

# ECG<sup>®</sup>

## Surge Protectors

COMPLETE LINE

Many Now  
Featuring Higher  
Joule Ratings!



**NTE**<sup>®</sup>  
ELECTRONICS, INC.

# EMF™-3 Three Outlet Surge Protector with 2 USB Chargers

- 15 Amp/125V/1875W
- Converts one grounded outlet of similar rating to 3 grounded outlets
- For indoor use only
- Appropriate for use in homes, offices, businesses and more
- Adapter spaced outlet
- LED Indicates Active Surge Protection



## USB CHARGER FOR:

- Cameras
- Cell Phones
- Tablets
- MP3 Players

## PLUG-IN PROTECTION FOR:

### Office

- Security Systems
- Copy Machines
- Computers
- Modems
- Fax Machines
- Answering Machines

### Industrial

- Process Controls
- Electrical Hand Tools

### Residential

- TVs
- DVD Players
- Stereos
- Satellite Receivers
- Video Games
- Computers

### Institutional/Industrial

- Lab Equipment
- Amplifiers
- Film/Video Equipment



**EMF-3**

## SPECIFICATIONS

### 125V Outlet Specifications

- 3 Line Protection:**..... (hot, neutral, ground)  
**Energy Dissipation:** ..... 1050 Joules  
**Electrical Rating:**..... 125V / 15A / 1875W, 60Hz  
**Clamping Voltage:** ..... 400V  
**Maximum Spike Current:**..... 19,500 Amps  
**Maximum Surge Voltage:**..... 6000V  
**EMI / RFI Noise Reduction:**..... up to 20dB from 150Khz to 30Mhz  
**Response Time:**..... less than 1 nanosecond

### USB Specifications

- USB Power Adapter Input:** ..... AC 125V, 0.2A, 50/60Hz  
**Output:** ..... DC 5V, 2.0A  
**Over Voltage Protection:** ..... DC 10V

NOTE: This surge protector is not a lightning arrestor and may not protect against direct lightning strikes. Use indoors only in a dry location.



# EMF™-61, EMF-63A, EMF-65A, EMF-67

- Single or Full 3-Mode Surge Protection
- EMI/RFI Noise Filter
- Phone Line Protection (EMF-65A)
- Nanosecond Response Time
- Illuminated Power Switch
- Surge Protection Indicator
- Resettable Switch
- Keyhole Slot Mounting

EMF™ Surge Protectors are effective protection against transient AC line voltage spikes that can damage electronic equipment or interfere with their operation. These spikes are shunted through protecting MOVs where they are dissipated. All models, with the exception of the EMF-61, feature full 3-mode surge protection: **HOT TO NEUTRAL, HOT TO GROUND, and NEUTRAL TO GROUND.**

The EMF-61 provides basic single mode protection from HOT TO NEUTRAL lines.

The EMF-65A can also be used for phone line protection. They will protect against transient voltage spikes from **RING (Red) TO GROUND and TIP (Green) TO GROUND.**

All EMF Surge Protectors are controlled by an illuminated power switch and protected against overloads by a resettable circuit breaker.

## PLUG-IN PROTECTION FOR:

### Office

- Security Systems
- Copy Machines
- Computers

### Industrial

- Process Controls
- Electrical Hand Tools

### Institutional/Industrial

- Lab Equipment
- Amplifiers
- Film/Video Equipment

### Residential

- TVs
- DVD Players
- Stereos
- Satellite Receivers
- Video Games
- Computers

### Phone Line Protection (EMF-65A Only)

- Modems
- Fax Machines
- Cordless Phones
- Telephones
- Answering Machines



**EMF-61**  
90° Rotated Outlets  
Single Mode Surge Protection  
6 ft. Cord



**EMF-63A**  
Metal Case  
EMI/RFI Noise Filter  
Surge Protection Indicator  
3-Mode Surge Suppression  
6 ft. Cord



**EMF-65A**  
Phone Line Protection  
EMI/RFI Noise Filter  
Surge Protection Indicator  
3 Mode Surge Suppression  
6 ft. Cord

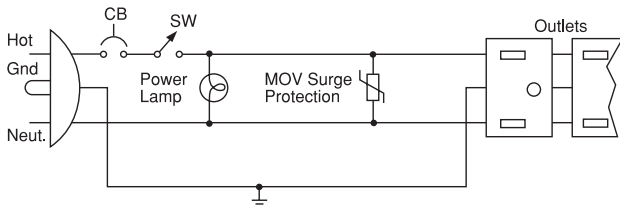


**EMF-67**  
90 Degree Rotated Outlets  
with Safety Slide Covers  
EMI/RFI Noise Filter  
3 Mode Surge Suppression  
6 ft. Cord

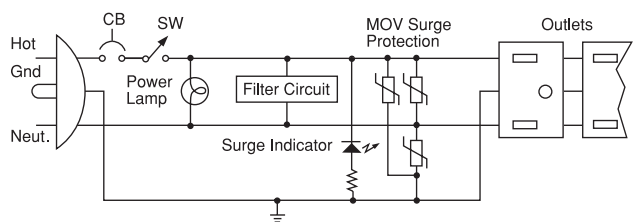
# EMF™-61, EMF-63A, EMF-65A, EMF-67 Specifications

	EMF-61	EMF-63A	EMF-65A	EMF-67
<b>General</b>				
Case, Heavy Duty	Plastic	Metal	Plastic	Plastic
Number of Outlets	6	6	6	7
Surge Protection Indicator	---	LED	LED	LED
Operating Current and Voltage (1875 W Max.)	15A, 120 VAC	15A, 125 VAC	15A, 120 VAC	15A, 125 VAC
Circuit Breaker, Resettable	15A	15A	15A	15A
Clamping Response Time	<1 nSec.	<1 nSec.	<1 nSec.	<1 nSec.
<b>AC Power Section</b>				
Surge Protection (MOVs)	Hot to Neut.	Hot to Neut. Hot to Gnd Neut. to Gnd	Hot to Neut. Hot to Gnd Neut. to Gnd	Hot to Neut. Hot to Gnd Neut. to Gnd
Clamping Voltage	200 - 330V	400V	400V	400 - 500V
Energy Absorption (Max.)	140 Joules	1,050 Joules	210 Joules	1,050 Joules
Peak Surge Current	4500A	19,5000A	7000A	19,5000A
EMI/RFI Noise Attenuation		20 dB	5-40 dB	20 dB
<b>Telecommunications Section</b>				
Surge Protection (MOVs)			Ring to Gnd Tip to Gnd	
Clamping Voltage @ 1mA @ 10A			245V 450V	
Energy Absorption (Max.)			20 Joules	
Peak Surge Current			1200A	

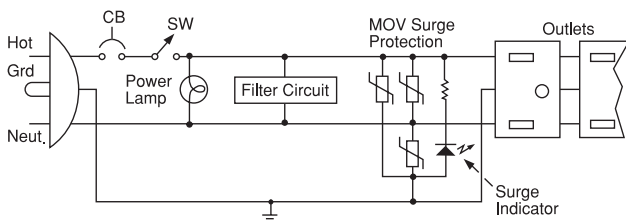
## EMF-61



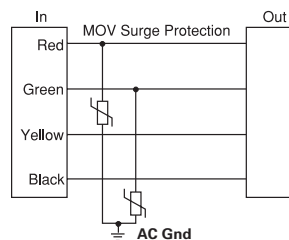
## EMF-63A, EMF-67



## EMF-65A



## Telephone Line Protection (EMF-65A)

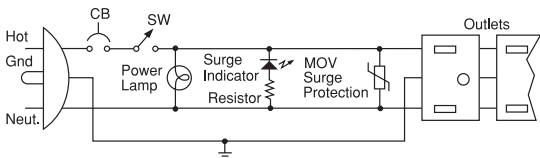


# EMF™-60 6-Outlet Surge Protector with Circuit Breaker Protection

- 15 Amp/125V/1875W
- Resettable Circuit Breaker
- 6 Foot, 14 Gauge, Grounded Power Cord
- Surge Indicator Light
- On/Off Lighted Master Switch
- 6 Grounded AC Outlets
- Durable, Fire-retardant Plastic Construction

EMF Surge Protectors are effective protection against transient AC line voltage spikes that can damage electronic equipment or interfere with their operation. These spikes are shunted through a protecting MOV where they are dissipated. The EMF-60 provides basic single mode protection from **HOT TO NEUTRAL LINES**.

The EMF-60 is useful in home or business environments, and will protect valuable equipment from power surges that may be caused by lightning strikes, appliances such as air conditioners or refrigerators, machinery, or line switching.



## PLUG-IN PROTECTION FOR:

### Office

- Security Systems
- Copy Machines
- Computers
- Modems
- Fax Machines
- Answering Machines

### Industrial

- Process Controls
- Electrical Hand Tools

### Residential

- TVs
- DVD Players
- Stereos
- Satellite Receivers
- Video Games
- Computers

### Institutional/Industrial

- Lab Equipment
- Amplifiers
- Film/Video Equipment

## SPECIFICATIONS

- Operating Current and Voltage:** ..... 15 Amp/125V/1875W  
**Clamping Voltage:** ..... 400 Volts  
**Maximum Surge Dissipation:** 140 Joules  
**Maximum Spike Current:** ..... 4500 Amps  
**Response Time:** ..... <1 nanosecond  
**Maximum Surge Voltage:** ..... 6000 Volts



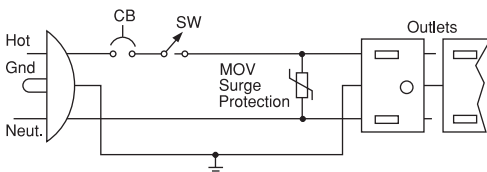
**EMF-60**

# EMF™-41 4-Outlet Surge Protector with Circuit Breaker Protection

- 15 Amp/125V/1875W
- Resettable Circuit Breaker
- 4 Ground AC Outlets
- 6 Foot, 14 Gauge, Grounded Power Cord
- Flame Retardant Plastic Construction
- Keyhole Slot Mounting

EMF Surge Protectors are effective protection against transient AC line voltage spikes that can damage electronic equipment or interfere with its operation. These spikes are shunted through a protecting MOV where they are dissipated. The EMF-41 provides basic single mode protection from **HOT TO NEUTRAL LINE**.

The EMF-41 is useful in the home or businesses environments. It will protect valuable equipment from power surges that may be caused by lightning strikes, appliances such as air conditioners or refrigerators, machinery, or line switching.



## PLUG-IN PROTECTION FOR:

### Office

- Security Systems
- Copy Machines
- Computers
- Modems
- Fax Machines
- Answering Machines

### Residential

- TVs
- DVD Players
- Stereos
- Satellite Receivers
- Video Games
- Computers

### Institutional/Industrial

- Lab Equipment
- Amplifiers
- Film/Video Equipment

### Industrial

- Process Controls
- Electrical Hand Tools

## SPECIFICATIONS

- Operating Current and Voltage:** ..... 15 Amp/125V/1875W  
**Clamping Voltage:** ..... 400 Volts  
**Maximum Surge Dissipation:** 70 Joules  
**Maximum Spike Current:** ..... 4500 Amps  
**Response Time:** ..... <1 nanosecond  
**Maximum Surge Voltage:** ..... 6000 Volts  
**Dimensions:** ..... 7¾" (L) x 2" (W) x 1⅛" (H)



**EMF-41**

# Whatever your needs NTE has the answer!

## ECG Aerosol Chemicals

- Butane Fuel
- Smoke Detector Tester Spray
- Antistatic Circuit Refrigerants
- Electronics Degreasers and Washes
- Electronics Contact Cleaners,
- Degreasers and Washes
- Electronics Contact Cleaners with Lubes
- Heavy-Duty Flux Removers
- Jet Air Cleaners
- Heavy-Duty Cleaning Solvents
- Electronics Washes
- Hydroentangled Cellulose/Polyester C-Fold Wipes
- Silicone Lubricants
- Label and Adhesive Removers
- General Duty Defluxers
- Straw Holders
- Computer Glass and Plastic Cleaner
- CARB Compliant Types

## ECG Butane/Electric Soldering and Heat Products

- Butane Fuel
- Butane Soldering Irons
- Butane Heat Guns
- Butane Torch
- Electric Corded Soldering Irons
- Electric De-soldering Irons
- Tips and Accessories
- Soldering Iron Kits
- Soldering Guns
- Industrial Heat Guns
- Economy Heat Guns
- Mini Heat Gun

## ECG Rotors

- Precision Cut Steel Gears
- Rugged One-Piece Cast Aluminum Housing
- Large Bearing Surface
- Strong Reinforced Mast
- High Torque
- Automatic Control
- Remote Control
- Programmable Version

## ECG Test Equipment

- Analog Multimeters
- Digital Multimeters
- AC Clamp-On Digital Meters
- AC Clamp-On Current Adapter
- Digital Capacitance Meter
- Battery Tester
- Handheld Digital Thermometer
- Logic Probes
- Oscilloscope Probes
- Test Leads
- Digital Infrared Thermometer

## ECG Wireless Security and Inspection Cameras

- WIC-1
- WIC-100 Deluxe
- Removable LCD Monitors
- Waterproof Camera and Shafts
- Mirror, Hooks, Magnetic Tips
- Magnetic Monitor Base
- WSS-1 Digital Pan and Tilt Surveillance System
- Real-time, high quality video and audio monitoring

## NTE Cable Ties

- Standard Cable Ties
- Specialty Cable Ties
- Cable Tie Tension Tools
- Cable Tie Accessories
- Convenience Packs
- Split Loom
- Assorted Sizes & Colors

## NTE Capacitors

- Aluminum Electrolytic
- Ceramic Disc
- Tantalum
- Mylar/Polyester Film
- Motor Start/Run
- Ceiling Fan
- Snap-in Mount
- Surface Mount Types
- Multilayer (Monolithic) Ceramic
- Prepackaged Kits

## NTE Circuit Protection Components

- Disc Thermostats
- Fuses
- Thermal Cut-Offs
- Gas-Filled Arrestors
- Integrated Circuit Protectors
- Metal Oxide Varistors
- Overvoltage Transient Suppressors
- Sidacs
- Thermal Circuit Breakers
- Polymeric PTC Resettable Fuses

## NTE Fuses

- Tube Type Case Sizes  
3.6 x 10mm / 5 x 20mm / 6 x 30mm
- Glass and Ceramic
- Fast Acting and Slow Blow
- Standard and Miniature Automotive Blade Series
- Fuse Clips
- Panel Mount Holders
- PICO Fuse Equivalent
- 2AG Type Equivalent
- In Line Fuse Holders
- Fuse Kits
- Photovoltaic/Solar Panel

## NTE Heat Shrink Tubing

- Assortment Packs Available
- Thin Wall Cross-Linked Polyolefin
- Dual Wall Cross-Linked Polyolefin with Adhesive
- Medium Wall with Adhesive
- Thick Wall with Adhesive
- Available in 11 colors
- Shrink Temperature: 120°C
- Shrink Ratio: 2:1Thin/3:1 Dual
- Cut / Marked Service

## NTE Hook-Up Wire

- Automotive Wire
- 300V and 600V Solid and Stranded Wire
- Teflon® Coated Wire
- Speaker Wire Clear
- Black/Red Bonded Speaker Wire
- 10 Colors and Gauges from 10 to 26
- High Performance Home Audio Speaker Cable
- Audio Speaker Cable

## NTE LED Tubing

- For Interior Lighting
- Super Bright LEDs
- Blue, Green, Red, White, Amber, and Red/White/Blue
- Flexible
- Connectable - Up to 15 Tubes

## NTE Relays

- Electromechanical
- Solid State
- Automotive Type
- Reed
- Time Delay
- I/O Modules
- Thermal Circuit Breakers
- Magnetic Latching
- Accessories
- Surface Mount Types
- Replacements for Over 83,400 Types
- Proximity Switches

## NTE Resistors

- Flameproof 1/8W to 3W
- Power Wirewound 5W/10W/25W
- Fusible Power Oxide 1W/2W
- Prepackaged Kits
- Surface Mount Wirewound
- up to 4 Watt
- Metal Clad Aluminum Precision Wirewound
- 1% Metal Film
- Fixed & Adjustable Vitreous from 12 to 300 Watt
- Round Silicone Wirewound Ceramic from 1 to 10 Watt
- Carbon Composition

## NTE Semiconductors

- Super Bright LEDs
- Power Block/Hybrid Mod.
- Industrial Rectifiers/Bridges
- Small Signal/Power Transistors
- Voltage Regulators
- Transient Suppressors
- Thermal Cutoffs
- Thyristors
- Zener Diodes
- Integrated Circuits
- Surface Mount Types
- Replacements for Almost 400,000 Industry Types

## NTE Switches

- Bat Handle
- Toggle and Mini-toggle
- Paddle
- Rocker
- Metal and Nylon Pushbutton
- Snap Action
- Sealed Automotive/Marine Types
- Anti-vandal
- Round Hole Rocker
- Pull Chain
- Waterproof

## NTE Terminals & Connectors

- Ring Terminals
- Spade Terminals
- Pin Terminals
- Flag Terminals
- Waterproof Heat Shrink Terminals
- Butt Connectors
- Male and Female Disconnects
- Piggy Back Disconnects
- Bullet and Receptacle Disconnects
- Twist-On Wire Connectors, Close End Connectors, Stripping Quick Splices
- Multi-Function Crimp Tool

## NTE Test Leads & Clips

- Alligator, Crocodile, Plier, & Spring Type Clips
- Probes, Sprung Hooks, & Cable Piercers
- Panel Sockets
- Spade Terminals
- Self Assembly Plugs, Sockets, & Cables
- Cable Assemblies
- OEM Safety Test Lead Sets
- OEM Fused Probe Sets
- Modular Test Lead Sets
- Multi-Pin Connector Test
- Lead Sets
- Automotive Kits & Accessories

**NTE**<sup>®</sup>  
**ELECTRONICS, INC.**

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