



## 15 Watt Wide Input DC/DC Converters Series DV154X



### Features

- 15 Watt Isolated Output Regulated
- 4:1 Wide Input Range
- Input Under Voltage Protection
- Continuous Short Circuit Protection
- Over Current Protection
- Without Tantalum Capacitors Inside
- Safety Meets UL60950-1, EN60950-1 and IEC60950-1
- Efficiency to 88%
- Fixed Switching Frequency
- Remote On/Off ( Option )
- CE Mark Meets 2004/108/EC
- 2"x1" Six-Sided Shield Metal Case
- Conductive EMI Meets EN55022 Class A

MODEL NUMBER	INPUT VOLTAGE [ VDC ]	OUTPUT VOLTAGE [ VDC ]	I <sub>out</sub> MIN [ mA ]	I <sub>out</sub> MAX [ mA ]	INPUT CURRENT NO LOAD [ mA ]	INPUT CURRENT FULL LOAD [ mA ]	EFF. [ % ]	C LOAD MAX. [ μF ]	CASE
DV9-36-3,3S4000X	9 - 36	3,3	0	4000	60	632	87	4000	X
DV9-36-05S3000X		5		3000	70	718	87	3000	
DV9-36-12S1250X		12		1250	30	718	87	1250	
DV9-36-15S1000X		15		1000	30	710	88	1000	
DV9-36-05D1500X		±5		±1500	30	735	85	1500	
DV9-36-12D625X		±12		±625	30	718	87	625	
DV9-36-15D500X		±15		±500	30	710	88	470	
DV18-75-3,3S4000X	18 - 75	3,3	0	4000	40	313	88	4000	X
DV18-75-05S3000X		5		3000	40	355	88	3000	
DV18-75-12S1250X		12		1250	20	359	87	1250	
DV18-75-15S1000X		15		1000	20	359	87	1000	
DV18-75-05D1500X		±5		±1500	20	368	85	1500	
DV18-75-12D625X		±12		±625	20	359	87	625	
DV18-75-15D500X		±15		±500	20	359	87	470	

Note: Measured at Nominal Input Voltage

Technische Änderungen vorbehalten / Specifications are subject to change without notice

2011-07-15

dev-dorsch electronic vertriebs gmbh • Münchner Str. 123 • 85774 Unterföhring  
Fon +49 / 89 / 95 08 07 – 60 Fax – 77 Mail: contact@dev-electronic.de • www.dev-electronic.de

## INPUT SPECIFICATIONS:

Input Voltage Range.....	24V.....	9-36V
	48V.....	18-75V
Input Surge Voltage (100ms max.) .....	24V.....	50Vdc max.
	48V.....	100Vdc max.
Under Voltage lockout .....	24Vin power up .....	8,8V typ.
	24Vin power down .....	8,0V typ.
	48Vin power up .....	17V typ.
	48Vin power down .....	16V typ.
Input Filter .....		Pi Type

## OUTPUT SPECIFICATIONS:

Voltage Accuracy .....		±1,5% max.
Voltage Balance (Dual).....		±2,0% max.
Transient Response: 75% - 100% Step Load Change .....	Error Band: ( ±5% Vout nominal, recovery Time ) .....	<250us
Ripple & Noise, 20 MHz BW ( Measured with 0,1uF MLCC ) .....	Vo 3,3 & 5V .....	75mV p-p max.
	Vo 12V , 15V , ±12V & ±15V.....	100mV p-p max.
Temperature Coefficient .....		±0,03%/°C
Output Short Circuit Protection .....		Continuous ( Hiccup Mode )
Line Regulation (Measured From High Line to Low Line ).....	Single .....	±0,2 % max.
	Dual.....	±0,5 % max.
Load Regulation ( Measured From Full Load to Min. Load ) .....	Single .....	±0,2 % max.
	Dual.....	±1,0 % max.
Cross Regulation ( Dual Output ) .....	Load cross variation 10% / 100% .....	±5 % max.
Over Voltage Protection .....		Zener or TVS Clamp
Current Limit.....		110% - 170% Nominal Output
External Trim Adj. Range .....	Single Output Models Only .....	Option
Start up Time.....		10ms typ.

## GENERAL SPECIFICATIONS:

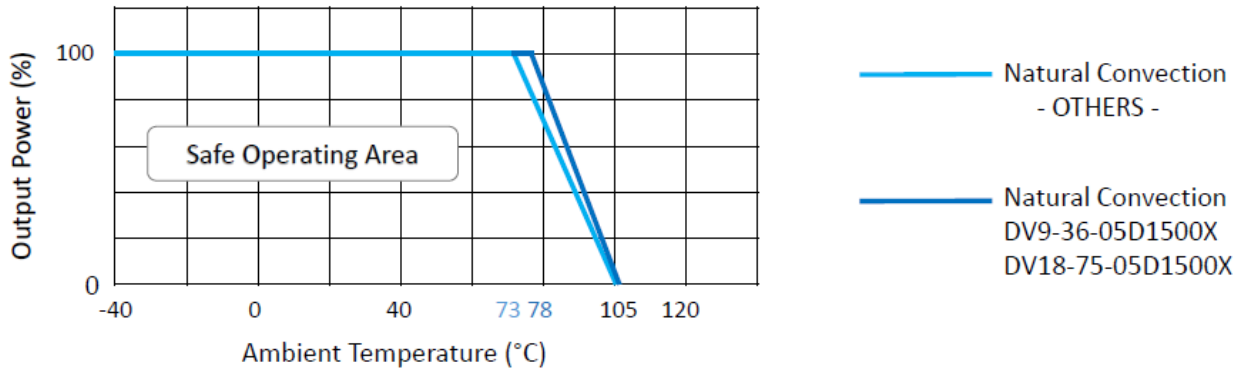
Efficiency.....		See Table
Isolation Voltage Input/Output .....		1500VDC max
Isolation Resistance .....		10 <sup>9</sup> Ohms min.
Isolation Capacitance .....		1000pF typ.
Switching Frequency .....		400KHz, typ.
Operating Ambient Temperature Range .....		-40°C to +85°C
Derating, above 78°C .....		Linearly to Zero Power at +105°C
Case Temperature (Note3).....		105°C max.
Storage Temperature Range .....		-55°C to +125°C
Cooling.....		Natural Convection
Humidity .....		95% RH max. Non condensing
EMI / RFI ( Conductive ) .....		Meet EN55022 Class A
Case Grounding .....		Connect Case to -Vin with Decoupling Y Cap
Safety meets .....		UL60950-1, EN60950-1, IEC60950-1
Dimensions .....		2,00 x 1,00 x 0,40 inches ( 50,8 x 25,4 x 10,2 mm )
Weight.....		35 g
Case Material .....		Black Coated Copper with Non-Conductive Base

## OPTION:

1. **Suffix "R"** to the Model Number with Positive Logic Remote ON/OFF  
 Logic Compatibility .....
 CMOS or Open Collector TTL, Referenced to -Vin |
- Module OFF .....
 <1.2Vdc |
- Module ON .....
 >3.5Vdc to 75Vdc or Open Circuit |
2. **Suffix "T"** to the Model Number with Output Voltage Adjustable.....
 External Trim Adj. Range ≥±10%, Single Output Only |

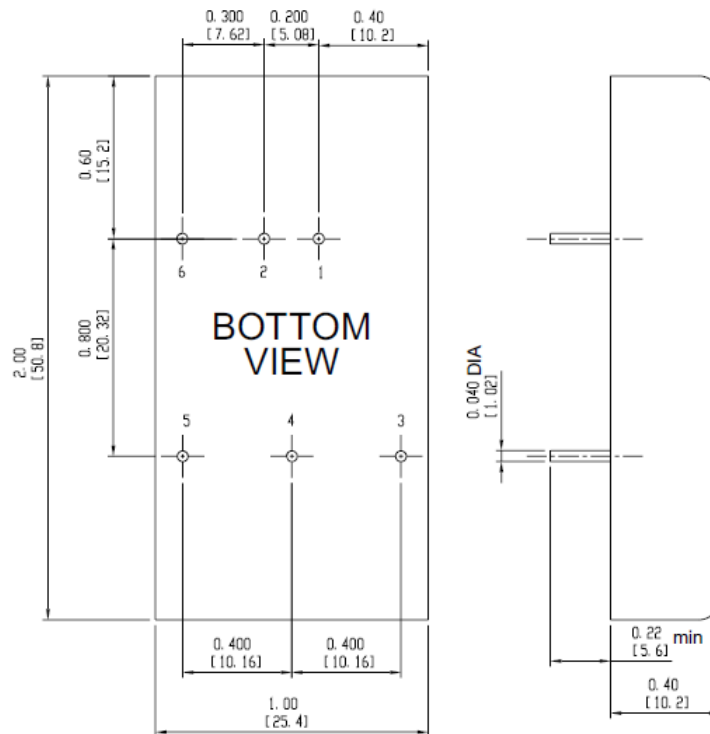
## NOTE:

3. Maximum case temperature under any operating condition should not be exceeded 105°C.



## CASE X

All Dimensions In Inches (mm)  
 Tolerances Inches: X.XX= ±0.04 , X.XXX= ±0.010  
 Millimeters: X.X= ±1 , X.XX=±0.25



PIN CONNECTION		
Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin/(Option Trim)	Common
5	-Vout	-Vout
6	No Pin/(Option Remote ON/OFF)	No Pin/(Option Remote ON/OFF)