

VERTIV™ SmartMod™ is a flexible platform, optimized for simplified deployment of your IT critical assets

For small room IT deployments of between 2 and 12 racks and 90kW or less, VERTIV™ SmartMod™ offers a simple way to install capacity in a fraction of the time a typical IT build might take. With integrated, preengineered, and pre-fabricated infrastructure, you can rapidly achieve your objectives. And you don't have to blow the budget, or overbuild based on uncertain future needs – with right-sized systems designed to work together and optimized for constructability, you can build just what you need today, better aligning your capital plans to your business challenges.

SmartMod™ Leverages core VERTIV™ Critical Power, Thermal Management, and Monitoring & Control technologies.

SmartMod™ incorporates:

- Modular and scalable Liebert® UPS power protection
- Close-coupled in-row Liebert® CRV thermal management units with intelligent iCOM controls
- Classic and cost-effective Knürr® racks
- VERTIV™ rack PDU's
- Thermal containment to isolate



Cutaway illustration of VERTIV™ SmartMod™

hot aisle and cold aisle airflows for optimum thermal performance

- Automatic Transfer Switch (ATS) to reliably select normal or emergency power sources
- Clean agent fire suppression with VESDA early smoke detection
- Overhead infrastructure, including piping, electrical distribution, and fiber ducts

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.

Configuration options are available to provide desired redundancy (N, N+1, 2N) and battery runtime. In addition, when deploying multiple units or at multiple locations, having a common look and feel, layout, and equipment kit simplifies maintenance and operations activities. And VERTIV™ backs it all up with the service and support network you have come to expect from us.

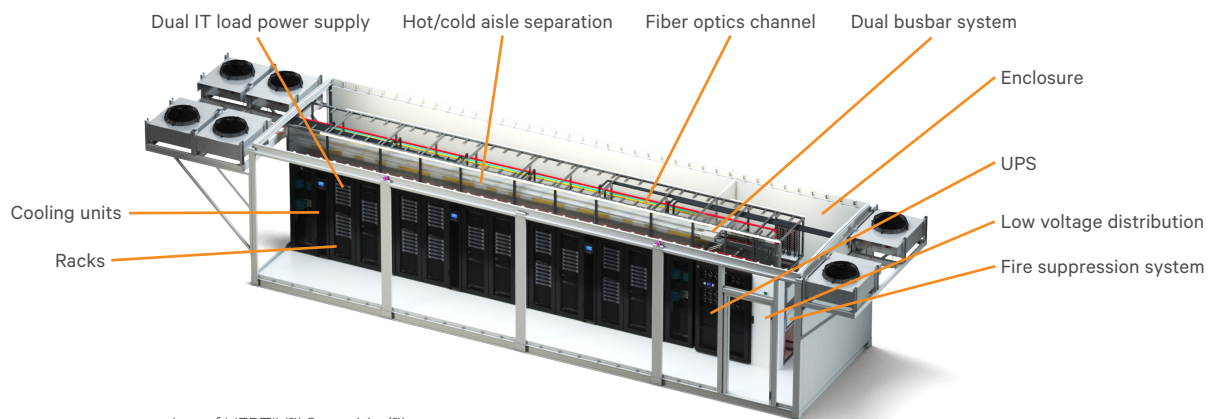
TECHNICAL	N								2N			
	40		60		80		90		60		90	
Max IT capacity (kW)	40		60		80		90		60		90	
Rack width (mm)	600		800		600		800		600		800	
2	15-2A-40/1											
3			20-3B-40/1									
4	20-4A-40/1											
5			25-5B-40/1									
6					25-6A-60/1							
7												
8			30-8A-60/1						40-8B-60/2			
9									40-9B-60/2			
10			40-10B-60/1		35-10A-80/1							
11											40-11A-90/2	
12 RACKS							40-12A-90/1					

VERTIV™ SmartMod™ Selection grid

- Cells that contain exact reference design names reflect optimized parameters for that Solution
- Design parameters within the colored extended range can be valid, though the configuration may be less optimal
- For design parameters outside of the extended range, the indicated Solution may not be cost-effective or may even be invalid
- Minor configuration changes are possible (varying rack counts/dimensions, longer battery runtimes, etc.) – check with your Solutions Architects for details and support

VERTIV™ SMARTMOD™ Specifications

TECHNICAL SPECIFICATIONS												
Reference design	15-2A-40/1	20-3B-40/1	20-4A-40/1	25-5B-40/1	25-6A-60/1	30-8A-60/1	35-10A-80/1	40-8B-60/2	40-9B-60/2	40-10B-60/1	40-11A-90/2	40-12A-90/1
ENCLOSURE EXTERNAL DIMENSIONS												
Lenght (mm)	4692	6192	6192	7692	7692	9192	10692	12192	12192	12192	12192	12192
Width (mm)	3440	3440	3440	3440	3440	3440	3440	3440	3440	3440	3440	3440
Height (mm)	3245	3245	3245	3245	3245	3245	3245	3245	3245	3245	3245	3245
Overall Length (mm)	5952	7452	7452	9175	10067	11567	13435	14567	14567	14567	15827	15827
Weight (kg)	8700	9300	9900	11600	12300	13700	16300	16800	16400	16200	18300	17400
INPUT AC PARAMETERS												
Region	EMEA (variations for UK and Middle East)											
Voltage / Frequency	230/400V-3ph / 50Hz											
IT RACKS												
Rack height	42U (2000mm)											
Rack depth	1100mm											
800mm wide racks	-	3	-	5	-	-	-	8	9	10	-	-
600mm wide racks	2	-	4	-	6	8	10	-	-	-	11	12
Rack load	8kN											
ELECTRICAL												
MDB	1	1	1	1	1	1	1	2	2	1	2	1
Connection boxes	2											
ATS	1											
UPS cabinet	1	1	1	1	1	1	1	2	2	1	2	1
UPS module Redundancy	N+1	N+1	N+1	N+1	N+1	N+1	N+1	2N+1	2N+1	N+1	2N	N
UPS Rating	40kW	40kW	40kW	40kW	60kW	60kW	80kW	60kW	60kW	60kW	90kW	90kW
Battery backup time	5min	5min	5min	5min	5min	5min	3,7min	5min	5min	5min	5min	5min
Busbar system	2											
PDU	2 per rack											
PDU capacity (max, @230/400V-3ph)	3x32A	3x32A	3x16A	3x16A	3x16A	3x16A	3x16A	3x16A	3x16A	3x16A	3x16A	3x16A
PDU Type	monitored											
MECHANICAL												
Air Conditioning Type	In Row, Direct Expansion											
Air Conditioning Redundancy	N	N	N	N+1	N+1	N+1	N+1	N+1	N+1	N+1	N+1	N+1
Air Conditioning Units	2	2	2	3	4	4	5	4	4	4	6	6
Cooling capacity (35°C)	42kW	42kW	42kW	42kW	63kW	63kW	84kW	63kW	63kW	63kW	105kW	105kW
Exterior Ambient Operating Range	-20°C to +45°C											
FIRE DETECTION AND SUPPRESSION												
Very Early Smoke Detection System	Optional											
Fire Detection System	Optical											
Fire Suppression System	NOVEC™ 1230											
CABLE TRAYS												
LAN cable tray	200mm wide mesh											
Fiber Optic tray	4" x 4"											
Spill-over exit	Single per IT rack											
LIGHTING												
Lighting Element	LED											
Lighting Illumination	300lx											
Emergency Lighting	LED, 3h backup											



component overview of VERTIV™ SmartMod™