

# THREE PHASE COMPUTER POWER CONDITIONER

A LOW PROFILE POWER CONDITIONER WITH ISOLATION, SHIELDING, REGULATION, AND INPUT CIRCUIT BREAKER

COMPUTER ROOM • PRODUCTION FACILITY • TESTING LAB • TELECOMMUNICATIONS  
RETAIL SALES / POS • INDUSTRIAL • GOVERNMENT • PUBLIC BUILDING • SCHOOLS  
LIBRARY • HEALTHCARE • CRUISE LINE • BANKING / CREDIT • PRINTING FACILITY

## CONSTANT POWER 18

### 15 TO 100 kVA



### Peak-Current Power Capability

Today's sophisticated systems draw alternating current in a high-peak, non-linear mode. During normal operation, these peaks are a result of the DC power supplies, which repeatedly draw current to recharge their storage capacitors. Ordinary power conditioners typically have a high forward transfer impedance, causing sine wave distortion whenever peak current is required. OnLine Power Conditioners have 3 to 5% impedance that minimizes this distortion.

### Highest Energy Efficiency

OnLine Power Conditioners efficiency range is 96% at full load to 98.5% at light loads. This is remarkable when other types of power conditioning devices are 85% efficient at full load and only 67% efficient at half load. The higher efficiency of OnLine Power Conditioners provides significant savings in operating costs. The Power Conditioner pays for itself in just a few years.

### Protection Against Electrical Noise

Electrical noise consists of spurious electrical signals which enter power lines from such sources as lightning, utility network switching and the operation of countless electrical devices. Noise is so prevalent that it accounts for nearly 90% of all problem causing power disturbances. Noise signals can cause computing errors, printing errors, improper data transfer and damage to sensitive circuit components. Power line noise is transmitted in two different forms: common-mode, and transverse-mode (normal-mode). OnLine Power Conditioners offer protection against both types.

### Zero Current Switching

OnLine Power Conditioners are highly reliable, and the primary reason is their zero current tap-switching technology. A tap-switching, fully isolated, power conditioner, regulates voltage by switching electrical taps to either raise or lower the output voltage. Since these tap changes are made when the current is at zero, there is virtually no component stress. This innovative zero current tap-switching technique results in exceptional system reliability.

### Protection Against High & Low Voltage

Sensitive equipment located in heavily industrialized areas require protection against intermittent voltage sags and surges caused by the frequent turning on and off of heavy industrial equipment such as motors. Since a sudden voltage sag or surge can occur at any moment, it is imperative that a power conditioner respond to voltage fluctuations quickly and accurately.

OnLine Power Conditioners have a wide input range (+10% to -26% of nominal) and a narrow output range ( $\pm 3\%$  of the nominal output voltage).

A voltage measuring circuit in each control assembly senses the amplitude of the input voltage and a digital logic network determines whether the voltage is within acceptable limits for proper load operation. If not, the logic circuit selects the proper electrical tap for bringing the voltage back to within the critical load's requirements.

UL Listed

Cost Effective

Modular Design

Caster Based

High Noise Immunity

Regulation/Isolation only  
Bypass Switch

Tight Output Voltage  
Regulation

Auto Tap Switching @ Zero  
Crossing Point

Exceptional Reliability

Single Point Grounding

1 Year Warranty

# CP 18 SPECIFICATIONS

<b>Sizes:</b> .....	15, 30, 50, 75 and *100 kVA
<b>Input Voltage**:</b> .....	208 or 480 VAC
<b>Output Voltage**:</b> .....	208Y/120 or 480Y/277 VAC
<b>Frequency**:</b> .....	60 Hz $\pm$ 5%
<b>Response Time:</b> .....	1 cycle typical
<b>Harmonic Distortion:</b> .....	1% max. added at tap switching
<b>Audible Noise:</b> .....	<35 dB measured on Response Curve "A"
<b>Common-Mode:</b> .....	-120 dB
<b>Normal-Mode:</b> .....	-40 dB/decade
<b>Overload (Inrush):</b> .....	200% of full load for 10 seconds 1000% of full load for 1 cycle
<b>Input Voltage Regulation Range:</b> .....	+10% to -26% of nominal
<b>Output Voltage Regulation Range:</b> .....	$\pm$ 3% typ. $\pm$ 4% maximum
<b>Efficiency:</b> .....	96% at full load 98.5% at light load
<b>Load Power Factor:</b> .....	0.3 leading or lagging to unity
<b>Crest Factor:</b> .....	3:1 maximum
<b>Transformer:</b> .....	3 phase computer grade, dual-shielded, isolation transformer
<b>Transformer Impedance:</b> .....	3 to 5%
<b>3 Phase Power On Indicator:</b> .....	Neon
<b>Input Voltage Cooling:</b> .....	Convection
<b>Environmental:</b>	
Operating Temperature: .....	32°F (0°C) to 104°F (40°C)
Storage Temperature: .....	-4°F (-20°C) to 140°F (60°C)
Operating Humidity: .....	5 to 95% non-condensing
<b>Dimensions:</b> .....	Height      Width      Depth
15 - 50 kVA .....	42" (107 cm)    32" (81 cm)    22" (56 cm)
75/100 kVA Unit .....	42" (107 cm)    32" (81 cm)    27" (69 cm)

SIZE	MODEL NO.	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT (LBS)	BTUs/HR
15	AP015B0500T3	208 VAC	208Y/120 VAC	520	2,040
	AP015B0900T3		480Y/277 VAC		
	AP015H0500T3	480 VAC	208Y/120 VAC		
	AP015H0900T3		480Y/277 VAC		
30	AP030B0500T3	208 VAC	208Y/120 VAC	570	4,080
	AP030B0900T3		480Y/277 VAC		
	AP030H0500T3	480 VAC	208Y/120 VAC		
	AP030H0900T3		480Y/277 VAC		
50	AP050B0500T3	208 VAC	208Y/120 VAC	900	6,800
	AP050B0900T3		480Y/277 VAC		
	AP050H0500T3	480 VAC	208Y/120 VAC		
	AP050H0900T3		480Y/277 VAC		
75	AP075B0500T3	208 VAC	208Y/120 VAC	1,050	10,200
	AP075B0900T3		480Y/277 VAC		
	AP075H0500T3	480 VAC	208Y/120 VAC		
	AP075H0900T3		480Y/277 VAC		
*100	AP100H0500T3	480 VAC	208Y/120 VAC	1,300	13,800
	AP100H0900T3		480Y/277 VAC		

\* 100 kVA only available in 480 volts input

\*\* Other voltages or frequencies available- contact factory

## STANDARD FEATURES

- Low Profile Caster Based Cabinet
- Input Main Circuit Breaker with Shunt Trip
- 3 Phase, Regulating, Dual-Shielded, Computer Grade, Copper Wound, Isolation Transformer
- Regulation/Isolation Only Bypass Switch (Bypasses Regulation Electronics)
- Three Phase Neon Power On Indicators
- Environmental Remote Emergency Power Off Station Connector
- Input Filter (-40 dB NMA)
- SCR Regulation Assembly
- 1 Year Warranty

## OPTIONS

- High Isolation Transformer with Harmonic Reduction (up to K-50)
- Remote Emergency Power OFF (REPO) Station with 50 ft. Cable
- Thermal Remote Emergency Power OFF (REPO) Station with 50 ft. Cable
- Secondary Surge Suppression
- Output Filter (-60 dB/decade normal -mode)
- Shunt-Trip Main Input Circuit Breaker with REPO Plug
- Secondary Output Distribution
- TVSS
- Spare Parts
- Extended Warranty and Service Plan
- Special Paint

Specifications are subject to change without prior notification.

