



**5 - 6 Watt, 4:1 Wide Input  
DC/DC Converter  
Series DV6-S8-4-H**



**Features**

- 5 – 6 Watt Isolated Output
- Regulated Outputs
- 4:1 Wide Input Range
- SIP 8 Package
- Operating Temperature Range -40°C to 85°C
- Safety Meets IEC/EN/UL 62368-1
- Efficiency up to 87%
- Fixed Switching Frequency
- Continuous Short Circuit Protection
- Capacitive Input Filter
- I/O Isolation 3000VDC

MODEL NUMBER	INPUT VOLTAGE [ VDC ] (Note 1)	OUTPUT VOLTAGE [ VDC ]	OUTPUT CURRENT [ mA ]	INPUT CURRENT NO LOAD [ mA ]	INPUT CURRENT FULL LOAD [ mA ]	EFF. [ % ] (Note 2)	CAP. LOAD [ µF ]	CASE
DV6-S8-4-24S3,3HN	9 – 36	3,3	1500	4	256	80	4700	SIP 8
DV6-S8-4-24S05HN		5	1200	4	292	85	2200	
DV6-S8-4-24S12HN		12	500	5	291	86	1100	
DV6-S8-4-24S15HN		15	400	5	286	87	470	
DV6-S8-4-24D05HN		±5	±600	4	292	85	1400	
DV6-S8-4-24D12HN		±12	±250	6	291	86	660	
DV6-S8-4-24D15HN		±15	±200	6	289	86	220	
DV6-S8-4-48S3,3HN	18 – 74	3,3	1500	3	127	81	4700	SIP 8
DV6-S8-4-48S05HN		5	1200	3	151	83	2200	
DV6-S8-4-48S12HN		12	500	3	145	86	1100	
DV6-S8-4-48S15HN		15	400	3	144	87	470	
DV6-S8-4-48D05HN		±5	±600	4	149	84	1400	
DV6-S8-4-48D12HN		±12	±250	3	144	87	660	
DV6-S8-4-48D15HN		±15	±200	3	144	87	220	

Note: 1. Nominal Input Voltage: 24 or 48Vdc.  
 2. Measured at Nominal Input Voltage  
 3. Suffix "N": Negative Remote On/Off

## INPUT SPECIFICATIONS:

Input Voltage Range.....	24V .....	9 – 36V
	48V .....	18 – 74V
Input Surge Voltage (100ms max.) .....	24V .....	50VDC max.
	48V .....	100VDC max.
Input Reflected Ripple Current .. Vin=Nominal, L=12uH, C=47uF, Load=Full load .....		10mA typ.
Input Filter .....		Capacitive
On/Off Control, Negative Remote On/Off logic, Refer to –Vin pin		
Module ON .....	Logic ON .....	Pin Open = ON, or high impedance
Module OFF .....	Logic OFF .....	2mA to 4mA
Module OFF .....	Shutdown input idle current .....	2,5mA max.

## OUTPUT SPECIFICATIONS:

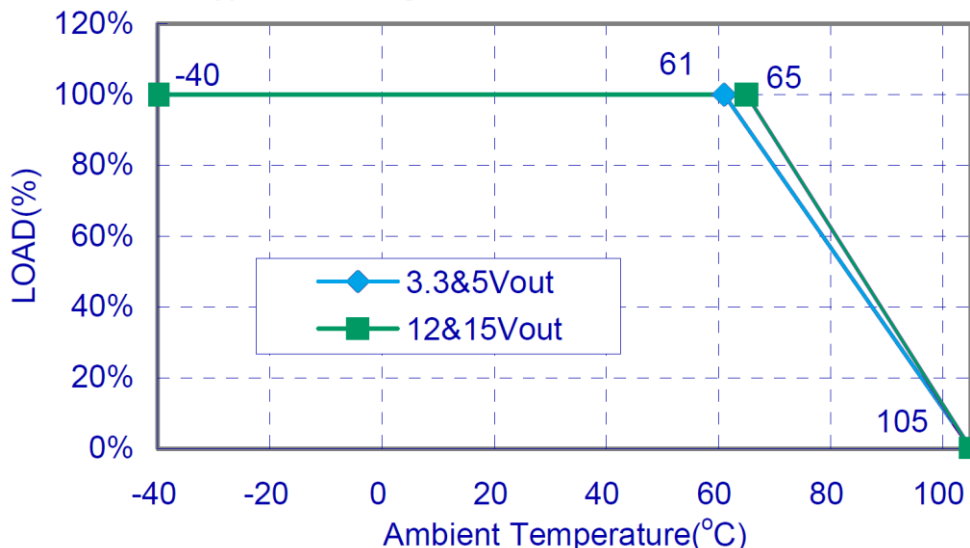
Voltage Accuracy .....	Vin=24, 48V, Full load, Tc=25°C .....	±1,5% max.
Output Current Min. Load .....		0mA min.
Output Voltage Balance.....	Vin=24, 48V, Full load, Tc=25°C, Dual .....	±1,0% max.
Line Regulation .....	Vin=High line to low line, full load, Others .....	±0,2% max.
	Vin=High line to low line, full load, Vo ±5V .....	±0,5% max.
Load Regulation .....	Full Load to No Load, Single .....	±0,5% max.
	Full Load to No Load, Dual .....	±1,0% max.
Cross Regulation.....	Asymmetrical load 25%/100%, Dual .....	±5,0% max.
Temperature Coefficient .....	Tc=-40°C to 85°C .....	0,03%/°C max.
Ripple and Noise, 5Hz to 20 MHz BW .....	Vo 5V .....	120mV p-p max.
	Others .....	100mV p-p max.
Over Current Protection.....	Hiccup mode. Auto recovery .....	180% typ
Short Circuit Protection.....		Continuous, Auto Recovery
Output Voltage Current Transient		
Error Band.....	75% to 100% of Io_max step load change di/dt=0.1A/us .....	±5% max.
Recovery Time .....	75% to 100% of Io_max step load change di/dt=0.1A/us .....	<250µs max.

## GENERAL SPECIFICATIONS:

Efficiency.....		See Table
Isolation Voltage I/O .....	1 minute; Input to output .....	3000VDC max.
Isolation Resistance .....	Input to output .....	1000 Mohm min.
Isolation Capacitance .....	Input to output .....	50pF typ.
Switching Frequency .....		580KHz, typ.
Operating Temperature Range .....		-40°C to +85°C
Derating .....	Vo 3,3V/5V .....	above 61°C, see Derating Curve
Derating .....	Vo 12V/15V .....	above 65°C, see Derating Curve
Case Temperature .....	At the center part of case plate .....	105°C max.
Cooling .....		Natural Convection
Storage Temperature Range .....		-55°C to +125°C
Humidity .....		95% RH max. Non condensing
Shock/Vibration .....		MIL-STD-810F Compliant
Altitude .....		2000m Operating Altitude, 12000m Transport Altitude
MTBF .....	MIL-STD-217F .....	1850 K hours typ.
EMI .....		Meets EN55032 Class A (with external filter)
Dimensions .....		21,8 x 9,2 x 11,1 mm
Standard Models .....		Non-Conductive Black Plastic ( UL 94V-0 )
Weight.....		4,8g typ.

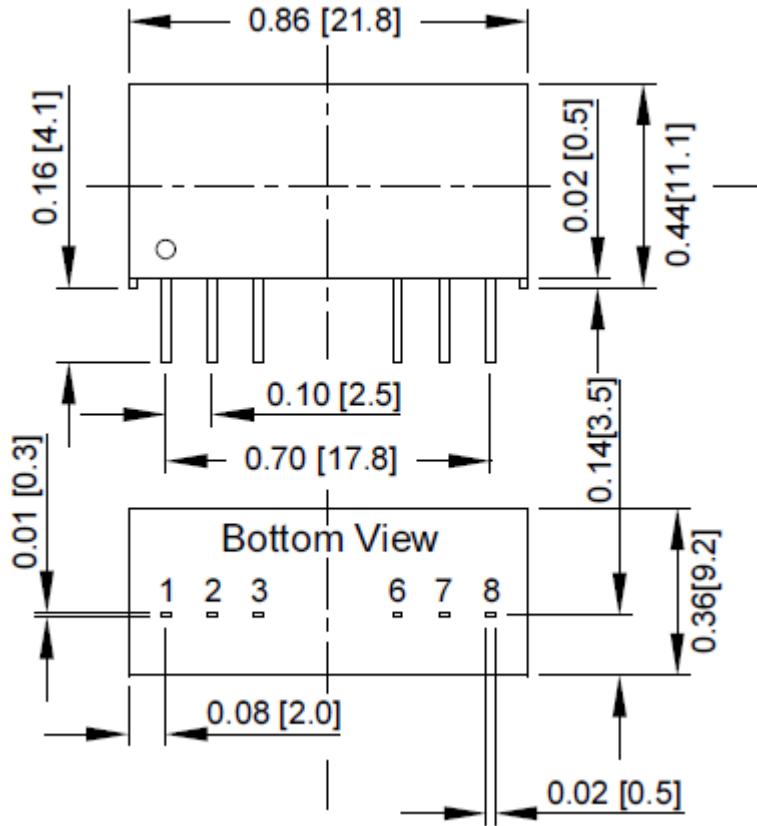
All Specifications Typical at Nominal Line, Full Load and 25°C. Unless Otherwise Noted

Typical Derating curve for Natural Convection



Technische Änderungen vorbehalten / Technical change reserved

Note:  
 All Dimensions in Inches (mm),  
 Pin Size  $\pm 0.002$  Inches  $\pm 0.05$ mm  
 Tolerances: Inches X.XX=  $\pm 0.02$   
 Millimeters: X.X=  $\pm 0.5$



Pin	Connection	
	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	ON/OFF	ON/OFF
6	+Vo	+Vo
7	-Vo	Common
8	NC	-Vo

\*NC-NO CONNECTION