ONEAC Power Conditioners: For many, conventional approaches to power protection are "good enough." But some find that surge suppressors or special electrical circuits are inadequate. Others face performance expectations with no room for errors. ONEAC power conditioners are engineered to satisfy these demanding applications.

Semiconductor-based systems need clean power

Computers, medical instrumentation, telecommunications and manufacturing systems all rely on semiconductors. And the way semiconductors perform is by processing electric signals of less than a few volts each. Transient voltage disturbances confuse that process. Data may be lost or corrupted. Instructions garbled. Processes stop. Systems need to be reset. Worse, electrical overstress can destroy or degrade semiconductor material. The results are increasingly unreliable operation or seemingly random, sudden failures.

ONEAC's unique solution

ONEAC power conditioners assure reliable electronic performance by isolating semiconductors from the outside electrical worlds they connect to. They differ from surge suppressors in that they limit not only peak voltage (amplitude), but also edge-speed (frequency) of electrical transients. ONEAC's low impedance transformer and Virtual Kelvin Ground® remove the full spectrum of conducted power line noise in all modes. More, they convert a noisy safety ground to a noise-free signal ground. It's an approach that has proven uniquely effective against all conducted electrical disturbances.

For increased productivity

By any technical measure — surge voltage let-through, frequency control, stability, predictability, load responsiveness, durability, reliability — ONEAC power conditioners meet a far higher performance standard than conventional protection products. That translates into more reliable performance from the systems they protect. Field tests confirm it. Those who use ONEAC power conditioners in place of surge suppressor-based products, with or without a dedicated I/G circuit, dramatically reduce system crashes, unexplained system errors and other "soft" failures as well as hardware failures. So they enjoy major decreases in downtime and fewer service calls.

Robust design, proven durability

Designed and manufactured under ISO 9001 quality procedures, ONEAC power conditioners have no parts that wear out. They last far longer than surge suppressors. And are highly reliable, even in harsh electrical environments. Their exceptionally high mean time between failures (MTBF) backs that up. So do we with a complete 5-year warranty. Plus our willingness and ability to engineer site-specific protection schemes that eliminate your power problems entirely.

- **Tight surge let-through:** highest possible assurance that conducted transient voltages won't damage or degrade hardware components.
- **Virtual Kelvin Ground:** maximizes system reliability by preventing "soft errors" and other symptoms of logic disruption caused by high frequency noise.
- **Low impedance technology:** handles high crest factors and inrush currents without oversizing.
- **High efficiency transformer:** generates less heat and reduces operating cost.
- **Maintenance-free:** no parts that wear out so total lifetime cost is limited to the original purchase price.
- **Small footprint, quiet operation:** unobtrusively fits into any environment.
- **Plug and play:** plugs and receptacles meet NEMA standards.
- **Designed & manufactured under ISO 9001:** assures consistent quality and performance.
- **5 year warranty:** the best assurance of product quality and performance in the industry.

ONEAC Power Conditioners: Specifications

Power Conditioning

ONEAC's unique power conditioning architecture provides unmatched protection against the full range of power line disturbances. Components include:

Full output isolation: ONEAC's proprietary low impedance transformer design. Completely safeguards against lightning and other high energy surges without creating detrimental side effects.

Virtual Kelvin Ground: Eliminates the full spectrum of conducted power line noise (from 50 kHz to 10 MHz) in all modes, reduces the effects of electrostatic discharge (ESD), and provides an exceptionally clean signal reference ground for electronic systems.

Approvals

Units which use a 5-20R connector meet UL1012. All other North American Models are C-UL approved.

Performance Characteristics

Nominal input voltage: 120 Vac, 60 Hz

Surge voltage withstand capability: ANSI/IEEE C62.41 Category A&B, 6 kV/200 & 500 Amp, 100 kHz ringwave

Surge and Noise Rejection-Isolation: with unit under power, and ANSI/IEEE C62.41 Category A pulse applied either normal mode (L-N) or common mode (N-G) at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants using a Keytek 711A/J (or equivalent) surge generator and a low-voltage, high sensitivity probe.

Load Power Factor: 0:3 leading to 0.3 lagging

Load Regulation Response Time: <2 msec for a 50% change in load

Interruption Response Time: output voltage will track input voltage in less than 2 msec at power-off and power-on for a single-cycle asynchronous notch

Distortion: <1% THD added into a resistive load

Overload Protection: units greater than 385VA feature an external current breaker switch.

CL1102 is protected with a replaceable fuse, other models incorporate an automatic resetting internal thermal cutout.

Cooling: convection

RFΩ Insertion Loss (line to load and load to line)

CL Series:	40 kHz to 2 MHz — 50 dB typical 20 kHz to 3 MHz — 40 dB typical 10 kHz to 5 MHz — 30 dB typical
CP Series	400 kHz to 4 MHz — 50 dB typical 100 kHz to 10 MHz — 40 dB typical 30 kHz to 30 MHz — 35 dB typical
All Other Series	400 kHz to 4 MHz — 50 dB typical 100 kHz to 10 MHz — 40 dB typical 30 kHz to 30 MHz — 30 dB typical

MODEL #	LOAD	CONNECTORS		PHYSICAL DIMENSIONS						SHIPPING WEIGHT	
120V/60HZ	VA	INPUT	OUTPUT	WIDTH		HEIGHT		DEPTH			
				in	cm	in	cm	in	cm	lbs	kg
CL11007	75	5-15P	5-15R (1)	4.6	(11.7)	3.4	(8.6)	6.4	(16.3)	5	(2)
CL1101	120	5-15P	5-15R (1)	4.6	(11.7)	3.4	(8.6)	6.4	(16.3)	7	(3)
CL1101.5	180	5-15P	5-15R (1)	4.6	(11.7)	3.4	(8.6)	6.4	(16.3)	7	(3)
CL1102	240	5-15P	5-15R (2)	5.0	(12.7)	4.2	(10.7)	7.5	(19.0)	11	(5)
CP1103	385	5-15P	5-15R (4)	6.4	(16.3)	5.3	(13.5)	10.3	(26.2)	18	(8)
CP1105	550	5-15P	5-15R (4)	6.4	(16.3)	5.3	(13.5)	10.3	(26.2)	21	(10)
CP1107	750	5-15P	5-15R (4)	6.4	(16.3)	5.3	(13.5)	10.3	(26.2)	24	(11)
CP1110	1000	5-15P	5-15R (4)	6.4	(16.3)	5.3	(13.5)	10.3	(26.2)	27	(12)
CB1115	1440	5-15P	5-15R (6)	9.5	(24.1)	8.0	(20.3)	15.0	(38.1)	46	(21)
CB1120	1920	5-20P	5-20R (6)	9.5	(24.1)	8.0	(20.3)	15.0	(38.1)	56	(25)
CC1128	2880	L5-30P	5-20R (6)	10.5	(26.7)	10.5	(26.7)	17.6	(44.7)	78	(35)

NOTE: The items listed in the table above represent the standard configuration for each specific model. Hardwired, wall mount and extra receptacle configurations are also available. Refer to our Product Selection Guide or contact ONEAC Customer Support at 800-327-8801 for details.

ONEAC is a UL/BSI registered corporation — Certification No. A2900

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