



# 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 an energy-efficient, 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 your IT manager's life easier!

## ADVANTAGES

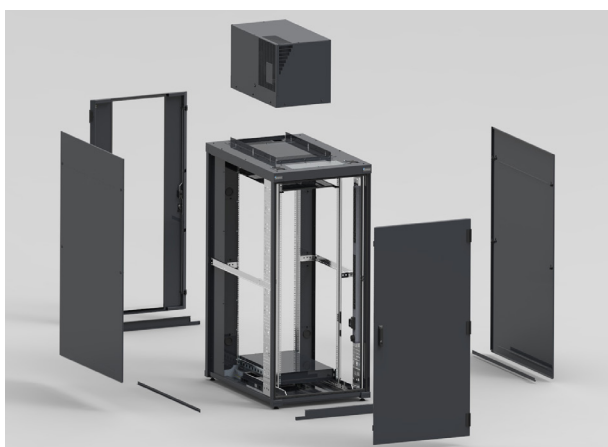
- Reliable and cost-efficient solution for server rooms
- No dependency on the building, easy to deploy
- Energy-efficient racks for your IT infrastructure
- Use of proven technologies
- Turn-key solution, fast delivery

**MiniCube - basic configuration**

## 2.0 kW Basic

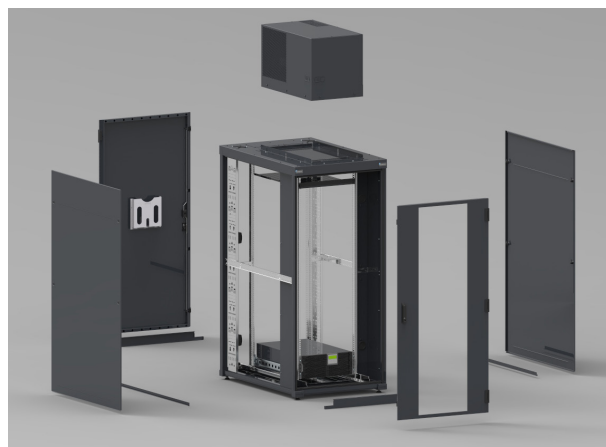


Front

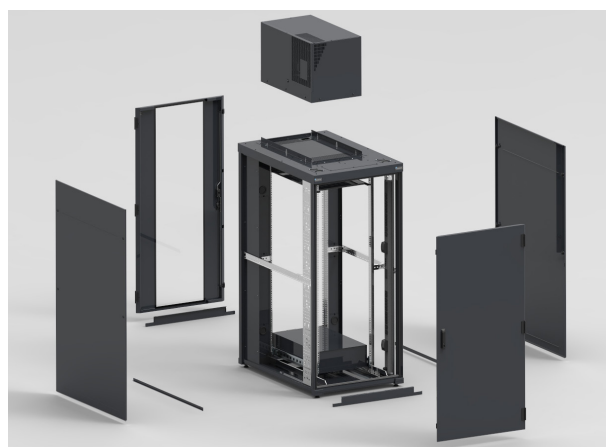


Rear

## 3.5 kW Advanced



Front



Rear

**MiniCube - basic configuration**

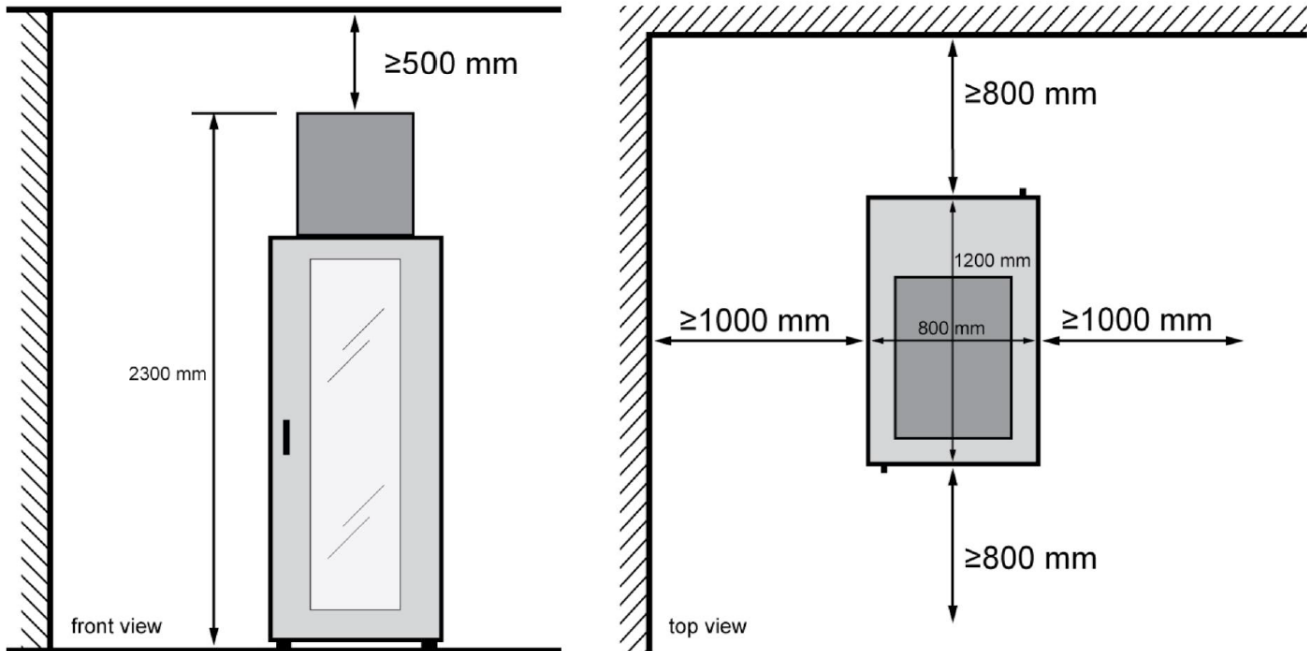
MiniCube 2,0 kW – Basic	446170
MiniCube 3,5 kW – Advanced	446171
Server Rack	1 pc
Top of Rack Cooler	1 pc
Dimensions (w x d x h)	800 x 1200 x 2300 mm
Total Weight <sup>1</sup>	± 280 kg (Basic) • ± 302 kg (Advanced)
Colour	RAL 9011
Use & Conditions	Only for interior use Ambient conditions: 10 °C – 55 °C
Minimum dimensions conditions to place the MiniCube solution <sup>2</sup>	2800 x 2800 x 2800 mm (L x w x h)
Applicability <sup>3</sup>	Europe + Export regions with required CE certifications <sup>2</sup>
Certification	CE / IEC60950

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

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

<sup>3</sup> The MiniCube solution can only be placed in all regions where CE certification is applicable.

### Required ambient / room conditions



### Options (pre-assembled)

	2,0 kW Basic	3,5 kW Advanced
Automatic Door opener	-	446172

### Options (seperately delivered)

	2,0 kW Basic	3,5 kW Advanced
UPS SNMP module		310930
Additional Legrand Basic Zero-U PDU 16 Ampere (FEED B)	646862	-
Additional Raritan PXE-1493 Monitored PDU 32 Ampere (FEED B)	-	PXE-1493T-A6K1
MiniCube - Legrand Basic 19-inch PDU - 1 m C20 input connector - 9 x Schuko outputs		646826
MiniCube - Legrand Basic 19-inch PDU - 1 m C20 input connector - 9 x UTE outputs		646827
MiniCube - Legrand Basic 19-inch PDU - 1 m C20 input connector - 7 x UK (BS1363) outputs		646828
MiniCube - Legrand Basic 19-inch PDU - 1 m C20 input connector - 10 x CH (T23) outputs		646829

### 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 <sup>1</sup>	800 x 1200 x 1800 <sup>1</sup>
Total Weight	kg	±200	±222
Total load capacity (static)	kg	1400	1400
Doors		Door front: glass door, right hinged. with Fix Easy handle. Door rear: metal door, right hinged. with Fix Easy handle.	Door front: glass door, right hinged. with Fix Easy handle. Door rear: metal door, right hinged. with Fix Easy handle.

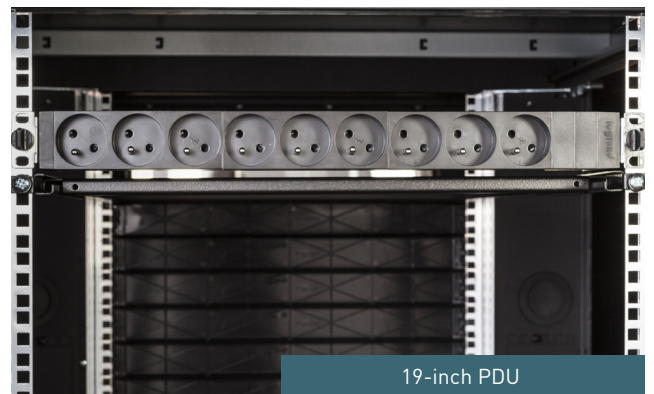
Colour	RAL 9011	RAL 9011
Power Distribution	1 x Legrand Basic Zero-U PDU 16A/ 1 Phase (Feed A). <ul style="list-style-type: none"> <li>• Outlets: 4 x C19 + 20 x C13.</li> <li>• Housing: Aluminum</li> <li>• Dimensions: 52 x 51 x 1161 mm</li> <li>• Power cord (H07 RN Neoprene 3FG 2,5mm<sup>2</sup>) With C20 plug wired unto the Daker-UPS system. Top-Front feed.</li> <li>• Location: Right backside cabinet.</li> </ul>	1 x Raritan PXE-1493 Monitored Zero-U PDU 32A/ 1 Phase (Feed A). <ul style="list-style-type: none"> <li>• Outlets: 20 x C13 + 4 x C19.</li> <li>• Colour housing: Black</li> <li>• Dimensions: 52 x 53 x 1539 mm</li> <li>• Power cord (2P/3W) hardwired on the Daker UPS. Bottom-Front feed.</li> <li>• Location: Right backside cabinet.</li> </ul>
OPTIONAL (646862 Basic) (PXE-1493T-A6K1 Advanced)	1 x Legrand Basic Zero-U PDU 16A/ 1 Phase (Feed B). <ul style="list-style-type: none"> <li>• Outlets: 4x C19 + 20 x C13.</li> <li>• Housing: Aluminum with a red strip on the edges.</li> <li>• Dimensions: 52 x 51 x 1161 mm</li> <li>• Power cord (H07 RN Neoprene 3FG 2,5mm<sup>2</sup>) with CEE plug, 3 meters. Top-Front feed.</li> <li>• Location: Left backside cabinet.</li> </ul>	1 x Raritan PXE1493T-A6K1 Monitored zero-U PDU 32Amp/ 1 Phase (Feed B). <ul style="list-style-type: none"> <li>• Outlets: 20 x C13 + 4 x C19.</li> <li>• Colour housing: Red</li> <li>• Dimensions: 52 x 53 x 1539 mm</li> <li>• Power cord (2P/3W) with CEE plug, 5 meters. Top-Front feed.</li> <li>• Location: Left backside cabinet.</li> </ul>
OPTIONAL (646826 / 646827 / 646828 / 646829)	1 x Legrand 19" inch PDU, 1 Phase 16 Ampere. <ul style="list-style-type: none"> <li>• Dimensions: 52 x 51 x 425 mm</li> <li>• Outlets Optional: (9 x Schuko / 9 x UTE / 7 x (UK) BS1306 / 10x (CH) T23)</li> </ul>	1 x Legrand 19" inch PDU, 1 Phase 16 Ampere. <ul style="list-style-type: none"> <li>• Dimensions: 52 x 51 x 425 mm</li> <li>• Outlets Optional: (9 x Schuko / 9 x UTE / 7 x (UK) BS1306 / 10x (CH) T23)</li> </ul>
UPS	<b>UPS Type:</b> Legrand Daker DK +3000; 3 kVA <ul style="list-style-type: none"> <li>• UPS dimensions (lxhxd): 440 x 88 x 600 mm.</li> <li>• UPS-architecture: 19" inch, 2U</li> <li>• Location cabinet: 2/3 U.</li> <li>• UPS Weight: ± 30 KG</li> <li>• Nominal Power: 3000 VA</li> <li>• Active Power: 2700 W</li> <li>• IP rating: IP21 (conform IEC60529)</li> <li>• Input voltage: 230 V</li> <li>• Output voltage: 230 V ±1%</li> <li>• Bypass: Not applicable, due to optional Legrand Zero U Feed B PDU.</li> <li>• Overload protection: 105% none 120 % max 20 sec 150 % max 10 sec</li> <li>• Batteries: 6 pieces</li> <li>Autonomy time by 80% load: 8 min</li> <li>Charging time: 4-6 hours with 80% load</li> </ul>	<b>UPS Type:</b> Legrand Daker DK +5000 ; 5,0 kVA <ul style="list-style-type: none"> <li>• UPS dimensions (lxhxd): 440 x 176 x 680 mm.</li> <li>• UPS-architecture: 19" inch, 4U</li> <li>• Location cabinet: 2/3/4/5 U.</li> <li>• UPS Weight: ± 60 KG</li> <li>• Nominal Power: 5000 VA</li> <li>• Active Power: 5000 W</li> <li>• IP rating: IP21 (conform IEC60529)</li> <li>• Input voltage: 230 V</li> <li>• Output voltage: 230 V ±1%</li> <li>• Bypass: Not applicable, due to optional Raritan monitored 0U Feed B PDU.</li> <li>• Overload protection: 105% none 120 % max 20 sec 140 % max 10 sec</li> <li>• Batteries: 20 pieces</li> <li>Autonomy time by 80% load: 4 min</li> <li>Charging time: 4 hours with 90 % load</li> </ul>
OPTIONAL (310930)	<ul style="list-style-type: none"> <li>• Monitoring: SNMP module</li> <li>• Certification: CE / EN 62040-1 / EN 62040-2 / EN 62040-3</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring: SNMP module</li> <li>• Certification: CE / EN 62040-1 / EN 62040-2 / EN 62040-3</li> </ul>
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 tray 125 mm width Location: backside cabinet left and right side.	2 x vertical cable tray 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.

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

MiniCube - Automatic door opener		2,0 kW Basic	3,5 kW Advanced
General information			
Applicability		-	446172
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



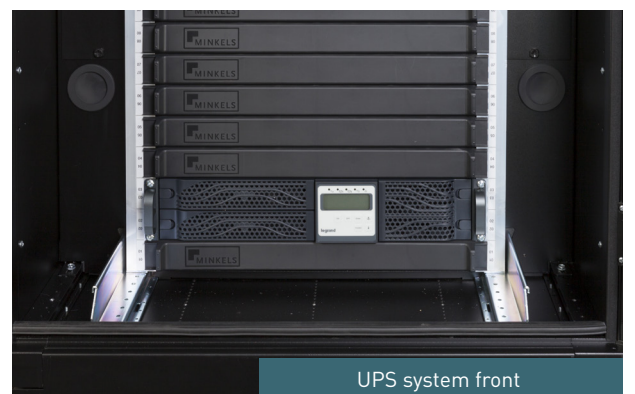
Energy management / monitoring



19-inch PDU



UPS system back



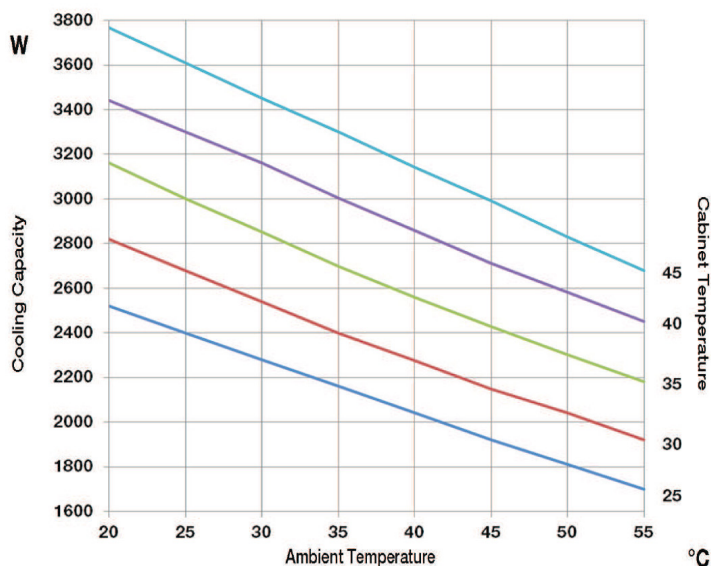
UPS system front

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
	Noise level	dB(A)	77
	Protection degree (internal)	IP54	
	Protection degree (external)	IP34	
	Cooling capacity L35L35 <sup>1</sup>	W	2700
	Cooling capacity L35L50 <sup>2</sup>	W	2300
	Refrigerant type	R-134a	
	Power supply Top of rack cooler	V/Ph/Hz	230V/1Ph/50-60Hz
	Maximum running current	A	7
	Starting current	A	38
	Pre fuse	A	16
	Power consumption L35L50 <sup>2</sup>	W	1580
	Max. Airflow	M3/H	860
	Regulation Temperature limits	°C	25 - 45
	Ambient temperature limits	°C	10 - 55
	Monitoring	-	Yes, in combination with the Raritan DX-D2C6 sensor block.
	Certification	CE	

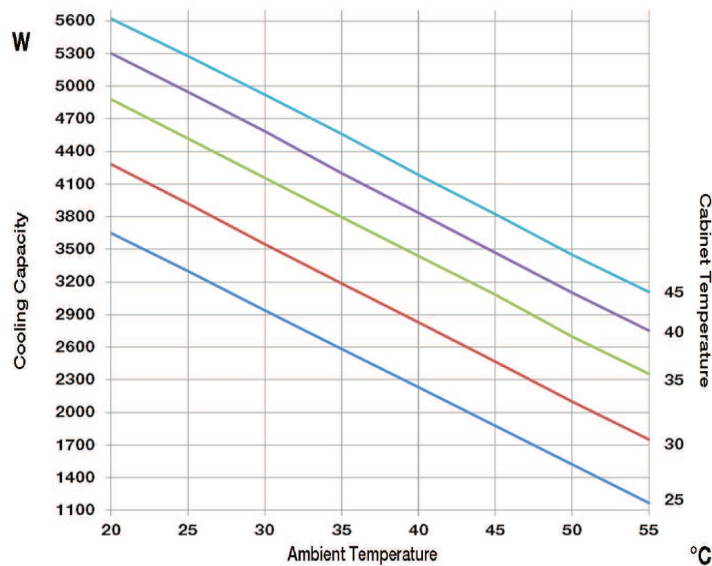
<sup>1</sup> L35 L35: Return Air Temperature inside MiniCube 35°C, Ambient temperature where the MiniCube is placed 35°C.

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

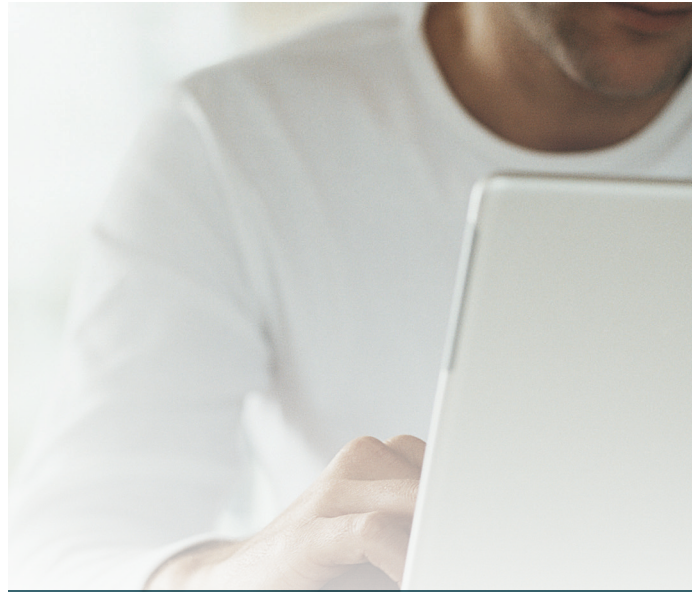
Cooling Capacity MiniCube 2,0 kW Basic<sup>1</sup>



Cooling Capacity MiniCube 3,5 kW Advanced<sup>1</sup>



<sup>1</sup> Cooling capacity calculated with cooler only.



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