



3 Watt Medical DC/DC Converters Series DVE34B-MED



Features

- 3 Watt Isolated Output
- Regulated Outputs
- 4:1 Wide Input Range
- Continuous Short Circuit Protection
- Operating Temperature Range -40°C to +85°C
- Efficiency up to 83%
- Industrial & Medical Safety UL60601-1
- Meet CSA60950-1
- Meet EMI EN55022 Class A (with external coupling capacitor $C_{io}=1nF < EN55022$ Class B)

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT MAX. [mA]	OUTPUT CURRENT MIN. [mA]	INPUT CURRENT NO LOAD [mA]	INPUT CURRENT FULL LOAD [mA]	EFF. TYP. [%]	CAP. LOAD MAX. [µF]	CASE
DVE9-40-05S600BMED	9 – 40	5	600	90	12	157	80	1000	B
DVE9-40-12S250BMED		12	250	37,5	12	151	82	470	
DVE9-40-15S200BMED		15	200	30	12	151	83	470	
DVE9-40-05D300BMED		± 5	±300	±45	12	157	81	470	
DVE9-40-12D125BMED		± 12	±125	±18,8	12	151	82	220	
DVE9-40-15D100BMED		± 15	±100	±15	12	151	83	220	
DVE18-74-05S600BMED	18 – 74	5	600	90	8	79	79	1000	B
DVE18-74-12S250BMED		12	250	37,5	8	76	81	470	
DVE18-74-15S200BMED		15	200	30	8	76	82	470	
DVE18-74-05D300BMED		± 5	±300	±45	8	79	80	470	
DVE18-74-12D125BMED		± 12	±125	±18,8	8	76	82	220	
DVE18-74-15D100BMED		± 15	±100	±15	8	76	82	220	

Note: Nominal Input Voltage: 24 and 48Vdc

INPUT SPECIFICATIONS:

Input Voltage Range	24V	9 to 40VDC
	48V	18 to 74VDC
Power ON/OFF Voltage Range	24V ON	8V min./8,5V typ./9V max.
	24V OFF	8,5V max.
	48V ON	15V min./17V typ./18V max.
	48V OFF	17V max.
Short Circuit Input Power		2000mW
Input Filter		Pi Network
Input Fuse Selection Guide	Vin 24V	1000mA Slow-Blow Type
	Vin 48V	500mA Slow-Blow Type

OUTPUT SPECIFICATIONS:

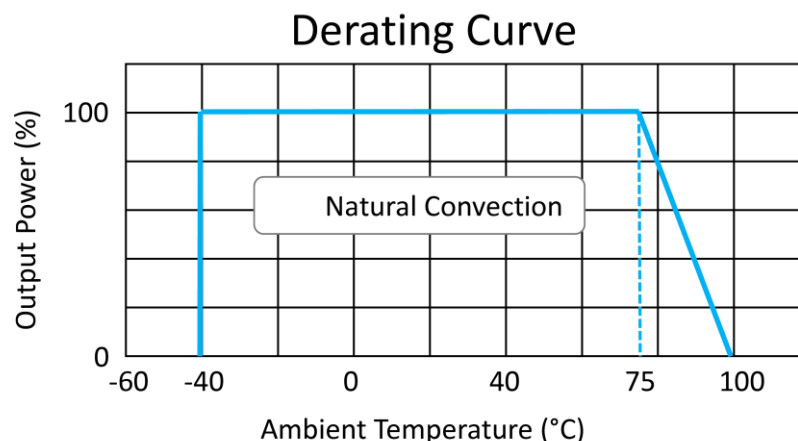
Voltage Accuracy	Vin-Nominal, Max. Load	+/-1,0%max.
Voltage Balance (Dual Output)	Vin Low to Vin High	+/-2,0%max.
Temperature Coefficient		0,02%/°C max.
Ripple and Noise, 20 MHz BW (Note2)	Single Outputs	50mV p-p max.
	Dual Outputs	75mV p-p max.
Short Circuit Protection		Continuous, Auto-Recovery
Line Regulation	From Vin Low to Vin High, Max. Load	±0,5%
Load Regulation	From Full Load to 10% Load, Vin Nominal	±1,0%
Transient Recovery Time	Vin Nominal, 25% Load Step Change	500µsec.
Transient Response Deviation	Vin Nominal, 25% Load Step Change	±6% Vo
Over Power Protection	Vin Low to Vin High	110%Io min.

GENERAL SPECIFICATIONS:

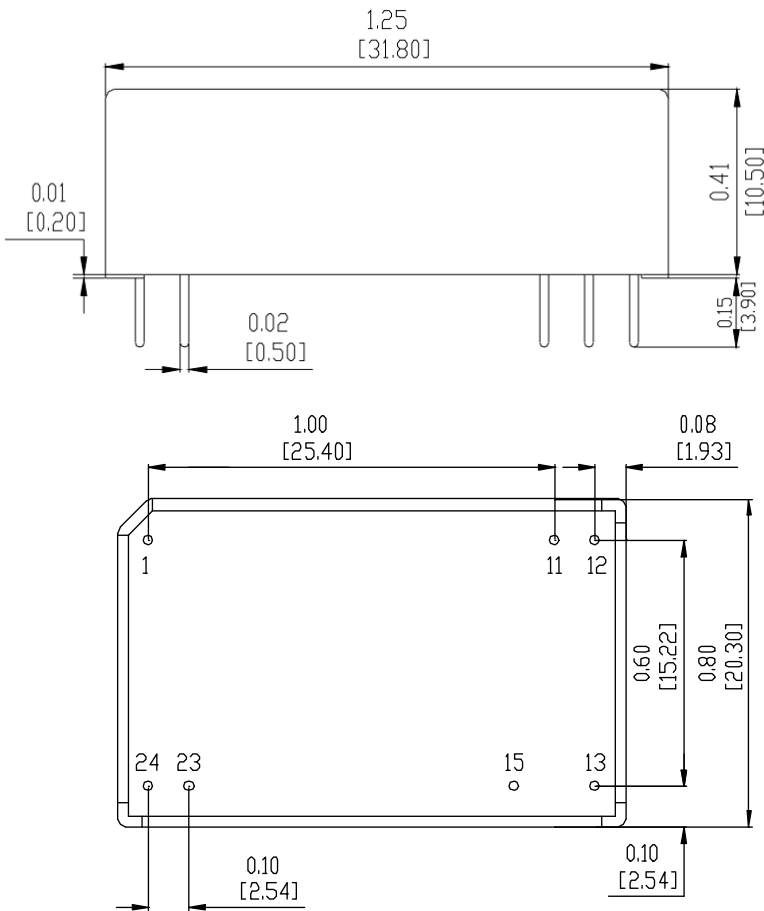
Efficiency		See Table
Isolation Voltage I/O	60sec	5600 VDC min.
Isolation Resistance I/O		1Gohm min.
Isolation Capacitance I/O		13pF max.
Switching Frequency		130KHz typ.
Operating Temperature Range		-40°C to +85°C
Derating above 75°C		Linearly to Zero Power at 100°C
Operating Case Temperature		90°C max.
Cooling		Natural Convection
Storage Temperature Range		-55°C to +125°C
Humidity		95% RH max. Non condensing
MTBF	Vin Nominal, Max. Load, 25°C	1 Mhrs typ.
EMI / RFI (Conductive)	with external coupling cap. Cio=1nF	Meet EN55022 Class B
Dimensions		31,8 x 20,3 x 10,7 mm
Case Material		Non-Conductive Black Plastic (Meets UL94V-0)
Weight		14 g

Note:

1. When Load is lower than Min. Output Current or under No-Load, will not damage these devices, however, it may not meets all specifications.
 2. Output Ripple & Noise Test please use a Cout 0,47µF ceramic capacitor and refers to proposed test-method.
 3. An external fuse is needed at the front end of DC/DC converter for protection and base on surge current and maximum input current when settle it in recommended.
 4. Total Capacitive Load of Output should be lower than this value.
- All Specifications typical at nominal line, constant resistive load between min. and max. output current and probe bandwith should be under 20MHz, Ta=25°C.

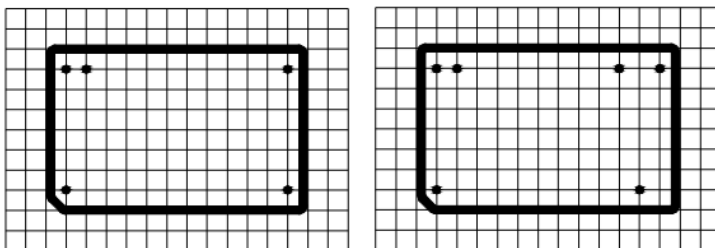


Note: All dimensions in inch [mm]
 Tolerance: XX.X±0.01 [XX.X±0.25] XX.XX±0.01 [XX.XX±0.25]
 Pin pitch tolerance ±0.01 [±0.25]
 Pin dimension tolerance ±0.004 [±0.1]



PIN CONNECTION		
Pin	Single Output	Dual Output
1	+V Input	+V Input
11	NP	Common
12	-Vout	NP
13	+Vout	-Vout
15	NP	+Vout
23	-V Input	-V Input
24	-V Input	-V Input

*NP-NO PIN
 *NC-NO CONNECTION WITH PIN



Single Output

Dual Output

Grid: 0.1 inch / 2.54 mm
 Dot(Drill Hole): Ø0.8 +0.2/-0 mm