

DSF Series



- Up to 28 A Output Current
- Active Surge Protection
- MIL-STD-461E
- DEF-STAN 59-41
- MIL-STD 1275A/B/C & D
- MIL-STD-810F Shock & Vibration
- Reverse Voltage Protection

Specification

Input

Input Voltage Range	• See Models & Ratings table
Input Transient	• 600 V for 10 μ s 50 Ω source impedance, \pm 250 V for 50 μ s 15 mJ, 100 V for 50 ms 0.5 Ω per MIL-STD-1275A/B/C & D
Input Reverse Voltage Protection	• Continuous
Fuse Protection	• None

Output

Output Voltage	• Tracks input voltage & clamps <36 VDC
Output Current	• See Models & Ratings table
Output Module Inhibit (INH)	• DSF200: When the output current >7.77 A, then the INH pin is low. This can be used to inhibit downstream DC-DC converters and reduce the load on the filter. When the output current <7.77 A, then the INH pin is logic high DSF500: When the output current >28 A, then the INH pin is low. This can be used to inhibit downstream DC-DC converters and reduce the load on the filter. When the output current <28 A, then the INH pin is logic high

General

Efficiency	• See Table
Isolation Voltage	• 500 VDC Input & Output to Case
Series Resistance	• 0.26 Ω DSF200, 0.036 Ω DSF500
Disabled Input Current Disable	• 25 mA • Product is disabled when DIS is connected to 0VDC
No Load Current	• 50 mA
Package Style	• Photo-etched nickel-silver case with RoHS compliant conductive chromate finish & aluminium cooling baseplate

Environmental

Operating Temperature	• -40 $^{\circ}$ C to +100 $^{\circ}$ C baseplate temperature
Storage Temperature	• -55 $^{\circ}$ C to +100 $^{\circ}$ C ambient
Salt Atmosphere Shock	• MIL-STD-810F method 509.1, 48 hours test • 15 g, 25 ms shock MIL-STD-810F 516.5-1 function test for ground equipment 40 g in 3 axes
Vibration	• MIL-STD-810F method 514.5C-17. Minimum integrity test for military equipment (1 Hr/axis, 3 axis). Vibration 5-33 Hz, 0.5 mm displacement

EMC & Safety

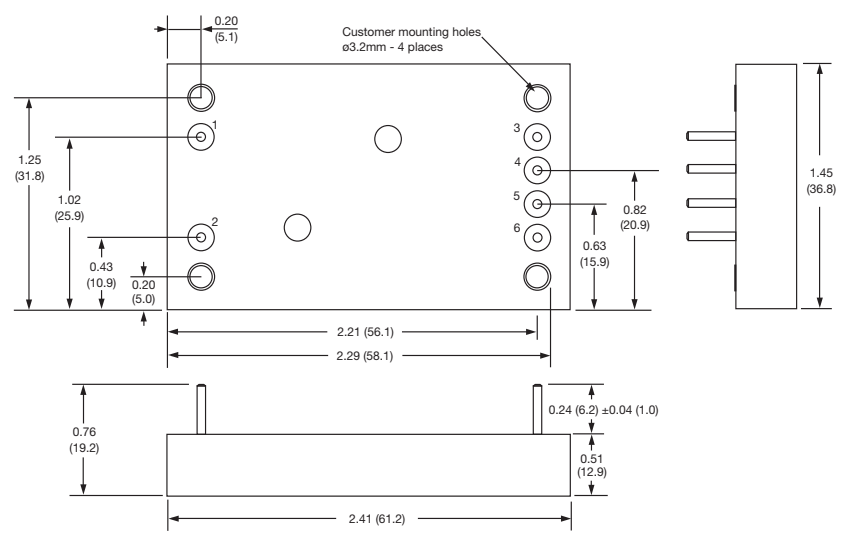
Immunity	• The DSF Series enables the use of industrial DC-DC converters within 24/28 Vin military input applications
Safety Approvals	• CE marked LVD
EMC Performance	• Compliance to MIL-STD 461E CE102 & DEF STAN 59-41 DCE01/DCE02 can be achieved with the addition of some external components. Please consult XP technical sales for more information.

Models & Ratings

Output Power	Input Voltage	Output		Typical Efficiency	Model Number
		Voltage	Current		
200 W	10-18 VDC	<36 VDC	3 A	92%	DSF200 LV
200 W	18-33 VDC	<36 VDC	7 A	93%	
500 W	10-33 VDC	<36 VDC	28 A	98%	DSF500

Mechanical Details

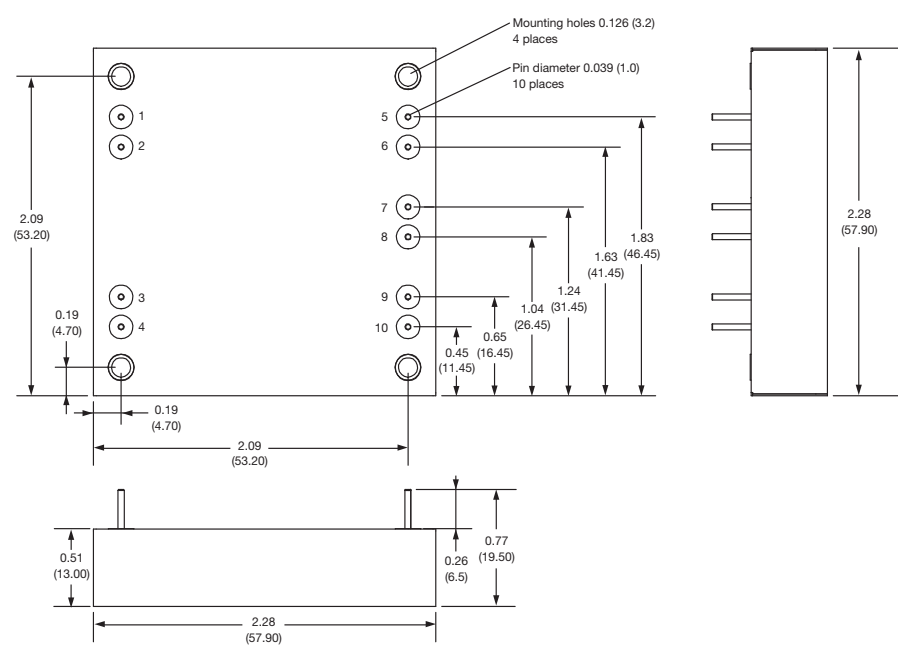
DSF200LV



Pin	Function
1	-Vin
2	+Vin
3	-Vout
4	Module Inhibit (INH)
5	Disable (DIS)
6	+Vout

All dimensions in inches (mm).
 Tolerance: ± 0.008 (± 0.2).
 Pin diameter 0.04 (1.0).
 Weight: 0.18 lb (80g) approx.

DSF500



Pin	Function
1	-Vin
2	-Vin
3	+Vin
4	+Vin
5	-Vout
6	-Vout
7	Module Inhibit (INH)
8	Disable (DIS)
9	+Vout
10	+Vout

All dimensions in inches (mm).
 Tolerance: ± 0.008 (± 0.2).
 Pin diameter 0.04 (1.0).
 Weight: 0.36 lbs (160 g) approx.