



400 Watt Open Frame AC/DC Power Supply Series DVC400



Preliminary

Feature



- Wide Input Range 80 – 264 VAC
- Active PFC Meets EN61000-3-2
- Full Brick Size
- No Load Power Consumption <0,5W
- Meets EN55032
- Meets IEC/EN/UL62638-1
- Efficiency up to 94%
- Over Temperature Protection
- PS On/Off Remote Control
- Power Good & Power Fail Signal
- Isolation I/O 4000VAC
- Meets Class I

MODEL NUMBER	OUTPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [A] (Note 1) MAX.			VOLTAGE ADJ RANGE [V]	RIPPLE & NOISE [mV] (Note 2)	EFF. [%] TYP. (Note 3)	LOAD CAPACITANCE [μ F] (Note 4) TYP.
		With FAN	Without FAN COVER (-C)	Without FAN OPEN (-B)				
DVC400S12-B	12	33,33	26,67	23,33	11,4 – 12,6	120	92	33330
DVC400S18-B	18	22,22	17,78	15,56	17,1 – 18,9	150	93	22220
DVC400S24-B	24	16,67	13,33	11,67	22,8 – 25,2	150	94	16670
DVC400S36-B	36	11,11	8,89	7,78	34,2 – 37,8	200	94	11110
DVC400S48-B	48	8,33	6,67	5,83	45,6 – 50,4	250	94	8330
DVC400S56-B	56	7,40	5,19	5,19	51,3 – 56,7	300	94	7400
All	+5V	1A			--	1%	--	--
All	+12V	0,5A (Note 5)			--	--	--	--

Note:

1. $V_{in}=230V_{ac}$, Forced air convection with 21.9CFM Fan.
2. Add a 0.1 μ F ceramic capacitor and a 10 μ F E.L. capacitor to output for ripple & noise measuring @20MHz BW.
3. Input Voltage is 115VAC and 230VAC, Output is max. Load
4. Typical efficiency at 230V $_{ac}$ and full load at 25°C.
5. Fan output can only operate normal when the stand-by output is above 0.5A.

Part Number Example:

- DVC400S12-B:** With Baseplate, 400W, 12Vdc Output, Vertical Type Terminal
DVC400S12-C: With Cover, 400W, 12Vdc Output, Vertical Type Terminal
DVC400S12-B-HP: With Baseplate, 400W, 12Vdc Output, Horizontal Position Terminal
DVC400S12-C-HP: With Cover, 400W, 12Vdc Output, Horizontal Position Terminal

INPUT SPECIFICATIONS:

Input Voltage Range.....	80 – 264 VAC
Input Frequency.....	47-63Hz
Power Factor.....	0,95 typ.
Input Current.....	100% Load, Vin=230Vac, Vin=100Vac
Leakage Current.....	0,26mA typ. / 3,5mA max.
Inrush Current Vin.....	Vin=240Vac, Cold Start at 25°C
	30A typ.

OUTPUT SPECIFICATIONS:

Output Voltage Accuracy.....	Voltage accuracy is set at 100% full load and 25°C Ta	±1,0% max.
Hold-up Time.....	Vin=115Vac	10msec. typ.
Line Regulation.....	Vin=High Line to low line	±0,5% max.
Load Regulation.....	10% to 100% full load	±1,0% max.
Over Voltage Protection.....	Latch off (Recycle AC Input to Restart)	
Over Current Protection.....	Auto Recovery	110% min. / 190% max.
Short Circuit Protection.....	Auto Recovery	Continuous
Over Temperature Protection.....	Auto Recovery	
PS-On Signal.....	Power on	0Vdc min. / 2Vdc max
	Power off (PS-ON and GND open)	4Vdc typ.
	Power on (PS-ON and GND short)	10mA typ.
	Power-off (PS-ON and GND open)	0mA typ.
Power Good (PG).....	Vin=80 - 264Vac, , Output is 100% full load, TTL goes high after power set up	100msec. min. / 500msec. max
Power Fail (PF).....	Vin=80 - 264Vac, , Output is 100% full load TTL goes low before Vo below 90% rated value	1msec. min. / 10msec. typ

GENERAL SPECIFICATIONS:

Efficiency.....		see table
Isolation Voltage Input/Output.....	1 minute	4000 VAC max.
Isolation Resistance.....	Input to Output	100MΩ min.
Switching Frequency.....		65 KHz typ.
Operating Case Temperature.....	See Derating Curve	-40°C to +85°C
Storage Temperature.....		-40°C to +85°C
Humidity.....	Non condensing	93% RH max.
MTBF.....	Io=100%; Ta=25°C per MIL-HDBK-217F	200K hrs typ.
Operating Altitude.....		5000m max.
Shock.....	Meet MIL-STD-810F	75g typ.
Vibration.....	Meet MIL-STD-810F	4g typ.

SAFETY & EMISSION:

Safety.....		Meet Class I, IEC/EN/UL62368-1
EMC Emission.....	EN55032 Class B, EN 61000-6-3, EN 61000-6-4, 47 CFR FCC Part 15 Subpart B (Class B)	EN 61204-3:2000, EN 61000-3-2:2014, EN 61000-3-3
Conducted Disturbance.....	EN55032 Class B, EN 61000-6-3, EN 61000-6-4, 47 CFR FCC Part 15 Subpart B (Class B)	
Radiated Disturbance.....	EN55032 Class B, EN 61000-6-3, EN 61000-6-4, 47 CFR FCC Part 15 Subpart B (Class B)	
Harmonic Current Emissions.....		EN 61000-3-2
Voltage Fluctuations & Flicker.....		EN 61000-3-3
EMC Immunity.....	EN55035, EN61000-6-1, EN 61000-6-2, EN 61204-3, IEC 61000-4-2,3,4,5,6,8,11	
Electrostatic Discharge (ESD).....	IEC 61000-4-2, Air Discharge: ±8KV, Contact Discharge: ±4KV	
Radio-Frequency, Continuous, Radiated Disturbance.....		IEC 61000-4-3
Electrical Fast Transient (EFT).....		IEC 61000-4-4, ±1kV, ±2KV
Surge.....	IEC 61000-4-5, L-N: ±0.5kV, ±1kV, ±2kV, L-E(ground): ±0.5kV, ±1kV, ±2kV	
Conducted Disturbances, Induced by RF Fields.....		IEC 61000-4-6
Power Frequency Magnetic Field.....		IEC 61000-4-8
Voltage Dips.....	IEC 61000-4-11, Dip: 30% Reduction, Dip >95% Reduction	
Voltage Interruptions.....		IEC 61000-4-11, >95% Reduction

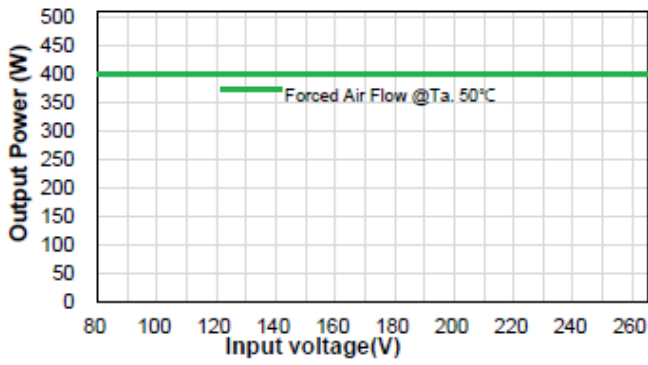
MECHANICAL SPECIFICATIONS:

Dimension (L x W x H).....	With Baseplate (-B)	127x76,20x39,10 (mm) / 5,00x3,00x1,54 (Inches)
	With Cover (-C)	136x87,00x42,50 (mm) / 5,36x3,43x1,68 (Inches)
Weight.....	With Baseplate (-B).....	515g typ.
	With Cover (-C).....	635g typ.

Typical at 25°C, 230Vac and 75% rated load, unless otherwise Specified

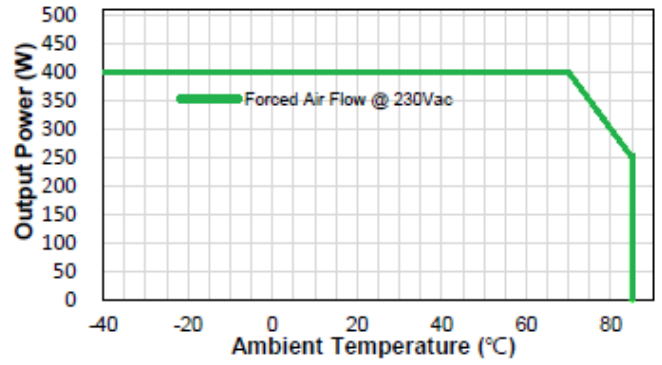
Forced Air Flow

Output power & Input voltage



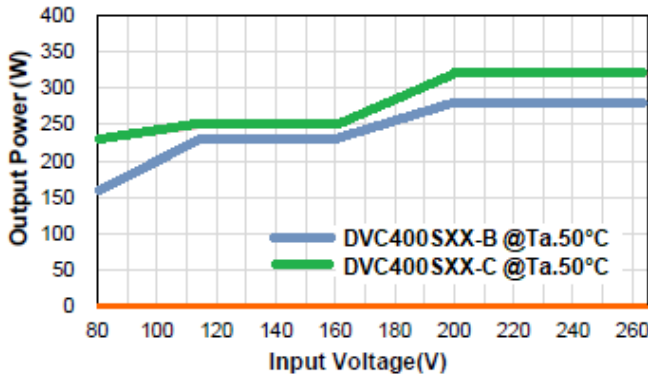
Forced Air Flow

Output power vs Ambient Temperature



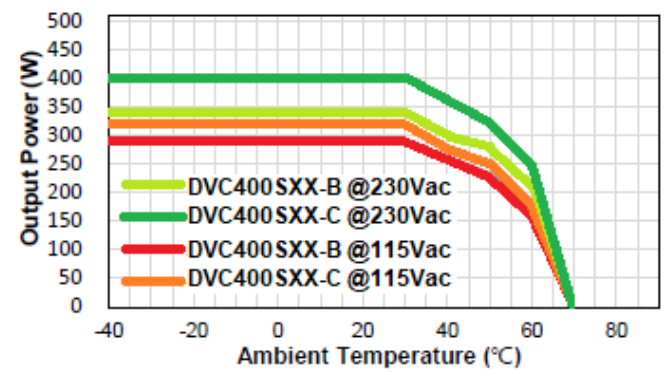
Natural Convection

Output power & Input Voltage



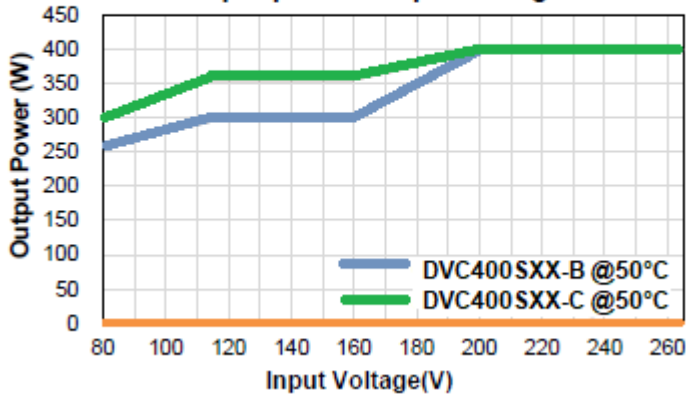
Natural Convection

Output power vs Ambient Temperature



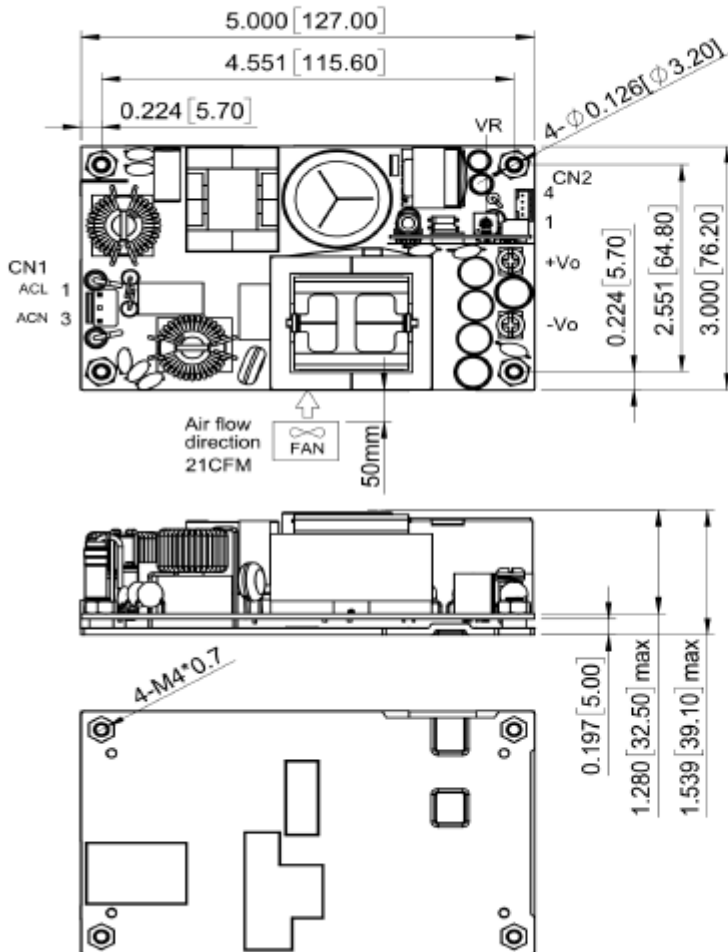
Conduction Convection with External Baseplate (48x24.8x0.12cm)

Output power & Input Voltage

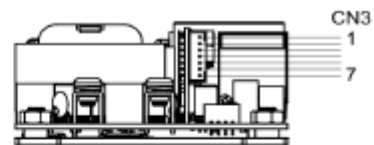
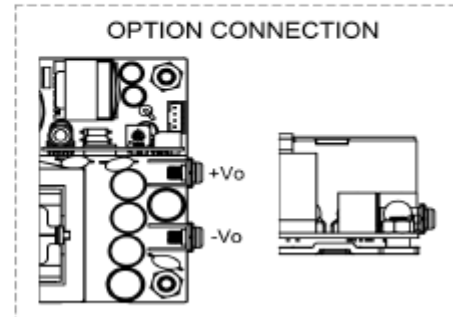


All Dimensions in inches[mm]
 Tolerance: Inches: $\pm x.xx = \pm 0.02$
 Millimeters: $x.x = \pm 0.5$

DVC400SXX-B



DVC400SXX-B-HP



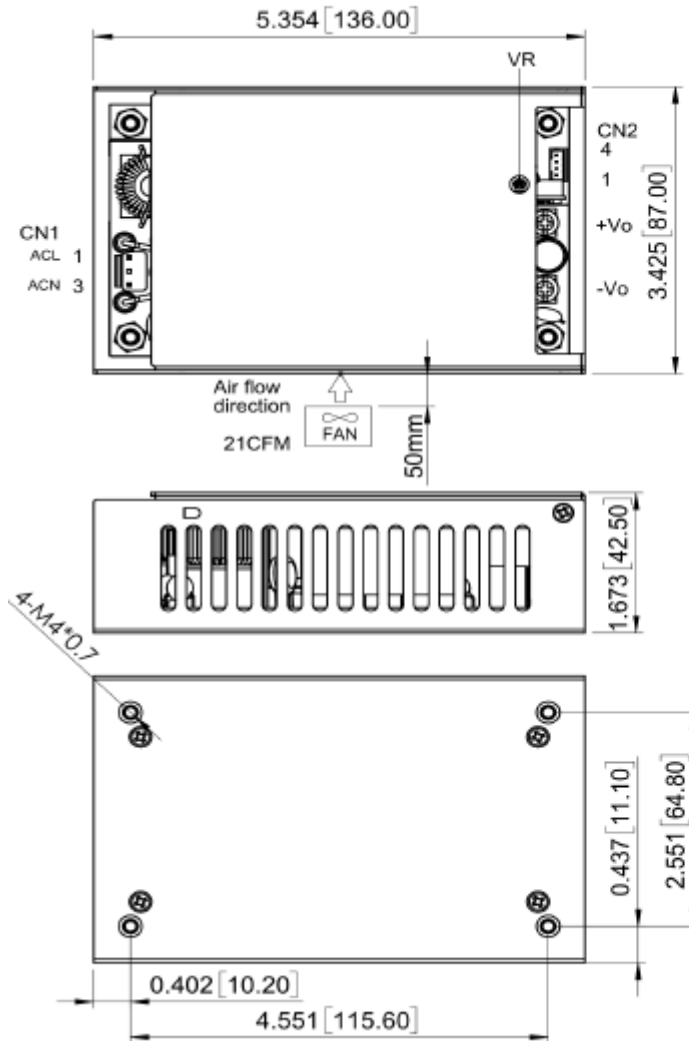
CN1	CONNECTION
Pin	Function
1	ACL
2	--
3	ACN

CN2	CONNECTION
Pin	Function
1	GND
2	+5VSB
3	GND
4	+12V FAN

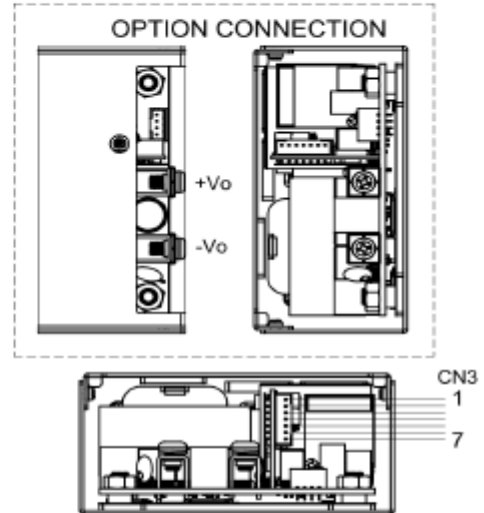
CN3	CONNECTION
Pin	Function
1	GND
2	PF
3	FAN-EN
4	PS-ON
5	-Sense
6	-Sense
7	Option

All Dimensions in inches[mm]
 Tolerance: Inches: $\pm x.xx = \pm 0.02$
 Millimeters: $x.x = \pm 0.5$

DVC400SXX-C



DVC400SXX-C-HP



CN1	CONNECTION
Pin	Function
1	ACL
2	--
3	ACN

CN2	CONNECTION
Pin	Function
1	GND
2	+5VSB
3	GND
4	+12V FAN

CN3	CONNECTION
Pin	Function
1	GND
2	PF
3	FAN-EN
4	PS-ON
5	-Sense
6	-Sense
7	Option