



- ▶ Series-connected DIN/flange mount high-frequency noise filter/surge suppressor. Ideal applications include critical industrial loads drawing up to 20 amps of continuous current. Typical applications include any microprocessor-based products, including industrial PLCs, OEM applications, and motion control systems.

**FEATURES**

- ▶ Multi-staged design, combining a unique hybrid clamping network with the Active Tracking Technology of the Islatrol® family
- ▶ Surge current capacity—45,000 Amps
- ▶ Transient protection in all modes: line to neutral, line to ground, and neutral to ground
- ▶ LED status indication and form C contact for remote indication
- ▶ DIN mountable enclosure
- ▶ UL 1449, 1283, CUL recognized, CE
- ▶ 10-year warranty

<b>MCOV</b>	
120 Volt	150 VRMS
240 Volt	275 VRMS
<b>Line Frequency</b>	47–63 Hz
<b>Connection</b>	Terminal
<b>Mounting Type</b>	DIN/Flange
<b>Weight</b>	< 3 lbs
<b>Response Time</b>	
Normal Mode	< 0.5 ns
Common Mode	< 5 ns
<b>Operating Temperature</b>	-40°C to +45°C
Derate Linearly to 60% at +70°C	
<b>Operating Humidity</b>	0% to 95%

<b>UL 1449 Classification</b>	
120V Normal Mode	330 Volts
120V Common Mode	400 Volts
240V Normal Mode	600 Volts
240V Common Mode	800 Volts

<b>Peak Surge Current Capability (8 x 20 µs)</b>	
Line to Neutral	15,000 Amps
Line to Ground	15,000 Amps
Neutral to Ground	15,000 Amps
Total	45,000 Amps

<b>Frequency Response (Forward-Reverse)</b>	
Normal Mode	10 kHz to 50 MHz— 90 dB Min
Common Mode	5 MHz to 50 MHz— 60 dB Min

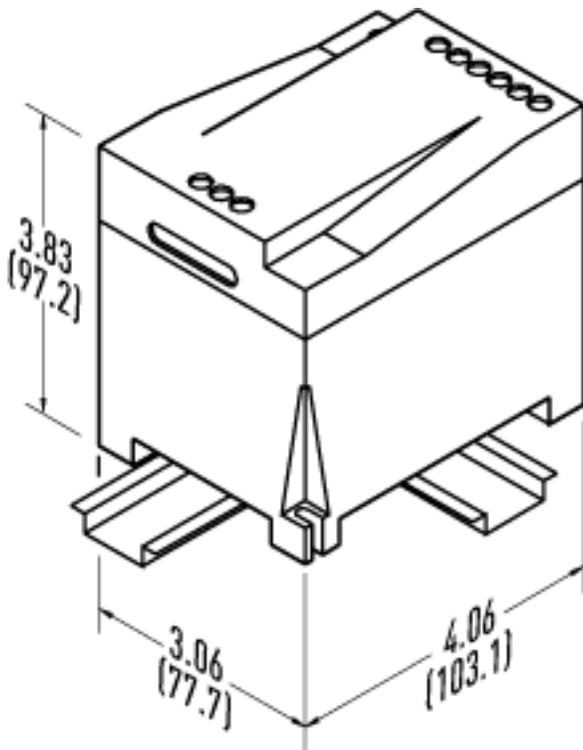
**Typical Category A Ringwave  
(6 kV, 200A, 100 kHz)**

Normal Mode/Common Mode	
3 Amp	1V / 300V
5 Amp	0.7V / 292V
10 Amp	0.7V / 300V
20 Amp	0.7V / 300V

**Typical Category B Ringwave  
(6 kV, 500A, 100 kHz)**

Normal Mode/Common Mode	
3 Amp	178V / 300V
5 Amp	162V / 291V
10 Amp	153V / 300V
20 Amp	200V / 300V

**DIMENSIONAL DIAGRAM**



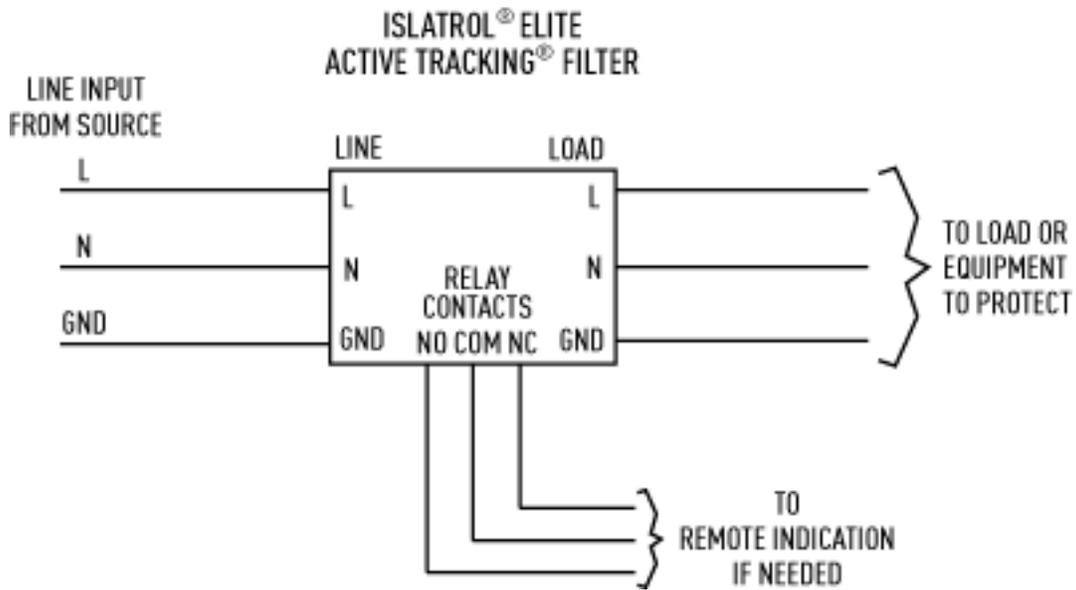
Metric Dimensions in mm  
(shown in parentheses)

## ORDERING INFORMATION

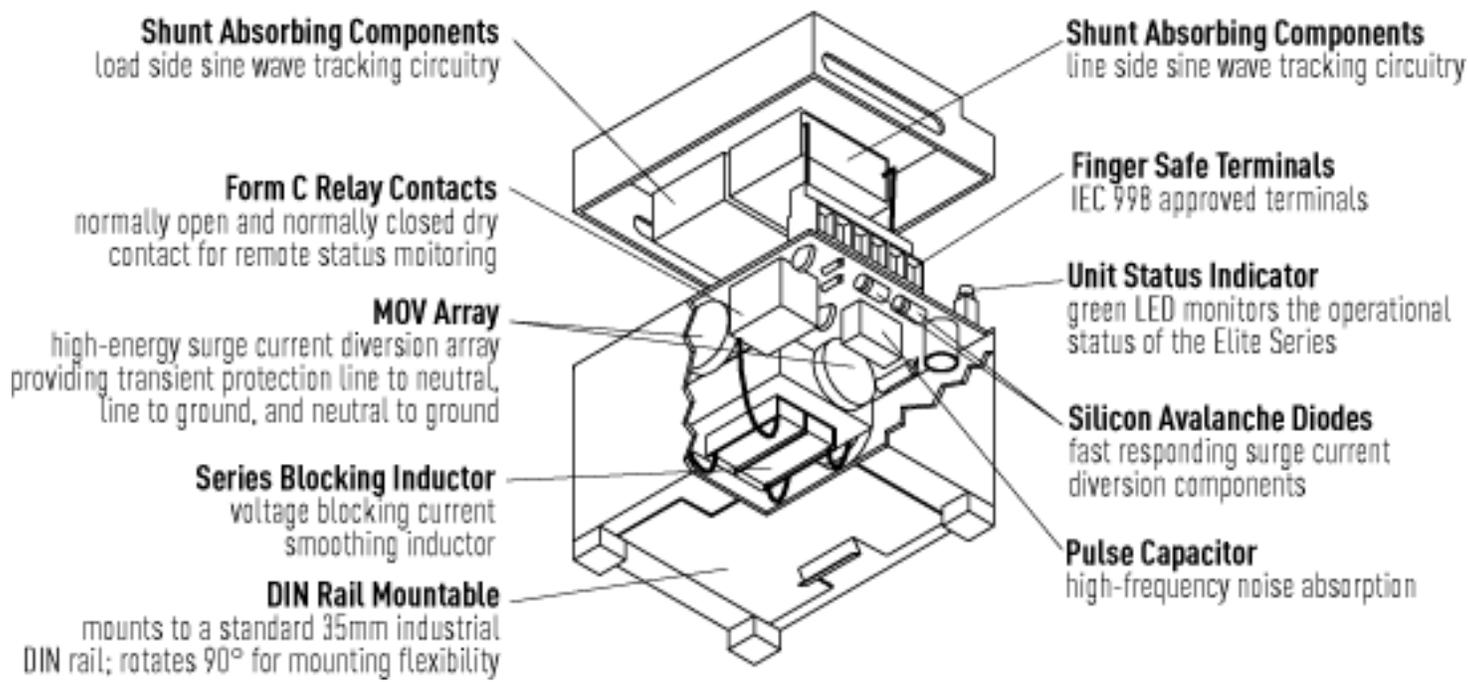
Voltage*	Continuous Current	Model
120V	3 Amps	IE-103
120V	5 Amps	IE-105
120V	10 Amps	IE-110
120V	20 Amps	IE-120
240V	3 Amps	IE-203
240V	5 Amps	IE-205
240V	10 Amps	IE-210
240V	20 Amps	IE-220

\* All voltage configurations are single phase—2 wire + gnd.

## CONNECTION DIAGRAM



## SYSTEM DESIGN



**Shunt Absorbing Components**

load side sine wave tracking circuitry

**Form C Relay Contacts**

normally open and normally closed dry contact for remote status monitoring

**MOV Array**

high-energy surge current diversion array providing transient protection line to neutral, line to ground, and neutral to ground

**Series Blocking Inductor**

voltage blocking current smoothing inductor

**DIN Rail Mountable**

mounts to a standard 35mm industrial DIN rail; rotates 90° for mounting flexibility

**Shunt Absorbing Components**

line side sine wave tracking circuitry

**Finger Safe Terminals**

IEC 998 approved terminals

**Unit Status Indicator**

green LED monitors the operational status of the Elite Series

**Silicon Avalanche Diodes**

fast responding surge current diversion components

**Pulse Capacitor**

high-frequency noise absorption