

**ONEAC CB, CC Series Power Conditioners:** For some, conventional approaches to power protection are “good enough”. But many 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 CB, CC Series 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

All CB/CC Series models are UL, cUL approved. \*\*



CB Series Back Panel



CC Series Back Panel

### 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

**Efficiency Rating:** CB: >95% at rated output. CC: >97% at rated output

**Overload Protection:** External current breaker switch

**Cooling:** convection

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

400 kHz to 4 MHz — 50 dB typical

100 kHz to 10 MHz — 40 dB typical

30 kHz to 30 MHz — 30 dB typical

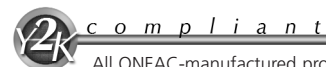
MODELS*	CB1115	CB1120	CB2320	CC1128	CC2333	CC2338	CC2350	CC2357
Load Current Rating (Amps)	12	16	8	24	14	16	20.8	24
Output Rating (kVA)	1.44	1.92	1.92	2.88	3.33	3.84	4.99	5.76
Input Voltage (VAC)	120	120	240	120	208*	240*	208*	240*
Output Voltage (VAC)	120	120	240/120 split Ø	120	240/120 split Ø	240/120 split Ø	240/120 split Ø	240/120 split Ø
Line Cord (feet)	9	9	10	10	10	10	10	10
Input Connector	5-15P or L5-20P	5-20P or L5-20P	L6-20P	L5-30P	L14-20P	L6-20P or L14-20P	L14-30P	L6-30P or L14-30P
Output Connector	5-15R (6) or 5-15R (2) & 5-20R (4)	5-20R (4) & L 5-20R (1)	L6-20R & 5-15R (4)	5-20R (4) & L5-30R (1)	5-20R (4) & L14-20R (1)	5-20R (4) or 5-20R (4) & L6-20R (1) L14-20R (1)	5-20R (4) & L14-30R (1)	5-20R (4) or 5-20R (4) & L6-30R (1) L14-30R (1)
Inrush—1/2 Cycle (Amps)	300	400	150	500	400	400	500	500
Surge Current (Amps) 1 sec. typical	60	80	55	170	80	80	120	120
Surge Current (Amps) 5 sec. typical	31	42	19	60	42	42	63	63
1kHz Forward Transfer Impedance (Ohms)	<2.5	<1.9	<7.6	<1.25	<3.25	<3.7	<2.1	<2.5
Heat Loss, 80% Load (BTU per hr.)	<160	<200	<200	<250	<300	<350	<420	<450
Maximum dimensions (W) in.	9.5	9.5	9.5	10.5	10.5	10.5	10.5	10.5
Maximum dimensions (H) in.	8	8	8	10.5	10.5	10.5	10.5	10.5
Maximum dimensions (D) in.	15	15	15	17.62	17.62	17.62	17.62	17.62
Shipping weight (lbs.)	46	56	60	78	97	97	119	119

\* 225V tap available.

\*\* 5-20R with T slot neutral precludes cUL listing

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

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All ONEAC-manufactured products are Y2K compliant.

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



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