

# Power-Suppress™



The **Power-Suppress™ T7 Ultra-Isolator® Noise Suppressor** protects sensitive electronic equipment against electrical noise disturbances. These impediments, from sources such as lightning, utility network switching and the operation of electric motors, are the most prevalent and troublesome of all AC power disturbances. Noise signals that can affect electronic equipment occur approximately seven times more often than voltage fluctuations and blackouts combined. Therefore, it makes sense to give sensitive equipment the best protection available: an **Ultra-Isolator® Noise Suppressor**.

The **Power-Suppress™ T7** employs an exclusive shielding technique that enables blocking all forms of electrical noise, over a broad range of frequencies, without impeding the normal AC signal. Providing noise attenuation at a ratio of up to 20 million to 1, these products can reduce a 6,000 volt spike to an insignificant 0.0030 volt.

The **Power-Suppress™ T7 Ultra-Isolator® Noise Suppressor** (Series 30, K-13) encompasses two thermal switches and provides first stage, early warning of any transformer malfunction of output overload and second stage shut down under severe conditions. All Topaz T7 transformers are UL listed and designed to handle the most intense non-linear load application.

## **Power-Suppress™ T7** 15kVA to 225kVA

### *Three Phase Ultra-Isolator Noise Suppressors*

#### **Advanced Features**

- ▶ 20,000,000:1 (146 dB) common-mode reduction
- ▶ Normal-mode noise reduction
- ▶ Transient suppression system with status indicators
- ▶ Exclusive shielding
- ▶ K-13 rated
- ▶ Over-temperature protection
- ▶ Clean, noise-free power output
- ▶ High efficiency
- ▶ Fast, easy installation
- ▶ UL and cUL listed requirements
- ▶ 5 year warranty

## Characteristics

## Power-Suppress™ T7

Ultra-Isolator (Three phase)	<b>Series 30</b>
Input voltage	208, 480 VAC
Output voltage	208Y/120Y
K - 13 rated	Yes
Common-mode noise	146dB
Normal-mode noise	60dB
Overload capacity	500% for 1 cycle 200% for 30 seconds
Dielectric strength	2,500 VAC minimum
Frequency	57-63Hz for 60Hz model
Impedance	3 - 5% typical
Efficiency (Output voltage)	95% typical
TAPS	(6) @ 2.5% / 2 above nominal/ 4 below nominal
Input voltage range	±10% of nominal rated voltage
Load regulation	3.5% or less from no load to full load at unity power factor
Harmonic distortion	1% maximum
Insulation resistance	100 megohms minimum from windings to core
Electro-magnetic interference	0.1 gauss maximum measure at 36 inches

## Environment

Audible noise	Less than 50dB measured at 3 feet
Operating temperature	0°C to 40°C
Storage temperature	-40°C to 85°C
Operating altitude	10,000 feet maximum
Operating humidity	95% relative (non-condensing)

## Standard

Safety Agency UL 1561, UL 1449, cUL listed, ISO 9001

## Warranty

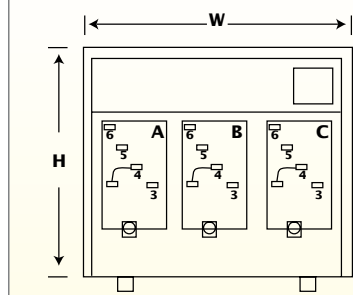
Standard Five years

## Three-Phase Ultra-Isolator Noise Suppressors

Power Rating	Input Voltage†	Output Voltage†	Frequency†	H x W x D (in)	Weight pounds*	BTU/hour	Series 30 (146dB)
15kVA	208 VAC	208Y/120VAC	60 Hz	31 35 18	420	2,154	97201-31
15kVA	480 VAC	208Y/120VAC	60 Hz	31 35 18	420	2,154	97401-31
30kVA	208 VAC	208Y/120VAC	60 Hz	31 35 18	490	4,265	97203-31
30kVA	480 VAC	208Y/120VAC	60 Hz	31 35 18	490	4,265	97403-31
50kVA	208 VAC	208Y/120VAC	60 Hz	43 43 22	710	6,397	97205-31
50kVA	480 VAC	208Y/120VAC	60 Hz	43 43 22	710	6,397	97405-31
75kVA	208 VAC	208Y/120VAC	60 Hz	43 43 22	950	10,663	97207-31
75kVA	480 VAC	208Y/120VAC	60 Hz	43 43 22	810	10,663	97407-31
100kVA	480 VAC	208Y/120VAC	60 Hz	43 43 22	990	14,217	97410-31
125kVA	480 VAC	208Y/120VAC	60 Hz	43 43 22	1,140	18,482	97412-31
150kVA	480 VAC	208Y/120VAC	60 Hz	43 43 22	1,240	21,549	97415-31
225kVA	480 VAC	208Y/120VAC	60 Hz	55 47 28	1,780	39,203	97422-31

Note: 50Hz are available upon request. † For other voltages and frequencies, contact a factory applications engineer at (800) 523-0142 \* Shipping weight listed

## Typical Series 30 enclosure



## Applications

- ▶ Industrial manufacturing equipment
- ▶ Computer systems
- ▶ Telecommunications
- ▶ Voltage reconfiguration

## Transient Suppression

Peak Transient Current	15,000 amps (8 x 20 microsec. wave)
Max Clamping Voltage	350 V at 300 amps
Pulse Transient Energy	200 joules
Response Time	< 25 nano seconds

## Primary Surge Protection

For standardized current wave (8 x 20 microsec.) of 10 kA, the crest voltage will be limited to 2.9 kV.

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THE UNINTERRUPTIBLE POWER PROVIDER