Storage & Mounting			
Unit dimensions (height×width×depth)	mm	666 x 455 x 472	
Net weight	kg	25	
Single package weight incl. unit	kg	29.4	
Multi package weight incl. unit (standard pallet, 6units)	kg	192	
Single packing dimensions (height×width×depth)	mm	790 x 530 x 530	
Multi packing dimensions (height×width×depth)	mm	1725 x 800 x1200	
Storage relative humidity, min./max.	RH %	0 to 95	
Storage temperature, min./max.	°C	-40 to +80	
Mounting method	Type	Wall-mounted	
Service area dimensions	mm	500 x 666	
Filter	Item no.	077164	
Filter type	Class	Compact G4	
Filter area	m^2	0.75	
Controller details			
Controller CC3000	Item no.	091210	
Communication interface	Type	Ethernet SNMP	
Mounting method	Type	Wall-mounted	
Certifications			
Protection according to EN 60529	IP class no.	X5	
Complies with standards	Code	EN 60950	
Colour	RAL	AlZn coated steel plate	

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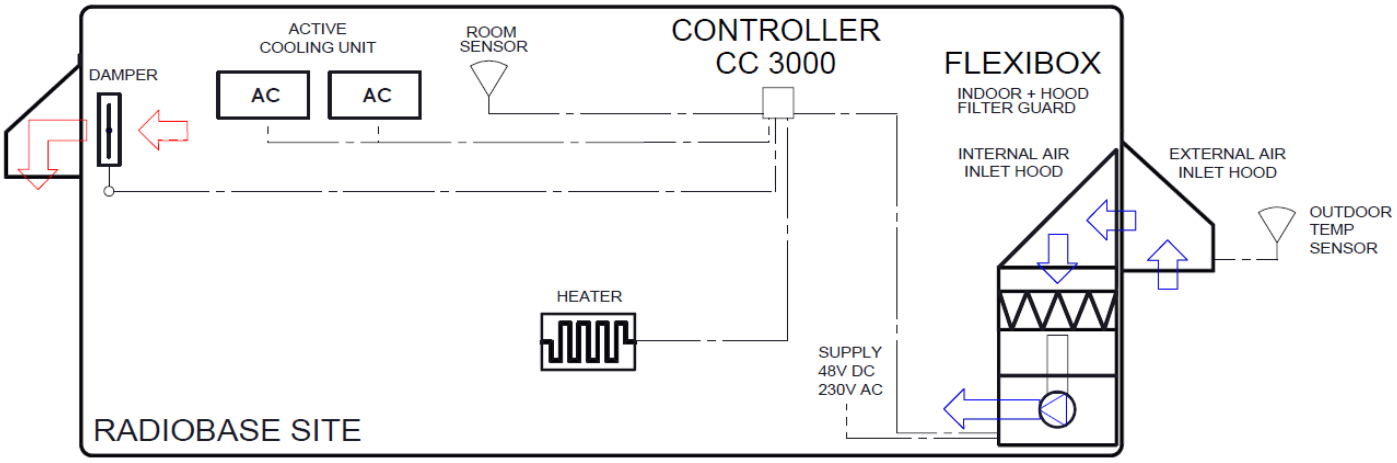
DIMENSIONS



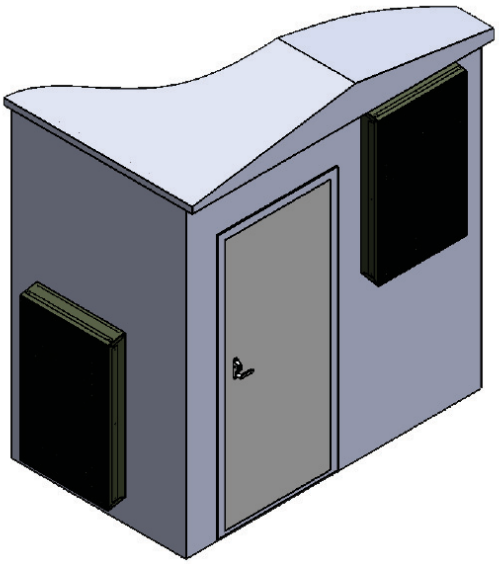


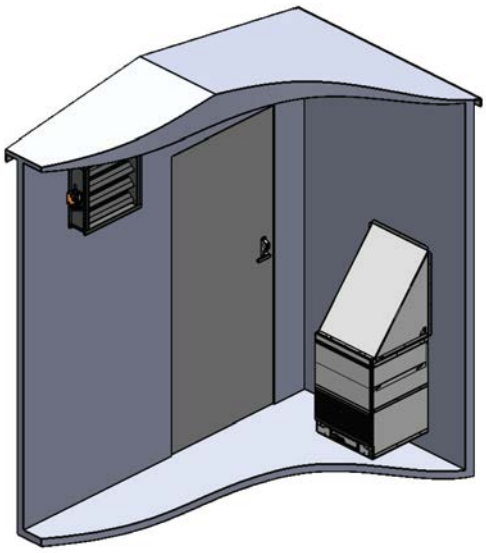


FLOW - & CONNECTION CHART

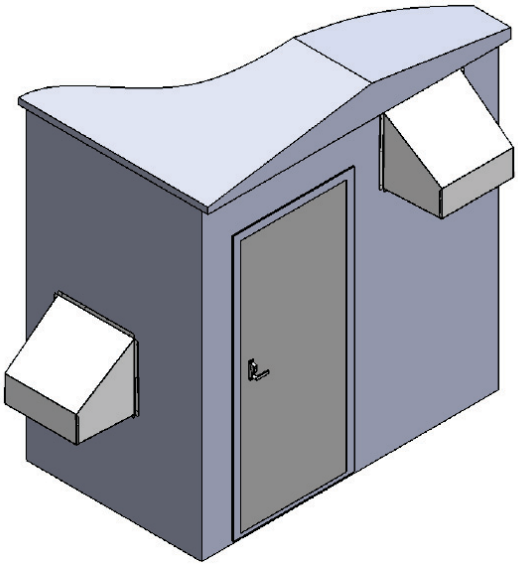


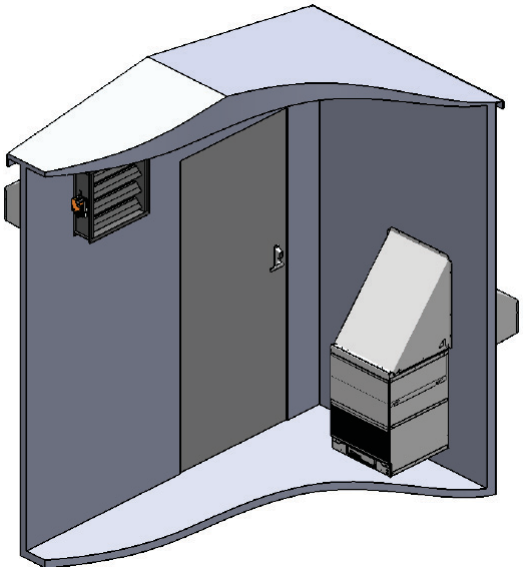
MOUNTING ALTERNATIVES



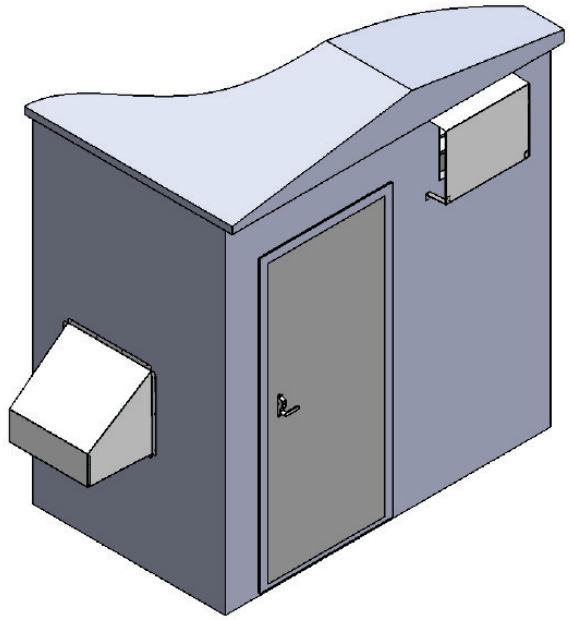


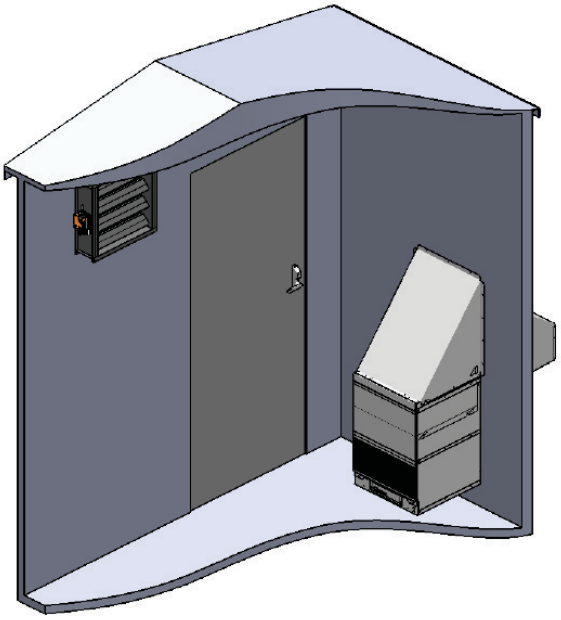
Mounting type accessories air inlet		Mounting type accessories air outlet	
AirMaze, unpainted	075575	Motorized damper Opening: [400 x 411mm]	074603
or		Gravity Damper (ABS plastic) Opening: [407 x 407mm	086964
AirMaze, painted, with bug screen	086924	Gravity damper (Aluminium) Opening: [400 x 400mm]	299943
		AirMaze, unpainted	075575
		or	
		AirMaze, painted, with bug screen	086924





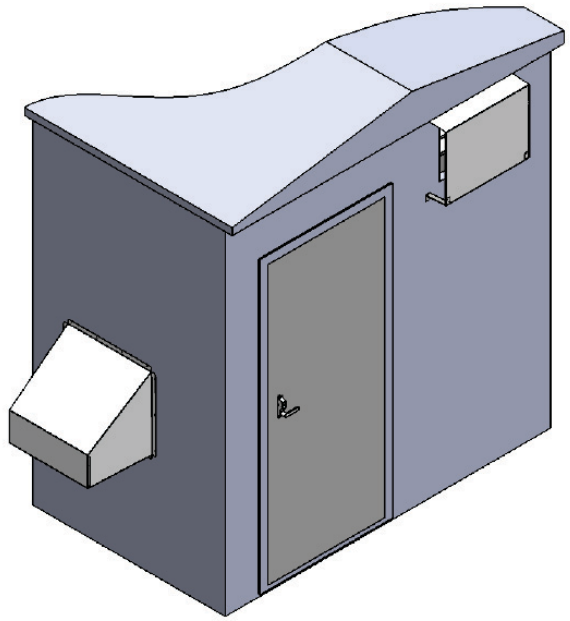
Mounting type accessories air inlet		Mounting type accessories air outlet	
External rain hood Opening: [400 x 400]	299653	Motorized damper Opening: [400 x 411mm]	074603
		Gravity damper (ABS plastic) Opening: [407 x 407mm	086964
		Gravity damper (Aluminum) Opening: [400 x 400mm]	299943
		External rain hood Opening: [400 x 400]	299653

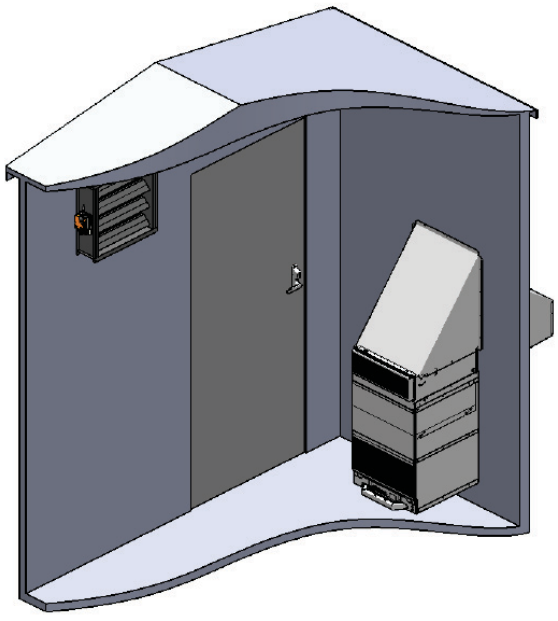




Mounting type accessories air inlet	
External rain hood Opening: [400 x 400]	299653

Mounting type accessories air outlet	
Motorized damper Opening: [400 x 411mm]	074603
Gravity damper (ABS plastic) Opening: [407 x 407mm	086964
Gravity damper (Aluminum) Opening: [400 x 400mm]	299943
Damper rain/snow protection Measurements: [452 x 600]	087317

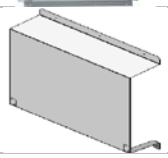




Mounting type accessories air inlet	
T/C Damper 450	091346
External rain hood Opening: [400 x 400]	299653

Mounting type accessories air outlet	
Motorized damper Opening: [400 x 411mm]	074603
Gravity damper (ABS plastic) Opening: [407 x 407mm	086964
Gravity damper (Aluminum) Opening: [400 x 400mm]	299943
Damper rain/snow protection Measurements: [452 x 600]	087317

MOUNTING ACCESSORIES

Product selection (all inside dimensions, if no remarks)	**Item number**	**Product photo**
Motorized damper Opening: [400 x 411mm] Measurements: [461 x 532 x 125]	074603	[Insert image]
Gravity damper (ABS plastic) Opening: [407 x 407mm] Measurements: [456 x 456 x 27]	086964	[Insert image]
Gravity damper (Aluminum) Opening: [400 x 400mm] Measurements: [442 x 442 x 50]	299943	
External rain hood Opening: [400 x 400mm] Measurements: [578 x 6872 x 442]	299653	
Damper rain/snow protection Measurements: [500 x 600 x 151]	087317	
AirMaze Panel, unpainted Measurements: [1149 x 735 x 120]	075575	
AirMaze Panel, painted, with bug screen Measurements: [1160 x 703 x 137]	086924	
T/C Damper 450	091346	
Adapter for ducting Measurements: [450 x 450 x 70]	299648	
Duct mounting bracket Measurements: [275 x 50 x 40mm]	299673	
Wall bracket for Flexibox Measurements: [202 x 452 x 40]	299650	
Smoke and heat detector kit	081640	[Insert image]
Humidity sensor (indoor) on/off	Exp. release Q4 2016	[Insert image]
DC/DC Converter 24/48VDC	840140	[Insert image]

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