



## 50 Watt, Open Frame AC/DC Modules Series DVC50



### Features

- Universal Input Range 90 – 264Vac
- Size 76,20 x 50,80 (mm)
- No Load Input Power < 0,15W
- Meets IEC/EN60335-1
- Safety Meets IEC/EN/UL62368-1
- Safety Approved IEC/EN/UL62368-1 only DVC50Sxx
- High Efficiency up to 89%
- Over Voltage Protection
- Continuous Short Circuit Protection
- Meets EN55032 Class B / CIRSS/FCC Class B
- Meets Class I and II

MODEL NUMBER CONNECTOR	MODEL NUMBER PIN -P	MODEL NUMBER COVER -C (Note 5)	OUTPUT VOLTAGE [ VDC ]	OUTPUT CURRENT [ A ] MAX.	RIPPLE & NOISE [ mV p-p ] (Note 2)	VOLTAGE ACCURACY [ % ] (Note 1)	LOAD CAP. [ $\mu$ F ] (Note 6) MAX.	EFF. [ % ] (Note 3)
DVC50S05	DVC50S05-P	DVC50S05-C	5	8,0	150	$\pm 2$	8000	85
DVC50S12	DVC50S12-P	DVC50S12-C	12	4,17	120	$\pm 2$	4200	87
DVC50S15	DVC50S15-P	DVC50S15-C	15	3,33	150	$\pm 1$	3400	88
DVC50S24	DVC50S24-P	DVC50S24-C	24	2,08	240	$\pm 1$	2087	89
DVC50S36	DVC50S36-P	DVC50S36-C	36	1,39	360	$\pm 1$	1440	89
DVC50S48	DVC50S48-P	DVC50S48-C	48	1,04	480	$\pm 1$	600	89

#### NOTE:

1. Voltage accuracy is set at 100% full load.
2. Add a 0.1 $\mu$ F ceramic capacitor and a 10 $\mu$ F E.L. capacitor to output for ripple & noise measurement @20MHz BW.
3. Typical efficiency at 230 Vac and 100% full load at 25°C.
4. Standard input and output connectors (CN1 and CN2) wafer with TAIWAN KING PIN TERMINAL PVHI series and mate with JST housing VHR series and JST SVH-41T-P1.1 series crimp terminal and output connectors wire 16AWG.
5. Safety approvals do not apply to the covered version only to the Terminal Versions.
6. Vin=115Vac and 230Vac, Output is max. load

### INPUT CHARACTERISTICS:

Input Voltage Range..... ( Safety approvals only to the AC input ) .....	90-264Vac / 120-370VDC
Input Frequency .....	50 to 60Hz
Inrush Current .....	V <sub>in</sub> =240Vac, Cold start at 25°C..... 110A typ.
Leakage Current.....	0,1mA max.
Input Current .....	100% Load, V <sub>in</sub> =100Vac..... 1,2A max.

### OUTPUT CHARACTERISTICS:

Line Regulation .....	V <sub>in</sub> =High Line to Low Line, 100% full load.....	±0,5% max.
Load Regulation .....	10% Load to Full Load.....	±1,0% max.
Hold-up Time.....	V <sub>in</sub> =115V <sub>ac</sub> .....	8ms min.
Over Voltage Protection .....		Hiccup mode (Auto Recovery)
Over Current Protection.....		Hiccup mode (Auto recovery)
Short Circuit Protection.....		Continuous, (Auto Recovery)

### GENERAL CHARACTERISTICS:

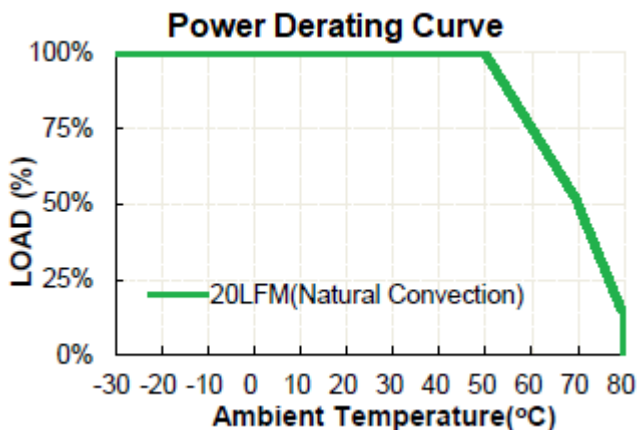
Efficiency.....		see table
Isolation Input/Output .....	1 minute.....	3000VAC max.
Isolation Resistance Input/Output.....		100MΩ min.
Switching Frequency .....		65KHz typ.
Operating Temperature Range.....		-30°C to +80°C
Derating .....		see curve
Storage Temperature Range.....		-30°C to +85°C
Cooling.....		Natural Convection
Humidity .....	Non-condensing .....	93% RH max.
MTBF .....	I <sub>o</sub> =100%; T <sub>a</sub> =25°C per MIL-HDBK-217F.....	1200K hrs. min.
Altitude .....	IEC/EN/UL 62368-1 .....	5000m max.
	Meets IEC/EN/UL 60335-1 .....	3000m max.
Shock.....	Meet MIL-STD-810F.....	75g typ.
Vibration.....	Meet MIL-STD-810F.....	4g typ.

### SAFETY & EMISSION:

Safety Approved.....	only Connector Versions .....	Class I, Class II, IEC/EN/UL62368-1
Safety Meets .....	-C Covered & -P Pin Version .....	Class I, Class II, IEC/EN/UL62368-1
Safety Meets .....		IEC/EN 60335-1
EMC Emission.....	EN55032 Class B, 47 CFR FCC Part 15 Subpart B, N 61000-3-2 , EN 61000-3-3	
Conducted Disturbance.....	EN 55032 Class B, 47 CFR FCC Part 15	
Radiated Disturbance.....	EN 55032 Class B, 47 CFR FCC Part 15	
Harmonic Current Emissions .....		EN 61000-3-2
Voltage Fluctuations & Flicker .....		EN 61000-3-3
EMC Immunity.....		EN 55035
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 , ±0.5kV, ±1kV, ±2kV	
Surge .....	IEC 61000-4-5 , L-N: ±0.5kV, ±1kV, 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:

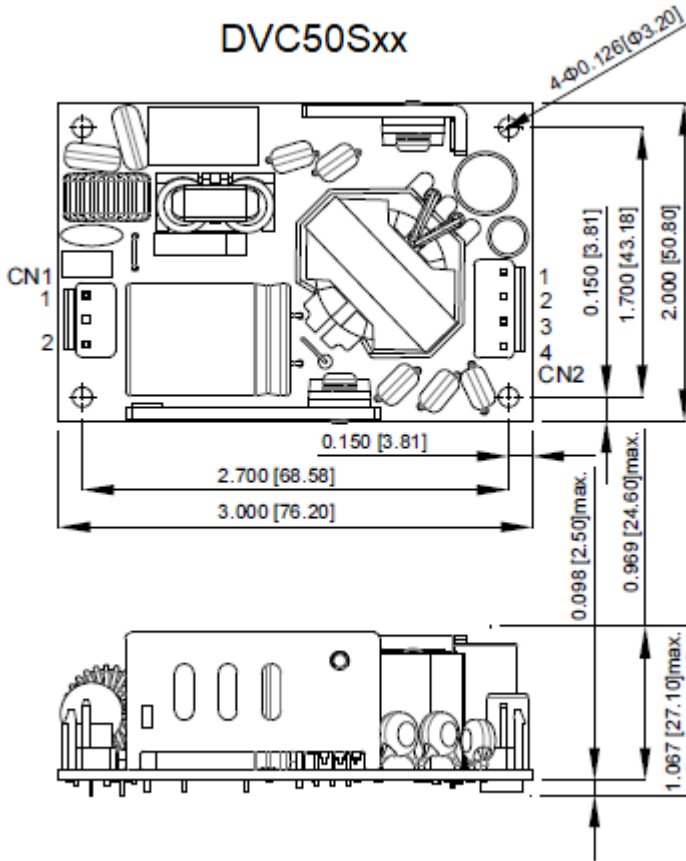
Dimensions:	
Terminal Version: .....	76,20 x 50,80 x 27,10 (mm)
Pin Version -P: .....	76,20 x 50,80 x 29,00 (mm)
Cover Version -C:.....	91,40 x 64,00 x 34,50 (mm)
Weight:	
Connector Version:.....	95g typ.
Pin Version -P: .....	93g typ.
Cover Version -C:.....	180g typ.



Technische Änderung vorbehalten / Technical change reserved without notice

All Dimensions are in inches[mm]  
 Tolerance:Inches:X.XXX ±0.02 , Millimeters:X.XX±0.5

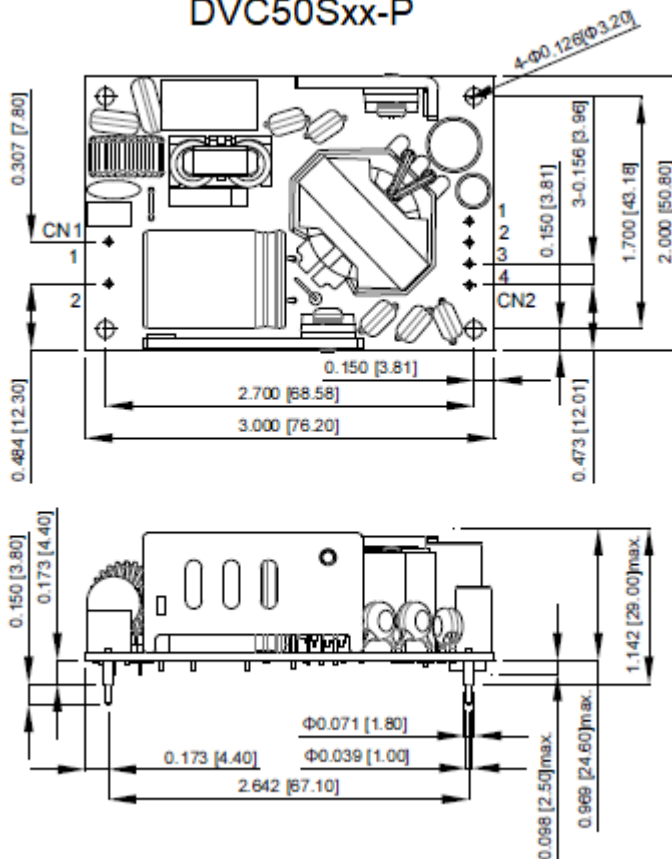
## DVC50Sxx



CN1	CONNECTION
Pin	Function
1	AC-L
2	AC-N

CN2	CONNECTION
Pin	Function
1	+Vout
2	+Vout
3	-Vout
4	-Vout

## DVC50Sxx-P

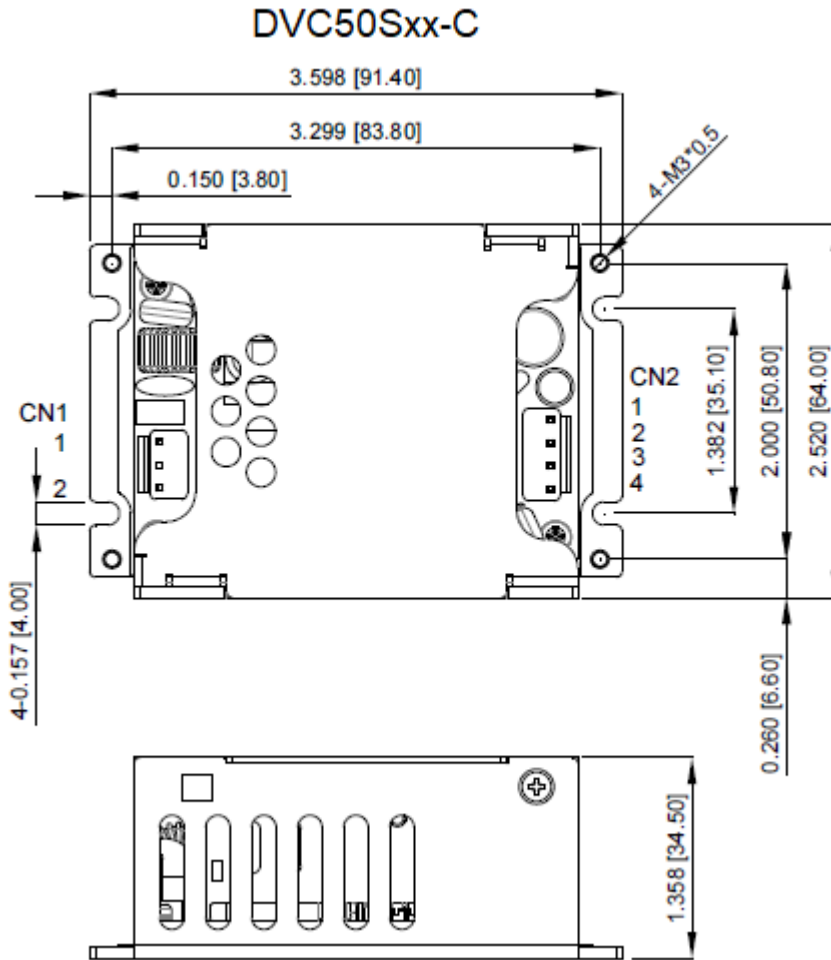


CN1	CONNECTION
Pin	Function
1	AC-L
2	AC-N

CN2	CONNECTION
Pin	Function
1	+Vout
2	+Vout
3	-Vout
4	-Vout

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All Dimensions are in inches[mm]  
 Tolerance:Inches:X.XXX ±0.02 , Millimeters:X.XX±0.5



CN1 CONNECTION	
Pin	Function
1	AC-L
2	AC-N

CN2 CONNECTION	
Pin	Function
1	+Vout
2	+Vout
3	-Vout
4	-Vout