

Line Power Inserter

9-LPI/22A



Line power inserters are used to insert power into a cable network.

- 22-Amp current rating meets the additional current handling requirements for centralized powering and network powering of telephony devices.
- 1/2-inch hard-line ports have extra length for improved heat-shrink weather sealing.
- 1 GHz capacity maximizes bandwidth to prepare your system for future expansion.
- Available with heavy-duty surge suppression to protect system electronics.
- Backward compatibility with earlier 8-LPI and 9-LPI models reduces system costs during upgrades.

A line power inserter passively combines radio frequency (RF) signals with up to 90 volts alternating current (VAC) from a line power supply. This device enables a single cable to service the power and signal requirements of active modules in a broadband telecommunications network.

A line power inserter consists of a main circuit board and a housing. The housing's environmental coating protects the module from even the severest conditions. Separate cavities offer superior AC/RF isolation. Swivel seizure mechanisms let

you install the line power inserter easily in a variety of configurations.

The C-COR line power inserter is available in two models: 9-LPI/22A and 9-LPI/22A-ACM-3. Both models can accommodate feed-thru connectors with cable up to 0.625-inch in diameter as well as larger cable with pin connectors. Both also have direct-entry ports with heat-shrink ridges and cable strip gauges. The ACM-3 model provides heavy-duty surge protection.

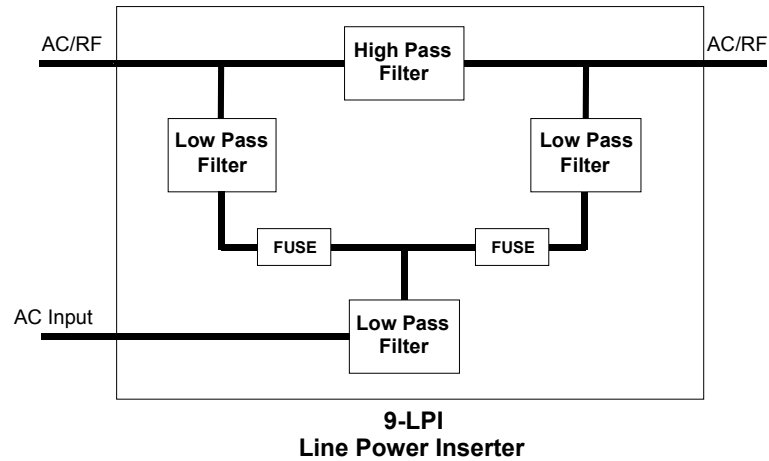
The 9-LPI/22A series line power inserters have the following features:

- 1 GHz bandwidth capacity;
- 1/2-inch hard-line ports;
- 2.5 kV surge resistance, which meets ANSI/IEEE C62.41-1991, Class B, 2500 V surge;
- 22-Amp input current capacity; and
- faceplates which fit into 8-LPI and 9-LPI covers for easy upgrades.

Line Power Inserter

Functional Block Diagram

9-LPI/22A



A line power inserter passively combines radio frequency (RF) signals with volts alternating current (VAC) from a line power supply.

Line Power Inserter

Worst Case Specifications

9-LPI/22A

	9-LPI/22A	9-LPI/22A-ACM-3	Units
Bandwidth	5 to 1000	5 to 1000	MHz
Insertion Loss (in-out, maximum)			
5 MHz	1.0	1.0	dB
30 MHz	0.6	0.6	dB
54 MHz	0.5	0.5	dB
112 MHz	0.6	0.6	dB
330 MHz	0.8	0.8	dB
450 MHz	0.9	0.9	dB
550 MHz	1.0	1.0	dB
600 MHz	1.0	1.0	dB
750 MHz	1.2	1.2	dB
862 MHz	1.4	1.4	dB
1000 MHz	1.7	1.7	dB
Flatness (maximum)	0.35	0.35	± dB
Tap-to-Out Isolation (minimum)			dB
5 to 29 MHz	67	67	dB
30 to 399 MHz	63	63	dB
400 to to 599 MHz	61	61	dB
600 to 749 MHz	55	55	dB
750 to 899 MHz	50	50	dB
900 to 1000 MHz	48	48	dB
Return Loss AC/RF Port (minimum).			dB
5 to 29 MHz	16	16	dB
30 to 899 MHz	17	17	dB
900 to 1000 MHz	16	16	dB
Hum Modulation @ 15 Amps ^a			
5 to 19 MHz	-60	-60	dB
20 to 449 MHz	-70	-70	dB
450 to 749 MHz	-64	-64	dB
750 to 1000 MHz	-60	-60	dB
RFI Isolation	Exceeds FCC Requirements		
Current Handling Capability (maximum continuous)			
At the AC in port	22	22	Amps
At any AC/RF port	17	17	Amps

[continued](#)

Specifications are subject to change without notice.

Line Power Inserter

9-LPI/22A

	9-LPI/22A	9-LPI/22A-ACM-3	Units
Overload Current Survivability	25 Amps @ 60 °C for 2 hours		
Voltage Passing Capacity (maximum) DC, AC up to 60 Hz	90	90	V
Surge Rating	ANSI/IEEE C62.41-1991, Class B, 2500 V		
Mechanical Specifications			
Dimension (height x width x depth) ^b	12.7 x 15.2 x 8.6 (5 x 6 x 3.4)		cm (in.)
Weight	0.68 (1.5)	0.68 (1.5)	kg (lbs.)
Connector Type ^c	Standard CATV KS entry connectors for cable up to 0.625-inch diameter		
Pin Length	4.1 (1.6)	4.1 (1.6)	cm (in.)

Specifications are subject to change without notice.

- Hum modulation is tested using signal/current path from one AC/RF port to the other AC/RF port. Testing through the AC port is not possible due to high RF isolation.
- Height dimension includes plug; depth dimension includes strand clamp and bolt in closed position.
- Pin connector (0.067-inch diameter) recommended for best RF performance.

Ordering Information

 To order, call your sales representative. See the Introduction section for a list of [C-COR Representatives](#).

Line Power Inserters and Accessory

The 9-LPI/22A line power inserters are available in two models, as listed in the table below.

Models Available	Description
9-LPI/22A	Line power inserter. Comes with two factory-installed shorting bars that can be replaced with fuses.
9-LPI/22A-ACM-3	Line power inserter with ACM-3 heavy-duty surge arrestor installed.

A heavy-duty surge arrestor installation kit, the 9-ACM-3-90V, is also available for use with this line power inserter. See ["RF Passives Accessories" on page 437](#) of this catalog.