CF100-DD**-H

High Voltage DC/DC Converter

Features:

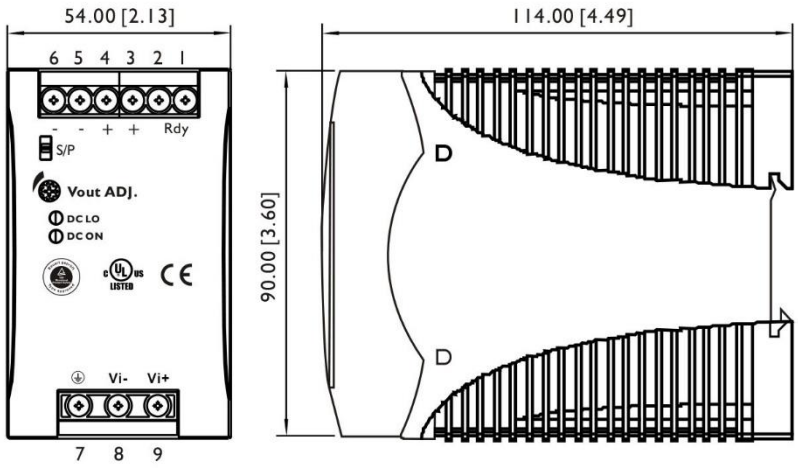
- High voltage input
- Reverse input protection
- Short circuit protection
- Internal input filter
- Over temperature protection
- Parallel function available (switch)

Specifications

Model		CF100-DD12-H	CF100-DD24-H	CF100-DD48-H
Output	Dc voltage	12V	24V	48V
	Rated current	8.4 A @ 12Vdc 6.9 A @ 14.5 Vdc	4.2 A @ 24Vdc 3.5 A @ 28.5 Vdc	2.1 A @ 48Vdc 1.8 A @ 56 Vdc
	Rated power	100W	100W	100W
	Voltage adj. Range	11.4 – 14.5VDC	22.5 - 28.5VDC	47 – 56VDC
	DC ON indicator threshold At start up (Green LED)	10 – 11.2V	17.6 – 19.4V	37 – 43V
	DC LOW indicator threshold After start up (Red LED)	10 – 11.2V	17.6 – 19.4V	37 – 43V
	Line regulation	±1.0%		
	Ripple + noise max.	100mVp-p		
	Load regulation	±1.0% single mode ±5.0% parallel mode		
	Setup – rise time	1000ms - 150ms		
Input	Voltage range	480 – 820VDC		
	Efficiency (typ.)	Min 84%, typ 86%	Min 85%, typ 87%	Min 87%, typ 89%
	DC current (typ.)	0.48A @550Vdc 0.41A @700Vdc		
	Inrush current	Max 12A		
Protection	Overload	115-135% rated output power		
	Over voltage	15 – 16.5V	30 – 33V	60 – 66V
		Auto Recovery		
	Output short circuit	Hiccup mode		
Environment	Working temp.	-40 - +70°C (refer to “derating curve”)		
	Working humidity	20-95% RH non-condensing		
	Storage temp. Humidity	-40 - +85°C 10-95 RH		
	Temp. Coefficient	±0.03%/°C		
	Vibration	meet IEC 60068-2-6 (Mounting on rail : 10-500 Hz, 2G, along X, Y,Z each Axis, 60 min for each Axis)		
	Shock	meet IEC 60068-2-27 (15G, 11ms, 3 Axis, 6 Faces, 3 times for each Face)		
Safety and EMC	Safety standards	UL 508 Listed UL 60950-1 Recognized ISA 12.12.01(Class I, Division 2, Groups A, B, C and D) EN 60950-1 EN 61558-1, EN 61558-2-16 (meet EN 60204-1) EN 61000-6-3, EN 55032 class B, EN 61000-3-2, EN 61000-3-3 EN 61000-6-2, EN 55024, EN 61000-4-2 Level 4, EN 61000-4-3 Level 3 EN 61000-4-4 Level 4, EN 61000-4-5 L-N Level 3, L / N-FG Level 4 EN 61000-4-6 Level 3, EN 61000-4-8 Level 4, EN 61000-4-11 ENV 50204 Level 2, EN 61204-3		
Others	MTBF (Bellcore Issue 6 @40˚C GB)	614K hrs min.	657K hrs min.	660K hrs min.
	Dimension	90 x 54 x 114 mm (3.6 x 2.13 x 4.49 inches)		
	Parallel operation	Max 2 units		

Mechanism & Pin Configuration

mm [inch]



CONSTRUCTION

Easy snap-on mounting onto the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail.

INSTALLATION

Ventilation / Cooling
Normal convection
All sides 25mm free space
For cooling recommended
Connector size range
AWG24-10 (0.2~4mm^2) flexible / solid cable,
-Input connector can withstand torque at maximum 9 pound-inches.
-Output connector can withstand torque at maximum 5.5 pound-inches.
8 m/m stripping at cable end recommends
Use copper conductors only, 60 / 75°C

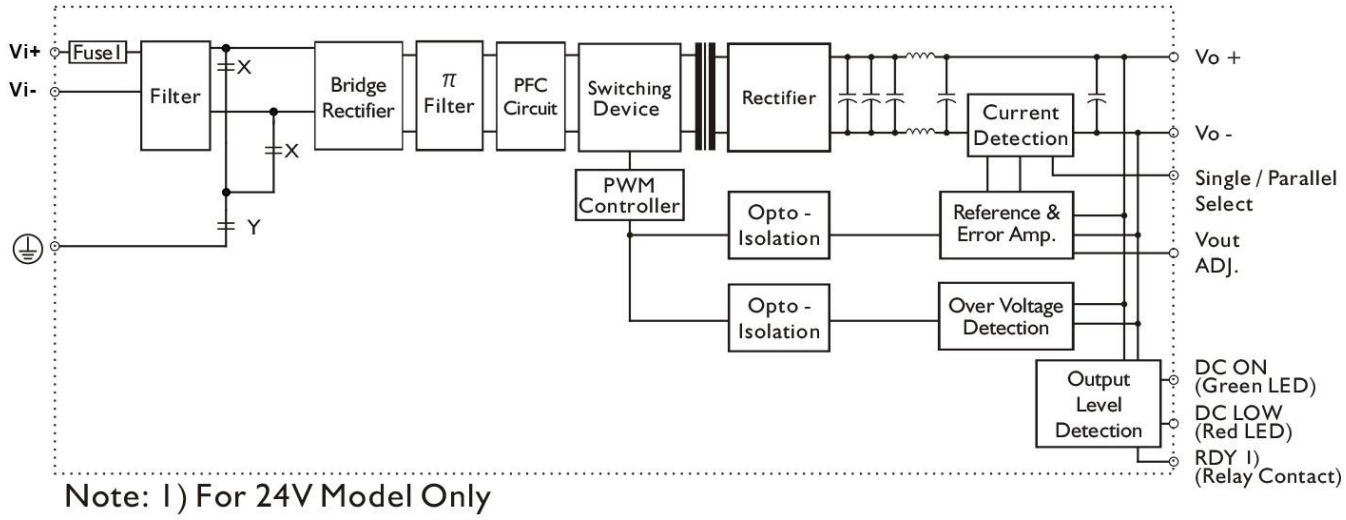
GENERAL TOLERANCE	
0.00[0.00] - 30.00[1.18]	±0.30[0.01]
30.00[1.18] - 120.00[4.72]	±0.50[0.02]

Pin no	Designation	Description
1, 2	Rdy	A normal open relay contact for DC ON level control. 24V model only
3, 4	V+	Positive output terminal
5, 6	V-	Negative output terminal
7	PE	Ground this terminal to minimize high-frequency emissions
8	Vi-	Negative input terminal
9	Vi+	Positive input terminal

Designation	Description
DC ON	Operation indicator LED
DC LO	DC LOW voltage indicator LED
Vout ADJ.	Trimmer-potentiometer for Vout adjustment
S/P	Single / Parallel select switch

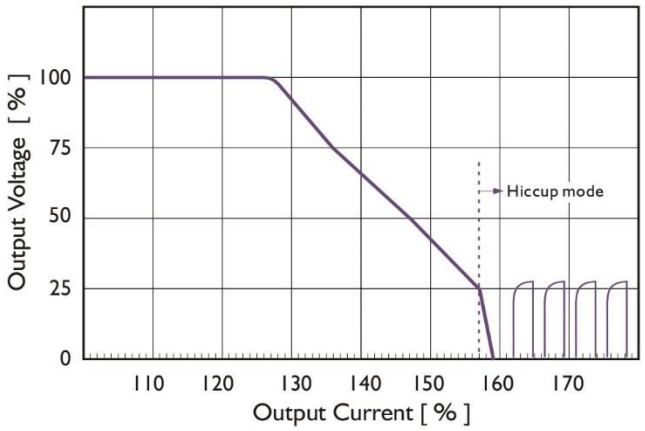
Circuit Schematic

Block diagram

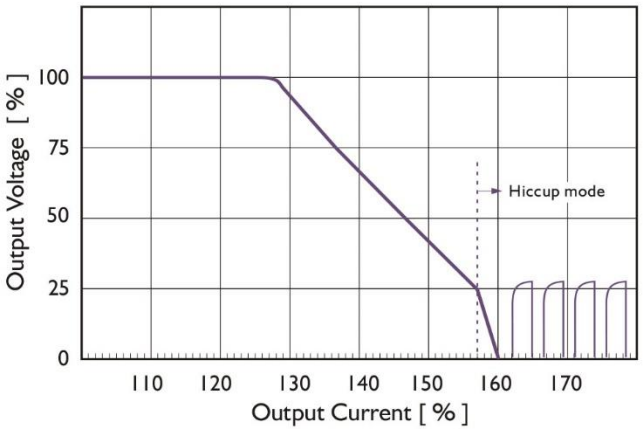


Typ. Current Limited Curve

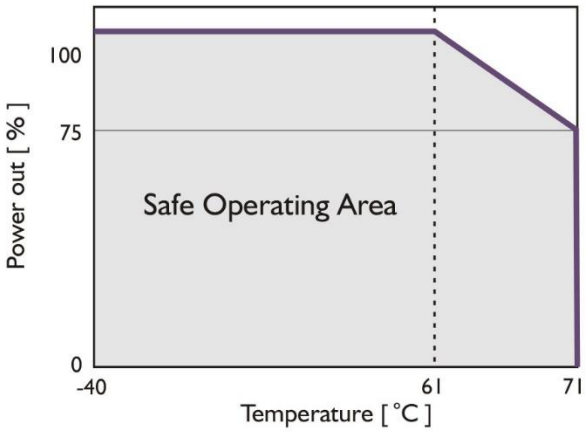
CF100-DD24-H / 550Vdc



CF100-DD24-H / 700Vdc



Derating Curve



Typ. Efficiency Curve