

## Vertiv<sup>™</sup> Power Module 400/600

Up to 600kW scalable power infrastructure in a "plug and play" enclosure

## Vertiv<sup>™</sup> Power Module 400/600

Vertiv<sup>™</sup> Power Module 400/600 enables you to deploy isolated and scalable critical power infrastructure capacity just in time to meet your business demands.



power infrastructure is always operating at

high utilization and efficiency, constantly

Power Module 400/600 is both internally

a single unit can operate with N+1 or 2N

Modules in an overall redundant site

Vertiv™ Critical Power and Thermal

Management technologies to deliver a

simple, yet robust design that grows with

your needs at the most critical locations.

Power Module 400/600 incorporates:

• Liebert® EXL S1 UPS offering industry-

leading power density and proven

Multiple switchboard configurations

offering distribution options for both

Busway provides trunking capability

critical (UPS-protected) and

and hot scalability

non-critical downstream loads

redundancy, or you can incorporate Power

architecture. Power Module leverages core

and externally hot scalable — you can add

capacity with systems internally, or you can

maximizing ROI.

reliability

Deploying critical power infrastructure at a new or existing site is challenging. Scheduling of skilled technicians from different disciplines, delays to activities that can't be started until a prior activity is complete, and the mandate to maintain uptime for existing sites, all present serious challenges to the growth or consolidation of critical facilities. And that doesn't even factor in the extra challenge of planning for an uncertain future.

What if you could deploy scalable critical power infrastructure in a pre-packaged way that made it independent from other construction activities? With the Vertiv Power Module 400/600, you can deploy the right amount of power to satisfy your needs today — in 120kVA or 200kVA increments — while allowing you to scale to the needs of tomorrow.

The key benefit of Power Module 400/600 is a modular and scalable architecture that allows you to delay capital investment in your infrastructure until you absolutely need it, meaning you can gather data to make the best business decision. It also means your

Exterior view of Vertiv Power Module 400/600

- Available in N, N+1 or 2N configurations
- Flexible incoming and outgoing power connections, overhead or underfloor
- Breaker-based normal to emergency power automated transfer
- add additional Power Modules. This means Integral energy storage with VRLA batteries
  - Redundant Liebert thermal management units with air containment - ensuring optimal operating conditions for all subsystems, even in the event of utility power loss
  - Clean agent fire suppression

All subsystems are factory installed into a secure, weatherproof, and transportable enclosure — simplifying and drastically shortening on site time required to install and startup, and reducing the potential for risk, quality, or schedule delays — from arrival onsite to startup and commissioning in just days instead of months.

	N+1				
UPS 200kVA		UPS 120kVA		UPS 200kVA	
Nominal Capacity	UPS System Configuration	Nominal Capacity	UPS System Configuration	No Caj	
400kVA	1+1	120kVA	1+1	200	
600kVA	2+1	240kVA	2+1	400	
	3+1	360kVA	3+1	600	
	4+1	480kVA			
	5+1	600kVA			
	200kVA Nominal Capacity 400kVA 600kVA	Nominal CapacityUPS System Configuration400kVA1+1600kVA2+13+13+14+15+1	Nominal CapacityUPS 120kVA400kVAUPS System ConfigurationNominal Capacity400kVA1+1120kVA600kVA2+1240kVA3+1360kVA3+1360kVA4+1480kVA5+1600kVA	N+1UPS 120kVAUPS 120kVANominal CapacityUPS System ConfigurationUPS System Configuration400kVA1+1120kVA1+1600kVA2+1240kVA2+13+1360kVA3+11414+1480kVA5+1600kVA	

#### 2N

UPS 120kVA		UPS 200kVA		
UPS System Configuration	Nominal Capacity	UPS System Configuration	Nominal Capacity	
1+1	120kVA	1+1	200kVA	
2+2	240kVA	2+2	400kVA	
3+3	360kVA			





#### **Preconfigured Systems**

Cutaway view of Power Module 400/600- example N+1 configuration

## Vertiv<sup>™</sup> Power Module 400/600

### Day One N Installation







## **Final Site 2N Installation**



### Final Site N+1 Installation



е



### **Day One 2N Installation**

## **Capacity & Installation Flexibility**



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## Power Module 400/600 Technical Specifications

REFERENCE DESIGN	Power Module - 400			Power Module - 600		
Enclosure External Dimensions						
Enclosure Length			11970mm			
Single Enclosure Width			3400mm			
Enclosure Height			3225mm			
Estimated Transportation Weight			up to 22t			
			up to 22t			
Region						
Voltage/Frequency	230/400V-3ph / 50Hz					
Recommended Transformer Size	750kVA 1250kVA			A		
UPS						
UPS Type			Liebert® EXL S1			
UPS System Configuration	2N			N/N	l+1	
UPS Rating	120kVA	200kVA		120kVA	200kVA	
UPS Active Power	120kW@pf 1	200kW@pf 1		120kW@pf 1	200kW@pf 1	
Maximum Number of UPS Units	3+3	2+2		5+1	3+1	
UPS Power Connection (Hot scalable)			Busbar			
Battery						
Battery Type			VRLA			
Number of Maximum Battery Strings	1 per UPS unit	2 per UPS unit		1 per UPS unit	2 per UPS unit	
				Option 1:	Option 1:	
				11 min @ 600kW	11 min @ 600kW	
Battery Backup	11 min @ 360kW	11 min @ 400kW		Option 2:	Option 2:	
Battery Disconnector Per String		Fused St	witch Disconnector	(DC-20)	19 min @ 600kw	
Cooling		1 4004 0		(2020)		
Cooling Unit Model	1 (2	2)	Liebert PDX033		2	
Cooling Unit Redundancy	I (2)		2 N+1			
Nominal Cooling Capacity per Unit	33kW					
Exterior Ambient Operating Range			-20°C to +45°C			
Fire Detection and Suppression						
Fire Detection System			Conventional			
Fire Suppression System			NOVEC™1230			
Designed Concentration			5.6%			
Very Early Smoke Detection System			Optional			
Lighting						
Lighting Element			LED			
Lighting Illumination at Floor Level			300lx			
Emergency Lighting			LED, 3h backup			
Electrical Distribution						
Main Switchboard Rating	1000A, 3ph&N+E		1600A, 3ph&N+E			
Rated Operational Voltage (Ue)	400V/50Hz					
Rated Short-Time Withstand Current (Icw@1s)	35	ōkA			35kA	
IP Rating			30			
Form of Separation	Form Type	2b; IEC 61439		Form Typ	be 2b; IEC 61439	
Automatic Transfer Switch			Breaker Based			
UPS Load Distribution Points:	E.,	2504			6x250A	
Cooling & Non-Critical Load Distribution Points	SX	200A			UNZJUA	
Distributed Feed	Ĺγ	250A			4x250A	
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Interior view of Power Module 400/600





Vertiv Croatia d.o.o., Selska cesta 93, P.P. 97, Zagreb HR-10002, CROATIA, VAT Number: HR06964027639

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