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Guide to
Power Conditioning



CLEAN POWER *PROTECTS*. CLEAN POWER *PERFORMS*.

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THE IMPORTANCE OF QUALITY POWER

There's nothing worse for an audio or video professional than the unnecessary expense of equipment damaged by power quality problems, or the frustration that accompanies downtime, lost editing time or creative disruptions.

Power line surges and lightning strikes can instantly destroy expensive audio and video gear. Other anomalies can have longer-term negative effects, deteriorating electronic components at a microscopic level, leading to unexplained hardware failure and premature investment in replacement equipment.

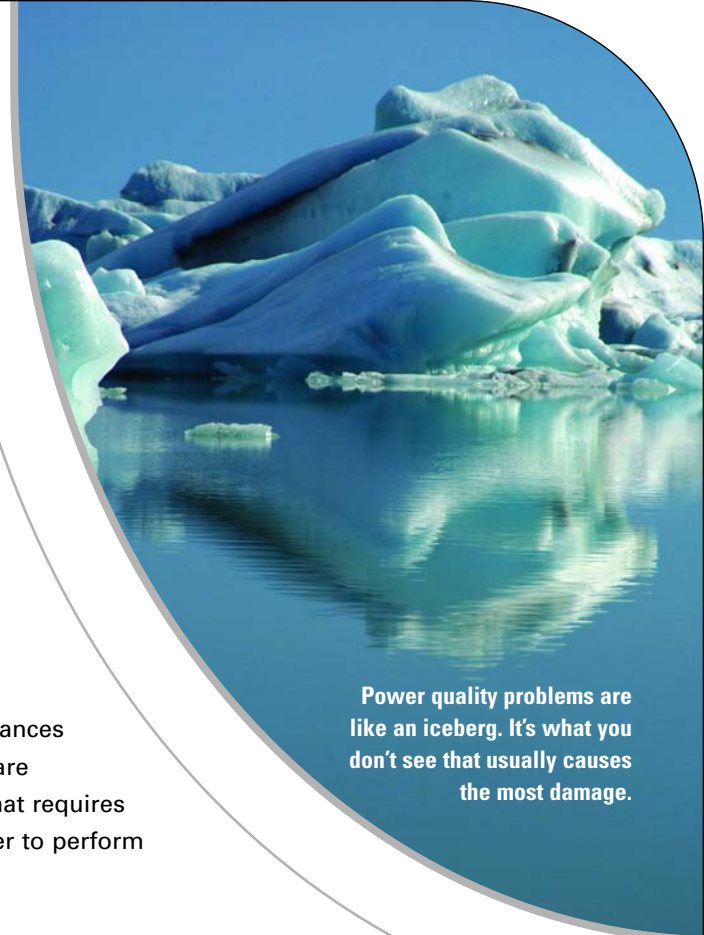
Electrical noise can even interfere with audio and video signals, causing quality problems that can be seen as well as heard.



Utility power — not always perfect

Power anomalies — high-energy voltage transients, electrical noise, voltage irregularities and power outages — can occur at any time, on any power system, anywhere. In fact, the Electric Power Research Institute (EPRI) reports that the average, well-managed electrical supply system in North America experiences about 8.8 hours of power outages annually, or a reliability rating of about 99.9 percent. But like an iceberg, power outages are only the visible part of the threat. When all other power disturbances are factored in, the average reliability level drops to 99 per cent. That's approximately 79 more hours per year in which the quality of electrical power is not satisfactory for the needs of sensitive electronic gear.

And that's just on the utility company's side of the electric meter. Once inside a facility, almost every "electrical neighbor" contributes to troublesome electrical pollution. Fluorescent lighting ballasts, electric motors, electronic controls for HVAC equipment, computer power supplies, and even the signals from cell phones and commercial broadcast stations create electrical disturbances that can spell big problems for your audio and video equipment.



Power quality problems are like an iceberg. It's what you don't see that usually causes the most damage.

These are all power disturbances you *don't* see — and they are hazardous for equipment that requires clean, quality power in order to perform at peak efficiency.

Power anomalies wreak havoc with professional audio and video equipment over both the short and long term. And that will reflect poorly on you, whether your equipment is used in recording, broadcast, live or theatrical performance or corporate or commercial presentation.

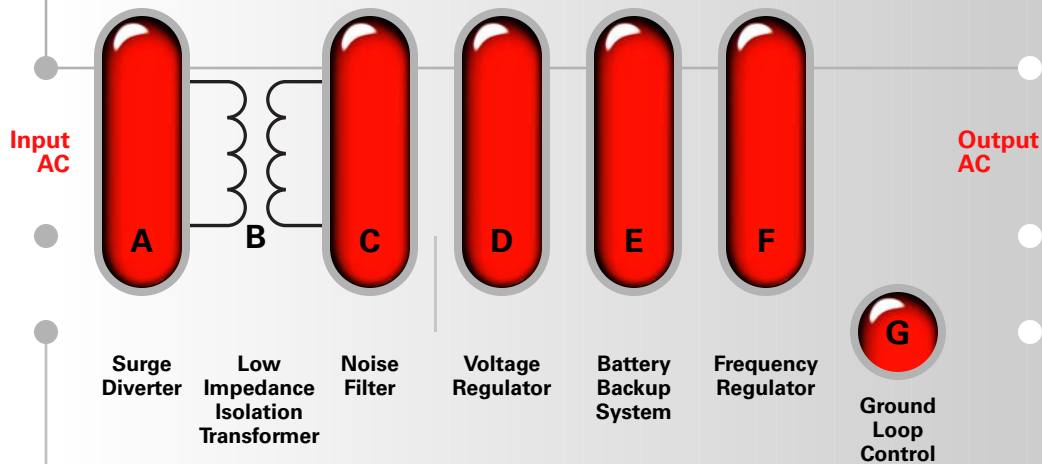

The audio and video industries at the professional level expect electronic equipment — preamps, amps, mixing consoles, digital audio or video workstations, digital signal processors — to function reliably, with no failures, and at the highest levels of performance. That's why it's necessary to think about two kinds of power issues — *power protection* and *power quality*.

And that's why you need to know ETA Systems. We're dedicated to providing audio and video professionals with the most comprehensive and effective solutions for the distribution, control, management and conditioning of AC power.


THE ABCs OF POWER CONDITIONING

In many respects, power problems are like a biological virus. Just like a regular virus, power problems enter your gear unseen, and by the time they become evident, major damage has already occurred. And like a virus, prevention of power problems is preferable to curing them after the fact.


Let's examine the various types of power quality disturbances, and the generic protection devices that are available to combat each one.


High-voltage surges — High-voltage surges can send expensive sound and video equipment to an early grave. Surges can contain substantial amounts of energy, causing outright catastrophic component failure. Some surges contain smaller energy levels that only erode components microscopically, leaving them in a weakened state. Surges are addressed with a surge diverter — a device that diverts excessive voltages away from the system by shunting them to ground. Although the surge diverter protects against these major power surges, transient voltages smaller than 250–300 volts usually slip by the surge diverter, causing equipment to be exposed to substantial degrading energy spikes over the long term.




Common mode voltage — Surge diverters (as well as noise filters) shunt disturbance energy to ground, resulting in a neutral-to-ground (common mode) voltage — a situation that's highly disruptive to digital and microprocessor-based technologies. The low-impedance isolation transformer provides a mechanism for bonding the electrical neutral to the ground in a way that is acceptable to electrical codes. This enhances the operation of the surge diverter because the transformer bond prevents the formation of neutral-to-ground voltage. The isolation transformer also acts as an excellent cushion against power disturbances in general.




Electrical noise — Power line noise filters address the disturbances that slip by the surge diverter along with the low-amplitude, high-frequency noise that the surge diverter is not designed to handle. Typically, these disturbances are caused by nearby electrical “neighbors” such as lighting ballasts, appliances, motors, electrical HVAC controls, and even other computer power supplies. Not only can noise wear away electrical components, it can also interfere with the reliable operation of digital circuits. Like surge diverters, noise filters shunt power disturbances to safety ground.




Voltage swells and sags — Swells and sags can originate outside of a facility but can also be created by equipment use inside a facility. For some electronic equipment with older linear power supply technology, well-regulated voltage is critical to proper performance. Fortunately, most equipment uses newer style switched mode power supplies, which are largely immune to voltage irregularities. The need for voltage regulation is infrequent, but when necessary, voltage swells and sags are eliminated with a voltage regulator. Various regulation technologies are available, and careful consideration is necessary to select the one that's best suited for the application.



Power outages — It's hard for the show to go on when the power goes off. If power outages are the problem, some type of uninterruptible power supply (UPS) will be the answer. A UPS converts DC energy stored in batteries into AC energy to power the electronic load. All UPS products are not created equal. Some UPS products are online and some are standby. Some have clean sine wave outputs and others have square wave or modified square wave outputs. Some provide power conditioning and some do not. ETA Systems UPM products provide conditioned, sine wave, AC power — the kind your audio or video system was designed to use.



Unstable AC frequency — AC power in North America is generated at a frequency of 60 Hz, while in Europe and much of the rest of the developed world, AC power is generated at 50 Hz. In developing countries, or where power is sourced from an electrical generator, the frequency may not be stable. In such cases, a frequency regulator is required. An online UPS or AC inverter is one answer for ensuring stable-frequency AC power for predictable performance of audio and video equipment.



Ground loops — When electronic systems are connected together, the natural differences in electrical ground impedance cause noise currents to flow in the loops created by the grounding and shielding conductors of signal cables. Low-frequency ground loop currents may cause audible audio hum, or roll bars and distortion in a video image. High-frequency loop currents (≥ 100 kHz) may create system reliability issues and communications errors for a data network. Good installation practices, single-ground power sources, and careful cable installation can often help address low-frequency ground loop issues. Other technologies exist to address high-frequency ground loops.

THE 4 Ds OF POWER QUALITY

There are four ways that power quality problems can affect an audio or video system. They are called “The 4 Ds” — Destruction, Degradation, Disruption and Dynamics. Here’s how each affects an audio or video system.

Destruction

Destruction occurs when a power disturbance is so large that its energy literally “blows up” or destroys a semiconductor device like a transistor or integrated circuit. Destructive power disturbances are the easiest to identify since they leave visible evidence of their occurrence — smoke, soot and charred components. Establishing cause and effect is easy with destructive events.

Degradation

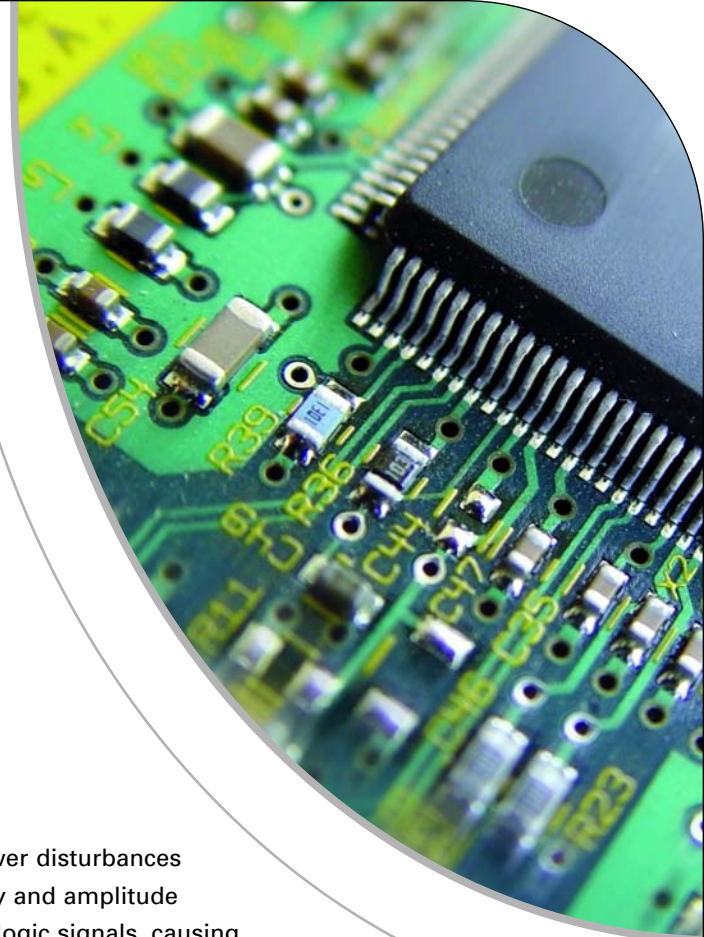
Degradation occurs when lower amplitude power disturbances enter an electronic system and affect a semiconductor at a microscopic level. Solid-state junctions are designed to operate at small voltages. Degrading power disturbances often exceed the voltage tolerances of the material. Erosion of the semiconductor material occurs (much like rust damages metal), leaving less of the semiconductor material to handle the current needs of the circuit. Higher operating temperatures are the result. Damage from degrading events tends to be cumulative. Eventually so much damage occurs that the semiconductor junction experiences “thermal runaway” and fails. Establishing cause and effect may be difficult or impossible since there are no visible failure indications.

Disruption

Disruption occurs from power disturbances that are of such a frequency and amplitude that they can mimic actual logic signals, causing the digital system to make incorrect decisions. Disruption also occurs when neutral-to-ground (common mode) voltages become excessive. Disruptive events are difficult to document and may be easily mistaken for software “bugs” or operator errors. Disruptive events are the most common cause of system lockups and “No Trouble Found” service calls.

Dynamics

Power quality problems can affect the dynamics of an audio or video system by deteriorating the quality of both sound and image. Power line disturbances raise the system’s “noise floor” to the extent that interference can be both heard as well as seen. The noise floor for the system must be kept as low as possible so dynamic performance of both the audio and video signal will be guaranteed.



HOW TO USE THIS PRODUCT GUIDE

Complete peace of mind with ETA Systems!

With ETA Power Conditioning innovations, you'll have the perfect solution for your mission-critical audio and video applications. No more downtime, no more lost creative hours, no more expensive hardware repairs, and no more embarrassment from underperforming or nonperforming equipment. Count on ETA Systems to have the solutions you're looking for to assure protection and performance.

Whatever your power control, management or conditioning need, ETA Systems has a solution to fit the application and the equipment. Whether your application requires distribution, sequencing, power conditioning or uninterruptible power, ETA Systems has the answer.

This product guide contains four basic product sections. You can use the chart at the right to help you find the most appropriate selection for your application. Or feel free to browse through the guide to view the entire ETA product family.



WHICH BEST DESCRIBES YOUR POWER PROTECTION REQUIREMENTS?

I need power distribution, multiple receptacles, and surge protection with noise filtering.

Section 1 Power Distribution

Products in this section contain elements A and C of The ABCs of Power Conditioning.

I need power sequencing, power distribution, multiple receptacles, and surge protection with noise filtering.

Section 2 Sequencing/Distribution

Products in this section contain elements A and C of The ABCs of Power Conditioning.

The systems I'm using are microprocessor-based, digital, and highly sensitive to power quality problems. I need a very high level of power conditioning and protection.

Section 3 Power Conditioning

Products in this section contain elements A, B and C of The ABCs of Power Conditioning.

The systems I'm using are microprocessor-based, digital, and highly sensitive to power quality problems. My application involves editing audio or video files or doing other activities where a power loss will mean lost work and productivity. I need a very high level of power conditioning and protection that is uninterruptible, too.

Section 4 Uninterruptible Power

Products in this section contain elements A, B, C and E of The ABCs of Power Conditioning.

ETA power management, control and conditioning solutions

Leading By Design to Assure Top Performance and Protection



POWER DISTRIBUTION SYSTEMS



PD8, PD8L



PD9L



PD11LV, PD11P, PD11VP, PD11LP, PD11LVP

North American – 120 volt, 60 Hz.

Model #	Amps/Watts	Receptacles	Always-on Receptacles	Rack Lights	Metering	Watchdog LEDs	Shipping Weight (lbs.)
PD8	15/1800	8				•	7
PD8L	15/1800	8		•		•	7
PD9L	15/1800	9	1 front	•		•	8
PD11LV	15/1800	11	2 rear, 1 front	•	•		9
PD11P	20/2400	11	2 rear, 1 front			•	10
PD11VP	20/2400	11	2 rear, 1 front		•	•	10
PD11LP	20/2400	11	2 rear, 1 front	•		•	10
PD11LVP	20/2400	11	2 rear, 1 front	•	•	•	10



PD8IEC-CE, PD8LIEC-CE



PD10IEC-CE, PD10VIEC-CE, PD11LIEC-CE, PD11LVIEC-CE

Each of these ETA power distribution systems fits in a standard 19" wide rack and consumes 1U of rack space. Three-stage voltage surge protection (H-N, H-G, and N-G) and EMI/RFI noise filtration are standard. All models feature a heavy-duty eight-foot-long power cord equipped with a grounded plug. All models are safety agency-listed and covered by ETA Systems' one-year limited warranty against defects in materials and workmanship. Consult the charts for specific features of each model.

International – 230 volt, 50 Hz.

Model #	Amps/Watts	Receptacles	Always-on Receptacles	Rack Lights	Metering	Watchdog LEDs	Shipping Weight (kgs.)
PD8IEC-CE	10/2300	8				•	3.18
PD8LIEC-CE	10/2300	8		•		•	3.18
PD10IEC-CE	10/2300	10					3.18
PD10VIEC-CE	10/2300	10			•		3.18
PD11LIEC-CE	10/2300	11		•			3.18
PD11LVIEC-CE	10/2300	11	1 front	•	•		3.18



**HIGH WATTAGE
POWER
DISTRIBUTION**



PD66



PD620



ETA's high wattage power distribution systems are designed for power hookups of any high amperage equipment. These models fit a standard 19" rack and consume 2U of rack space. Units are made from high-strength 16-gauge steel and have a durable, easy to maintain, black powder coated enclosure. Models are safety agency-listed and covered by ETA's limited three-year warranty against defects in materials and workmanship.

North American High Wattage Power Distribution

Model #	Voltage	# Circuits	Shipping Weight (lbs.)
PD66	120/208 three phase or 120/240 single phase	Total of 6 – two 30 amp terminal blocks and four NEMA 5-20R receptacles all with circuit breakers	20
PD620	120/208 three phase or 120/240 single phase	Total of 6 – each with NEMA 5-20R receptacles and circuit breakers	20



POWER SEQUENCING PRODUCTS



PD11SS, PD11SSP, PD11LVSP



PD11SP



PD420VS



PD10VRS



Each of these ETA power distribution systems provides four stages of sequenced up/down power control. These models all fit in a standard 19" wide rack and consume 1U of rack space.* Three-stage voltage surge protection (H-N, H-G, and N-G) and EMI/RFI noise filtration are standard. All models feature a heavy-duty eight-foot-long power cord equipped with a standard NEMA grounded plug. All models are safety agency-listed** and covered by ETA Systems' one-year limited warranty against defects in materials and workmanship. Consult the chart below for specific features of each model.

North American - 120 volt, 60 Hz.

Model #	Amps/Watts	Receptacles	Always-on Receptacles	Rack Lights	Metering	Watchdog LEDs	Linkable	Voltage Regulation	Shipping Weight (lbs.)
PD11SS	15/1800	11	2 rear, 1 front						10
PD11SP	20/2400	11	1 front			•	•		10
PD11SSP	20/2400	11	2 rear, 1 front			•			10
PD11LVSP	20/2400	11	2 rear, 1 front	•	•	•			10
PD420VS*	80/9600	14			•		•		21
PD10VRS**	15/1800	10			•		•		25

* PD420VS uses 2U of rack space ** PD10VRS not safety agency-listed



SEQUENCING PERIPHERALS

These peripheral products each improve the versatility and manageability of sequencer models PD11SP and PD420VS. Model KL3R is a remote sequencing key switch capable of wall mounting in a single-gang electrical box. Model KL3RR is a remote sequencing key switch designed for mounting in 1U of standard 19" rack space. Both operate on a 3-wire contact closure. For added security, keys are removable in either the on or off position.

Model PS220 is a two-channel sequencer (20 amps max) designed for mounting in a standard 3-gang electrical box. PS220 is easily connected to the electrical system via the provided flying leads. Both channels are jumper programmable for delays of 1, 5, 10 or 30 seconds. Input control is via either a 2- or 3-wire dry contact or daisy-chained communications port. A daisy-chained communications output port is also available. PS220 incorporates surge protection on all three legs of the electrical supply and includes ETA's "watchdog" LED monitor. Model PS220 is listed to UL1472 and CSA C22.2 No. 184.1.



POWER SEQUENCING PRODUCTS



PD 11SSIEC-CE, PD 11LVSIEC-CE, PD 10VRSIEC-CE

International – 230 volt, 60 Hz.

Model #	Amps/Watts	Receptacles	Always-on Receptacles	Rack Lights	Metering	Watchdog LEDs	Linkable	Voltage Regulation	Shipping Weight (kgs.)
PD11SSIEC-CE	10/2300	11	1 front						4.5
PD11LVSIEC-CE	10/2300	11	1 front	•	•				3.2
PD10VRSIEC-CE**	10/2300	10	2 rear		•			•	11.4

** Not safety agency-listed



POWER CONDITIONING PRODUCTS

Each of these ETA power conditioners contains three important elements — a high-energy surge diverter, a low-impedance isolation transformer, and a power line noise filter. ETA's integrated design provides a high-performance solution to ensure the cleanest power possible for digital audio or video workstations, mixers and digital signal processors. Our special low-impedance transformer design guarantees all the current needed for a high-powered audio system even when sudden dynamic changes result in greatly increased demand for current.

Each of these power conditioners will withstand a worst case power surge of up to 6,000 volts and safely reduce it to less than 10 volts between hot and neutral and less than .5 volts between neutral and ground — the precise electrical environment demanded by high-performance digital systems.

STANDARD POWER CONDITIONERS

Features include

- Front panel LEDs for “power on” and “no safety ground” indications
- Front panel power switch/circuit breaker (PCI-400NA and larger)
- NEMA plug/receptacles on North American models
- IEC320 plug/receptacles on International models
- Optional wall mount plate for models up to PCI-700NA
- Optional rack tray for PCI-400NA and larger
- Safety agency-listed. International units carry the CE mark
- Limited five-year warranty against defects in materials and workmanship



PCI-065NA, PCI-100NA



PCI-400NA, PCI-500NA, PCI-600NA, PCI-700NA



PCI-152NA, PCI-202NA,
PCI-302NA, PCI-402NA



PCI-830NA, PCI-1000NA, PCI-1200NA,
PCI-1600NA, PCI-2000NA

North American – 120 volt, 60 Hz.

Model #	Receptacles	Load Power VA/Amps	Size (in.) (H x W x D)	Shipping Weight (lbs.)
PCI-065NA	2 NEMA 5-15R	78/.65	3.61 x 4.25 x 6.74	5
PCI-100NA	2 NEMA 5-15R	120/1	3.61 x 4.25 x 6.74	6
PCI-152NA	4 NEMA 5-15R	180/1.5	4.23 x 4.97 x 7.58	6
PCI-202NA	4 NEMA 5-15R	240/2	4.23 x 4.97 x 7.58	9
PCI-302NA	4 NEMA 5-15R	360/3	4.23 x 4.97 x 7.58	11
PCI-402NA	4 NEMA 5-15R	480/4	4.23 x 4.97 x 7.58	12
PCI-400NA	6 NEMA 5-15R	480/4	4.29 x 8.10 x 11.80	16
PCI-500NA	6 NEMA 5-15R	600/5	4.29 x 8.10 x 11.80	18
PCI-600NA	6 NEMA 5-15R	720/6	4.29 x 8.10 x 11.80	20
PCI-700NA	6 NEMA 5-15R	840/7	4.29 x 8.10 x 11.80	22
PCI-830NA	8 NEMA 5-15R	1000/8.3	5.60 x 11.15 x 16.10	34
PCI-1000NA	8 NEMA 5-15R	1200/10	5.60 x 11.15 x 16.10	38
PCI-1200NA	8 NEMA 5-15R	1440/12	5.60 x 11.15 x 16.10	43
PCI-1600NA	8 NEMA 5-20R	1920/16	5.60 x 11.15 x 16.10	52
PCI-2000NA	8 NEMA 5-20R	2400/20	5.60 x 11.15 x 16.10	63



DIGITAL POWER CONDITIONER



This rack-mounted power conditioner includes the following features:

- Fits standard 19" rack. Consumes 3U rack space
- Eight-foot power cord with NEMA plug
- Front panel meters for line voltage and output current (optional)
- Low-voltage/high-voltage protection circuit with auto-reset when voltage returns to normal (optional)
- One front panel receptacle
- NEMA rear panel receptacles spaced to accommodate wall warts

North American – 120 volt, 60 Hz.

Model #	Load Power KVA/Amps	Receptacles	Shipping Weight (lbs.)
DPC-1000NA	1/8.3	16 – NEMA 5-15R	47
DPC-1800NA	1.8/15	16 – NEMA 5-15R	65
DPC-2400NA	2.4/20	16 – NEMA 5-20R	70



PCI-150INT



PCI-500INT, PCI-750INT



PCI-250INT



PCI-1000INT, PCI-1250INT, PCI-1500INT,
PCI-2000INT, PCI-2500INT

International – 230 volt, 50 Hz.

Model #	Receptacles	Load Power (VA)	Size (mm) (H x W x D)	Shipping Weight (kgs.)
PCI-150INT	2 IEC320	150	92 x 108 x 171	5
PCI-250INT	3 IEC320	250	107 x 126 x 193	6
PCI-500INT	6 IEC320	500	109 x 206 x 300	9
PCI-750INT	6 IEC320	750	109 x 206 x 300	10
PCI-1000INT	9 IEC320	1000	142 x 283 x 409	17
PCI-1250INT	9 IEC320	1250	142 x 283 x 409	18
PCI-1500INT	9 IEC320	1500	142 x 283 x 409	20
PCI-2000INT	9 IEC320	2000	142 x 283 x 409	23
PCI-2500INT	9 IEC320	2500	142 x 283 x 409	28



CONDITIONED POWER CENTER

Need more power for larger equipment configurations? With ETA's three-phase Conditioned Power Center, you can supply clean, isolated, conditioned power for an entire room full of equipment racks. These three-phase power conditioners provide the same high performance power as our popular single-phase models. Each of these conditioners will reduce a 6000-volt surge to less than 10 volts hot to neutral and less than .5 volts neutral to ground. Standard equipment includes safety interlocks, emergency machine off (EMO), casters, and a lockout/tagout breaker.



Features include:

- All models incorporate a low-impedance isolation transformer, surge diverter, and noise filter
- Models available from 10 kVA to 300 kVA
- For all applications worldwide — models available for both 50 Hz.* and 60 Hz.
- Safety interlocks, lockout/tagout breaker, and casters are standard on all models
- Available options (depending on model) include input line cord, output receptacles, distribution panels, external EMO connector, basic power metering, and phase loss/low-voltage detection and protection (when equipped with the power management package)
- Limited five-year warranty against defects in material and workmanship

Note: Each model is manufactured to installation specifications. Please allow 4 weeks for delivery ARO.

North American

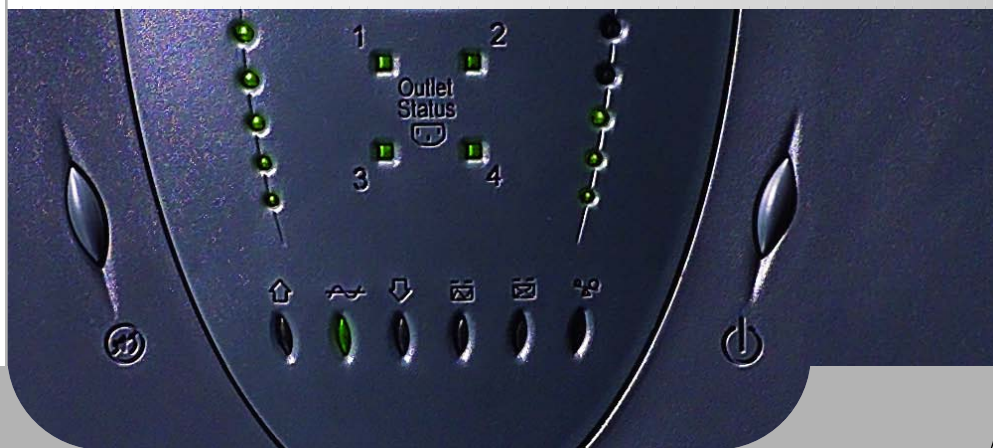
North American Models*	Input-Output Voltage	Load Power kVA	Size (in.) (H x W x D)	Weight (lbs.)
CPC10.0-XDXY	208/240/480/600-208/120	10	26 x 18 x 30	520
CPC15.0-XDXY	208/240/480/600-208/120	15	26 x 18 x 30	546
CPC20.0-XDXY	208/240/480/600-208/120	20	26 x 18 x 30	585
CPC25.0-XDXY	208/240/480/600-208/120	25	35 x 22 x 39	780
CPC30.0-XDXY	208/240/480/600-208/120	30	35 x 22 x 39	822
CPC35.0-XDXY	208/240/480/600-208/120	35	35 x 22 x 39	910
CPC45.0-XDXY	208/240/480/600-208/120	45	35 x 22 x 39	1020
CPC55.0-XDXY	208/240/480/600-208/120	55	47 x 22 x 39	1181
CPC65.0-XDXY	208/240/480/600-208/120	65	47 x 22 x 39	1250
ABC75.0-XDXY	208/240/480/600-208/120	75	47 x 22 x 39	1325
CPC85.0-XDXY	480/600-480/277	85	54 x 28 x 39	1445
CPC100.0-XDXY	480/600-480/277	100	54 x 28 x 39	1655
CPC125.0-XDXY	480/600-480/277	125	54 x 28 x 39	1765
CPC150.0-XDXY	480/600-480/277	150	54 x 28 x 39	1885
CPC175.0-XDXY	480/600-480/277	175	54 x 28 x 39	1990
CPC200.0-XDXY	480/600-480/277	200	64 x 28 x 39	2565
CPC230.0-XDXY	480/600-480/277	230	64 x 28 x 39	2815
CPC250.0-XDXY	480/600-480/277	250	74 x 56 x 39	3125
CPC300.0-XDXY	480/600-480/277	300	74 x 56 x 39	3350

* Contact factory for specifications and delivery on international models



UNINTERRUPTIBLE POWER MANAGERS

Each of these ETA uninterruptible power managers provides up to 6 minutes of reserve power during a power outage. In addition to their low-distortion sine wave inverter, each model contains three important elements — a high-energy surge diverter, a low-impedance isolation transformer, and a power line noise filter. ETA's integrated design provides ultra-pure uninterruptible power to ensure the cleanest possible power for digital audio or video workstations, mixers and digital signal processors.

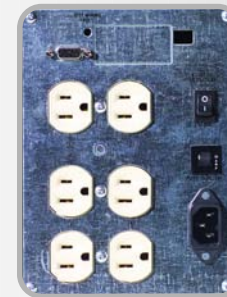


Features include:

- Low-distortion sine wave inverter
- Front-panel LED indicators for load level, battery charge level, voltage manager mode, on battery, low battery, replace battery, overload, and rear panel receptacle status
- Front-panel test button
- RS232 port and optional Communications Manager software package
- User hot swappable batteries
- Runtime full load/half load – 6 min./20 min.



UPM-350NA



UPM-500NA,
UPM-800NA



UPM-1100NA,
UPM-1440NA



North American – 120 volt, 60 Hz.

Model #	Receptacles	Load Power VA/Watts	Size (in.) (H x W x D)	Shipping Weight (lbs.)
UPM-350NA	4 NEMA 5-15R	350/280	6.6 x 5.0 x 17.5	31
UPM-500NA	6 NEMA 5-15R	500/325	8.0 x 5.8 x 17.5	37
UPM-800NA	6 NEMA 5-15R	800/520	8.0 x 5.8 x 17.5	43
UPM-1100NA	6 NEMA 5-15R	1100/715	9.0 x 8.3 x 19.5	65
UPM-1440 NA	6 NEMA 5-15R	1440/936	9.0 x 8.3 x 19.5	69



UPM-350INT



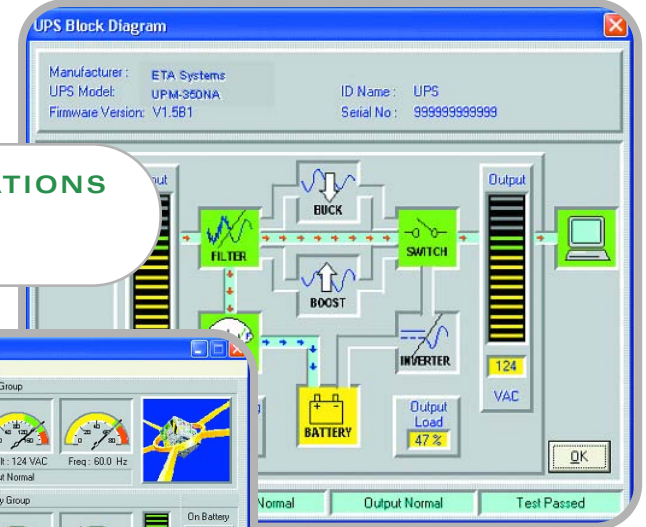
UPM-500INT,
UPM-800INT



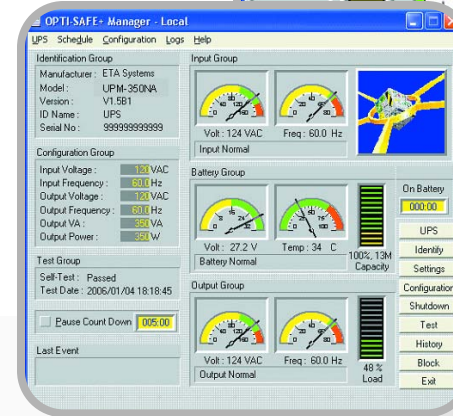
UPM-1100INT,
UPM-1440INT

International – 230 volt, 50 Hz.

Model #	Receptacles	Load Power VA/Watts	Size (mm) (H x W x D)	Shipping Weight (kgs.)
UPM-350INT	4 IEC320	350/280	168 x 140 x 445	17
UPM-500INT	6 IEC320	500/325	203 x 147 x 445	17
UPM-800INT	6 IEC320	800/520	203 x 147 x 445	20
UPM-1100INT	6 IEC320	1100/715	229 x 211 x 495	29
UPM-1440INT	6 IEC320	1440/936	229 x 211 x 495	29



COMMUNICATIONS MANAGER SOFTWARE



With ETA's optional Communications Manager software package, you can take total management control of the interface between the Uninterruptible Power Manager and your Windows®-based audio or video system. This powerful software package provides a wide range of both information and control.

Features include:

- Graphical interface of UPS function
- Graphical interface of UPS performance data including input and output voltage, frequency and load, UPM temperature, minutes on inverter, minutes of runtime remaining, etc.
- Logs of power outages and UPS performance data
- User-definable messages and shutdown times
- User-definable self-test schedules
- User-programmable load shedding on rear panel receptacle banks
- Email notification of UPS problems and status
- Text paging of UPS problems and status
- Also available for Novell, Linux, and OS2

ETA HISTORY

ETA Systems was founded in Ohio in 1977 and began as a supplier of analog lighting equipment for musicians and bands traveling the hotel circuit in the late '70s and early '80s.

In the years since, ETA Systems has migrated away from lighting control products to a position as one of the leading manufacturers of products designed to distribute, sequence, condition, manage and control electrical power for the integrated audio and video markets. Today, ETA offers an extensive line of rack-mounted and standalone power protection, power management, and uninterruptible power products designed to protect the ultra-sensitive digital electronic equipment used in audio and video applications. Many ETA models feature sophisticated microprocessor technology to regulate AC power, sequence power turn-on, and provide backup power in the event of a power outage.

ETA Systems has pioneered a number of "industry firsts" including:

- Always-on protected outlets
- Rackmount distribution with 10 rear panel outlets
- Front-panel convenience outlets
- Digital voltmeter display readouts
- Microprocessor-managed voltage regulators
- Programmable and linkable sequential turn-on models
- Models compatible with multiple AC adapters
- High-amp capacity models

ETA's sophisticated electronic protection technology is the favorite of professionals who demand flawless operation of digital mixers, processors, amplifiers and PCs whether in the studio, in the boardroom or live in the theater or on tour.