

# EATON AEGIS Powerline Filters

The AEGIS Series Powerline filters/surge protectors are specifically designed to protect against the full spectrum of transient disturbances and are engineered to filter the entire sine wave. The Powerline filters are designed to react instantly to changes in voltage regardless of phase angle or polarity. As a result, AEGIS devices are effective against both low- and high-energy transients to prevent immediate equipment damage and failure of sensitive electronic equipment over time. Select the hybrid (ADPH) when the equipment value requires the highest level of RFI/EMI protection.

## Features

- Compact design
- DIN rail included 35 mm
- Meets latest UL safety standards for SPD (surge protective device) and EMI filtering protection
- Contains no replaceable parts or items that require periodic maintenance
- Alarm contact available (ADPH series only)
- 10-year warranty
- UL1449 3rd Ed – Type 2 SPD



**ADPH12010**

## Applications

- Process control systems
- Operator interface stations
- Programmable logic controllers (PLCs)
- Scanning devices
- Automatic teller machines (ATMs)
- Cash registers
- Alarm systems
- Robotics
- Control equipment
- CAD/CAM systems

## Standards and Certifications

- cURus E316410
- CSA 163545
- UL 1449 Third Edition
- UL 1283 Fifth Edition
- Built in an ISO9001 facility
- Designed and tested in accordance with:
  - IEEE C62.41.1
  - IEEE C62.41.2
  - IEEE C62.43-2005
  - IEEE C62.45-2002
  - IEEE C62.48-2005
  - IEEE C62.62-2010
- RoHS compliant

| AEGIS Powerline Filters          |                                                           |          |
|----------------------------------|-----------------------------------------------------------|----------|
| Part Number                      | Description                                               | Price    |
| <a href="#"><u>ADPV12001</u></a> | 120VAC input, 1A w/LED                                    | \$247.00 |
| <a href="#"><u>ADPV12003</u></a> | 120VAC input, 3A w/LED                                    | \$284.00 |
| <a href="#"><u>ADPV12005</u></a> | 120VAC input, 5A w/LED                                    | \$337.00 |
| <a href="#"><u>ADPV24001</u></a> | 240VAC input, 1A w/LED                                    | \$261.00 |
| <a href="#"><u>ADPV24003</u></a> | 240VAC input, 3A w/LED                                    | \$293.00 |
| <a href="#"><u>ADPV24005</u></a> | 240VAC input, 5A w/LED                                    | \$347.00 |
| <a href="#"><u>ADPH12010</u></a> | Hybrid filter, 120VAC input, 10A w/LED and alarm contacts | \$521.00 |
| <a href="#"><u>ADPH12015</u></a> | Hybrid filter, 120VAC input, 15A w/LED and alarm contacts | \$697.00 |
| <a href="#"><u>ADPH24010</u></a> | Hybrid filter, 240VAC input, 10A w/LED and alarm contacts | \$531.00 |
| <a href="#"><u>ADPH24015</u></a> | Hybrid filter, 240VAC input, 15A w/LED and alarm contacts | \$707.00 |



**ADPV12003**

# EATON AEGIS Powerline Filters

## Technical Specifications

| AEGIS Powerline Filters Technical Specifications                        |                                                                   |             |                                                      |             |
|-------------------------------------------------------------------------|-------------------------------------------------------------------|-------------|------------------------------------------------------|-------------|
|                                                                         | ADPH120xx                                                         | ADPH240xx   | ADPV120xx                                            | ADPV240xx   |
| Input voltage range                                                     | 100-127 VAC                                                       | 200-240 VAC | 100-127 VAC                                          | 200-240 VAC |
| Amperage                                                                | 10A, 15A                                                          |             | 1A, 3A, 5A                                           |             |
| Frequency                                                               | 50/60 Hz                                                          |             | 50/60 Hz                                             |             |
| Protection modes                                                        | L-N, L-G, N-G                                                     |             | L-N, L-G, N-G                                        |             |
| Max continuous operations voltage (MCOV)                                | 150V                                                              | 275V        | 150V                                                 | 275V        |
| EMI/RFI filtering attenuation                                           | 75dB at 110kHz                                                    |             | 50dB at 100kHz                                       |             |
| Filter bandwidth                                                        | 10kHz to 100MHz                                                   |             | 10kHz to 100MHz                                      |             |
| Peak surge current per phase/mode                                       | 60/30 kA                                                          |             | 40/20 kA                                             |             |
| UL nominal discharge current                                            | 5kA                                                               |             | 5kA                                                  |             |
| (VPR) UL voltage protection rating L-N / L-G / N-G                      | 400/330/330                                                       | 700/600/600 | 400/330/330                                          | 700/600/600 |
| Operating temperature                                                   | -40°C to + 50°C [-40°F to 122°F]                                  |             | -40°C to + 50°C [-40°F to 122°F]                     |             |
| Response time                                                           | < 1 nanosecond                                                    |             | < 1 nanosecond                                       |             |
| Status indicator                                                        | LED                                                               |             | LED                                                  |             |
| Alarm contacts                                                          | Yes (form C)                                                      |             | No                                                   |             |
| SCCR                                                                    | 5kA                                                               |             | 5kA                                                  |             |
| Product weight                                                          | 1.77 lb [0.80 kg]                                                 |             | 1.15 lb [0.52 kg]                                    |             |
| Wire gauge range                                                        | 22-10 AWG stranded copper for input/output terminals              |             | 22-10 AWG stranded copper for input/output terminals |             |
|                                                                         | 30-18 AWG stranded/solid copper alarm contacts                    |             | —                                                    |             |
| Torque Specs                                                            | 9 lb-in [1.02 N·m] for input/output terminals                     |             | 9 lb-in [1.02 N·m] for input/output terminals        |             |
|                                                                         | 4 lb-in [0.45 N·m] alarm contacts terminals                       |             | —                                                    |             |
| Environment protection ratings                                          | NEMA 1                                                            |             | NEMA 1                                               |             |
| Component Material Type                                                 | Plastic enclosure, type 950, rated UL94 V-0                       |             | Plastic enclosure, type 950, rated UL94 V-0          |             |
| Alarm contact ratings*                                                  | 8A @ 250VAC / 30VDC                                               |             | —                                                    |             |
| Input/output terminal size range for ferrules and ring/fork             | #6 stud size, 1/4" OD max                                         |             |                                                      |             |
| Alarm contacts terminal size range for ferrules and ring/fork terminals | #4 stud size, 3/16" OD max                                        |             | —                                                    |             |
| Mounting                                                                | (35 mm) DIN rail mountable. No mounting orientation restrictions. |             |                                                      |             |

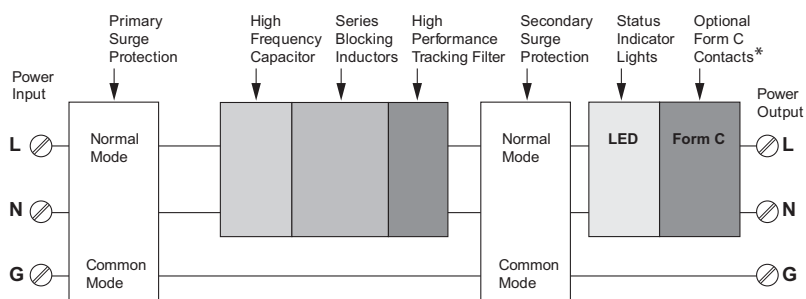
\*Alarm contact and LED activation indicates power at output terminals.

| Maximum EMI/RFI Attenuation – MIL-STD-220 |       |        |      |       |        |                           |
|-------------------------------------------|-------|--------|------|-------|--------|---------------------------|
| Model                                     | 10kHz | 100kHz | 1MHz | 10MHz | 100MHz | Max Attenuation Frequency |
| ADPH120xx                                 | 30dB  | 74dB   | 76dB | 37dB  | 36dB   | 101dB at 0.5 MHz          |
| ADPV120xx                                 | 27dB  | 56dB   | 55dB | 36dB  | 28dB   | 66dB at 0.085 MHz         |

| Let-Through Voltages Based on IEEE Std. C62.62-2010 Testing Waveforms |           |           |
|-----------------------------------------------------------------------|-----------|-----------|
| Model                                                                 | ADPH120xx | ADPV120xx |
| IEEE Category A, 100kHz ring wave, 6000V, 200A                        | 25V       | 30V       |
| IEEE Category B, 100kHz ring wave, 6000V, 500A                        | 35V       | 40V       |
| IEEE Category B, 100kHz ring wave, 6000V, 3000A (UL 1449-3 VPR)       | 360V      | 370V      |

Note: All tests conducted on 120VAC units only.

### Three-wire design has normal and common mode protection (L-N, L-G, N-G)



\*Available on the PH series only.

## in [mm]



Wiring diagram for the relay contacts of the ADPH model. The diagram shows a central 'RELAY CONTACTS' block with terminals L, N, and GND on the left, and L, N, and GND on the right. Below the block are terminals NO, COM, and NC. Wires connect 'LINE INPUT FROM SOURCE' to L, N, and GND on the left. Wires connect 'TO LOAD OR PROTECTED EQUIPMENT' to L, N, and GND on the right. A wire connects 'REMOTE INDICATION (ADPH MODEL ONLY)' to the NC terminal. The COM terminal is connected to the GND terminal on the right. The NO terminal is connected to the GND terminal on the left.