

Optimum noise attenuation and protection



Eaton's Power-Suppress 600 is designed with two full-length electrostatic shields that provide 126 dB common mode noise attenuation. An optional third shield is available that increases the attenuation to 146 dB, 20 dB additional attenuation. The Power-Suppress 600 not only attenuates noise from input to output, but also prohibits system backfeed from noise-generating loads. In addition, an optional pre-wired, high-frequency filter and category C3 surge protection device (SPD) provide your critical loads with optimum protection from noise and impulses, as well as high-energy voltage transients.

The Power-Suppress 600's noise attenuation is critical for any application in which digital circuitry is used to scan, measure or monitor critical data, control a critical process, or reproduce high quality audio/video signals.

Optional infrared, transparent polymer IR window provides access for safe routine thermal scanning of transformer connections under load, without exposing personnel to arc flash hazards. Durable IR windows are industrial-grade with a patented reinforced grill, fully impact-resistant, and UL® and cUL® Listed. This option adds 2 inches to the depth of the 112 kVA – 225 kVA enclosure.

Specifications

Description	Specification
Three-phase power output	
kVA	15, 30, 45, 75, 112, 150, 225, 300, 500
Operating frequency	
Frequency	60 Hz ± 5% Note: 50 Hz models available, consult factory.
Electrical input	
Three-phase 15–150 kVA 225–500 kVA	208, 240, 480 or 600 Vac (delta) 480, 600 Vac (delta)
Voltage taps (15–300 kVA ①)	(2) taps 2.5% full capacity above nominal (4) taps 2.5% full capacity below nominal
500 kVA	(1) tap 3.5% full capacity above nominal (2) taps 3.5% full capacity below nominal Note: Special voltages available for both single- and three-phase models.
Electrical output	
Three-phase	208/120, 480/277 or 600/347 Vac (wye) Note: Special voltages available; contact factory.
Output impedance	2% to 3.5% typical
Output distortion	Less than 1.0% THD added under linear load
Load regulation	2% typical, no load to full load
Overload	Up to 500% for 10 seconds, 1000% for 1 cycle
Isolated neutral	Establishes a new neutral to ground bond on the transformer's output
Noise attenuation	
Common mode	126 dB—standard double (2) shield 146 dB—optional triple (3) shield
Transverse mode	3 dB down at 10 kHz, decaying 20 dB per decade; decaying 40 dB with "SPD with high frequency" option
Environmental	
Operating ambient temperature	–25 °C to +40 °C
Relative humidity	0 to 95% noncondensing
Altitude	Up to 5000 feet above sea level without derating
Audible noise	45 to 55 dBA at 1 m, depending on kVA size
Efficiency	
U.S.	Meets and exceeds U.S. Department of Energy (DOE) 2016 high efficiency standards identified under DOE 10 CFR Part 431
Canada	Meets and exceeds CSA® Standard C802.2-12
K-factor ratings	
Ratings	K13
Neutral size	Twice the ampacity of the secondary phase conductor on three-phase models

① Exception:

112 kVA – 150 kVA at
208 Vac or 240 Vac

(1) tap 5% full capacity above nominal
(2) taps 5% full capacity below nominal



Powering Business Worldwide

Specifications, continued

Description	Specification
Harmonic elimination	Protecting the loads from voltage and current distortions caused from triplen harmonics (3rd, 9th, 15th, 21st, etc.)
Transformer construction	All copper winding and conductor construction, dry-type transformer with M3, grain-oriented silicon steel
Electrical connection	Copper bus provided for hardwired input and output. Note: Customer to provide lugs.
Basic impulse level	10 kV
Temperature rise	135 °C rise above ambient, under nonlinear loading per UL 1561 standard
Cooling	Convection cooled
Enclosure	Standard, floor mounted: NEMA® 2 up to 225 kVA; NEMA 1 at 300 kVA and 500 kVA Note: Optional NEMA 3R outdoor enclosure available up to 225 kVA.
Certifications	
Safety	UL 1561 Listed, labeled for operation with or below a specific K-factor rating; cUL listed to CSA Standard C22.2, No. 47-13
RoHS	Compliant
Quality	ISO 9001:2015

Harmonic handling capability

The Power-Suppress 600 (K13 Rated) is designed to handle the following percentages of fundamental and harmonic currents, without exceeding temperature rise limits:

- Fundamental 60 Hz: 100%
- 3rd harmonic: 40%
- 5th harmonic: 42%
- 7th harmonic: 25%
- 9th harmonic: 7%
- 11th harmonic: 10%
- 13th harmonic: 8%
- 15th harmonic: 3%
- 17th harmonic: 2%

Catalog numbering system

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Nominal voltage
Delta input: L, L, L, G
B = 208
C = 240
H = 400
D = 480
E = 600

Nominal output voltage
Wye output: L, L, L, N, G
L = 120/208
M = 230/400
N = 277/480
P = 347/600

kVA rating and dimensions		
kVA	Weight (lb)	Cabinet size (W x D x H) Dimensions in inches (mm)
015	370	23 x 20 x 28 (584.2 x 508 x 711.2)
030	495	23 x 20 x 28 (584.2 x 508 x 711.2)
045	700	23 x 20 x 28 (584.2 x 508 x 711.2)
075	830	23 x 20 x 28 (584.2 x 508 x 711.2)
112	1210	38 x 32 x 57 (965.2 x 812.8 x 1447.8)
150	1470	38 x 32 x 57 (965.2 x 812.8 x 1447.8)
225	1880	38 x 32 x 57 (965.2 x 812.8 x 1447.8)
300	2656	56 x 41.5 x 48 (1422.4 x 1054.1 x 1219.2)
500	4820	45 x 48 x 62.5 (1143.0 x 1219.2 x 1587.5)

Frequency
5 = 50 Hz
6 = 60 Hz

Enclosure
N = NEMA 2/1 ^①
R = NEMA 3R

Options
Blank = No options
A = Third shield
B = Surge protector ^②
C = IR window ^②
D = Third shield, surge protector ^②
E = Third shield, IR window ^②
F = Surge protector, IR window ^②
G = Third shield, surge protector, IR window ^②

① 225 kVA and below NEMA 2 enclosure only. 300 kVA and 500 kVA available in NEMA 1 only.
② Not available for 300 kVA or 500 kVA models.

Application support

If you are having trouble understanding a problem related to power quality, reliability or energy management, call an application engineer at

1-800-809-2772 (option 4, sub-option 2).

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