



TECHNICAL DATA

MINICUBE



A SMART SOLUTION,
POWERFUL IN ITS SIMPLICITY

TURNKEY, COST-EFFICIENT, professional IT infrastructure for server room applications



With the adoption of cloud computing, many companies now have a need to reduce the size of their server rooms and to save energy costs. Do you have fewer applications running from your in-house server room than before? Do you only want to house your business critical information on site? Then the time has come to deploy a turnkey micro data centre. Even if you want to access data more quickly – low latency – or if you want to optimise your server room, the MiniCube is the ideal solution.

The MiniCube has everything you need for a full data centre: housing, power supply, monitoring and cooling, all in a compact system. The MiniCube is fully preconfigured and truly plug-and-play. Therefore, the MiniCube also makes the IT manager's life easier!

ADVANTAGES

- Reliable and cost-efficient solution for server rooms
- No dependency on the building, easy to deploy
- Energy-efficient racks for your IT infrastructure
- Use of proven technologies
- Turn-key solution, fast delivery

General specifications MiniCube Basic and Advanced

Server rack	1
Top of Rack Cooler	1
Width	800 mm
Depth	1200 mm
Height	2300 mm
Height in U	37
Minimum dimensions conditions to place the MiniCube solution	2800 x 2800 x 2800 mm
Colour	RAL 9011
Use & Conditions	Only for interior use Ambient conditions: 10 °C – 55 °C
Applicability ¹	Europe + Export regions with required CE certifications ²

MiniCube - Configurations

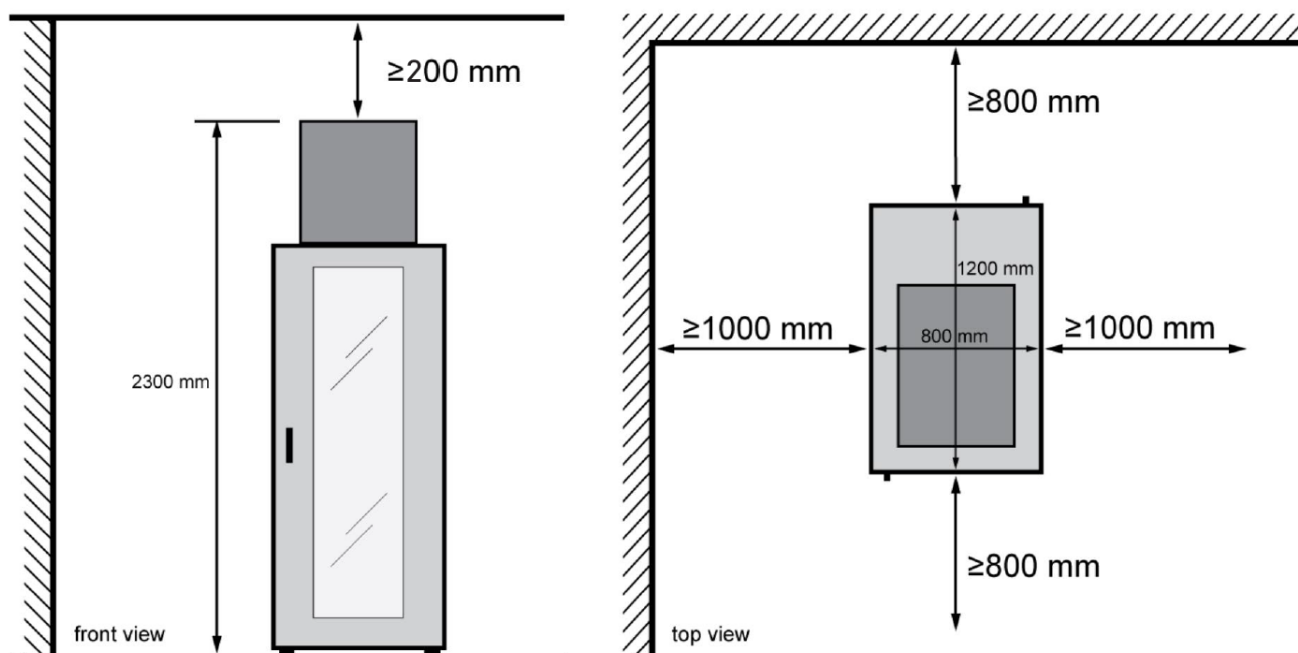
Version	Basic	Advanced		
Item code	MIC2000	MIC3500A	MIC3510A	MIC3520A
Description	MiniCube 2.0 kW Basic	MiniCube 3.5 kW Advanced	MiniCube 3.5 kW Advanced with automatic door opener	MiniCube 3.5 kW Advanced with ExxFire fire suppression system
Total Weight ³	± 285 kg	± 302 kg	± 305 kg	± 330 kg
Certification	CE / IEC60950	CE / IEC60950	ROHS, EN55022/ 55014-1, Class B, RF emission, IEC/ EN 61326, IEC 55014-2, CE / IEC60950	CE / IEC60950

¹ The MiniCube solution can only be placed in all regions where CE certification is applicable.

² Place the MiniCube Configuration only in a space / chamber which meets the minimum prescribed dimensions / ambient conditions.

³ Total Weight MiniCube Basic Configuration is based on 1 x UPS-system including batteries and a Top of rack cooler.

Required dimensions



MiniCube - Server Rack			
		2.0 kW Basic	3.5 kW Advanced
Height in U	U	37	37
Available Height	U	33	31 30 (optional if chosen for automatic door opener)
Dimensions (w x d x h)	mm	800 x 1200 x 1800 ¹	800 x 1200 x 1800 ¹
Total Weight	kg	±200	±222
Total load capacity (static)	kg	1400	1400
Doors		Door front: glass door, right hinged, with a Fix-easy swivel handle with an EK-333 cylinder lock. Door rear: metal door, right hinged, with a Fix-easy swivel handle with an EK-333 cylinder lock.	Door front: glass door, right hinged, with a Fix-easy swivel handle with an EK-333 cylinder lock. Door rear: metal door, right hinged, with a Fix-easy swivel handle with an EK-333 cylinder lock.
Colour		RAL 9011	RAL 9011
Power Distribution		1 x Legrand Basic Zero-U PDU 16A/ 1 Phase (Feed A). • Outlets: 4 x C19 + 20 x C13. • Housing: Aluminum • Dimensions: 52 x 51 x 1161 mm • Power cord (H07 RN Neoprene 3FG 2,5mm ²) With C20 plug wired unto the Daker-UPS system. Top-Front feed. • Location: Right backside cabinet.	1 x Raritan PXE-1493 Monitored Zero-U PDU 32A/ 1 Phase (Feed A). • Outlets: 20 x C13 + 4 x C19. • Colour housing: Black • Dimensions: 52 x 53 x 1539 mm • Power cord (2P/3W) hardwired on the Daker UPS. Bottom-Front feed. • Location: Right backside cabinet.
OPTIONAL (MIC1020 Basic) (MIC1030 Advanced)		(MIC1020) 1 x Legrand Basic Zero-U PDU 16A/ 1 Phase (Feed B). • Outlets: 4x C19 + 20 x C13. • Housing: Aluminum with a red strip on the edges. • Dimensions: 52 x 51 x 1161 mm • Power cord (H07 RN Neoprene 3FG 2,5mm ²) with CEE plug, 3 meters. Top-Front feed. • Location: Left backside cabinet.	(MIC1030) 1 x Raritan PXE1493T-A6K1 Monitored zero-U PDU 32Amp/ 1 Phase (Feed B). • Outlets: 20 x C13 + 4 x C19. • Colour housing: Red • Dimensions: 52 x 53 x 1539 mm • Power cord (2P/3W) with CEE plug, 5 meters. Top-Front feed. • Location: Left backside cabinet.
OPTIONAL (MIC1040 / MIC1050 / MIC1060 / MIC1070)		1 x Legrand 19" inch PDU, 1 Phase 16 Ampere. • Dimensions: 52 x 51 x 425 mm • Outlets Optional: (9 x Schuko / 9 x UTE / 7 x (UK) BS1306 / 10x (CH) T23)	1 x Legrand 19" inch PDU, 1 Phase 16 Ampere. • Dimensions: 52 x 51 x 425 mm • Outlets Optional: (9 x Schuko / 9 x UTE / 7 x (UK) BS1306 / 10x (CH) T23)
UPS		UPS Type: Legrand Daker DK +3000; 3 kVA • UPS dimensions (lxhxd): 440 x 88 x 600 mm. • UPS-architecture: 19" inch, 2U • Location cabinet: 2/3 U. • UPS Weight: ± 30 KG • Nominal Power: 3000 VA • Active Power: 2700 W • IP rating: IP21 (conform IEC60529) • Input voltage: 230 V • Output voltage: 230 V ±1% • Bypass: Not applicable, due to optional Legrand Zero U Feed B PDU. • Overload protection: 105% none 120 % max 20 sec 150 % max 10 sec • Batteries: 6 pieces Autonomy time by 80% load: 8 min Charging time: 4-6 hours with 80% load	UPS Type: Legrand Daker DK +5000 ; 5,0 kVA • UPS dimensions (lxhxd): 440 x 176 x 680 mm. • UPS-architecture: 19" inch, 4U • Location cabinet: 2/3/4/5 U. • UPS Weight: ± 60 KG • Nominal Power: 5000 VA • Active Power: 5000 W • IP rating: IP21 (conform IEC60529) • Input voltage: 230 V • Output voltage: 230 V ±1% • Bypass: Not applicable, due to optional Raritan monitored 0U Feed B PDU. • Overload protection: 105% none 120 % max 20 sec 140 % max 10 sec • Batteries: 20 pieces Autonomy time by 80% load: 4 min Charging time: 4 hours with 90 % load
OPTIONAL (MIC1010)		• Monitoring: SNMP module • Certification: CE / EN 62040-1 / EN 62040-2 / EN 62040-3	• Monitoring: SNMP module • Certification: CE / EN 62040-1 / EN 62040-2 / EN 62040-3
Maximum IT-load	kW	2	3.5

Interior	4 x 19-inch profiles Front distance: 200 mm, intermediate distance: 740 mm 1 x 19-inch Variable shelf Location cabinet: 35 U	4 x 19-inch profiles Front distance: 200 mm, intermediate distance: 740 mm 1 x 19-inch Variable shelf Location cabinet: 35 U
Airflow optimisation	'Airflow' Package (metal) incl. rubber door seals left and right, rubber door seals strips top and bottom	'Airflow' Package (metal) incl. rubber door seals left and right, rubber door seals strips top and bottom
Cable management	2 x vertical cable trays 125 mm width Location: backside cabinet left and right side.	2 x vertical cable trays 125 mm width Location: backside cabinet left and right side.
Monitoring	-	Raritan monitoring DPX2-T3H1 3 x temperature & 1 x humidity sensor + Raritan DX-D2C6 sensor block + Door contacts.

¹ Height in mm is based on the height of the server cabinet without the top of rack cooler.



Back view of the Daker UPS for the MIC2000



Front view of the Daker UPS for the MIC2000



Legrand Basic Zero-U PDU

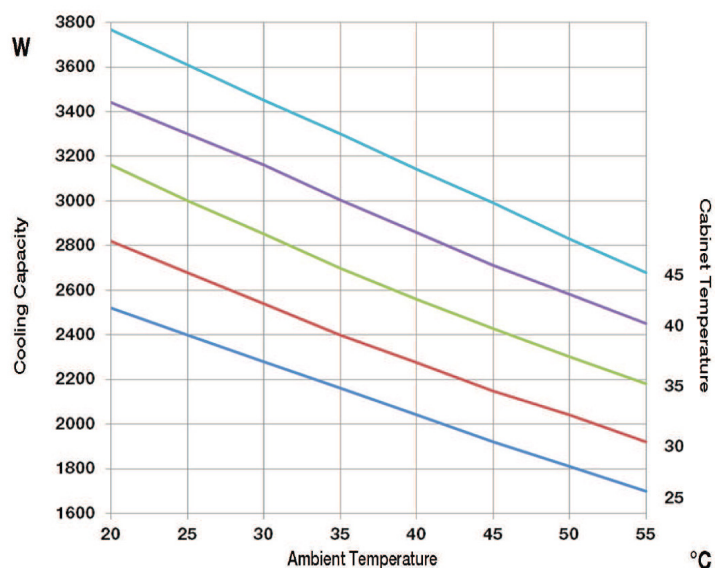
MiniCube - Top of rack cooler

		2.0 kW Basic	3.5 kW Advanced
Cooler type		ETE28002207000	ETE41002207000
General information			
Colour		RAL9005	
Dimensions			
- Height	mm	480	
- Width	mm	800	
- Depth	mm	450	
Weight	Kg	74,5	76,5
Noise level	dB(A)	77	
Protection degree (internal)		IP54	
Protection degree (external)		IP34	
Cooling capacity L35L35 ¹	W	2700	3800
Cooling capacity L35L50 ²	W	2300	2700
Refrigerant type		R-134a	
Power supply top of rack cooler	V/Ph/Hz	230V/1Ph/50-60Hz	
Maximum running current	A	7	9
Starting current	A	38	38
Pre fuse	A	12	16
Power consumption L35L50 ²	W	1580	2000
Max. Airflow	M3/H	860	1450
Regulation temperature limits	°C	25 - 45	
Ambient temperature limits	°C	10 - 55	
Ambient humidity limits / monitoring		-	Yes, in combination with the Raritan DX-D2C6 sensor block.
Condensate discharge		Integrated condensate dissipation + redundant condensate drain	
Certification		CE	

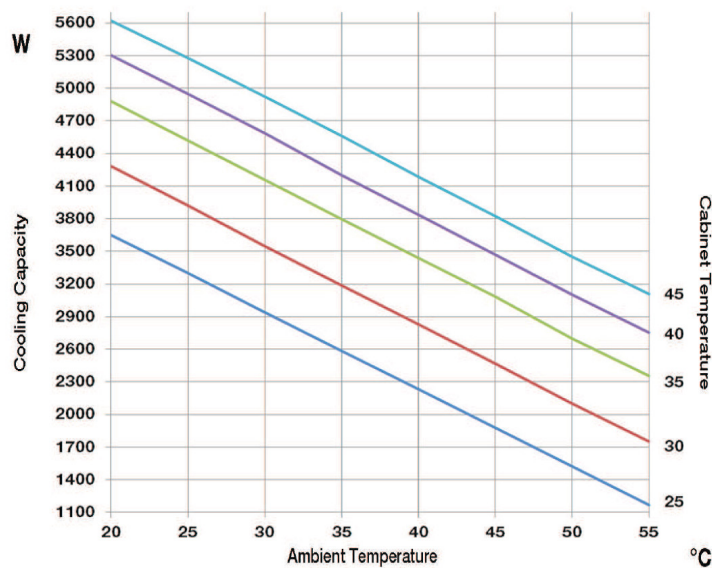
¹ L35 L35: Return Air Temperature inside MiniCube 35°C, Ambient temperature where the MiniCube is placed 35°C.

² L35 L50: Return Air Temperature inside MiniCube 35°C, Ambient temperature where the MiniCube is placed 50°C.

Cooling Capacity MiniCube 2.0 kW Basic¹



Cooling Capacity MiniCube 3.5 kW Advanced¹



¹ Cooling capacity calculated with cooler only.

Accessories (seperately delivered)		
	2.0 kW Basic	3.5 kW Advanced
UPS SNMP module	MIC1010	
Additional Legrand Basic Zero-U PDU 16 Ampere (FEED B)	MIC1020	-
Additional Raritan PXE-1493 Monitored PDU 32 Ampere (FEED B)	-	MIC1030
MiniCube - Legrand Basic 19-inch PDU - 1 m C20 input connector - 9 x Schuko outputs	MIC1040	
MiniCube - Legrand Basic 19-inch PDU - 1 m C20 input connector - 9 x UTE outputs	MIC1050	
MiniCube - Legrand Basic 19-inch PDU - 1 m C20 input connector - 7 x UK (BS1363) outputs	MIC1060	
MiniCube - Legrand Basic 19-inch PDU - 1 m C20 input connector - 10 x CH (T23) outputs	MIC1070	



Legrand Basic PDU 19-inch

Options (pre-assembled)		
	2.0 kW Basic	3.5 kW Advanced
Automatic door opener	-	MIC3510A
Exxfire fire suppression system	-	MIC3520A

MiniCube - Automatic door opener			
		2.0 kW Basic	3.5 kW Advanced
Applicability		-	MIC3510A
Interior		-	2 x Automatic door opener locks, front side cabinet (top and bottom installed). 2 x Automatic door opener locks, rear side cabinet (top and bottom installed). 1 x 19" inch (1U) controller unit incl. integrated power supply. Location Cabinet: 37U at backside cabinet.
Dimension	wxdxh	-	1480 mm x 2500 mm x 1U (19" inch)
Weight	kg	-	1,5
Colour		-	RAL 9011
Power Supply Automatic Door opener	VAC	-	90 - 264
Max. power consumption	W	-	25
Starting Current	A/VAC	-	COLD START 23A/115VAC - 45A/230VAC
Fused	A	-	Fused at 2 Amps. Including spare inlet fuse 2A.
Certification		-	ROHS, EN55022/ 55014-1, Class B, RF emission, IEC/ EN 61326, IEC 55014-2, EN60950

MiniCube - ExxFire fire suppression system

		2.0 kW Basic	3.5 kW Advanced
Applicability		-	MIC3520A
Type		-	EXXFIRE1500
Dimensions (l x w x h)	mm	-	418x443x165
	inch	-	16.5x17.1x6.5
Weight (Exxfire Module)	kg	-	26
	lbs.	-	57
Gas mass	kg	-	1.8
	L	-	1500
Extinguishing agent		-	Nitrogen
Gas storage pressure	bar	-	0
Protected volume*	m ³	-	3
	ft ³	-	106
Output pressure	bar	-	0 - 10
ADR**	Class	-	9/9
UN**		-	3268/3363
Rating***	Class	-	IP30/IP67
Voltage	VAC	-	110/230
Back-up	Hours	-	4
Lifetime generator	Years	-	10
Sensor maintenance		-	annually
Temperature	°C	-	-25 to 65
Generators	pcs	-	2
Certification		-	CE

* NFPA2001 Design concentration Class A = 40.3%

** Before and after deployment

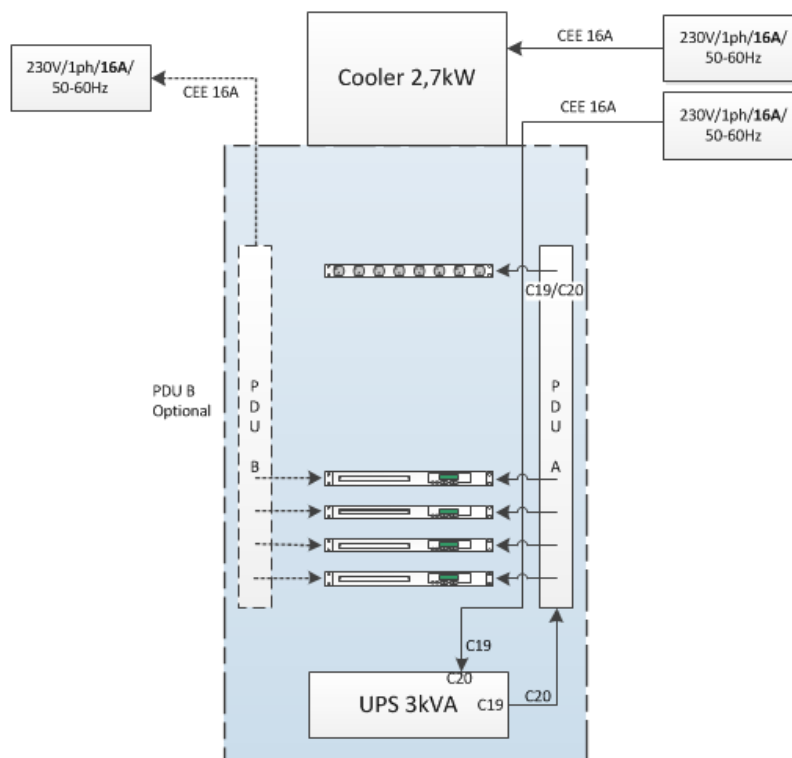
*** System Enclosure / Generator housing



MiniCube Advanced (MIC3520A) with ExxFire fire suppression system

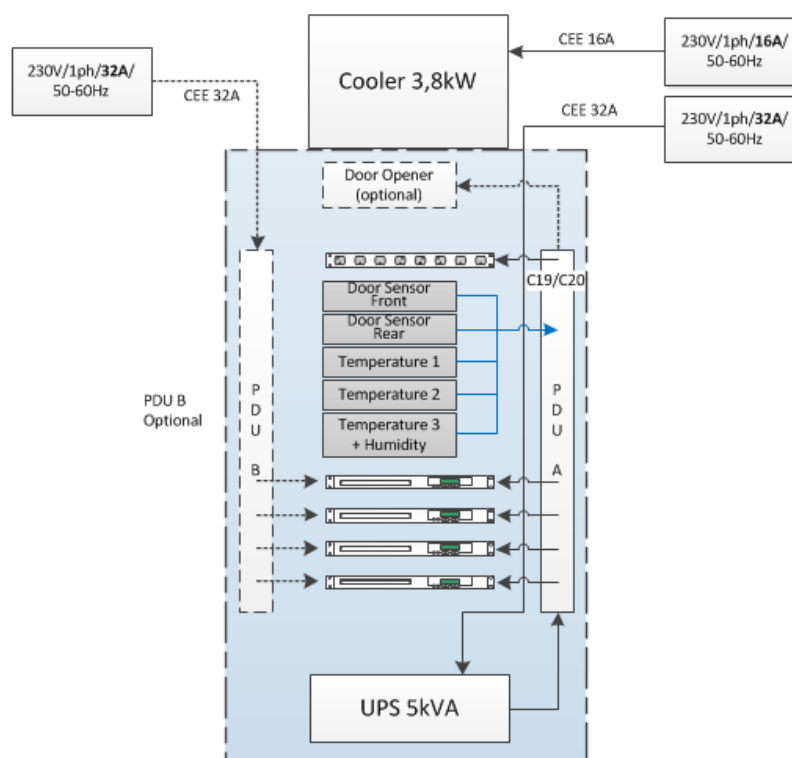
Electrical connections

2.0 kW Basic



The cooler and UPS power cables are part of the delivery

3.5 kW Advanced



The cooler and UPS power cables are part of the delivery



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