Powerware

Powerware® 9155 Single-phase UPS
Powerware 9355 Three-phase UPS

Product Focus

8-30 kVA

Powerful. Intelligent. Elegant.
Reliability and efficiency have never looked so attractive.

Product Introduction

9155 8-15 kVA
9355 10-15 kVA

9355 20-30 kVA

Product Snapshot

Technology:	**9155:**	Split-phase double-conversion online UPS
	9355:	Three-phase double-conversion online UPS
Power Rating:	**9155:**	8 kVA, 10 kVA, 12 kVA and 15 kVA at 0.9 power factor
	9355:	10 kVA, 15 kVA, 20 kVA and 30 kVA at 0.9 power factor
Input Voltage:	**9155:**	200–240 Vac with Neutral or with optional input isolation transformer
	9355:	208V/120V or 220V/127V
Output Voltage:	**9155:**	100/200, 110/220, 120/240 Vac 180° phase displacement; 120/208, 127/220 Vac 120° phase displacement
	9355:	208V/120V or 220V/127V 480:120V/208V or 600:120/208 with input isolation transformer (at 60 Hz only)
Frequency:		50/60 Hz auto-sensing
Dimensions:		
	9155/9355:	Two-high configuration: 8-15 kVA: 32.2" H x 12" W x 33" D
		Three-high configuration: 10-15 kVA: 47.8" H x 12" W x 33" D
	9355:	20-30 kVA: 63" H x 24" W x 31.5" D
Configuration:		Small-footprint tower, black
Battery Backup:	**9155:**	Up to 29 minutes typical, extendable up to four hours
	9355:	Up to 22 minutes typical, extendable

Features

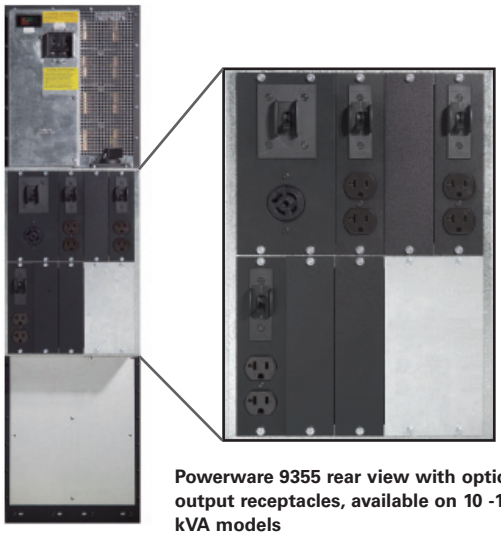
- Protects connected equipment from all nine of the most common power problems with true online, double-conversion topology
- Delivers maximum power density in a compact tower design: 8-15 kVA are only 12" wide and 33" deep, including batteries; 20 and 30 kVA are only 20" wide and 34" deep, including batteries
- Provides more real wattage in less space with a 0.9 output power factor – protecting more equipment for every utility dollar and leaving more room for expansion
- Delivers extra capacity or redundancy through patented Powerware Hot Sync® paralleling of multiple modules
- Significantly increases battery life through microprocessor-controlled ABM® technology
- Provides a 0.99 input power factor and generator friendly <5% total harmonic distortion using an active IGBT rectifier to control the input power factor
- Ensures data and system integrity with complete power management software for remote monitoring, management and shutdown
- Provides investment protection and peace of mind with an Eaton factory limited warranty, technical support and optional service plans

With advances being made in miniaturization and processing power and more equipment being served by dual-cord power supplies, the challenge of protecting that power, and doing so in a limited space, grows ever greater.

Fortunately, advances in technology have also meant that more power protection per square foot can now be provided. The Powerware 9155 and Powerware 9355 uninterruptible power systems (UPS) deliver premium levels of efficiency, reliability and flexibility, all in a sleek tower half the size of most other units on the market today.

These double-conversion, online UPSs resolve all nine common utility power problems and supply clean, continuous power to all connected equipment. Even when presented with the most severe power problems, power output remains stable. And if the utility power goes out altogether, there is no delay transferring to backup power.

These capabilities make the Powerware 9155 and Powerware 9355 ideal for protecting essential data center, communications and electrical engineering infrastructures in corporate, telecom, healthcare, banking, public sector and industrial networks.



Powerware 9355 rear view with optional output receptacles, available on 10 -15 kVA models

Premium power protection is now easier than ever.

With raised-floor real estate at a premium, you'll appreciate that the Powerware 9155 and Powerware 9355 require only three to six square feet of floor space, including internal batteries. With such a small footprint, you have more location options and more space available for future expansion.

Equipment installation is easy – essentially plug-and-play. You can order the 8-15 kVA UPS models with your choice of more than 17 types of output receptacles. To change or move data center equipment, you simply unplug from the old receptacle and plug into a new one – no need for an electrician to run new conduit and wiring.

Scalable architecture meets current and future load requirements.

Powerware 9155 UPSs are available in four models: 8, 10, 12 and 15 kVA. Powerware 9355 UPSs come in 10/15 and 20/30 kVA models, so you can choose the configuration that most closely meets your own capacity requirements and price point.

And you can scale from there. Using our signature Powerware Hot Sync paralleling technology, up to three Powerware 9155 or four Powerware 9355 UPS modules can be paralleled for extra capacity or redundancy. A 15 kVA UPS, for example, can grow to support loads of up to 45 kVA. Likewise, a 30 kVA UPS can grow to support loads of up to 90 kVA. There's no dependence on communications wiring among those UPS modules, enhancing reliability and simplifying installation.

Battery innovations optimize battery performance and service life.

Standard internal batteries provide power until auxiliary power takes over or systems are gracefully shut down. Battery runtime can be extended to hours by adding matching Extended Battery Modules (EBM).

POWERWARE 8-15 kVA UPS BACKUP TIMES (IN MINUTES)

VA	Watt	UPS + Internal 32 Battery	(1) EBM 64	(2) EBM 64	(3) EBM 64	(4) EBM 64	UPS + Internal 64 Battery	(1) EBM 96	(2) EBM 96	(3) EBM 96
15000	13500	4.6	23.0	43.0	65.1	88.6	13.3	43.0	76.7	113
14500	13050	4.9	24.1	45.2	68.3	93.0	14.1	45.2	80.5	119
14000	12600	5.2	25.2	47.3	71.5	97.4	14.9	47.3	84.2	125
13500	12150	5.5	26.4	49.4	74.7	102	15.8	49.4	88.1	130
13000	11700	5.8	27.6	51.6	78.1	106	16.7	51.6	92.0	136
12500	11250	6.1	28.8	54.0	81.6	111	17.6	54.0	96.2	142
12000	10800	6.5	30.2	56.5	85.5	116	18.6	56.5	101	149
11500	10350	6.9	31.6	59.3	89.7	122	19.2	59.3	106	156
11000	9900	7.3	33.3	62.4	94.4	129	20.2	62.4	111	164
10500	9450	7.8	35.1	65.9	99.6	136	21.4	65.9	117	174
10000	9000	8.4	37.2	69.8	106	144	22.6	69.8	124	184
9500	8550	9.1	39.6	74.2	112	153	24.1	74.2	132	196
9000	8100	9.9	42.3	79.4	120	163	25.7	79.4	141	209
8500	7650	10.8	45.5	85.2	129	175	27.6	85.2	152	225
8000	7200	11.9	49.1	91.9	139	189	29.8	91.9	164	242
7500	6750	13.1	53.2	99.7	151	205	32.3	99.7	178	263
7000	6300	14.6	58.0	109	164	224	35.2	109	194	286
6500	5850	16.3	63.5	119	180	245	38.6	119	212	314
6000	5400	18.4	70.0	131	198	270	42.5	131	234	346
5500	4950	20.1	77.6	145	220	300	47.2	145	259	383
5000	4500	22.4	86.6	162	245	334	52.6	162	289	428
4500	4050	25.2	97.4	182	276	376	59.2	182	325	-
4000	3600	28.6	110	207	313	426	67.1	207	369	-
3500	3150	32.8	127	238	359	-	77.0	238	423	-
3000	2700	38.3	148	277	418	-	89.7	277	-	-
2500	2250	45.6	176	329	-	-	107	329	-	-

Note: Backup times are approximate and may vary with equipment, configuration, battery age, temperature, etc.

POWERWARE 20 & 30 kVA UPS BACKUP TIMES (IN MINUTES)

VA	Watt	UPS + Internal 1 Battery	Internal Battery Plus EBC - 36	Internal 1 Battery Plus EBC - 72	Internal 1 Battery Plus Qty 2 EBC-72
30000	27000	11	31	56	89
29000	26100	11	33	58	90
28000	25200	12	35	60	93
27000	24300	12	38	62	95
26000	23400	13	40	65	98
25000	22500	14	43	68	101
24000	21600	14	46	71	103
23000	20700	15	48	74	106
22000	19800	16	51	76	109
21000	18900	17	53	79	111
20000	18000	18	56	82	114
19000	17100	19	58	85	117
18000	16200	20	62	88	120
17000	15300	22	66	92	130
16000	14400	24	71	96	142
15000	13500	26	75	101	154
14000	12600	28	79	105	166
13000	11700	31	84	110	178
12000	10800	35	88	114	201
11000	9900	38	94	119	256
10000	9000	42	101	134	251
7500	6750	58	117	188	347
5000	4500	90	188	294	543

9355 20/30 EBC

Front view

Rear view

Powerware 9155/Powerware 9355 EBM

Powerware 9155 and Powerware 9355 UPSs also use sophisticated technologies that maximize the health and service life of batteries:

- ABM technology uses a unique three-stage charging technique that significantly extends battery service life and optimizes recharge time (compared to traditional trickle charging).
- Temperature-compensated charging monitors battery temperature and adjusts the charge rate accordingly, which properly charges the battery and greatly extends battery life.
- An integrated battery management system tests and monitors battery health and remaining lifetime, providing notification to guide preventive maintenance.

Unlike heavy, old-style batteries, Eaton's batteries are easily field-replaceable. One person, working alone, can replace a battery without disrupting data center operations or power to protected equipment.

After 15 years of in-service experience, Eaton has real-world proof that ABM technology can significantly increase battery service life.

Advanced design delivers unequaled power performance.

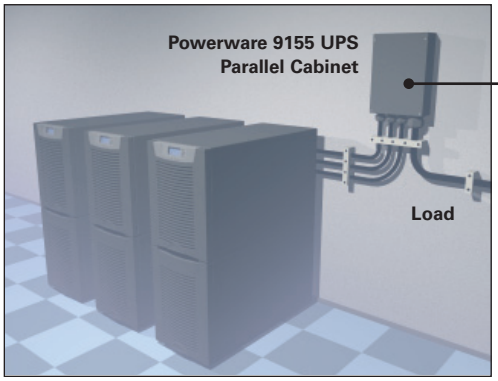
The innovative design of these UPSs delivers the industry's best performance combination of efficiency, input current distortion, input power factor and output power factor.

Lower costs, lower temperatures. High efficiency (greater than 90 percent across all load ranges) reduces utility costs, extends battery runtimes and produces cooler operating conditions.

Generator-friendly design. Total input harmonic distortion (THD) remains below five percent without compromising overall efficiency. The result is maximum transfer of power between source and protected load, and exceptional compatibility with auxiliary generators.

10-20% more real power. On the output side, a high (0.9) power factor enables the Powerware 9155 and Powerware 9355 UPSs to provide more real power to modern IT equipment that may have a wide range of leading and lagging power factors. And, with a 0.99 input power factor, these UPSs avoid the disturbances that energy converters tend to cause.

Powerware Hot Sync Redundant/Capacity



Inside view of Powerware 9155 Parallel Cabinet

Protect your investment

Rest easy knowing that your UPS is always on the job.

While it protects your critical systems, the UPS itself is protected in several ways:

Self-diagnosis. The UPS constantly monitors its own operation—such as voltage, temperature or function of internal elements—and sends alarms or takes action if it detects a potential problem. You'll know your UPS is always performing up to specifications to protect your equipment.

Self-correction. If it senses an issue—planned or unplanned—the UPS instantly transfers the power path to a bypass source, with zero interruption to power. When the alarm condition passes, the UPS automatically reverts from bypass to normal power.

Remote monitoring. You can have Eaton specialists securely monitor your Powerware 9155 and Powerware 9355 UPSs around the clock with eNotify service, or you can monitor your own UPSs over your LAN or the Internet. Either way, you'll always be informed about conditions in your power protection infrastructure.

Redundancy. Using Powerware Hot Sync technology, you can configure up to N+3 redundancy. Any module can serve as backup for any other, with no interruption or downtime. For instance, you could perform full maintenance on any UPS without having to remove any loads from conditioned power.

Most other paralleling systems on the market use a top-down configuration; if the master fails, the subsidiary units fail. With Eaton's patented approach, each UPS module is independent yet synchronized with the others. There is no single point of failure.

Have central control and visibility of UPS systems.

The Powerware 9155 and Powerware 9355 are shipped with a CD that includes Powerware LanSafe™ power management software and a 30-day trial version of Powerware PowerVision® UPS performance analysis and monitoring software. Using an intuitive, graphical interface and SNMP (Simple Network Management Protocol), administrators can:

Powerware Software Suite

- Securely monitor UPS and battery performance over your existing Ethernet network and the Internet.
- Establish prioritized shutdown of network devices and client/server applications.
- Test all networked UPS systems from one node.
- Analyze trends and network conditions.
- Stay informed of potential power problems by pager and e-mail.

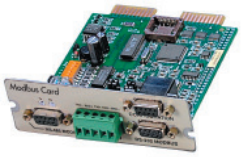
Connectivity options offer maximum flexibility.

The standard unit is equipped with an RS-232 serial port to communicate with power management software. You can customize your UPS by adding one or two interface cards for other applications:

Monitor the UPS from anywhere. Connect the UPS to the Ethernet network and Internet for secure monitoring and management using a standard Web browser or SNMP.

ConnectUPS™ Web/SNMP Card

Interwork with your existing Building Management System. A Modbus® Card enables real-time monitoring of UPS systems through a Building Management System or Industrial Automation System.



Modbus Card

Gather information from relay contact devices. Provide a dry-contact interface between the UPS and any relay-connected device, including the IBM® e-server® iSeries and a variety of industrial applications.

Relay Interface Card

Independently manage diverse servers. A Multi-Server card enables up to six serially connected devices of mixed operating systems to be independently-managed and controlled by a single UPS.

Multi-Server Card

Monitor environmental conditions. An optional Environmental Monitoring Probe remotely monitors temperature, humidity and two user-supplied contacts/sensors, such as smoke and intrusion detection.

Environmental Monitoring Probe

Gain peace of mind with industry-leading warranty and service plans.

We are so confident about the performance and reliability of the Powerware 9155 and Powerware 9355 UPSs and battery systems that we back them with extensive warranty and service plans.

Warranty coverage. Gain the peace of mind that comes with factory warranty coverage (parts and labor, UPS and batteries) and rapid response from certified support engineers.

Powerware 9155

- 2-year limited factory warranty
- 10-year pro-rated warranty
- $250,000 load-protection guarantee

Powerware 9355

- 1-year Service Protection Plan
- 7 x 24 emergency response
- On-site startup support (8 hours/day, 5 days/week)
- 2-year battery warranty
- 1-year eNotify remote monitoring service

Service plans. Beyond the warranty period, service plans are available to match any need – from basic UPS and/or battery support to all-inclusive packages with unique features, such as advanced remote monitoring with trending, customized capacity planning reports and power protection audits. Add your choice of guaranteed response times and you can tailor just the right support package for your needs.

From Eaton—a global leader in power quality solutions.

Backed by 40 years of R&D excellence, the new Powerware 9155 and Powerware 9355 UPSs deliver confidence – confidence that your organization's critical electronics are protected by the most reliable, efficient and full-featured systems available and that Eaton will be there with you for the long term with premium warranty coverage and expert technical support.

Eaton is a global leader in power quality and management solutions – the #1 manufacturer of UPSs above 5000 VA (Frost & Sullivan; World UPS Markets, 2004). Eaton's Power Quality Solutions Operation is headquartered in Raleigh, North Carolina, U.S.

For more information on the Powerware 9155 UPS and the new Powerware 9355 UPS:

www.powerware.com
1-800-356-5794

Powerware 9155 and Powerware 9355 at-a-glance

MODEL SELECTION TABLE - POWERWARE 9155 UPS (8–15 kVA)

Order Number[1]	Description	Power Rating[2] (kVA/kW)	Input & Output Connection[4]	Output Receptacles	Dimensions H x W x D (in)	Unit Weight[3] (lb)
K408110000	PW9155 Model 8 - 32 Battery (2-high)	8/7.2	Hardwired	See PDM chart	32.2 x 12.0 x 32.0	352
K408120000	PW9155 Model 8 - 64 Battery (3-high)	8/7.2	Hardwired	See PDM chart	47.8 x 12.0 x 32.0	590
K408130000	PW9155 Model 8 - 32 Battery with Transformer (3-high)	8/7.2	Hardwired	See PDM chart	47.8 x 12.0 x 32.0	558
K410110000	PW9155 Model 10 - 32 Battery (2- high)	10/9	Hardwired	See PDM chart	32.2 x 12.0 x 32.0	352
K410120000	PW9155 Model 10 - 64 Battery (3- high)	10/9	Hardwired	See PDM chart	47.8 x 12.0 x 32.0	590
K410130000	PW9155 Model 10 - 32 Battery with Transformer (3-high)	10/9	Hardwired	See PDM chart	47.8 x 12.0 x 32.0	558
K412110000	PW9155 Model 12 - 32 Battery (2-high)	12/10.8	Hardwired	See PDM chart	32.2 x 12.0 x 32.0	352
K412120000	PW9155 Model 12 - 64 Battery (3-high)	12/10.8	Hardwired	See PDM chart	47.8 x 12.0 x 32.0	590
K412130000	PW9155 Model 12 - 32 Battery with Transformer (3-high)	12/10.8	Hardwired	See PDM chart	47.8 x 12.0 x 32.0	558
K415110000	PW9155 Model 15 - 32 Battery (2- high)	15/13.5	Hardwired	See PDM chart	32.2 x 12.0 x 32.0	352
K415120000	PW9155 Model 15 - 64 Battery (3- high)	15/13.5	Hardwired	See PDM chart	47.8 x 12.0 x 32.0	590
K415130000	PW9155 Model 15 - 32 Battery with Transformer. (3- high)	15/13.5	Hardwired	See PDM chart	47.8 x 12.0 x 32.0	558

1. 50/60 Hz auto-sensing. All models can be used for frequency/phase conversion with derated 80% load, please refer to manual for details.
2. Input voltage 200–240V with neutral or with optional input isolation transformer. Output voltages are user-selectable 100/200, 110/220, 120/240 Vac 180° phase displacement, or 120/208, 127/220 Vac 120° phase displacement.
3. Weight is installed weight, add 47lbs (2-high models) or 50lbs (3-high models) to determine shipping weight.
4. An input neutral is required for all configurations unless the input isolation transformer is used.

MODEL SELECTION TABLE - POWERWARE 9355 UPS (10–15 kVA)

Order Number[1]	Description	Power Rating[2] (kVA/kW)	Input & Output Voltages[4]	Battery Backup[5]	Dimensions H x W x D (in)	Unit Weight[3] (lb)
KA1011100000010	PW9355 with 32-Battery (2-high)	10/9	208/208	8	32.2 x 12.8 x 33.5	373
KA1012100000010	PW9355 with 64-Battery (3-high)	10/9	208/208	22	47.8 x 12.8 x 33.5	609
KA1011200000010	PW9355 with 32-Battery (2-high)	10/9	220/220[2]	8	32.2 x 12.8 x 33.5	373
KA1012200000010	PW9355 with 64-Battery (3-high)	10/9	220/220[2]	22	47.8 x 12.8 x 33.5	609
KA10113400000010	PW9355 with 32-Battery with Transformer (3-high)	10/9	480/208	8	47.8 x 12.8 x 33.5	577
KA10113600000010	PW9355 with 32-Battery with Transformer (3-high)	10/9	600/208	8	47.8 x 12.8 x 33.5	57
KA1511100000010	PW9355 with 32-Battery (2-high)	15/13.5	208/208	4	32.2 x 12.8 x 33.5	373
KA1512100000010	PW9355 with 64-Battery (3-high)	15/13.5	208/208	13	47.8 x 12.8 x 33.5	609
KA1511200000010	PW9355 with 32-Battery (2-high)	15/13.5	220/220[2]	4	32.2 x 12.8 x 33.5	373
KA1512200000010	PW9355 with 64-Battery (3-high)	15/13.5	220/220[2]	13	47.8 x 12.8 x 33.5	609
KA15113400000010	PW9355 with 32-Battery with Transformer (3-high)	15/13.5	480/208	4	47.8 x 12.8 x 33.5	577
KA15113600000010	PW9355 with 32-Battery with Transformer (3-high)	15/13.5	600/208	4	47.8 x 12.8 x 33.5	577

1. 50/60 Hz auto-sensing.
2. 220V units are wye connected 220/127V input and 220/127V output, 3-phase, 4-wire plus ground.
3. Weight is installed weight. To determine shipping weight: for two-high models, add 47 pounds; for 8-15 kVA three-high models, add 50 pounds; and for 20 and 30 kVA three-high models, add 75 pounds.
4. An input neutral is required for all configurations unless the input isolation transformer is used.
5. Internal battery, full load

MODEL SELECTION TABLE - POWERWARE 9355 UPS (20 - 30 kVA)

Order Number[1]			Description	Power Rating[2] (kVA/kW)	Input & Output Voltages[4]	Battery Backup[5]	Dimensions H x W x D (in)	Sytem Weight[3] (lbs)
UPS Part (CTO) Number	1st Option Cabinet	2nd Option Cabinet						
KB2013100000010	-	-	PW9355 with internal Battery	20/18	208/208	18	66 x 20 x 34.1	1160
KB2013100000010	KBT001100000010*	-	PW9355 with internal Battery and Single Feed Option Cabinet	20/18	208/208	18	66 x 40 x 34.1	1695
KB2013100000010	KBT001100000010*	KBT002100000010	PW9355 with internal Battery and Dual Feed (2 Opt Cabs)	20/18	208/208	18	66 x 60 x 34.1	2230
KB2013200000010	-	-	PW9355 with internal Battery	20/18	220/2202	18	66 x 20 x 34.1	1160
KB2013100000010	KBT001200000010*	-	PW9355 with internal Battery and Single Feed Option Cabinet	20/18	480/208	18	66 x 40 x 34.1	1695
KB2013100000010	KBT001200000010*	KBT002200000010	PW9355 with internal Battery and Dual Feed (2 Opt Cabs)	20/18	480/208	18	66 x 60 x 34.1	2230
KB2013100000010	KBT001300000010*	-	PW9355 with internal Battery and Single Feed Option Cabinet	20/18	600/208	18	66 x 40 x 34.1	1695
KB2013100000010	KBT001300000010*	KBT002300000010	PW9355 with internal Battery and Dual Feed (2 Opt Cabs)	20/18	600/208	18	66 x 60 x 34.1	2230
KB2013100000010	KBT001200000010*	KBT003200000010	PW9355 with internal Battery and Single Feed (2 Opt Cabs)	20/18	480/480	18	66 x 60 x 34.1	2230
KB3013100000010	-	-	PW9355 with internal Battery	30/27	208/208	11	66 x 20 x 34.1	1160
KB3013100000010	KBT001100000010*	-	PW9355 with internal Battery and Single Feed Option Cabinet	30/27	208/208	11	66 x 40 x 34.1	1695
KB3013100000010	KBT001100000010*	KBT002100000010	PW9355 with internal Battery and Dual Feed (2 Opt Cabs)	30/27	208/208	11	66 x 60 x 34.1	2230
KB3013200000010	-	-	PW9355 with internal Battery	30/27	220/2202	11	66 x 20 x 34.1	1160
KB3013100000010	KBT001200000010*	-	PW9355 with internal Battery and Single Feed Option Cabinet	30/27	480/208	11	66 x 40 x 34.1	1695
KB3013100000010	KBT001200000010*	KBT002200000010	PW9355 with internal Battery and Dual Feed (2 Opt Cabs)	30/27	480/208	11	66 x 60 x 34.1	2230
KB3013100000010	KBT001300000010*	-	PW9355 with internal Battery and Single Feed Option Cabinet	30/27	600/208	11	66 x 40 x 34.1	1695
KB3013100000010	KBT001300000010*	KBT002300000010	PW9355 with internal Battery and Dual Feed (2 Opt Cabs)	30/27	600/208	11	66 x 60 x 34.1	2230
KB3013100000010	KBT001200000010*	KBT003200000010	PW9355 with internal Battery and Single Feed (2 Opt Cabs)	30/27	480/480	11	66 x 60 x 34.1	2230

1. 50/60 Hz auto-sensing.
2. 220V units are wye connected 220/127V input and 220/127V output, 3-phase, 4-wire plus ground.
3. Weight is installed weight. To determine shipping weight, add 75 pounds.
4. An input neutral is required for all configurations unless the input isolation transformer is used.
5. Internal battery, full load.

ACCESSORIES

Order Number	Description	Dimensions H x W x D (in)	Unit Weight (lb)
Powerware Hot Sync			
124100017-001	Powerware 9155 Parallel Cabinet	24.0 x 20.3 x 2.2	57.3
124100020-001	Powerware 9355 10/15 kVA Parallel Cabinet	36 x 20 x 5.7	66
124100026-001	Powerware 9355 20/30 kVA Parallel Cabinet	48 x 20 x 5.7	75
103004336	Powerware HotSync CAN Bridge Card	-	-

Notes: Up to three Powerware 9155 UPS and up to four Powerware 9355 UPS (available Fall 2005) UPSs can be paralleled with the Parallel Cabinet. Each Powerware 9155 UPS and Powerware 9355 UPS must have a Powerware Hot Sync CAN Bridge Card installed in the second X-Slot communication bay.

Extended Battery Module (EBM) or Cabinets (EBC)			
103004192-5501	Powerware 9155 and Powerware 9355 EBM 64 (2-high)	32.2 x 12.0 x 30.2	480
103004193-5501	Powerware 9155 and Powerware 9355 EBM 96 (3-high)	47.8 x 12.0 x 30.2	710
103004868	Powerware 9355 20/30 kVA EBC-72	66 x 20 x 31	2060
103005183	Powerware 9355 20/30 kVA EBC-36	66 x 20 x 31	1100

Notes: up to four EBM 64 cabinets or three EBM 96 cabinets can be added to each 8-15 kVA UPS for extended runtime.

Seismic Mounting Kit			
103004194-5501	Seismic Kit, Rated Zone 4, UL Tested, Performance rating based on NEBS GR-63-CORE Standard Vibration Test	Fits both 2- & 3-high models	136
Maintenance Bypass Module (MBM)			
103004184-5501	Rear UPS-mounted Maintenance Bypass Module	16.5 x 12 x 7	15
BPE14MBB1A	Wall-mounted Maintenance Bypass Module for Powerware 9155	21 x 14 x 6.75	31
124100020-001	Wall-mounted Maintenance Bypass Module for Powerware 9355 10/15 kVA	36 x 20 x 5.7	66
124100026-001	Wall-mounted Maintenance Bypass Module for Powerware 9355 20/30 kVA	48 x 20 x 5.7	75

Powerware 9155 Parallel System Start Up	
OSTUP9155P15KCX	Powerware 9155 8-10 kVA 2 or 3 Unit Parallel
OSTUP9155P10KCX	Powerware 9155 12-15 kVA 2 or 3 Unit Parallel
103004626	Powerware 9155 Parallel System 2 unit upgrade kit (includes Can Bridge Cards, Procedures, and Parallel User's Guide)
103004627	Powerware 9155 Parallel System 3 unit upgrade kit (includes Can Bridge Cards, Procedures, and Parallel User's Guide)
Connectivity Options	
103002974-5501	ConnectUPS-X Web/SNMP/xHub Card
05146288-5501	ConnectUPS-MX SNMP/Modem Card (9155 only)
103002510-5501	Modbus Card
05146508-5501	USB Card
05146447-5501	Multi-Server Card (9155 only)
1018460	Relay Interface Card (AS/400 Compatible)
103003055	Industrial Relay Card
103003637-5501	Environmental Probe (requires ConnectUPS Web/SNMP card)
Spare Parts	
106711155	Powerware 9155 Spare Parts Kit "A"
106711169	Powerware 9355 10-15 kVA Spare Parts Kit “A”
106711170	Powerware 9355 20-30 kVA Spare Parts Kit “A”
Upgrades	
103004195	Powerware 9155 8 kVA to Powerware 9155 10 kVA
103004196	Powerware 9155 12 kVA to Powerware 9155 15 kVA
103004657	Powerware 9355 10 kVA to Powerware 9355 15 kVA
103005160	Powerware 9355 20 kVA to Powerware 9355 30 kVA

Power Distribution Module (PDM) with Mechanical Bypass Switch

Optional Receptacle Panels	Breaker	Voltage	Phase
(1) L15-30R	30A	208V	3
(1) L21-20R	20A	208/120V	3
(1) L21-30R	30A	208/120V	3
(2) 5-15R	15A	120V	1
(2) 5-20R	20A	120V	1
(2) 6-15R	15A	208V	2
(2) 6-20R	20A	208V	2
(2) L5-15R	15A	120V	1
(1) L5-20R[1]	20A	120V	1
(1) L5-30R[1]	30A	120V	1
(2) L6-15R	15A	208V	2
(1) L6-20R[1]	20A	208V	2
(1) L6-30R[1]	30A	208V	2
(1) L14-20R[1]	20A	120/208V	2
(1) L14-30R[1]	30A	120/208V	2
(2) IEC 320 C13 (120V)	20A	120V	1
(2) IEC 320 C19 (120V)	20A	120V	1
Blank panel			

Note: Maximum of eight panels per PDM (Powerware 9155). Maximum of four panels per PDM (Powerware 9355).

1. The combined quantities of single-locking receptacle panels must not exceed five per PDM.
2. Output receptacle panels not available on 20 and 30 kVA 9355.

POWERWARE 9355 UPS SERVICE CHART

Start-up Warranty Upgrades	Coverage or Response Time	Item #
Service Protection Plan Upgrades	4 hr	SP41A
	2 hr	SP21A
Warranty PowerTrust™ Service Plan Upgrade upgrade for first year of service only	8 hr	PP81B
	4 hr	PP41B
	2 hr	PP21B
Start-up Services Upgrade (5x8 to 7x24)	7x24	SU97A
Recertification/Restart	7x24	RC07N

Service Plan Contracts	Unit + Internal Battery	EBM 64/EBC 36	EBM 96/EBC 72
PowerTrust™ Service Plan (Premium)			
PowerTrust™ Service Plan (7x24 UPS parts and labor coverage, annual 5x8 UPS and battery PM, eNotify remote UPS and battery monitoring; 15% discount on upgrades):			
8 hr Response	PT82N		
4 hr Response	PT42N		
2 hr Response	PT22N		
PowerTrust™ VALUE Service Plan			
PowerTrust™ VALUE Service Plan (5x8 UPS parts and labor coverage, next business day response, annual 5x8 UPS PM, eNotify remote UPS and battery monitoring):			
	PVN3N		
2-Year Battery Labor Coverage			
Adds labor and freight to 2YR battery parts warranty:			
	BL87N		

Preventative	Unit + Internal Battery	EBM 64/EBC 36	EBM 96/EBC 72
Battery Preventive Maintenance			
Priced per VRLA cabinet:			
5x8 coverage	0006N-BIN	0006N-BAG	0006N-BAG
7x24 coverage	0005N-BIN	0005N-BAT	0005N-BAT
UPS Preventive Maintenance			
5x8 coverage	0006N		
7x24 coverage	0005N		

Upgrades and Spares		
kVA upgrades (5x8 pricing): add 10% for 7x24	10 kVA to 15 kVA	103004657
	20 kVA to 30 kVA	103005160
Field Upgrade Kits (5x8 pricing; add 10% for 7x24 9355 15 kVA Parallel Upgrade Kit (per pair)	10 kVA to 15 kVA	UP08N-PAR2
9355 15 kVA Parallel Upgrade Kit (each)	10 kVA to 15 kVA	UP08N-PAR1
"A" Parts Kit	10 and 15 kVA	106711169
	20 and 30 kVA	106711170

[1] Requires a new Eaton Powerware branded battery installed at factory or replacement; price is per set of internal or EBM/EBC

Note: bundled battery PM's with PowerTrust plans can be option deleted as a 5x8 internal battery PM credit (use 0006N-BIN credit $575); add battery PM's if additional battery cabinets exist

Revised Jan. 5, 2006

POWERWARE 9155 UPS WARRANTY AND SERVICE CHART

Service Plan Features	Limited Factory Warranty	On-Site Gold Plan	On-Site Gold Plan Plus
Service plan terms available	**2 Yr**	**2, 3, 5 Yr**	**2, 3, 5 Yr**
90 days on-site labor (5x8); two years parts coverage	■		
On-site startup of UPS and batteries, 7/24	▒	■	■
On-site corrective maintenance, 7x24		■	■
Full coverage of UPS and internal battery module	■	■	■
7x24 technical telephone support		■	■
Service priority		■	■
Full coverage of extended battery modules		▒	▒
One 7x24 annual preventive maintenance inspection		■	■

■ Service included
▒ Optional service

POWERWARE 9155 UPS (ON-SITE SERVICE IS 24 HOURS A DAY, 7 DAYS A WEEK)

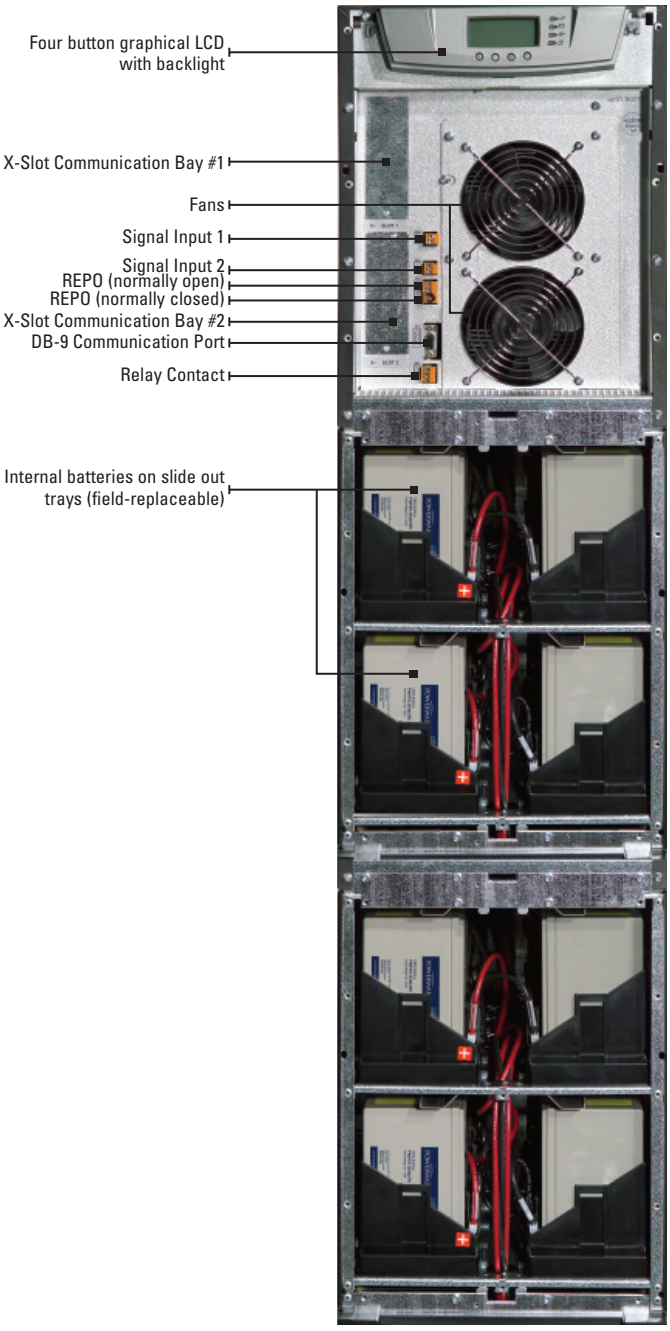
	ON-SITE GOLD Part Number	ON-SITE GOLD PLUS Part Number
Powerware 9155 UPS (8–10 kVA)		
2 Yr	2OSGX915510KVCX	2OSGP915510KVCX
3 Yr	3OSGX915510KVCX	3OSGP915510KVCX
5 Yr	5OSGX915510KVCX	5OSGP915510KVCX
Powerware 9155 UPS (12–15 kVA)		
2 Yr	2OSGX915515KVCX	2OSGP915515KVCX
3 Yr	3OSGX915515KVCX	3OSGP915515KVCX
5 Yr	5OSGX915515KVCX	5OSGP915515KVCX

POWERWARE 9155 UPS EXTENDED BATTERY MODULES (ON-SITE SERVICE IS 24 HOURS A DAY, 7 DAYS A WEEK)

	ON-SITE GOLD Part Number	ON-SITE GOLD PLUS Part Number
Powerware 9155 EBM 64		
2 Yr	2OSGX9155EB64CX	2OSGP9155EB64CX
3 Yr	3OSGX9155EB64CX	3OSGP9155EB64CX
5 Yr	5OSGX9155EB64CX	5OSGP9155EB64CX
Powerware 9155 EBM 96		
2 Yr	2OSGX9155EB96CX	2OSGP9155EB96CX
3 Yr	3OSGX9155EB96CX	3OSGP9155EB96CX
5 Yr	5OSGX9155EB96CX	5OSGP9155EB96CX

POWERWARE 9155 UPS PARALLEL SYSTEM (ON-SITE SERVICE IS 24 HOURS A DAY, 7 DAYS A WEEK)

	ON-SITE GOLD Part Number	ON-SITE GOLD PLUS Part Number
Powerware 9155 UPS (8-10 kVA) 2 Unit Parallel System		
2 Yr	2OSGX915510P2CX	2OSGP915510P2CX
3 Yr	3OSGX915510P2CX	3OSGP915510P2CX
5 Yr	5OSGX915510P2CX	5OSGP915510P2CX
Powerware 9155 UPS (8-10 kVA) 3 Unit Parallel System		
2 Yr	2OSGX915510P3CX	2OSGP915515P3CX
3 Yr	3OSGX915510P3CX	3OSGP915515P3CX
5 Yr	5OSGX915510P3CX	5OSGP915515P3CX
Powerware 9155 UPS (12-15 kVA) 2 Unit Parallel System		
2 Yr	2OSGX915515P2CX	2OSGP915515P2CX
3 Yr	3OSGX915515P2CX	3OSGP915515P2CX
5 Yr	5OSGX915515P2CX	5OSGP915515P2CX
Powerware 9155 UPS (12-15 kVA) 3 Unit Parallel System		
2 Yr	2OSGX915515P3CX	2OSGP915515P3CX
3 Yr	3OSGX915515P3CX	3OSGP915515P3CX
5 Yr	5OSGX915515P3CX	5OSGP915515P3CX

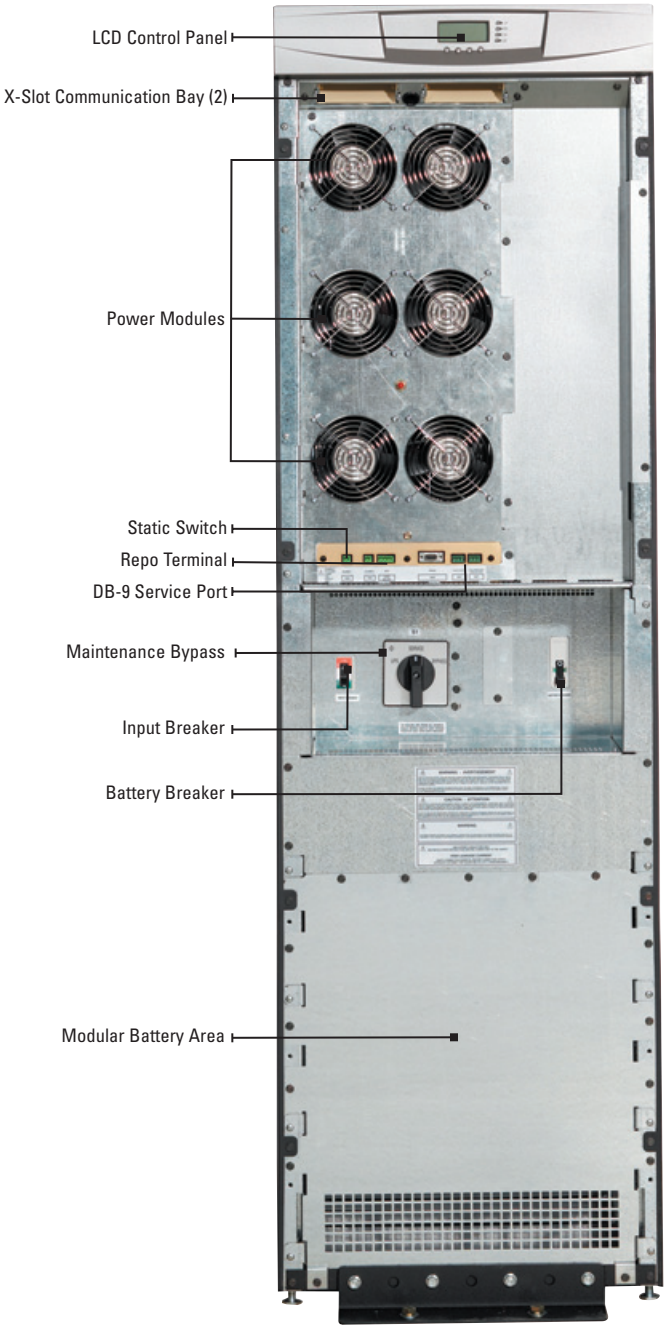


Front view of 3-high module with cover off

TECHNICAL SPECIFICATIONS FOR 10 AND 15 KVA

Power	
Ratings (kVA/Watts)	**9155:** 8, 10, 12 and 15 kVA at 0.9 power factor **9355:** 10 and 15 kVA at 0.9 power factor
Topology	True double-conversion online UPS
Electrical Input	
Nominal Input Voltage	**9155:** 200V-240V with neutral or with optional input transformer **9355:** 208V/120V or 220V/127V three phase
Input Voltage Range	-15%, +10% from nominal at 100% load without depleting battery
Operating Frequency	50/60 Hz (45 to 65 Hz)
Input Power Factor	P.F >0.99 typical, >0.96 frequency converter
Input Current Distortion	5% THD
Electrical Output	
Nominal Output Voltage	**9155:** 100/200, 110/220, 120/240 Vac 180° phase displacement; 120/208, 127/220 Vac 120° phase displacement **9355:** 208/120, 220/127 Vac
Output Voltage Regulation	±1% Static; ±5% dynamic at 100% resistive load change, <1 ms response time
Efficiency	**9155:** 90% typical **9355:** 91% typical
Battery	
Battery Type	9Ah, sealed, lead-acid, maintenance-free
Battery Runtime	See Battery Runtime Chart
Battery Replacement	Field-replaceable
Charger	Default is 3.4A per battery string. Charger current is configurable from 0.5A to 25A per string with an overall maximum of 34A (limited by input current)
Start-On-Battery	Allows start of UPS without utility input
General	
Diagnostics	Full system self-test at startup
UPS Bypass	Automatic on overload or UPS failure
Parallel for Redundancy and Capacity	Yes, using Powerware Hot Sync technology
Dimensions and Weights	See Model Selection Table
Overload (Normal Operation)	150% for 5 sec / 125% for 1 min (online), 110% for 10 min
Communications	
LCD Display	Graphical LCD with blue backlight
LEDs	(4) LEDs for notice and alarm
Audible Alarms	Yes
Communication Ports	(1) RS-232, (1) relay contact, (1) REPO, (2) environmental input
Communication Slot	(2) X-Slot communication bays
Power Management Software	Bundled Software Suite CD
Environmental	
Operating Temperature	10ºC to +40ºC, +45ºC with 7.5% derating; Batteries recommended max. +25ºC
Storage Temperature	-15ºC to +25ºC
Relative Humidity	0–95%, non-condensing
Audible Noise	**9155:** Audible Noise: < 53 dBA at 1 meter (noise less room) typical **9355:** Audible Noise: < 56 dBA at 1 meter (noise less room) typical
Altitude	< 1000m at +40°C, < 3000m at +25°C
Certifications	
Safety Certifications	**9155:** NOM-0190SCFI-1993, UL 1778, CSA C22.2, No. 107.3; EN 5502 Class A (CISPR22 Class A) and IEC 60950; IEC 62040-1-1 **9355:** IEC 62040-1-1, IEC 60950, EN 62040-1-1, UL 1778
EMC Compliance	**9155:** IEC 62040-2, FCC Part 15, ICES-003, VCCI **9355:** EN 50091-2 Class A
Quality	ISO 9001: 2000 and ISO 14001:1996
Markings	**9155:** UL, cUL, CSA, CE and NOM-NYCE **9355:** UL, cUL

1. Due to continuous product improvements, program specifications are subject to change without notice.



9355 20/30 kVA UPS

TECHNICAL SPECIFICATIONS FOR 20 AND 30 KVA

Power	
Ratings (kVA/Watts)	20 kVA/18 kW and 30 kVA/27 kW 0.9 power factor
Electrical Input	
Nominal Input Voltage	208V/120V, 220V/127V+15, -20% 480V/277V, 600V (480+600 with transformer)
Operating Frequency	50/60 Hz (45 to 65 Hz)
Input Power Factor	0.99 typical
Input Current Distortion	<5% THD
Electrical Output	
Nominal Output Voltage	208/120, 220/120 Vac 480/227 with Output Transformer
Output Voltage Regulation	±1% Static; ±4% dynamic with 100% step load recovery within 1 ms response time
Efficiency	91% typical
Battery	
Battery Type	9Ah, sealed, lead-acid, maintenance-free
Battery Runtime	See Battery Runtime Chart
Battery Replacement	Field-replaceable
Charger	Default is 3.4A per battery string. Charger current is configurable from 0.5A to 25A per string with an overall maximum of 34A (limited by input current)
Start-On-Battery	Allows start of UPS without utility input
General	
Diagnostics	Full system self-test at startup
UPS Bypass	Automatic on overload or UPS failure
Parallel for Redundancy and Capacity	Yes, using Powerware Hot Sync technology
Dimensions and Weights	See Model Selection Table
Overload (Normal Operation)	150% for 5 sec / 125% for 1 min (online), 110% for 10 min
Communications	
LCD Display	Graphical LCD with blue backlight
LEDs	(4) LEDs for notice and alarm
Audible Alarms	Yes
Communication Ports	(1) RS-232, (1) relay contact, (1) REPO, (2) environmental input
Communication Slot	(2) X-Slot communication bays
Power Management Software	Bundled Software Suite CD
Environmental	
Operating Temperature	10°C to +40°C, +45°C with 7.5% derating; Batteries recommended max. +25°C
Storage Temperature	-15°C to +25°C
Relative Humidity	0–95%, non-condensing
Audible Noise	
9155:	Audible Noise: < 57 dBA at 1 meter depending on load
9355:	Audible Noise: < 58 dBA at 1 meter depending on load
Altitude	< 1000m at +40°C, < 3000m at +25°C
Certifications	
Safety Certifications	
9155:	NOM-0190SCFI-1993, UL 1778, CSA C22.2, No. 107.3; EN 5502 Class A (CISPR22 Class A) and IEC 60950; IEC 62040-1-1
9355:	IEC 62040-1-1, IEC 60950, EN 62040-1-1, UL 1778, NOM-0190SCP8-1993
EMC Compliance	
9155:	IEC 62040-2, FCC Part 15, ICES-003, VCCI
9355:	EN 50091-2 Class A
Quality	ISO 9001: 2000 and ISO 14001:1996
Markings	
9155:	UL, cUL, CSA, CE and NOM-NYCE
9355:	UL, cUL, NOM-NYCE

1. Due to continuous product improvements, program specifications are subject to change without notice.

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