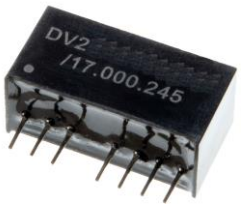
2 Watt, Regulated, 8:1 INPUT DC/DC Converters Series DV2-S8-8-H



Features

- 2 Watt Regulated Outputs
- Compact SIP-8 Package
- Efficiency to 86%
- Low No Load Power Consumption
- 3000 VDC I/O Isolation
- Fixed Switching Frequency
- Continuous Short Circuit Protection
- OCP/UVLO Protection
- Negative Remote ON/OFF
- Safety Meets IEC/EN/UL 62368-1

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [mA]		EFF. @12V [%]	EFF. @24V [%]	EFF. @48V [%]	CAP. [µF]
			MIN.	MAX.	TYP.	TYP.	TYP.	MAX. LOAD
DV2-S8-8-48S3,3HN	9 – 75 (48)	3,3	0	500	79	79	77	500
DV2-S8-8-48S05HN		5	0	400	82	82	80	400
DV2-S8-8-48S12HN		12	0	167	85	85	82	167
DV2-S8-8-48S15HN		15	0	134	85	86	83	134
DV2-S8-8-48D05HN		±5	0	±200	82	82	80	200
DV2-S8-8-48D12HN		±12	0	±83	84	84	82	83
DV2-S8-8-48D15HN		±15	0	±67	84	84	82	67

Note:
1. Nominal Input Voltage: 12V, 24V or 48V

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INPUT SPECIFICATIONS:

Input Voltage Range	48V	9 – 75VDC
Input Surge Voltage	100ms max.	100Vdc max.
Turn-On Voltage Threshold	100% Load	8,1 VDC typ.
Turn-On Voltage Threshold	100% Load	7,5 VDC typ.
No Load Input Current (Io=0A)	Vo 3,3V	6mA typ.
	Vo 5V	4mA typ.
	Vin 12V, ±5V	8mA typ.
	Vo 15V, ±12V, ±15V	12mA typ.
Full Load Input Current		50-56mA typ.
Maximum Input Current	Vin 9V, Full Load	320mA typ.
Inrush Current		0,1A²s max.
Input Reflected Ripple Current		30mA typ.
Input Filter		Capacitive

ON/OFF Control, Negative Remote On/Off Logic, Refer to –Vin pin.

Logic Low (Module OFF)	Von/off at Ion/off	5,5V min. / 15V max.
Logic High (Module ON)	<1,2Vdc and open circuit	0V min. / 1,2V max.
Off Converter Input Current	Shutdown input idle current	1mA max.

OUTPUT SPECIFICATIONS:

Voltage Set Point Accuracy	Vin48V, Full Load	±1,5% max.
Output Voltage Balance	Vin48V, Full Load, Dual	±1,0% max.
Ripple & Noise, 20MHz BW		75mV pk-pk, max.

Output Voltage Current Transient: 75% to 100% of Io max. step load change (within 1% Vout nominal)

Error Band	±5% max.
Recovery Time	250µs max.

Turn-ON Delay and Rise Time: Full Load (Constant resistive load)

Turn -On Delay Time, From ON/OFF Control (Von/off to 10%Vo_set Remote On)	15msec. typ.
Turn -On Delay Time, From Input (Vin to 10%Vo_set Power Up)	15msec. typ.
Output Voltage Rise Time (10%Vo to 90%Vo_set)	10msec. typ.

Temperature Coefficient		±0.03%/°C
Line Regulation	High Line to Low Line, Full Load	±0.5% max.
Load Regulation	Full Load to 0% Load, Single	±0,5% max.
	Full Load to 0% Load, Dual	±1,0% max.
Cross Regulation	Asymmetrical Load 25%/100%	±5,0% max.
Over Current Protection	Foldback, Auto Recovery	110% min. / 230% max.
Short Circuit Protection		Continuous, Auto Recovery

GENERAL SPECIFICATIONS:

Efficiency		See Table
Isolation Voltage	1 minute; Input to Output	3000VDC max.
Isolation Resistance	Input to Output	1000 Mohm min.
Isolation Capacitance		1000pF typ.
Switching Frequency		450KHz typ.
Operating Ambient Temperature	Derating, above 85°C, see Derating Curve	-40°C to +105°C
Operating Case Temperature	At the center part of case plate	-40 min. / 110°C max.
Storage Temperature		-55°C to +125°C
Humidity		95% RH max. Non condensing
MTBF	MIL-STD-217F,GB,25°C, Full Load	3336 KHrs typ.
Shock/Vibration		MIL-STD-810F Compliant
Altitude		5000m Operating, 12000m Transport
Thermal Shock		MIL-STD-810F
EMI	Conduction	Meets EN55032 Class A & B (with external Filter)
	Radiation	Meets EN55032 Class A (without external Filter) & Class B (with external Filter)
ESD		Meets EN61000-4-2 Level 2: Air±8kV, contact ±4kV
Radiated Immunity		Meets EN61000-4-3 80-1000MHz, 3V/m
Fast Transient		Meets EN61000-4-4 On power input port, ±0,5kV, external input TVS required
Surge		Meets EN61000-4-5 Line to Line, ±0,5kV, external input TVS req
Conducted Immunity		Meets EN61000-4-6 0,15-80MHz, 3V
Dimensions		21,8 x 9,2 x 11,1 mm
Potting Material		UL94V-0
Case Material		Non-Conductive Black Plastic, UL94V-0
Weight		4.8g typ.

All Specifications at TA = 25°C, Vin = nominal voltage

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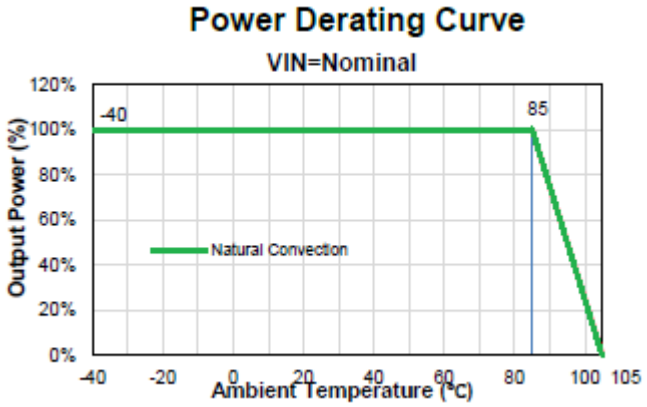
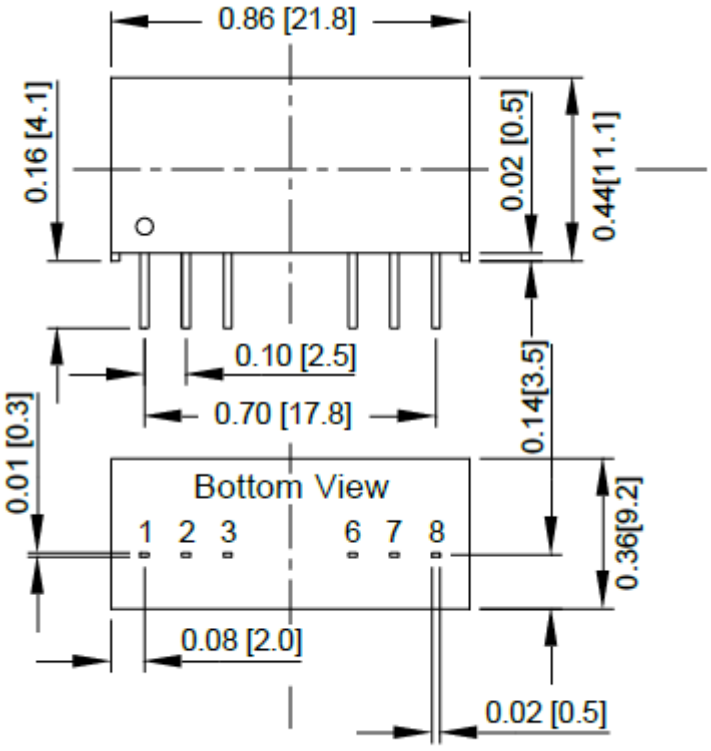


Case SIP 8

All dimensions in inches (mm)
Tolerances: Inches: x.xx=±0.02, Millimeters: x.x=±0.5
Pin Size: ±0.002 Inch , ±0.05 mm



PIN CONNECTION		
PIN	SINGLE	DUAL
1	-Vin	-Vin
2	+Vin	+Vin
3	On/Off	On/Off
6	+Vout	+Vout
7	-Vout	Common
8	No Connection	-Vout

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