

PowerTracker™ Digital Power Filter



for Digital Copiers and Networked Office Equipment

The EFI PowerTracker Digital Power Filter (DPF) is a Hybrid Power Filter that offers the most complete protection from noise and transients. Among it's many features, it prevents equipment damage and disruption, improves customer satisfaction, reduces service calls and improves service contract profitability.

The PowerTracker DPF protection system is a hybrid power and noise filter with integrated surge suppression. The power filter provides a total solution from noise and transient problems that disrupt and damage today's digital copiers. The PowerTracker DPF employs a unique design utilizing common mode inductors engineered into a tuned circuit. It is ideal for the critical power requirements needed for today's digital copiers combining power, telephone and network protection. The EFI PowerTracker DPF provides a combined level of protection that standard protective devices cannot provide.

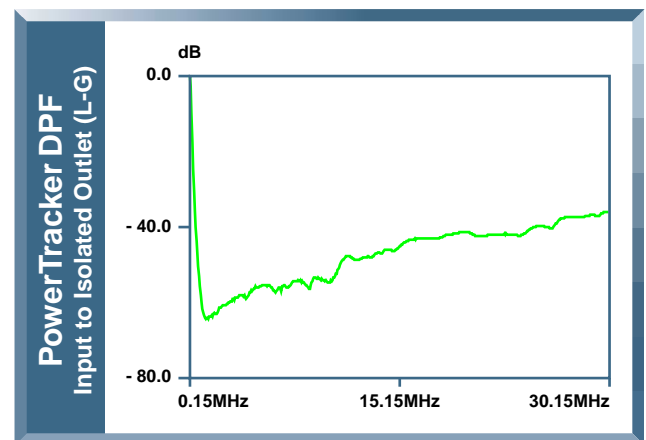
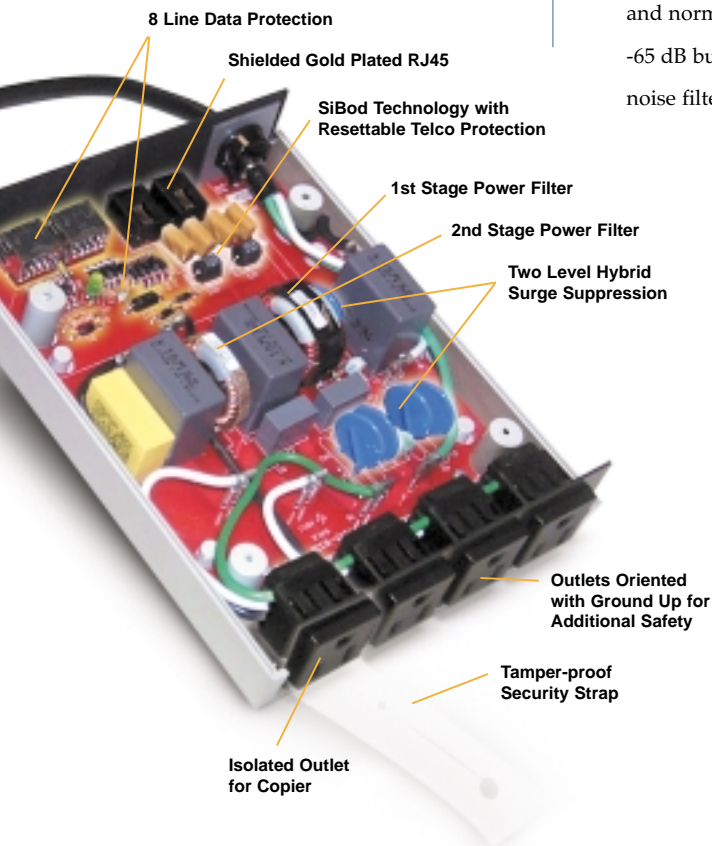


Features	Advantages	Benefits
Isolated Outlet	Isolates copier outlet from other outlets	Protects copier from other noise generating devices
Broad Band Noise Filtration	Attenuates disrupting electrical noise	Prevents equipment disruption and damage
Two Stage TVSS Network	Additional reduction of incoming transients	Prevents transient residual from interrupting operation
8 Line Network Protection	CAT5 compliant 100Base T, TX and T4	Compatible with all 100Base T applications
RJ11 Two Line Protection	Provides and protects two fax/modem lines	Allows customer to use two fax/modem protected lines
Resettable Phone Circuit	Restores protection after transient event	Keeps equipment operational through repeated surges
Tamper Proof Security Strap	Secures power cord to protection device	Prevents operating equipment without protection
ServiceTracker™ Warranty	Provides warranty for all copier circuit boards	Provides repair/replacement for board damage even if not damaged by surges

Improved protection through EFI's Digital Power Filter

The innovative hybrid design of EFI's Digital Power Filter assures the highest level of protection required for today's sophisticated digital copiers. It's surge suppression circuit is optimized through the use of a staged circuit that reduces transients through a second set of clamping devices and reduces the transient to a safe level.

The noise filtering circuit utilizes an LCR noise filter that provides excellent common mode and normal mode filtration. Filtration that not only reaches a performance level of over -65 dB but sustains a high attenuation level from 150 kHz to 30 MHz. This broad band noise filter exceeds the noise protection levels specified by equipment manufacturers.



FCC bandwidth for domestic use is 150kHz - 30MHz Class A
Tested per Mil-STD 220A

Only PowerTracker DPF provides noise attenuation that eliminates 99.9% of common mode noise and normal mode noise that causes equipment disruption.

EFI's PowerTracker DPF

- Prevents customer downtime
- Reduces service calls and maintenance costs
- Prevents unexpected equipment failure
- Prevents interruptions in production
- Extends equipment life
- Increased reliability
- Prevents loss of data



supply to the copier. This assures that the most sensitive equipment is provided an extra degree of protection.



The PowerTracker DPF provides RJ11/RJ14 telephone protection with the latest SiBod technology for two telephone lines along with RJ45 8 line network protection. The network jacks are equipped with an RJ11 "keep-out" to prevent the telephone line from being inadvertently connected to the network circuit. This safeguards against the high voltages from the telephone line from damaging the copier and network devices.



ServiceTracker™ Warranty

ServiceTracker is EFI's unique warranty program, provided only to Office Product Dealers. This warranty helps to protect the Office Equipment Dealers investment in leased equipment as well as the profits from Service Contracts. The ServiceTracker warranty combines 3 warranty programs:

1. **Three Year ServiceTracker Warranty** for circuit board failure not related to surge events.

EFI will repair or replace copier circuit boards damaged by causes unrelated to a surge event as covered in the

Downline Warranty.*

2. **Lifetime Product Warranty** for damage to the PowerTracker.

EFI will repair or replace any ServiceTracker surge protective device (SPD) that is defective or damaged by an electrical surge.*

3. **Lifetime \$50,000 Downline Warranty** for surge related failures of connected equipment.

EFI will repair or replace any properly connected equipment that is damaged by an electrical surge.*

* See ServiceTracker Program or Product Warranty for details regarding coverage limits, requirements and limitations. Contact EFI Electronics for details.

Product Specifications

- UL Listed 1449 2nd Edition
- cUL Listed CSA C22.2 No. 0-M91 and No. 0-M1989
- Complimentary UL Listed UL 497A, UL 497B, UL 1363, UL 1283

- Designed to FCC 47 Part 68
- Designed to Bellcore GR-1089
- Complies with TIA/EIA 568-A



Performance

Technology	Hybrid Dual Stage
Response Time	< 5 ns
Surge Current Capacity	> 40 kA
Common Mode per Mil-STD 220A (input to isolated outlet)	
150 k - 300 kHz	> -40 dB
300 k - 2 MHz	> -60 dB
2 M - 10 MHz	> -50 dB
10 M - 20 MHz	> -40 dB
20 M - 30 MHz	> -35 dB
Normal Mode per Mil-STD 220A	
150 k - 2 MHz	> -60 dB
2 M - 14 MHz	> -30 dB
14 MHz - 30 MHz	> -20 dB
Sinewave Tracking	Yes
Filter Response Time	Instant - On
Filter Order	5th
Inductance - Common Mode	800 uH
Capacitance - Common Mode	0.0066 uF
Inductance - Normal Mode	15 uH
Capacitance - Normal Mode	7.6 uF
Operational Status Indication	Green Light - O.K.
Operating Frequency	60Hz

Mechanical Specifications

Dimensions	7.5" x 5.6" x 2"
Weight (product)	2 lbs
Weight (shipping)	3 lbs
Electrical Cord Length	6 ft
Mounting Means	Velcro

Copier Outlet - Isolation From Other Outlets

Common Mode per Mil-STD 220A	
150 k - 300 kHz	> -20 dB
300 k - 1 MHz	> -30 dB
1 M - 2 MHz	> -40 dB
2 M - 10 MHz	> -35 dB
10 M - 20 MHz	> -30 dB
20 M - 30 MHz	> -25 dB
Normal Mode per Mil-STD 220A	
150 k - 1 MHz	> -45 dB
1 M - 2 MHz	> -50 dB
2 M - 8 MHz	> -40 dB
8 M - 12 MHz	> -30 dB
12 M - 30 MHz	> -20 dB

Telco Protection

Internet/Fax/Modem Connection	RJ11/RJ14
DSL Ready	Yes
Lines Protected	2 Pair (2, 3, 4, 5)
Response Time	< 2 ms
Thru-put Resistance	20 Ohms
Clamping Voltage (UL 497A)	330 V
Resettable Circuit	Yes
Surge Current Capacity	
8/20 uS	250 A
10/700 uS	125 A
10/1000 uS	100 A
Power Cross (Bellcore GR-1089)	600 V

Network Protection

Network Connection	Shielded RJ45
RJ11 Keep-out	Yes
Lines Protected	1, 2, 3, 4, 5, 6, 7, 8
Cat 5, 100Base-TX	Yes
Cat 3/5, 100Base-T4	Yes
Bi-directional protection	Yes
Response Time	< 1 ps
Protection Rated (UL 497B)	5-7 Vdc

DPF Model Description	120 V 15 A	120 V 20 A	208 V 15 A	208 V 20A
AC Protection	DPF12015	DPF12020	DPF20815	DPF20820
AC Protection with ServiceTracker Warranty	DPF12015R	DPF12020R	DPF20815R	DPF20820R
AC and Network Protection	DPF12015N	DPF12020N	DPF20815N	DPF20820N
AC and Network Protection with ServiceTracker Warranty	DPF12015NR	DPF12020NR	DPF20815NR	DPF20820NR
Electrical Ratings				
Rated Line Voltage	120 Vac + - 10%	120 Vac + - 10%	208 Vac + - 10%	208 Vac + - 10%
Maximum Load Current	15 A	20 A	15 A	20 A
Overload Protection	15 A Fuse	20 A Fuse	15 A Fuse	20 A Fuse
Electrical Input Connections	NEMA L5-15	NEMA L5-20	NEMA L6-15	NEMA L6-20
Electrical Output Connections	NEMA R5-15	NEMA R5-20	NEMA R6-15	NEMA R6-20
Number of Receptacles	4	4	1	1



Now there is a global source of products and expertise to assure absolutely reliable power for all commercial, institutional and industrial applications. Schneider Electric is the world's leader in power protection from circuit breakers to surge suppressors. Because electricity is our only business, no other company has more resources at its command to assure quality power than Schneider Electric.

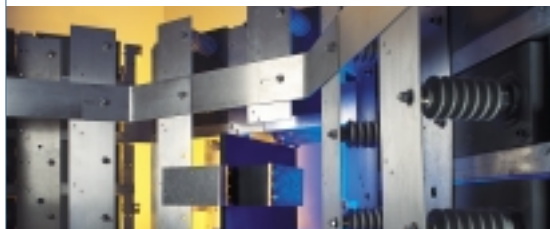
As the power protection arm of Schneider Electric, EFI Electronics has been advancing the technology of surge protection for more than twenty years. Today, EFI provides a complete portfolio of transient voltage surge suppression devices, from the simplest residential system to mission-critical commercial and industrial applications.

EFI Electronics is committed to providing its customers with products that deliver the maximum in performance and value. At its headquarters in Salt Lake City, Utah, EFI has created one of the worlds leading laboratories dedicated to testing and evaluating TVSS technologies. This unique LightningLab™ makes EFI one of the few locations in the world that can perform high-energy transient tests up to 175,000 amps to simulate true lightning conditions.

Expertise That Drives Design

The Schneider Electric family of Surge Protection Devices incorporates a wealth of electrical distribution and protection expertise. Over the past several years, we have dedicated extensive resources to advancing the power-quality industry, including:

- Studying the effects of transients and lightning on power systems
- Investing in SPD technologies and their coordination with the entire power system
- Defining appropriate product installation practices
- Driving improvements in the NEC, UL, IEC and ANSI codes and standards for the benefit of the industry and protection of users
- Designing product for improved performance
- Qualifying all SPD's under severe power conditions to improve end-of-life conditions



"Lightning Machine" in EFI's on-site LightningLab™

Merlin Gerin

Modicon

Square D

Telemecanique