

Magnum VS

Modular, rack-mountable DC power supply for wireless and broadband network applications, and customer premises equipment.



Magnum VS100



Magnum VS50



**Modular and flexible
-48V DC power systems.**

The Magnum VS Series is a modular -48Vdc power supply with unique features that make it easy to install, maintain and upgrade, and is, hence, a flexible power system that meets telecommunication and industrial application requirements.

There are two Magnum VS models; the Magnum VS 50 is a single-shelf, 50A system, and the Magnum VS 100 is a dual-shelf 100A system.

- **Configurable**
- **Reliable**
- **Intelligent**
- **Manageable**

Magnum VS

Features:

- Universal AC input: 88V – 264Vac RMS
- 19" or 23" rack mountable
- Hot-swappable AC-DC rectifiers ①
- Operating temperature range:
-40°C to +60°C (-40°F to +140°F)
- Integrated System Controller: ②
SNMP & WEB Interface
- Battery temperature recharge compensation
- Scalable power : 10A to 50A or 100A
- Integrated Low Voltage Disconnect

Flexible Installation:

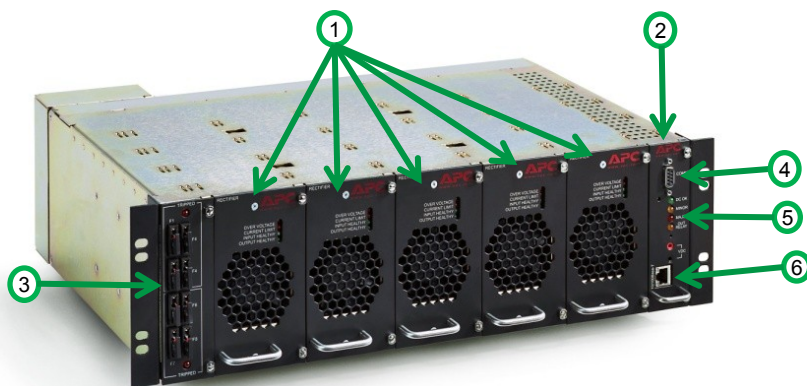
- Two and four post rack mountable
- Hardwired Input / Output
- Configurable AC input: 1Ø or 3Ø (Star or Delta)
- Output distribution options ③
 - VS50: 8 x GMT fuses or 2 x 30A or 1 x 60A circuit breakers
 - VS100: 16 x GMT fuses or 4 x 30A or 2 x 60A circuit breakers
- Configurable DC output power in 10A steps
- Software adjustable control and alarms

Applications:

- Wireless Networks: Powering transmission equipment and amplifiers:
 - Mobile communications
 - Microwave links
 - Broadband
- Customer premises equipment :
 - PBX
 - VOIP
 - Broadband / fiber to the premises
- Broadband and fiber optic networks

Manageable:

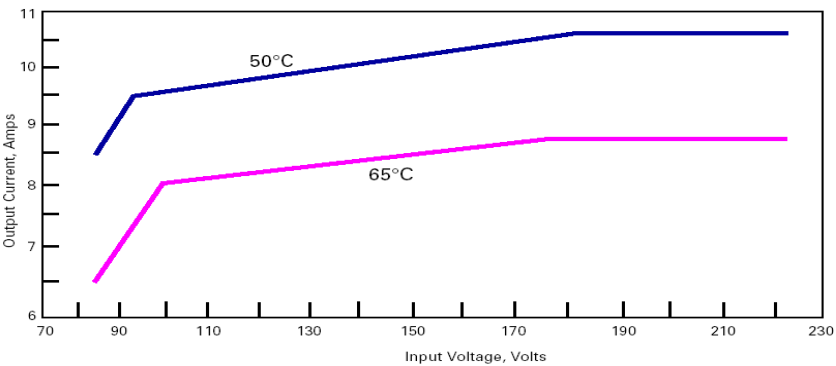
- Integrated dry contact output alarms
- User external alarm inputs
- DB-9 Serial Port Communications ④
- LED Status Indicators: ⑤
 - DC OK
 - Minor alarm
 - Major alarm
 - Output relay energized
 - Fuse or circuit breaker trip
- Ethernet connection point ⑥



Magnum VS

SKU Group	Magnum VS50		Magnum VS100
Input			
Input Voltage Range	88 – 264V per section (System configurable for 1Ø or 3Ø operation)		
Input Frequency	45 - 65Hz		
Input Current	5.5A nominal @ 115Vac and 3.0A nominal @ 230Vac per rectifier (All values are RMS)		
Input Power Factor	Typically 0.99 at full load (0.98 minimum)		
Input Connections	Hardwired Input (1Ø: 3-Wire; PH-N-G, 3Ø: 5-Wire; 3PH-N-G, 4-Wire; 3PH-G)		
Output			
Nominal Output Voltage	-48Vdc (Nominal float charge voltage at 25°C, -54Vdc)		
Maximum Output Capacity	-54Vdc at 52.5A - (AC input >176Vac at< 50°C)	-54Vdc at 105A - (AC input >176Vac at< 50°C)	
Efficiency (Full-Load)	Typically 85% (including rectifier output diode) at full load		
System Output Noise	< 25mV rms, 10Hz to 100MHz, < 32dBmC, 1.0 mV rms psophometric		
Output Distribution Connections	30A Circuit Breakers module: Pair of #10-32 studs on 5/8" centers per connection		
	60A Circuit Breaker module: Pair of #10-32 studs on 5/8" centers per connection		
	GMT fuses: Screw terminal connections for ring terminals with a 0.170 in (4.3 mm) clearance hole		
Battery			
Battery Type	Designed for use with external VRLA, nominal 48Vdc		
Battery Protection	Low Voltage Disconnect to prevent battery deep discharge		
	Battery polarity reversal protection to prevent accidental reverse connections		
	Battery over current protection via external module, options available		
Battery Recharge	Battery temperature recharge compensation		
	External temperature probe included, terminated at the rear of the chassis		
	Battery recharge current limit, user adjustable		
Battery Connections	Pair of #10-32 studs on 5/8" centers per connection		
CEMF Connections	Pair of #10-32 studs on 5/8" centers per connection		
Communications and Controls			
Serial Port	DB9; System Status, and Control of User Configurable Parameters via Telnet		
SNMP and WEB access	APC NMC card integrated as standard. WEB and SNMP via galvanic isolated RJ45 socket		
System User Alarms and external control	4 User Inputs – 2 Normally Closed – 2 Normally Open		
	3 User Outputs – Major, Minor & user defined – "Form C" relays		
	Connections via quick connect terminals at the rear of the chassis		
Visual Status Indicators			
System LEDs	DC OK – Green		
	Major Alarm - Red		
	Minor Alarm – Yellow		
	Out Relay – Yellow (Customer configurable alarm function)		
Physical			
Dimensions (H x W x D)	5.25" x 17.25" x 13" (133 x 438 x 330 mm)	10.5" x 17.25" x 13" (267 x 438 x 330 mm)	
Net Weight	19lb (8.6kg) + 4lb (1.8kg) per additional rectifier	34lb (15.4kg) + 4lb (1.8kg) per additional rectifier	
Color	Black front panels with yellow zinc finish chassis		
Environment (Excluding battery)			
Operating Temperature	-40°C to +55°C (-40°F to 131°F) with derating to +65°C (149°F), as per rectifier details		
Operating Humidity	0 - 85% RH Non-Condensing)		
Storage Temperature	-45 To +85°C (-49°F to 185°F)		
Storage Humidity	0 - 95% (Non-Condensing)		
Conformance			
Regulatory Certifications	UL 60950, CE, FCC Part 15 Class A, EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3		

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Rectifier	
Rectifier (AC / DC) SKU	1TWF0500H54B
Nominal Output Voltage	54.5Vdc
Efficiency	85% Typical
Over Voltage Protection	59.5Vdc
Output Current	9.0 A Minimum Continuous at 115 Vac Input 10.5 A Minimum Continuous at 230 Vac Input.
Output Current Limit	9.3 A Maximum at 115 Vac Input 11.0 A Maximum at 230 Vac Input
Power Output @ 54.5Vdc	490 W Continuous at 115 Vac Input 570 W Continuous at 230 Vac Input
Rectifier Output Current Characteristics against AC Input and Temperature	 <p>Note: Unit operates on AC input supplies up to 264Vac</p>
Rectifier LED Status Indication	Overvoltage – Red Current Limit – Red Input Healthy – Green Output Healthy – Green

Configured SKU Options						
SKU Number	Magnum VS Group	Rectifiers Fitted	Additional Rectifier Slots Available	8 x GMT Fuse Distribution Module	2 x 30A CB Distribution Module	1 x 60A CB Distribution Module
DCM00K03SGMT	VS50	One (1)	Four (4)	One (1)	X	X
DCM00K03S2X30	VS50	One (1)	Four (4)	X	One (1)	X
DCM00K03S1X60	VS50	One (1)	Four (4)	X	X	One (1)
DCM00K06SGMT	VS100	One (1)	Nine (9)	Two (2)	X	X
DCM00K06S4X30	VS100	One (1)	Nine (9)	X	Two (2)	X
DCM00K06S2X60	VS100	One (1)	Nine (9)	X	X	Two (2)
Optional SKU Items for Magnum VS Solutions						
SKU Number	Description					Region Availability
1TWF0500H54B	Rectifier					All
DCBT005	-48V 100AH C10 Battery String with inter-links					All
DCMOPTBATE	2U 19" Battery Disconnect Module with Four (4) 100A CB & Cables Kit					EMEA
DCMOPTBATN	19"-Frame Battery Tray, CB Disconnect, Termination Bus & Cable Kit					NAM
DCMOPTCS1	2 AC line cords with L6-30P connectors					NAM
DCMOPT23RM	23" Rack/Frame mounting kit VS50 & VS100					All

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