

ONEAC CSR Series Single-Phase Power Conditioners: Power in critical industrial applications often requires voltage conversion, distribution and conditioning. The ONEAC CSR Series offers the highest level of power conditioning in addition to distribution and voltage conversion in a one box solution.

Semiconductor-based systems need clean power

Computers, medical instrumentation, telecommunications and manufacturing systems all rely on semiconductors. Semiconductors perform by processing electric signals of less than a few volts each and transient voltage disturbances can 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 unit 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 in place of a dedicated IG circuit, dramatically reduce system crashes, unexplained system errors and other "soft" failures as well as hardware failures. So they enjoy increased uptime 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.
- **Multiple voltage input/output combination at 50/60 Hz:** provides flexibility for installation in various environments.
- **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.
- **Designed & manufactured under ISO 9001:** assures consistent quality and performance.
- **5-year warranty:** the best assurance of product quality and performance in the industry.
- **Free 24-hour technical support**

ONEAC CSR Series Single-Phase Power Conditioners: Specifications

Choose the options that meet your application needs:

Input Voltage Rating*

Adaptable voltage spreads allows options for voltage range.

- 1 - 100 - 120 V (CSR061 only)
- 2 - 200 - 240 V
- 4 - 400 - 480 V (CSR071 and CSR101 only)

Example: For 240 V in, specify CSR101-2XXXXX

Output Voltage*

- 1 - 120 V
- 2 - 240 V
- 3 - 120/240 V Split Phase

Example: For 120/240 V Split Phase output, specify CSR101-X3XXXX

Tap Setting

Indicates which tap is configured at the factory - match to input breaker option.

- A- 200 V B- 208 V C-220 V D-230 V E-240 V
- F*- 400 V G*- 415 V H*- 440 V J*- 460 V K*- 480 V
- W**- 100 V Y**- 108 V Z**- 120 V

* CSR071 and CSR101 only **CSR061 only

Example: For 200 V input tap, specify CSR101-XXAXXX

Emergency Mains Off

Allows the ONEAC power conditioner to interrupt power to the transformer utilizing input circuit breaker accessories:

- X - no mains off
- F - fail-safe EMO, SEMI-S2 compliant
- K - fail-safe EMO, SEMI-S2 and SEMI-F47 compliant, auxiliary low-voltage control output
- T - fail-safe EMO, SEMI-S2 compliant, auxiliary low-voltage control output

Example: For fail-safe EMO, SEMI-S2 compliant, specify CSR101-XXXFXF

Output Distribution & Convenience Circuits

Various protected convenience receptacle options allow access to power.

- 0 - no convenience outlets
- 1 - standard configuration (1) three gang IEC 320
- 2 - (1) twist lock receptacle, (2) NEMA duplex receptacles
- 3 - 9 Alternate configurations of IEC 320, IEC 309, or NEMA twist lock or duplex receptacles, protected with circuit breakers. (Call factory for options.)

Example: For standard configuration, specify CSR101-XXXX1X

Performance Characteristics*

CSR power conditioners may be specified with LED indicator panels or other special request features.

- 0 - no LED indicators or special option
- 1 - standard LED indicators, input and output power applied

Example: For standard LED indicators, specify CSR101-XXXXX1

Performance Characteristics

Frequency: 50/60Hz

Load Regulation: $\pm 2\%$

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

Surge Voltage Withstand Capability: ANSI/IEEE C62.41 Category A&B, 6 kV/200 & 500 Amp, 100 kHz ringwave, 6 kV/3000 A, impulse waveform

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.

Overload Capability: All units will typically tolerate 10 times rated output for 0.5 cycle, 5.5 times rated output for 1 second, and 3.5 times rated output for 5 seconds without degradation.

Cooling: convection

ONEAC Model Number:	CSR061-11	CSR061-23	CSR071-23	CSR071-43	CSR101-23	CSR101-43
Output Rating (kVA)	5.76	5.76	7.2	7.2	9.6	9.6
Load Current Rating (Amps/phase)	48	24/24	30/30	30/30	40/40	40/40
Output Voltage	120	120/240 Split	120/240 Split	120/240 Split	120/240 Split	120/240 Split
Inrush (1/2 cycle)	350	250	400	240	350	300
Surge Current (Amp) 1 sec typical	240	140	220	180	240	225
Surge Current (Amp) 5 sec typical	135	70	110	70	135	90
1kHz Forward Transfer Z (Ohms)	<0.8	<3.0	<2.2	<2.2	<2.2	<2.2
Heat Loss, 80% load (BTU/hr)	<495	<495	<615	<615	<820	<820
Efficiency at Rated Load (%)	>97	>97	>97	>97	>97	>97
Adjustments	input terminal block	input terminal block	input voltage taps	input voltage taps	input voltage taps	input voltage taps
Input Termination	hardwire	hardwire	input power block	input power block	input power block	input power block
Output Termination	Output power block—convenience distribution receptacles available					
Footprint - in ² (cm ²)	238 (1540)	238 (1540)	238 (1540)	238 (1540)	238 (1540)	238 (1540)
Dimensions - inches (cm)						
Height	24 (61)	24 (61)	24 (61)	24 (61)	24 (61)	24 (61)
Width	14 (36)	14 (36)	14 (36)	14 (36)	14 (36)	14 (36)
Depth**	17 (43)	17 (43)	17 (43)	17 (43)	17 (43)	17 (43)
Shipping Weight - lbs (kg)	190 (86)	190 (86)	250 (113)	250 (113)	250 (113)	250 (113)
Safety Agency Approvals	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE

* For other options, contact ONEAC factory.

** EMO and convenience distribution receptacles add 3.3 inches (8.4 cm)

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ONEAC is a UL/BSI
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Certification No. A2900



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