AEGIS Solutions

Contents

AEGIS Powerline Filters

Product Description

Eaton's AEGIS solutions are specifically designed to protect expensive electronics from the hazards that exist within a facility. This critical load protection is effective at reducing harmful surges and noise. Applying this high performance series powerline filter at your critical loads results in "clean" power entering the electronics and reduction of "soft" errors, operational malfunction and damage to components.

Application Description

The AEGIS is the ideal protection solution for your critical loads and facilities.

Loads

- Programmable controllers (PLCs)
- Scanning devices
- ATMs (Automatic Teller Machines)
- Cash registers
- Alarm systems
- Microprocessor-controlled OEM products
- Robotics
- CAD/CAM systems
- Control equipment
- Medical electronics and devices

Why Should Sensitive Electronic Loads be Protected?

PLC manufacturers and service technicians recommend the use of surge suppressors and filters to prevent downtime and equipment damage due to surges and electrical line noise. One study shows failure to protect sensitive electronic loads costs American manufacturing, commercial and service industries over $39 billion per year in lost time and revenue. Preventing these losses is a major cost-saving opportunity.

Features, Benefits and Functions

AEGIS powerline filters protect against the full spectrum of transient disturbances.

AEGIS filters the entire sine wave and is effective against both frequently occurring low energy and occasional high energy transients. High energy transients can create immediate damage, while low energy transients cause microprocessor failure over time.

Hardwired Surge Filter that Protects Critical Loads (3, 5, 10, 15 or 20 Ampere Models)

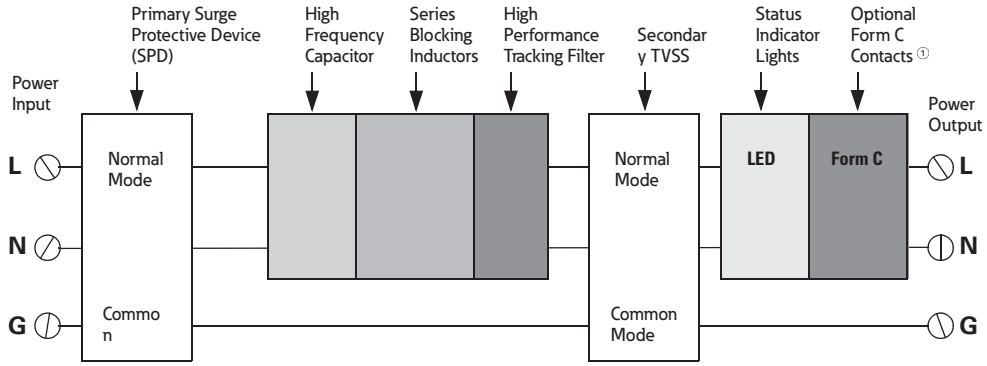
AEGIS VL Hardwired Critical Load Filter 1, 3 and 5 Ampere Modules Only

AEGIS Powerline Filters

Features	Benefits
Unique series hybrid design	Protection against high and low energy transients and noise. The tracking filter reacts instantly to changes in frequency and voltage, regardless of phase angle, magnitude or polarity. Active at all times, providing more protection than a conventional surge suppressor. Extends the life of your microprocessors by eliminating degrading power disturbances.
High performance suppression capabilities	AEGIS-HW and AEGIS-VL have up to 30,000 amperes of surge current suppression and 75 dB of noise attenuation at 100 kHz. This guarantees a superior level of protection and reliability.
Status monitoring LED	No more testing or guessing whether your unit is working properly. Filter indicator lights expedite your troubleshooting efforts during downtime situations.
5-year downstream equipment warranty **(AEGIS-HW only)**	Eaton provides a 5-year extended warranty on the microprocessor power supply protected by AEGIS. No other manufacturer offers this level of assurance in backing up its claim of product performance, quality and reliability.
Value	AEGIS provides superior value when considering the level of performance and benefits offered. It truly delivers the best "bang" for your dollar.
Optional remote monitoring capabilities (AEGIS-HW only)	Observe all your operations on a remote basis, including the power protection devices used to safeguard your critical and sensitive electronic loads.
DIN rail	The DIN rail mountable enclosures greatly reduce installation time, effort and cost. This unique mounting method is the preferred choice among OEMs and contractors.
Direct panel mounting (AEGIS-HW only)	The AEGIS-HW has flange mountable provisions with swing out and swing in features for easy panel mounting.

AEGIS Hybrid Series Powerline Filters

Three-Wire Design has Normal and Common Mode Protection (L-N, L-G, N-G)



Standards and Certifications

- UL 1283 5th Edition
- UL 1449 3rd Edition
- CSA

Note

① Option for AEGIS-HW only.

Catalog Number Selection

2

AEGIS-HW

AGSHW CH _ _ _ _ X _

Voltage Code	Current Capacity	Options
120N **230L** ①	**03** = 3A **05** = 5A **10** = 10A **15** = 15A ② **20** = 20A	**S** = Standard **C** = Form C contact for remote monitor

AEGIS-VL

AGSVL _ _ _ _ _

Voltage Code	Current Capacity
120N **230L** ①	**1** = 1A **3** = 3A **5** = 5A

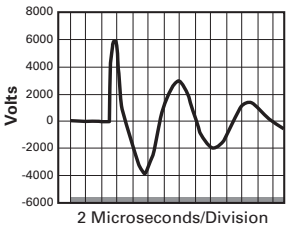
Technical Data and Specifications

Specifications

Application	AEGIS-HW 2 W&G Grounded Systems	AEGIS-VL 2 W&G Grounded Systems
Input voltage single-phase	120, 220, 240 Vac, single-phase	120, 220, 240 Vac, single-phase
Amperage	3, 5, 10, 15, 20 amperes	1, 3, 5 amperes
Frequency	50/60 Hz	50/60 Hz
Protection modes	L-N, L-G, N-G	L-N, L-G, N-G
MCOV	150, 275 volts	150, 275 volts
Noise attenuation		
Normal mode:	75 dB at 100 kHz	50 dB at 100 kHz
Filter bandwidth	10 kHz to 100 MHz	10 kHz to 100 MHz
Total peak surge current	30 kA per mode	20 kA per mode
Operating temperature	–40°F to +122°F (–40°C to +50°C)	–40°F to +122°F (–40°C to +50°C)
Response time	Less than 1 nanosecond	Less than 1 nanosecond
Options	Form C relay contacts	N/A

IEEE C62.41 (2002) Test Waveforms for AEGIS-HW and VL Versions

Category A Ringwave (Line-to-Neutral) (6000V, 200A)



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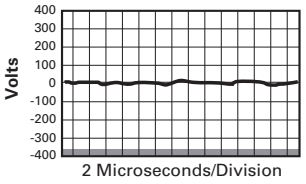
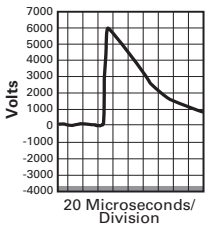


After

Category B Combination (Impulse) Wave (6000V, 3000A)



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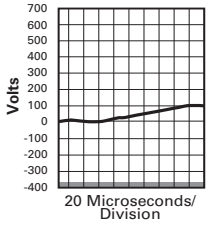

After

Let-Through Voltages (L-N) ③

Description	AEGIS-HW (L-N Mode)
Category A ringwave (600V, 200A)	6V ④
Category B ringwave (600V, 500A)	9.6V ④
Category B combination (impulse) wave (6000V, 300A)	70V ④ (206V, dynamic at 90°)

Notes

① 230V applies to 220 and 240V applications.
② Model rated at 15 amperes UL/CSA = 16 amperes CE.
③ Based on ANSI/IEEE C62.41, 1991 and C62.45, 1992.
④ Static testing.