

## How to read this sizing guide:

1. Choose which level of power protection you desire (3-, 5-, 9-series UPS).
2. Choose the load you want to protect from the top horizontal line. To determine how much power your computer or equipment consumes, check its label. Electric power is measured in watt (W) or voltampere (VA). In some instances, just the power usage is measured in ampere (A).
  - If the label states A (Amp), multiply by 230V. The result is the VA power.
  - If it states W (Watt), divide by 0.7. The result is the VA power.

- In case you want to secure future expansion capabilities, it is advisable to make an overestimate of 20-30%.
3. Follow the column down until you find the figure indicating your desired back-up time (in minutes unless otherwise indicated). The leftmost column shows you the correct UPS solution for the task.

Runtimes are typical values and calculated for typical computer loads.

We also recommend you to use the Powerware UPS Selector on [www.powerware.com](http://www.powerware.com)

Load	250 VA	500 VA	750 VA	1000 VA	1500 VA	2000 VA	2500 VA	3000 VA
<b>Powerware cabinet UPSs</b>								
<b>Series 3, single conversion</b>								
3105 350 VA	8							
3105 500 VA	8	3						
<b>Series 5, line-interactive</b>								
5110 500 VA	8	3						
5110 700 VA	14	6	3 <sup>1</sup>					
5110 1000 VA	35	15	10	5				
5115 500 VA	15	5						
5115 750 VA	35	13	6					
5115 1000 VA	38	15	8	5				
5115 1400 VA	55	28	14	8	5 <sup>2</sup>			
5125 1000 VA	38	16	10	5				
5125 1500 VA	56	32	22	13	6			
5125 2200 VA	125	60	44	28	15	7		
5125 1000 VA + 1 battery cabinet	190	100	70	50				
5125 1500 VA + 1 battery cabinet	240	140	100	60	35			
5125 2200 VA + 1 battery cabinet	280	160	115	75	50	30		
<b>Series 9, double conversion</b>								
9120 700 VA	28	13	8 <sup>3</sup>					
9120 700 VA + 1 battery cabinet	105	50	35					
9120 700 VA + 2 battery cabinet	200	100	65					
9120 1000 VA	45	21	15	8				
9120 1000 VA + 1 battery cabinet	160	85	55	37				
9120 1000 VA + 2 battery cabinet	> 4 hours	160	110	68				
9120 1500 VA	55	28	20	14	7			
9120 1500 VA + 1 battery cabinet	230	115	80	55	33			
9120 1500 VA + 2 battery cabinet	> 4 hours	220	150	100	60			
9120 2000 VA	120	65	40	30	19	12		
9120 2000 VA + 1 battery cabinet	> 7 hours	> 4 hours	180	125	70	55		
9120 2000 VA + 2 battery cabinet	> 10 hours	> 7 hours	> 4 hours	220	140	100		
9120 3000 VA	120	65	40	30	19	14	10	8
9120 3000 VA + 1 battery cabinet	> 7 hours	> 4 hours	180	125	70	55	45	30
9120 3000 VA + 2 battery cabinet	> 10 hours	> 7 hours	> 4 hours	220	140	100	80	65

<sup>1</sup> 5110 700 VA backup time 3 min with 700 VA load <sup>2</sup> 5115 1400 VA backup time 5 min with 1400 VA load <sup>3</sup> 9120 700 VA backup time 8 min with 700 VA load

Load	1 kVA	2 kVA	3 kVA	4 kVA	5 kVA	6 kVA
<b>Series 9, double conversion hardwired UPS</b>						
9120 5 kVA	80	38	23	15	10	
9120 5 kVA + 1 battery cabinet	300	145	90	65	45	
9120 5 kVA + 2 battery cabinets	480	300	150	120	85	
9120 6 kVA	80	38	123	15	10	7
9120 6 kVA + 1 battery cabinet	300	145	90	65	45	30
9120 6 kVA + 2 battery cabinets	480	300	150	120	85	65

Load	3 kVA	4 kVA	5 kVA	6 kVA	8 kVA	10 kVA	12 kVA	15 kVA
<b>9155 8-15 kVA; 9355 8-15 kVA, with internal battery</b>								
9155/9355 + 1 battery cabinet (7Ah battery)	36	26	20	15	10	6		
9155/9355 + 2 battery cabinets (7Ah battery)	86	66	46	38	28	20	15	10
9155/9355 + 1 battery cabinet (9Ah battery)	42	32	24	21	15	10	8	5
9155/9355 + 2 battery cabinets (9Ah battery)	95	74	61	44	33	25	20	15

Load	5 kVA	10 kVA	15 kVA	20 kVA	25 kVA	30 kVA	35 kVA	40 kVA
<b>9155 20-30 kVA; 9355 20-40 kVA, with internal battery</b>								
9155/9355 + 2 battery cabinets (7Ah battery)	60	24	14	10	6			
9155/9355 + 3 battery cabinets (7Ah battery)	103	41	26	17	12	10	7	5
9155/9355 + 4 battery cabinets (7Ah battery)	152	55	40	26	18	15	11	9
9155/9355 + 1 battery cabinet (9Ah battery)	30	12	7	5				
9155/9355 + 2 battery cabinets (9Ah battery)	70	28	18	13	10	7	5	
9155/9355 + 3 battery cabinets (9Ah battery)	115	46	31	22	16	13	10	8
9155/9355 + 4 battery cabinets (9Ah battery)	158	63	42	31	23	20	15	12

Load	250 VA	500 VA	750 VA	1000 VA	1500 VA	2000 VA	2500 VA	3000 VA	4 kVA	5 kVA	6 kVA
<b>Powerware rackmount UPSs</b>											
<b>Series 5, line-interactive</b>											
5115 RM 500 VA	15	15									
5115 RM 750 VA	35	13	6								
5115 RM 1000 VA	38	15	8	5							
5115 RM 1500 VA	55	28	14	8	5						
5125 RM 1000 VA*	36	19	13	7							
5125 RM 1500 VA*	36	19	13	7	5						
5125 RM 3000 VA*	110	45	30	20	15	11	6	5			
5125 RM 6 kVA*	>4h	180	100	59	40	26	19	15	10	7	5
5125 RM 6 kVA* + 1 battery cabinet	>4h	>4h	140	169	110	79	61	49	32	24	19
5125 RM 6 kVA* + 2 battery cabinets	>4h	>4h	>4h	300	200	138	106	85	64	46	36

\* NOTE: 5125 RM back-up times given with output power factor 0.9.

Load	1 kVA	2 kVA	3 kVA	4 kVA	5 kVA	6 kVA
<b>Series 9, double conversion</b>						
9125 RM 1000 VA	35	15	9	5		
9125 RM 1500 VA	60	40	25	16	8	
9125 RM 2000 VA	60	40	25	16	8	5
9125 RM 3000 VA	80	45	30	21	13	9

Load	1 kVA	2 kVA	3 kVA	4 kVA	5 kVA	6 kVA
<b>Series 9, double conversion hardwired rackmount UPS</b>						
9125 RM 5/6 kVA	75	36	24	18	13	10*
9125 RM 5/6 kVA + 1 battery cabinet	140	105	70	48	37	30*
9125 RM 5/6 kVA + 2 battery cabinets	200	180	120	85	65	52*

\* Powerware 9125 RM 6 kVA

Load	1250 VA	2500 VA	5000 VA	7500 VA	8750 VA	10 VA
<b>Series 9, double conversion hardwired rackmount UPS</b>						
9140 7.5/10 kVA	80	31	12	7	6*	5*
9140 7.5/10 kVA + 1 battery cabinet	137	61	27	17	14*	12*
9140 7.5/10 kVA + 2 battery cabinets	189	99	52	35	31*	27*
9140 7.5/10 kVA + 3 battery cabinets	275	138	69	46	40*	35*
9140 7.5/10 kVA + 4 battery cabinets	365	181	90	60	51*	45*

\* Powerware 9140 10 kVA

Load	1600 W	2400 W	4000 W	6000 W	8000 W	9600 W	12 000 W
<b>Powerware BladeUPS</b>							
BladeUPS 12 kVA	55	37	23	13	9	6	4
BladeUPS 12 kVA + 1 battery cabinet	118	78	46	30	21	17	12
BladeUPS 12 kVA + 2 battery cabinets	183	119	69	44	32	26	20
BladeUPS 12 kVA + 3 battery cabinets	253	163	94	59	43	34	27
BladeUPS 12 kVA + 4 battery cabinets	329	211	120	76	54	44	34

Load	# 42U Racks	4KW	8KW	12KW	24KW	36KW	48KW	60KW
1 x BladeUPS 12KVA Internal battery	1	23	9	4.8				
+ 1 External Battery Module	1	46	21	12				
+ 2 External Battery Module	1	69	32	20				
+ 3 External Battery Module	1	94	43	27				
+ 4 External Battery Module	1	120	54	34				
2 x BladeUPS 12KVA N+1 Internal battery	1	45	23	13				
+ 1 External Battery Module	1	95	46	30				
+ 2 External Battery Module	1	146	69	44				
+ 3 External Battery Module	1	202	94	59				
+ 4 External Battery Module	2	262	120	76				
3 x BladeUPS 12KVA N+1 Internal battery	1	35	23	9				
+ 1 External Battery Module	1	73	46	21				
+ 2 External Battery Module	2	111	69	32				
+ 3 External Battery Module	2	151	94	43				
+ 4 External Battery Module	2	196	120	54				
4 x BladeUPS 12KVA N+1 Internal battery	1			32	13	7.7		
+ 1 External Battery Module	2			66	30	18		
+ 2 External Battery Module	2			100	44	28		
+ 3 External Battery Module	2			136	59	37		
+ 4 External Battery Module	2			176	76	47		
5 x BladeUPS 12KVA N+1 Internal battery	1			19	11	6.9		
+ 1 External Battery Module	2			39	25	17		
+ 2 External Battery Module	2			59	37	26		
+ 3 External Battery Module	2			80	50	34		
+ 4 External Battery Module	3			102	63	44		
6 x BladeUPS 12KVA N+1 Internal battery	2			23	13	9	6	
+ 1 External Battery Module	2			46	30	21	15	
+ 2 External Battery Module	2			69	44	32	22	
+ 3 External Battery Module	3			94	59	43	29	
+ 4 External Battery Module	3			120	76	54	37	

More Powerware back-up times and technical specifications can be found on: [www.powerware.com](http://www.powerware.com)

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The Powerware® categorization of UPS products into three different series makes it easy to choose a UPS solution. The products are divided according to how many types of power failure the individual UPS protects against.

PRODUCT	PART NUMBER	RATING	DIMENSIONS WxDxH (mm)	INPUT CONNECTION	OUTPUT CONNECTION	ACCESSORIES	OPTIONS	EXAMPLE ePDU		
<b>POWERWARE 3105</b>	103004343-5591	350 VA Schuko	280x180x125	IEC320/10A	3xSchuko+3xSchuko IEC320/10A surge only	Software & USB cable		PW104BA0UA66, 16 A, BA		
	103004344-5591	500 VA Schuko	280x180x125	IEC320/10A	3xSchuko+3xSchuko IEC320/10A surge only	RJ 11 cable, Software Suite CD				
	103004249-5591	350 VA	280x180x115	IEC320/10A	4xIEC320/10A+4 IEC320/10A surge only	Schuko-IEC input cable (with 350-/500 VA Schuko)				
	103004250-5591	500 VA	280x180x115	IEC320/10A	4xIEC320/10A+4 IEC320/10A surge only	2 x IEC-IEC load cables (with 350-/500 VA)				
<b>POWERWARE 5110</b>	103004261-5591	500 VA	87x260x270	IEC320/10A	4xIEC320/10A+4 IEC320/10A surge only	2 x IEC-IEC load cables		PW104BA0UA66, 16 A, BA		
	103004262-5591	700 VA	87x260x270	IEC320/10A	4xIEC320/10A+4 IEC320/10A surge only	Software & USB cable				
	103004263-5591	1000 VA	87x384x270	IEC320/10A	4xIEC320/10A+4 IEC320/10A surge only	RJ 11 cable, Software Suite CD				
<b>POWERWARE 5115</b>	05146549-5591	500 VA	150x268x185	IEC320/10A	4xIEC320/10A	2 x IEC-IEC load cables	Web/SNMP adapter	PW104ME0UB08, 16 A, ME		
	05146555-5591	750 VA	150x333x185	IEC320/10A	4xIEC320/10A	USB cable				
	05146561-5591	1000 VA	150x333x185	IEC320/10A	6xIEC320/10A	RS cable				
	05146567-5591	1400 VA	150x388x185	IEC320/10A	6xIEC320/10A	Software Suite CD				
<b>POWERWARE 5115 RM</b>	103003267-6591	500 VA	440x580x45	IEC320/10A	4xIEC320/10A	2 x IEC-IEC load cables	ConnectUPS-X Web/SNMP card	PW104ME0UB08, 16 A, ME		
	103003270-6591	750 VA	440x580x45	IEC320/10A	4xIEC320/10A	USB cable, RS cable	Relay/AS400 card			
	103003273-6591	1000 VA	440x580x45	IEC320/10A	4xIEC320/10A	Software Suite CD	Multi Server card			
	103003276-6591	1500 VA	440x580x45	IEC320/10A	4xIEC320/10A	Rack slides	ModBus card			
<b>POWERWARE 5125</b>	05146630-5591	1000 VA	162x401x250	IEC320/10A	6xIEC320/10A	2 x IEC-IEC load cables	External battery cabinet,	PW104ME0UB08, 16 A, ME		
	05146633-5591	1500 VA	162x467x250	IEC320/10A	6xIEC320/10A	RS cable	ConnectUPS-X Web/SNMP card,			
	05146637-5591	2200 VA	205x493x250	IEC320/10A	9xIEC320/10A	Software Suite CD	Relay/AS400 card,			
<b>POWERWARE 5125 RM</b>	05146667-6591	1000 VA	432x494x89	IEC320/10A	6xIEC320/10A	2 x IEC-IEC load cables, RS cable, Software Suite CD	External battery cabinet	PW104ME0UB08, 16 A, ME		
	05146670-6591	1500 VA	432x494x89	IEC320/10A	6xIEC320/10A	Detached Input cable with IEC 309 plug (32 A)*	ConnectUPS-X Web/SNMP card			
	05147641-6591	3000 VA	483x622x89	IEC320/16A	9xIEC320/10A, 1xIEC320/16A	Detached Output cable with IEC 309 plug (32 A)*	Relay/AS400 card			
	103003612-5591	6000 VA	445x661x133	IEC309/32A	IEC309 32A plug, 4xIEC320/16A, 4xIEC320/10A	Rack slides* * with Powerware 5125 RM 6 kVA	Multi Server card			
<b>POWERWARE 9120</b>	05147361-5591	700 VA	155x410x240	IEC320/10A	4xIEC320/10A	<b>700-3000 VA:</b>	External battery cabinet	PW104BA0UB73, 16 A, BA		
	05147362-5591	1000 VA	155x410x240	IEC320/10A	4xIEC320/10A	Schuko-IEC input cable	External Service Bypass switch	PW104ME0UB08, 16 A, ME		
	05147363-5591	1500 VA	170x445x275	IEC320/10A	4xIEC320/10A	2 x IEC-IEC load cables	ISO transformer	PW104MI0UA83, 16 A, MI		
	05147364-5591	2000 VA	225x470x365	IEC320/10A	1xIEC320/16A, 4xIEC320/10A	IEC-3-schuko strip output cable	ConnectUPS-BD Web/SNMP card	PW107MA0UB75, 32 A, MA		
	05147365-5591	3000 VA	225x470x365	IEC320/16A	1xIEC320/16A, 4xIEC320/10A	USB cable, RS cable, Software Suite CD	Relay/AS400 card			
	1026103	5000 VA	280x580x570	Hardwired	Hardwired	<b>5000-6000 VA:</b> USB cable, RS cable				
1026104	6000 VA	280x580x570	Hardwired	Hardwired	Software Suite CD					
<b>POWERWARE 9125 RM</b>	05146011-6591	1000 VA	432x490x89	IEC320/10A	6xIEC320/10A	<b>1000-2000 VA:</b> Schuko-IEC input cable	External battery cabinets	PW104BA0UB73, 16 A, BA		
	05146006-6591	1500 VA	432x490x89	IEC320/10A	6xIEC320/10A	2 x IEC-IEC load cables	ConnectUPS-X Web/SNMP card	PW104ME0UB08, 16 A, ME		
	05146003-6501	2000 VA	432x490x89	IEC320/10A	6xIEC320/10A	RS cable, Software Suite CD	ModBus card	PW104MI0UA83, 16 A, MI		
	103002723-6592	3000 VA	432x610x89	IEC320/16A	1xIEC320/16A, 4xIEC320/10A	<b>3000 VA:</b> Schuko IEC input cable, 2 x IEC-IEC load cables	Relay/AS400 card	PW107MA0UB75, 32 A, MA		
	103003623-6591	5000 VA	440x635x220	Hardwired	Hardwired	IEC-3-schuko strip output cable, RS cable	Multi Server card			
103003625-6591	6000 VA	440x635x220	Hardwired	Hardwired	Software Suite CD					
<b>POWERWARE 9140</b>	103005093-6591	7.5 kVA	430x790x263	Hardwired	Hardwired	USB cable, RS cable	ConnectUPS-X Web/SNMP card,	PW104BA0UB73, 16 A, BA		
	103004728-6591	10 kVA	430x790x263	Hardwired	Hardwired	Software Suite CD	Relay/AS400 card, Multi Server card,	PW107BA0UB74, 32 A, BA		
<b>POWERWARE 9155</b>	9155-8I-S, 9155-8I-N*	8 kVA	305x702x817, 305x702x1214*	1-ph (8/10 kVA), 3-ph (8-15 kVA) input hardwired, Bypass input (redundancy) hardwired	1-ph, output hardwired	RS cable	External battery cabinets	PW104BA0UB73, 16 A, BA		
	9155-10I-S, 9155-10I-N*	10 kVA	305x702x817, 305x702x1214*		1-ph, output hardwired			Software Suite CD	ConnectUPS-X Web/SNMP card	PW107BA0UB74, 32 A, BA
	9155-12I-N*	12 kVA	305x702x817, 305x702x1214*		1-ph, output hardwired				ModBus card	PW104ME0UB08, 16 A, ME
	9155-15I-N*	15 kVA	305x702x817, 305x702x1214*		1-ph, output hardwired				Relay/AS400 card	PW104MI0UB75, 16 A, MI
	9155-20-N*	20 kVA	494x762x1684, 494x758x1684*		1-ph, output hardwired				Multi Server card	PW107MA0UB75, 32 A, MA
	9155-30-N*	30 kVA	494x762x1684, 494x758x1684*		1-ph, output hardwired				Isolation Transformer	
<b>POWERWARE 9355</b>	9355-8-N*	8 kVA	305x702x817, 305x702x1214*	3-ph input hardwired, Bypass input (redundancy) hardwired	3-ph, output hardwired	RS cable	External battery cabinets	PW104BA0UB73, 16 A, BA		
	9355-10-N*	10 kVA	305x702x817, 305x702x1214*		3-ph, output hardwired			Software Suite CD	ConnectUPS-X Web/SNMP card	PW107BA0UB74, 32 A, BA
	9355-12-N*	12 kVA	305x702x817, 305x702x1214*		3-ph, output hardwired				ModBus card	PW104ME0UB08, 16 A, ME
	9355-15-N*	15 kVA	305x702x817, 305x702x1214*		3-ph, output hardwired				Relay/AS400 card	PW104MI0UB75, 16 A, MI
	9355-20-N*	20 kVA	494x762x1684		3-ph, output hardwired				Multi Server card	PW107MA0UB75, 32 A, MA
	9355-30-N*	30 kVA	494x762x1684		3-ph, output hardwired				Isolation Transformer	
<b>POWERWARE BladeUPS</b>	ZC1224410100000	12 kVA	442x660x261 (6U)	IEC 309/32A	IEC 309/32A	Rail & Accessory Kit	External battery cabinets	PW107BA0UC08, 16 A, BA		
	ZC1224010100000	12 kVA	442x660x261 (6U)	IEC 309/32A	Connector for RPM	Web SNMP (with single unit)	ConnectUPS-X Web/SNMP card	PW107MI0UC08, 16 A, MI		
	ZC122P060100000	12 kVA	442x660x261 (6U)	IEC 309/32A	Parallel cord	RS cable	ModBus card			
						Software Suite CD	Relay/AS400 card			
							Multi Server card			
							Blade Bar kit			
							RPM (Rack Power Module)			

\* part description

\* with extra runtime

**1. POWER FAILURE**

**2. POWER SAG**

**3. POWER SURGE**

**4. UNDERVOLTAGE**

**5. OVERVOLTAGE**

**6. SWITCHING TRANSIENT**

**7. LINE NOISE**

**9. HARMONIC DISTORTION**

**8. FREQUENCY VARIATION**

Series 3: Off-Line

Series 5: Line Interactive

Series 9: Double Conversion

## Determine the level of power protection

### Series 3 Single Conversion ("Off-Line")

Basic solutions to protect non-critical hardware and data against three of the nine power problems. **Typical applications:** Standalone PCs, telefax, home equipment, etc.

### Series 5 Line Interactive

Higher protection level against 5 types of power problems. Intermediate solutions for office environment and servers featuring good communication options. These UPSs provide protection against the five most common power problems. **Typical applications:** PC/small servers, network equipment, small storage equipment, etc.

### Series 9 Double Conversion, ("On-Line")

Full power protection against all 9 types of power problems. These double-conversion UPSs with excellent connectivity and communication features provide full protection against all nine types of power problems. **Typical applications:** Critical 24/7 servers, other critical IT applications, etc.

## Complement your UPS system with Powerware ePDU



Powerware ePDUs complement your UPS systems, distributing power anywhere conditioned power must be supplied to multiple pieces of equipment.

**Basic ePDU (BA)** features rugged construction and flexible mounting options.

**Metered ePDU (ME)** offers the EasyRead Digital LED Ammeter for easy start-up and provisioning of servers.

**Monitored ePDU (MI)** offers customers a choice of remotely monitoring the current draw of individual outlets via Ethernet. It also includes the EasyRead Digital LED Ammeter for easy start-up and provisioning of servers.

**Managed ePDU (MA)** features advanced LED display, remote monitoring and management of individual outlets. User-definable sequencing of outlets and time delays permit controlled remote boot-up of servers. Virtual grouping of outlets allows single-click reboot of multicorded servers.