



PRODUCT OVERVIEW

The FT series of EMI filters from DATEL significantly reduces both the common-mode and differential emissions injected back to the power source. These filters are offered in standard 2.00 x 1.00 x 0.46 and 2.00 x 1.60 x 0.50 inches packages. The FT10-100 filter is rated for 10 A of output current while the FT20-100 is rated for 20 A of output current. This FT series features 1500 Volts of DC isolation and operate over the case temperature range of -40°C to +100°C. These filters are suitable for use with Quarter-Brick and Half-Brick Series.

FEATURES

- Industry standard footprint (2"X 1", 2"X 1.6")
- 10 Amps and 20 Amps Filter Module
- PCB Mountable
- Provides both Differential and Common-Mode filtering
- 75VDC Input Voltage Maximum
- Suitable for use with Quarter-Brick and Half-Brick Series
- Designed to meet CE Mark 2004 certification

APPLICATIONS:

- Distributed Power Architectures
- Mobile telecommunication
- Industrial applications
- Battery operated equipment

Contact DATEL for other series as well as other customizable options.

MODEL NUMBER	INPUT VOLTAGE MAXIMUM	INPUT SURGE VOLTAGE	OUTPUT RATED CURRENT MAXIMUM	DC RESISTANCE (+ Vin to + Vo)	DC RESISTANCE (- Vin to - Vo)
FT10-100	75 VDC	100 VDC	10 A	11.5 mΩ	4.5 mΩ
FT20-100	75 VDC	100 VDC	20 A	9.5 mΩ	5.7 mΩ

FUNCTIONAL BLOCK DIAGRAM

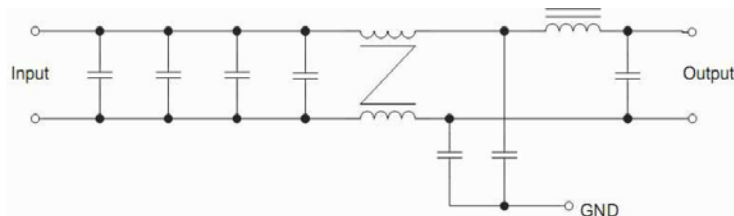


Figure 1 Internal Schematic for FT10-100 Module

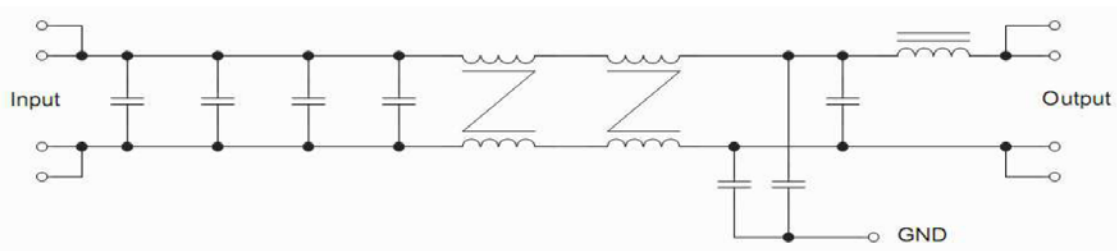


Figure 2 Internal Schematic for FT20-100 Module

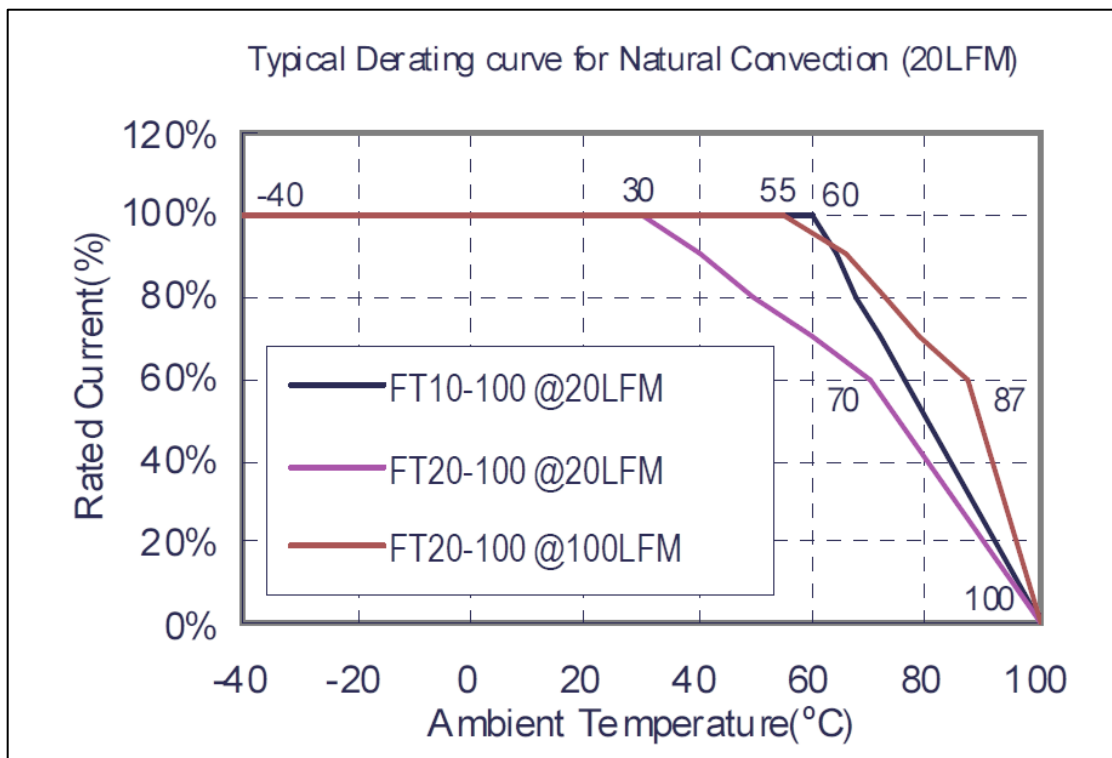
ABSOLUTE MAXIMUM RATINGS

Parameters	Conditions	Model	Min.	Typical	Max.	Units
Input Voltage						
Continuous	DC	All	0		75	Volts
Operating Case Temperature		All	-40		+100	°C
Storage Temperature		All	-55		+105	°C

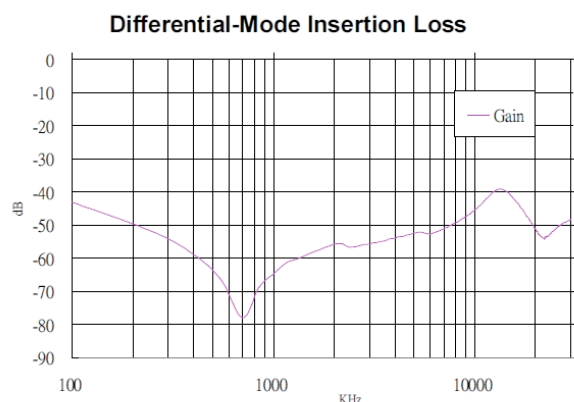
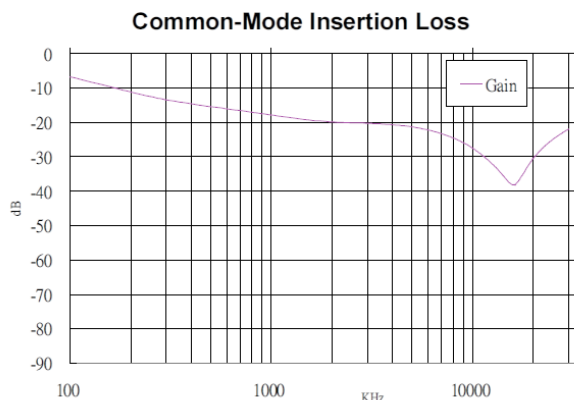
INPUT CHARACTERISTICS

Note: All specifications are typical at nominal input, full load at 25°C unless otherwise noted

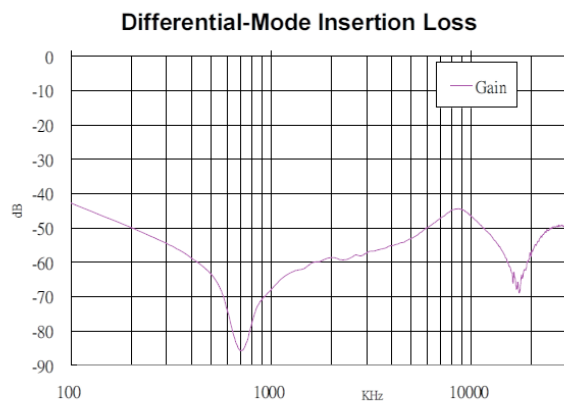
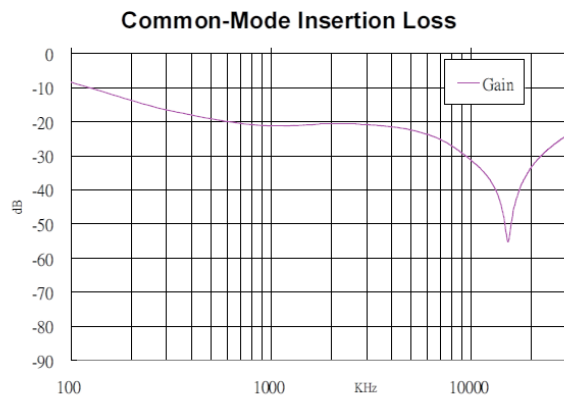
Parameters	Conditions	Model	Min.	Typical	Max.	Units
Operating Input Voltage		All			75	Volts
Input Surge Current		All		100		Vdc/100ms
Input / GND Isolation Voltage	1 minute, DC	All	1500			Volts
Output / GND Isolation Voltage	1 minute, DC	All	500			Volts
Isolation Resistance			10			MΩ
Case Materials		Plastic Case with Epoxy Potting				
Weight		FT10-100 FT20-100		30 55		grams



COMMON-MODE/DIFFERENTIAL-MODE

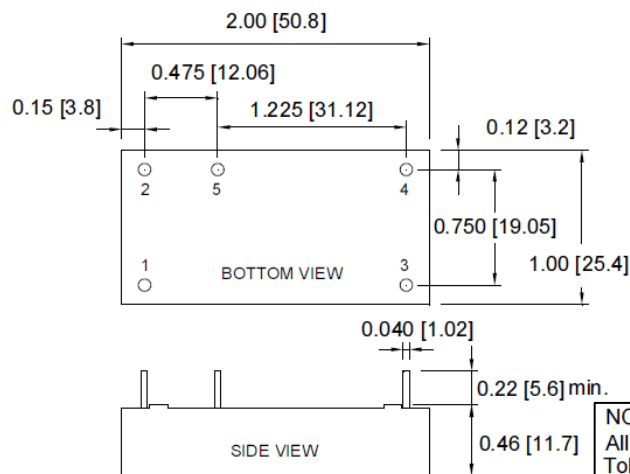


Typical Common-mode and Differential-mode Loss for FT10-100



Typical Common-mode and Differential-mode Loss for FT20-100

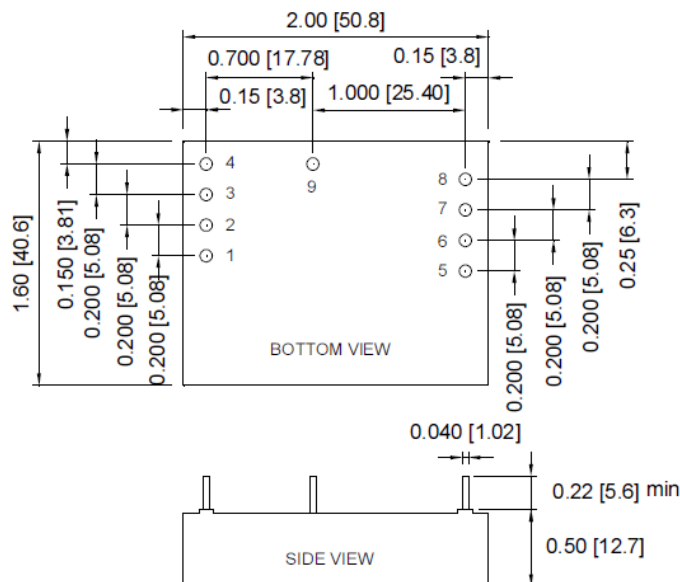
MECHANICAL DIMENSIONS Inches (mm)



NOTE: Pin Size is 0.04" Inch (1.02mm) DIA
All Dimensions In Inches (mm)
Tolerances Inches: X.XX= ± 0.02 , X.XXX= ± 0.010
Millimeters: X.X= ± 0.5 , X.XX= ± 0.25

FT10-100 Package

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FT20-100 Package

PIN CONNECTIONS

PIN CONNECTIONS FT10-100		PIN CONNECTIONS FT20-100	
PIN	FUNCTION	PIN	FUNCTION
1	+ V Input	1,2	+ V Input
2	- V Input	3,4	- V Input
3	+ V Output	5,6	+ V Output
4	- V Output	7,8	- V Output
5	GND	9	GND

PART NUMBER AND ORDERING INFORMATION

