



DEFENDER SERIES












SX-DS-158, SX-DS-208, SX-DS-1011i, SX-DS-1611i

User Manual

I. Product Overview

The SurgeX Defender Series are AC surge suppressors and power filters designed to be installed in a 19-inch/48.26 cm equipment rack. 120V and 240V models are available to match global power requirements.

Model	Voltage	Current	Input Plug	Output Receptacles
SX-DS-158	120 V	15A	NEMA 5-15P 	8, NEMA 5-15R 
SX-DS-208	120 V	20A	NEMA 5-20P 	2, NEMA 5-20R  6, NEMA 5-15R 
SX-DS-1011i	240 V	10A	IEC C14 	11, IEC C13 
SX-DS-1611i	240 V	16A	IEC C20 	11, IEC C13 

II. Installation

The Defender Series are designed to be installed in a 19-inch/48.26 cm equipment rack and require one unit (1-U) of rack space. Use the four screws provided with the product to secure the rack ears to the rack rails. These screws can be tightened by hand and do not require tools.

120V Models (SX-DS-158, SX-DS-208): Connect power to the unit by plugging the attached power cord into a properly wired and grounded supply receptacle.

240V Models (SX-DS-1011, SX-DS-1611i): Connect power to the unit by plugging an appropriately rated 3 wire grounding type power cord into a properly wired and grounded supply receptacle. The socket-outlet shall be installed near the equipment and shall be easily accessible.

Do not plug the unit into a relocatable power tap.

The maximum current rating of each individual receptacle, and of the unit as a whole, must not be exceeded:

Model	Total Maximum Current	Maximum Current Per Outlet
SX-DS-158	15 A	15 A
SX-DS-208	20 A	6 Outlets, 15A 2 Outlets, 20A
SX-DS-1011i	10 A	10A
SX-DS-1611i	16 A	10A

Plug the equipment cords into the receptacles as needed.

III. Indicators

Located on the front panel is a green **System On** LED.

All models: When the **System On** LED is illuminated, there is AC power at the AC mains input to the product, and at each of the product's outlets.

SX-DS-158, SX-DS-208: When the **System On** LED is not illuminated, one of the following conditions is true:

- There is no power at AC mains input, or
- The supply receptacle is mis-wired, with the Line and Neutral conductors reversed, or
- The supply voltage is too high ($> 180V \pm 10V$), or
- The input circuit breaker has tripped.

SX-DS-1011i, SX-DS-1611i: When the **System On** LED is not illuminated, one of the following conditions is true:

- There is no power at AC mains input, or

- The input circuit breaker has tripped.

IV. Specifications

Parameter		Specification	
Voltage Rating	SX-DS-158 SX-DS-208	120V, 50/60Hz	
	SX-DS-1011i SX-DS-1611i	240V, 50/60Hz	
Load Rating	SX-DS-158	15A Total, 15A Per Outlet	
	SX-DS-208	20A Total, 15A per 5-15R, 20A per 5-20R	
	SX-DS-1011i	10A Total, 10A Per Outlet	
	SX-DS-1611i	16A Total, 10A Per Outlet	
Power Requirement (no load)		2W	
Voltage Protection Rating	SX-DS-158 SX-DS-208	330V All Modes	
	SX-DS-1011i SX-DS-1611i	None Assigned	
EMI/RFI Filter	Normal Mode (50Ω Load)	SX-DS-158 SX-DS-208	> 30dB, 70kHz – 50MHz
		SX-DS-1011i SX-DS-1611i	> 30dB, 80kHz – 50MHz
	Common Mode (50Ω Load)	SX-DS-158 SX-DS-208	> 30dB, 60kHz – 30Mhz
		SX-DS-1011i SX-DS-1611i	> 20dB, 130kHz – 34MHz > 30dB, 300kHz – 15MHz
Over-Voltage Auto Shutdown	SX-DS-158 SX-DS-208	180V ± 10V Automatically restores at 170V ± 10V	
	SX-DS-1011i SX-DS-1611i	NA	
Overload Protection	All	Circuit Breaker	
Dimensions		19" W x 8.5" D x 1.75" H / 48.26 cm W x 21.59 cm D x 4.5 cm H	
Weight	SX-DS-158 SX-DS-208	6.5 lbs. / 2.95 kg	
	SX-DS-1011i SX-DS-1611i	5.0 lbs. / 2.27 kg	
Temperature Range	All	5C to 35C	
Humidity Range	All	5% to 95% R.H. Non-condensing	
Agency Listings	SX-DS-158 SX-DS-208	Conforms to UL Std. 1449 Certified to CSA Std. C22.2 No. 8	
	SX-DS-1011i SX-DS-1611i	Certified to IEC 60950-1 (In Process)	