

# **RSH Series**

Surge Protection and Voltage Monitoring Devices.



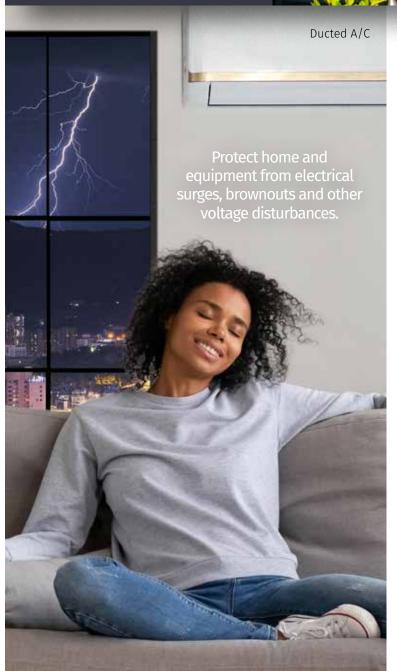


# Stop damaging power fluctuation.









Ductless A/C

Whole House

# Maintain the security, function and longevity of electrical equipment.

Performance.

Long-lasting gas discharge tube technology

Safety.
Thermally-fused components

**Warranty.** 

Unsurpassed industry product warranty Extended connected equipment warranty





Action videos and full details rs.today/surgeprotection





### DUCTED/DUCTLESS A/C AND HEAT PUMPS

# **RSH-50**

# 50kA Surge Protective Device (SPD)

Code	Description	Qty
96415	Surge Protective Device 50kA	6





- · Long-lasting gas discharge tube technology
- · TFMOV technology (thermally fused metal oxide varistor)
- · Limited lifetime warranty
- · Green LED easily indicates protection
- Weather-Rated under NEMA 4
- Fits all single-phase units
- UL 1449 listed
- NEC's highest short circuit current rating (SCCR) @200kA
- · RoHS compliant

**Application** • Protect HVAC equipment from electrical surges • Protects from up to 50,000-amp single surges and up to 10,000-amp repetitive surges • Type 1 Device can be mounted anywhere in the electrical system

**Recommended for • Residential and commercial** use • All single phase 120/240 VAC outside condensing units and indoor air handlers

### **Specifications**

- Operating Voltage 120/240VAC
- · Max discharge current per phase -50kA (1 hit survivability)
- · Nominal discharge current -10kA (15 hits survivability)
- · Short circuit current 200kA





1 LED

# RSH-50 DB

# 50kA Surge Protective Device with Disconnect Box

Code	Description	Qty
96417	RSH50 with Fused Disconnect Box 30A	6
96418	RSH50 with Fused Disconnect Box 60A	6
96419	RSH50 with Non-fused Disconnect Box 60A	6

**Application** • Wall mount installation of RSH-50 (above)

Recommended for • Residential and commercial use • All single-phase 120/240 VAC outside condensing units and indoor air handlers





#### FEATURES

Fused & non-fused







#### DUCTED/DUCTLESS A/C AND HEAT PUMPS

# **RSH-60**

### 60kA Surge Protective Device (SPD)

Code	Description	Qt
96416	Surge Protective Device 60kA	4



#### **FEATURES**

- · Dual LEDs, audible alarm with silence switch
- TFMOV technology (thermally fused metal oxide varistor)
- Long-lasting gas discharge tube technology
- · Mounting feet for stability
- Weather-Rated NEMA 4X & IP 66
- · Limited lifetime warranty
- UL 1449 listed
- · NEC's highest short circuit current rating (SCCR) @200kA
- · RoHS compliant

**Application** • Protect HVAC equipment from electrical surges • Protects from up to 60,000-amp single surges and up to 20,000-amp repetitive surges • Type 1 Device - can be mounted anywhere in the electrical system

Recommended for · Residential and commercial use · All single-phase 120/240 VAC outside condensing units and indoor air handlers.

#### **Specifications**

- Operating Voltage 120/240VAC
- · Max discharge current per phase - 60kA (1 hit survivability)
- · Nominal discharge current -20kA (15 hits survivability)
- Short circuit current 200kA







# RSH-60 VMD 60kA Surge Protective & Voltage Monitoring Device

Code	Description	Qty
96426	Surge protection device 60kA/VMD	2



#### **FEATURES**

- · Dual LEDs, audible alarm, voltage monitoring circuit
- TFMOV technology (thermally fused metal oxide varistor)
- · Long-lasting gas discharge tube technology
- · Mounting feet for stability
- Weather-Rated NEMA 4X & IP 66
- · NEC's highest short circuit current rating (SCCR) @200kA
- · RoHS compliant

**Application** • Protect HVAC equipment from electrical surges, brownouts, and short cycling • Protects from up to 60,000-amp single surges and up to 20,000-amp repetitive surges • Type 1 Device - can be mounted anywhere in the electrical system

Recommended for • Residential and commercial use • All split phase 240 VAC outside condensing units and indoor air handlers.

#### **Specifications**

Operating Voltage - 240 VAC Max discharge current per phase -60kA (1 hit survivability) Nominal discharge current -20kA (15 hits survivability) Short circuit current -200kA









#### WHOLE HOUSE PROTECTION

### RSH-120

### Whole House Surge Protective Device (SPD)

Code	Description	Qty
96414	Surge Protective Device 120kA	4
96422	Flush Mount Plate (2 pack)	1





**FEATURES** 

- · Dual diagnostic LEDs and audible alarm
- TFMOV technology (thermally fused metal oxide varistor)
- · Long-lasting gas discharge tube technology
- Mounting feet for stability
- Weather-Rated NEMA 4X & IP 66
- · Limited lifetime warranty
- UL 1449 listed
- · NEC's highest short circuit current rating (SCCR) @200kA
- · RoHS compliant

**Application** • Install at breaker box to protect whole home from transient power surges that can cause system lock-up and malfunctions, faulty output, corrupted files, equipment failure and long-term degradation of devices and equipment

• Protects up to 120,000-amp single surges and up to 20,000amp repetitive surges • Type 1 Device - can be mounted anywhere in the electrical system

Recommended for • Residential and commercial use • All single-phase 120/240 VAC indoor facility breaker panel installation

#### **Specifications**

• Operating Voltage - 120/240VAC • Max discharge current per phase - 120kA (1 hit survivability) • Nominal discharge current - 20kA (15 hits survivability)









# RSH-1203P

## Surge Protective Device for 3-Phase Delta System

Code	Description	Qty
96450	3-Phase Surge Protective Device 120kA, 480V Delta	4
96451	3-Phase Surge Protective Device 120kA, 600V Delta	4
96452	3-Phase Surge Protective Device 120kA, 240V Delta	4



**FEATURES** 

- Long-Lasting Gas Discharge Tube (GDT) and Thermally-Fused Metal Oxide Varistors (TFMOV) Technology
- Dual Diagnostic LEDs and Audible Alarm
- Type 1 SPD, NEMA 4X, and IP66 Rated
- · Repositionable Lid
- · Limited Lifetime Warranty

**Application** • Designed to protect 3-phase delta air conditioner, heat pumps, and RTU systems from transient over-voltage and natural-cause surges

Recommended for • Commercial use • 3-phase delta systems for 240V, 480V, or 600V

Specifications • Max discharge current per phase - 120kA (1 hit survivability) • Nominal discharge current - 20kA (15 hits survivability) • Short circuit current - 200kA (240V & 480V), 150kA (600V)









### DUCTED/DUCTLESS A/C AND HEAT PUMPS

# RSH-VRM60A

### Voltage Range Monitor (VRM)

Code Description Qty
96420 Voltage Range Monitor 4



# RoHS



- Over-Under voltage cutoff Delay can be adjusted from 0.5 to 60 Seconds
- Load restore delay adjustable from 1 to 600 seconds
- 120/240 single-phase, 60 Amp double pole capacity relays (handles loads 15-60 Amps)
- Impulse voltage up to 2.5 kV
- Magnetic latching relays for maximum reliability
- Large easy to read LCD digital display
- Dual red and green LED diagnostics indicators
- Easy set up, field programmable, no laptop or programming tool required
- Stores up to 300 over/under voltage and power-loss events in resettable internal memory
- Non-volatile memory retains all settings and event log when power is lost
- Universal 35mm snap-on din-rail receiver
- Snap-on finger guard screw terminal covers
- Large box lugs for easy wire insertion
- Din-rail housing & independently mounted
- Type 1 action
- Pollution degree 2
- UL listed

Application • Monitors the line, protecting equipment against over and under voltage conditions that can cause damage to circuit boards and motors • The unit is fully programmable to set the voltage cutoff range from 90V to 300V while storing up to 300 events

**Recommended for** • Residential and Commercial Use, all single-phase 120/240V HVACR Equipment (air conditioning, heat pumps, mini-split applications)









#### WHOLE HOUSE PROTECTION

# RSH-50 VRM Kit

# SPD & Voltage Range Monitor (VRM)

Code Description Qty
96421 Surge protection 50kA/VRM Kit 1

CUL US

LISTED
Type 1 SPD
5ME8
PSH-50







- Includes RSH-VRM60A and RSH-50
- Over-under voltage cutoff delay can be adjusted from 0.5 to 60 seconds
- Load restore delay adjustable from 1 to 600 seconds
- 120/240 single phase, 60 amp double Pole capacity relays (handles loads 15-60 amps)
- · Magnetic latching relays
- Large easy to read LCD digital display
- Dual red and green LED diagnostics indicators
- Easy set up, field programmable, no laptop or programming tool required
- Stores up to 300 over/under voltage and power-loss events in resettable internal memory
- Non-volatile memory retains all settings and event log when power is lost
- · Universal 35mm snap-on din-rail receiver
- Snap-on finger guard screw terminal covers
- · Large box lugs for easy wire insertion
- Entire kit is NEMA 3R enclosure, with the VRM60A having din-rail housing

Application • Protects equipment from electrical surges and voltage disturbances by utilizing safety thermal fusing and gas discharge tube surge protection technology, combined with the ability to monitor the line protecting equipment against over and under voltage conditions that can cause damage to circuit boards and motors
• Fully programmable to set the voltage cutoff range from 90V to 300V while storing up to 300 events

**Recommended for** • Residential and commercial use, all single phase 120/240V HVACR equipment (air conditioning, heat pumps, mini-split applications)









#### WHOLE HOUSE PROTECTION

# RSH-50 VRMDC Kit

# SPD & Voltage Range Monitor (VRM)

Code Description 1

Surge protection 50kA/VRMDC Kit 96424 (with Disconnect Switch)



LISTED

#### **FEATURES**

- 60A safety disconnect switch
- Includes RSH-VRM60A and RSH-50
- Over-under voltage cutoff delay can be adjusted from 0.5 to 60 seconds
- Load restore delay adjustable from 1 to 600 seconds
- 120/240 single phase, 60 amp double Pole capacity relays (handles loads 15-60 amps)
- Magnetic latching relays
- Large easy to read LCD digital display
- Dual red and green LED diagnostics indicators
- Easy set up, field programmable, no laptop or programming tool required
- Stores up to 300 over/under voltage and power-loss events in resettable internal memory
- · Non-volatile memory retains all settings and event log when power is lost
- Universal 35mm snap-on din-rail receiver
- Snap-on finger guard screw terminal covers
- · Large box lugs for easy wire insertion
- Entire kit is NEMA 3R enclosure, with the VRM60A having din-rail housing

**Application** • Protects equipment from electrical surges and voltage disturbances by utilizing safety thermal fusing and gas discharge tube surge protection technology, combined with the ability to monitor the

line protecting equipment against over and under voltage conditions that can cause damage to circuit boards and motors

• Fully programmable to set the voltage cutoff range from 90V to 300V while storing

up to 300 events

Recommended for • Residential and commercial use, all single phase 120/240V HVACR equipment (air conditioning, heat pumps, mini-split applications)















### **DUCTED A/C AND HEAT PUMPS**

# RSH-20

# Motor Protector (MP)

Code	Description	Qty
96427	RSH 20kA SPD for X-13/ "X" Style Motors	12
96428	RSH 20kA SPD for 5-PIN Motors	12
96429	RSH 20kA SPD for Ensite Motors	12
96430	RSH 20kA SPD for Azure Motors	12



#### FEATURES

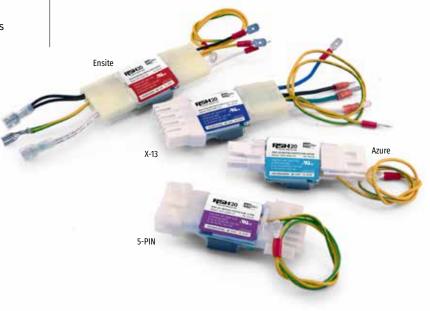
- UL Recognized
- Thermally Fused MOV technology for safety & performance
- Limited 5 year warranty
- 3 modes of protection: L-G, N-G, L-N
- Plug-n-Play for ease of installation
- Diagnostic LED indicates protection

**Application** • The surge protection device protects single-phase 120/ 240V ECM indoor motors from transient over-voltage and natural-cause surges
• Type 4CA Device - mounts between the motor and power harness

**Recommended for** • Residential and Commercial Use, all single-phase 120/240V ECM indoor motors: X-13/"X" Style, 5-PIN, Ensite, and Azure

**Specifications** • Operating Voltage – 120/240 VAC • Max discharge current per phase – 20kA (1 hit survivability) • Nominal discharge current – 5kA (15 hits survivability)









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# **Extended RSH product information can be found at:** rectorseal.com/surgeprotection

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