

ONEAC CX Series Power Conditioning Transformer in NEMA enclosure with disconnect (2 - 10 kVA):

Reliable operation of manufacturing control systems is critical despite the harsh electrical environment in which they must operate. ONEAC CX Series power-conditioning transformers protect critical equipment from power disturbances and provide other key power functions.

Handles the harshest electrical environments

Microprocessors within programmable logic controllers (PLCs) and industrial computers are forced to operate in harsh electrical environments. Reliable performance under these adverse conditions challenges industrial automation systems. ONEAC power conditioners eliminate problems caused by power-line noise and completely isolate critical loads from electrical distribution systems—preventing disruption, degradation and destruction of critical circuitry.

ONEAC's unique solution

ONEAC CX Series low impedance power conditioners fulfill the requirements of industrial applications. "Low impedance" means that CX Series conditioners are optimized for the high pulsed current-on-demand required by switch mode power supplies without the need to oversize the VA rating. ONEAC CX power conditioners surpass the performance of ferroresonant transformers. They require less space, generate less heat and improve stability to the load during line notches.

Provides multiple "power management" functions

With voltage conversion, high frequency filtering capabilities and tight surge let-through, the CX series fulfills the need for step down transformers, surge suppressors and power line filters with one efficient product. The CX is available mounted in an enclosure or on a plate that can be mounted within an enclosure construction for stand alone applications. Hardwiring allows easy installation.

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 exceptional high mean time between failures (MTBF) backs that up. So do we, with a complete 5-year warranty. ONEAC products can be engineered for site-specific protection schemes that eliminate power problems entirely.



- **Tight surge let-through:** assures that conducted transient voltages won't damage equipment or compromise accuracy.
- **Low impedance technology:** optimal interface with switching power supplies—handling high crest factors and inrush currents without oversizing.
- **Voltage conversion:** accepting input voltages of 480 V and providing 120 V output.
- **Bi-directional filtering of high frequency conducted noise:** assures reliable operation and prevents "noisy" loads from affecting sensitive electronics in the distribution system.
- **5-year warranty:** assurance of product quality and performance.

ONEAC CX Series Power Conditioning Transformer: 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®: Greatly reduces 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

CX enclosure mounted models are UL listed products to UL 1012, CSA22.2 No. 66. CX Plate mounted models are UL recognized components, for inclusion in enclosures.

Performance Characteristics

Nominal input Voltage: 240, 480 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: fuse

Cooling: convection



ONEAC CX Series Power Conditioning Transformer in NEMA enclosure with disconnect (2 - 10 kVA)

| MODELS | 2 kVA | 3.6 kVA | 5 kVA | 7.2 kVA | 9.6 kVA |
|---|-----------------|-----------------|-----------------|-------------------|-------------------|
| Output Rating (kVA) | 1.92 | 3.6 | 4.8 | 7.2 | 9.6 |
| Frequency | 60 Hz | 60 Hz | 60 Hz | 60 Hz | 60 Hz |
| Load Current Rating (Amps) @ 120V | 16 | 30 | 40 | 60 | 80 |
| Input Voltages @ 60 Hz | 240,480 | 240,480 | 240,480 | 240,480 | 240,480 |
| Output Voltage @ 60 Hz | 120 | 120 | 120 | 120 | 120 |
| 1kHz Forward Transfer Impedance (Ohms) @120V | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 |
| Efficiency at Rated Output (% heat loss, 80%) | > 95% | > 95% | > 95% | > 95% | > 95% |
| Heat Loss, 80% Load (BTU/hr) | < 300 | < 625 | < 780 | < 1100 | < 1475 |
| Input/Output Terminations | Hardwired | Hardwired | Hardwired | Hardwired | Hardwire |
| NEMA Enclosure Type | 12 | 12 | 12 | 12 | 12 |
| Maximum Dimensions (H) - in. (cm) - enclosure/plate | 14/11 (36/28) | 14/11 (36/28) | 14/11 (36/28) | 22/19 (56/48) | 22/19 (56/48) |
| Maximum Dimensions (W) - in. (cm) - enclosure/plate | 32/27 (81/69) | 32/27 (81/69) | 32/27 (81/69) | 32/27 (81/69) | 32/27 (81/69) |
| Maximum Dimensions (D) - in. (cm) - enclosure/plate | 9/.75 (23/2) | 9/.75 (23/2) | 9/.75 (23/2) | 12/.75 (31/2) | 12/.75 (31/2) |
| Shipping Weight— lbs. (kg) - enclosure/plate | 130/110 (59/20) | 130/110 (59/20) | 130/110 (59/20) | 250/230 (113/104) | 250/230 (113/104) |
| Output Configuration | A | B | C | D | D |

A = 1 x 16 A

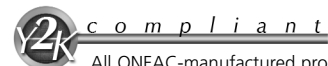
B = 1 x 30 A or 2 x 15 A

C = 2 x 20 A or 2 x 15 A and 1 x 10 A

D = Main secondary fuse protected with up to 6 poles of either 50, 40, 30, 20, 15, or 10 A

ONEAC and Virtual Kelvin Ground are registered trademarks of ONEAC Corporation. All other trademarks, product and corporate names are the property of their respective owners.

A CHLORIDE POWER PROTECTION COMPANY



All ONEAC-manufactured products are Y2K compliant.

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



(800) 327 8801 EXT. 2 in USA AND CANADA

27944 N. Bradley Road, Libertyville, IL 60048 Phone 847 816-6000 FAX 847 680-5124

+44 0 1235 534721 in UK AND EUROPE

18 & 20 Blacklands Way, Abingdon Business Park, Abingdon, Oxfordshire OX14 1DY, UK FAX +44 0 1235 534197