



6 Watt Medical DC/DC Converters Series DVE62B-MED



Features

- 6 Watt Isolated Output
- Regulated Outputs
- 2:1 Wide Input Range
- Continuous Short Circuit Protection
- Operating Temperature Range -40°C to +71°C
- Efficiency up to 80%
- Industrial & Medical Safety UL60601-1
- Meet CSA60950-1
- Meet EMI EN55022 Class A (with external coupling capacitor Cio=1nF < EN55022 Class B)

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [mA] MAX.	OUTPUT CURRENT [mA] MIN.	INPUT CURRENT NO LOAD [mA]	INPUT CURRENT FULL LOAD [mA]	EFF. [%] TYP.	CAP. LOAD [μF] MAX.	CASE
DVE9-18-05S1000BMED	9 – 18	5	1000	100	20	549	76	1000	B
DVE9-18-12S500BMED		12	500	50	20	641	78	470	
DVE9-18-15S400BMED		15	400	40	20	641	78	470	
DVE9-18-05D500BMED		± 5	±500	±50	20	549	76	470	
DVE9-18-12D250BMED		± 12	±250	±25	20	641	78	220	
DVE9-18-15D200BMED		± 15	±200	±20	20	641	78	220	
DVE18-36-05S1000BMED	18 – 36	5	1000	100	10	271	77	1000	B
DVE18-36-12S500BMED		12	500	50	10	313	80	470	
DVE18-36-15S400BMED		15	400	40	10	313	80	470	
DVE18-36-05D500BMED		± 5	±500	±50	10	271	77	470	
DVE18-36-12D250BMED		± 12	±250	±25	10	313	80	220	
DVE18-36-15D200BMED		± 15	±200	±20	10	313	80	220	
DVE36-72-05S1000BMED	36 – 72	5	1000	100	5	136	77	1000	B
DVE36-72-12S500BMED		12	500	50	5	156	80	470	
DVE36-72-15S400BMED		15	400	40	5	156	80	470	
DVE36-72-05D500BMED		± 5	±500	±50	5	136	77	470	
DVE36-72-12D250BMED		± 12	±250	±25	5	156	80	220	
DVE36-72-15D200BMED		± 15	±200	±20	5	156	80	220	

Note: Nominal Input Voltage: 12, 24 & 48Vdc

INPUT SPECIFICATIONS:

Input Voltage Range	12V	9 to 18VDC
	24V	18 to 36VDC
	48V	36 to 72VDC
Power ON/OFF Voltage Range	12V ON	7V min./8V typ./9V max.
	12V OFF	8,5V max.
	24V	14V min./16V typ./18V max.
	24V OFF	16V max.
	48V ON	30V min./33V typ./36V max.
	48V OFF	32V max.
Reflected Ripple of Input Current	Vin12V	60mA typ.
	Vin24V	30mA typ.
	Vin48V	15mA typ.
Short Circuit Input Power		2500mW
Input Filter		Pi Network
Input Fuse Selection Guide	Vin 12V	1200mA Slow-Blow Type
	Vin 24V	600mA Slow-Blow Type
	Vin 48V	300mA 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.

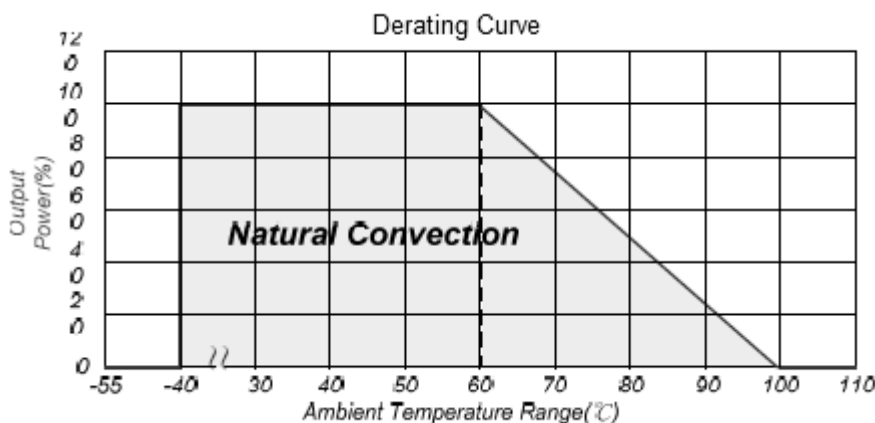
GENERAL SPECIFICATIONS:

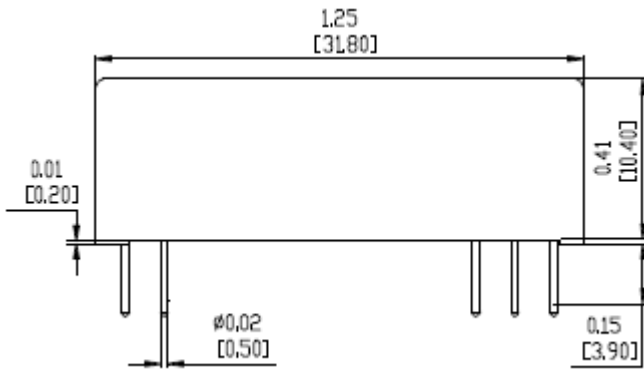
Efficiency		See Table
Isolation Voltage I/O	60sec	5600 VDC min.
Isolation Resistance I/O		1Gohm min.
Isolation Capacitance I/O		13pF max.
Switching Frequency		110KHz min./130KHz typ./150KHz max.
Operating Temperature Range		-40°C to +71°C
Derating above 71°C		Linearly to Zero Power at 100°C
Operating Case Temperature		90°C max.
Cooling		Natural Convection
Storage Temperature Range		-40°C to +125°C
Humidity		95% RH max. Non condensing
MTBF	Vin Nominal, Max. Load, 25°C	1 Mhrs typ.
EMI / RFI (Conductive)		Meet EN55022 Class A
	with external coupling capacitor Cio=1nF<B	Meet EN55022 Class B
Dimensions		(1,25 x 0,80 x 0,41 inches) 31,8 x 20,3 x 10,4 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 meet 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.

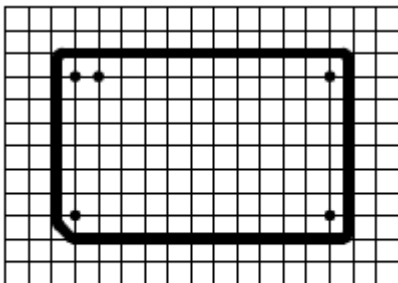
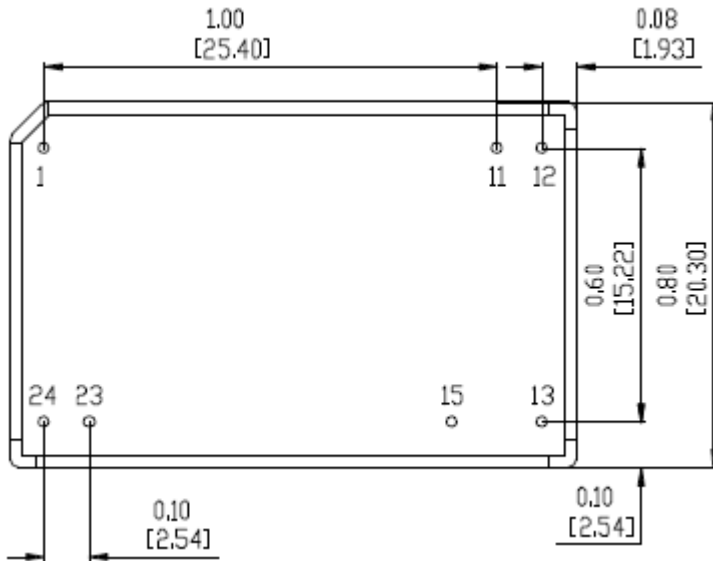
All Specifications typical at nominal line, constant resistive load between min. and max. output current and probe bandwidth should be under 20MHz, Ta=25°C.



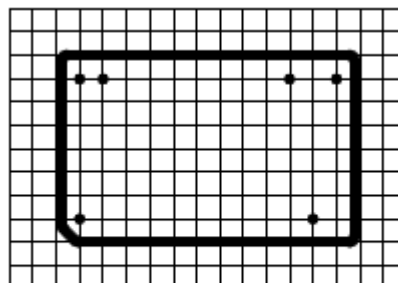


PIN CONNECTION		
Pin	Single Output	Dual Output
1	+V Input	+V Input
11	NP	Common
12	-Vout	NP
13	+Vout	-Vout
15	NP	+Vout
23	-V Input	-V Input
24	-V Input	-V Input

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



Single Output



Dual Output

Grid : 0.1 inch / 2.54 mm
Dot(Drill Hole) : $\phi 0.8 +0.2/-0$ mm

Note:

All dimensions in inch [mm]
Tolerance : XX.X ± 0.01 [XX.X ± 0.25]
 XX.XX ± 0.005 [XX.XX ± 0.13]
Pin pitch tolerance ±0.01 [±0.25]
Pin dimension tolerance ±0.004 [±0.1]