



## 20 Watt, 4:1 Wide Input DC/DC Converters Series DVE204B



### Features

- 20W Isolated Output Regulated
- 4:1 Wide Input Range
- Isolation I/O 1500VDC
- Short Circuit Protection
- OVP / OCP / OTP
- Operating Temperature Range -40°C to +85°C
- Efficiency to 90%
- Remote ON/OFF
- Industry Standard Pinout
- DIP24 Case

MODEL NUMBER	INPUT VOLTAGE [ VDC ]	OUTPUT VOLTAGE [ VDC ] *	OUTPUT CURRENT MAX. [ mA ]	OUTPUT CURRENT MIN. [ mA ]	EFF. TYP. [ % ]	CASE
DVE9-36-05S4000BMHR	9 – 36	5	4000	0	90	DIP24
DVE18-75-05S4000BMHR	18 – 75	5	4000	0	90	

\*Other models on request

Note: Nominal Input Voltage at 18 and 36VDC

**INPUT SPECIFICATIONS:**

Input Voltage Range.....		see table
Start up Voltage.....	18Vin .....	9Vdc max.
	36Vin .....	18VDCmax.
Shut down Voltage .....	18Vin .....	8,5mA max.
	36Vin .....	17mA max.
Input Filter .....		Pi Filter
Remote On/Off Control (Note 6) .....	Modules ON .....	Ctrl open or connect TTL high level (3-15 VDC)
	Modules OFF .....	Ctrl connect -Vin or low level (0-0,8 VDC)
Start up time .....	Nominal Input, 100% Load .....	40ms typ.

**OUTPUT SPECIFICATIONS:**

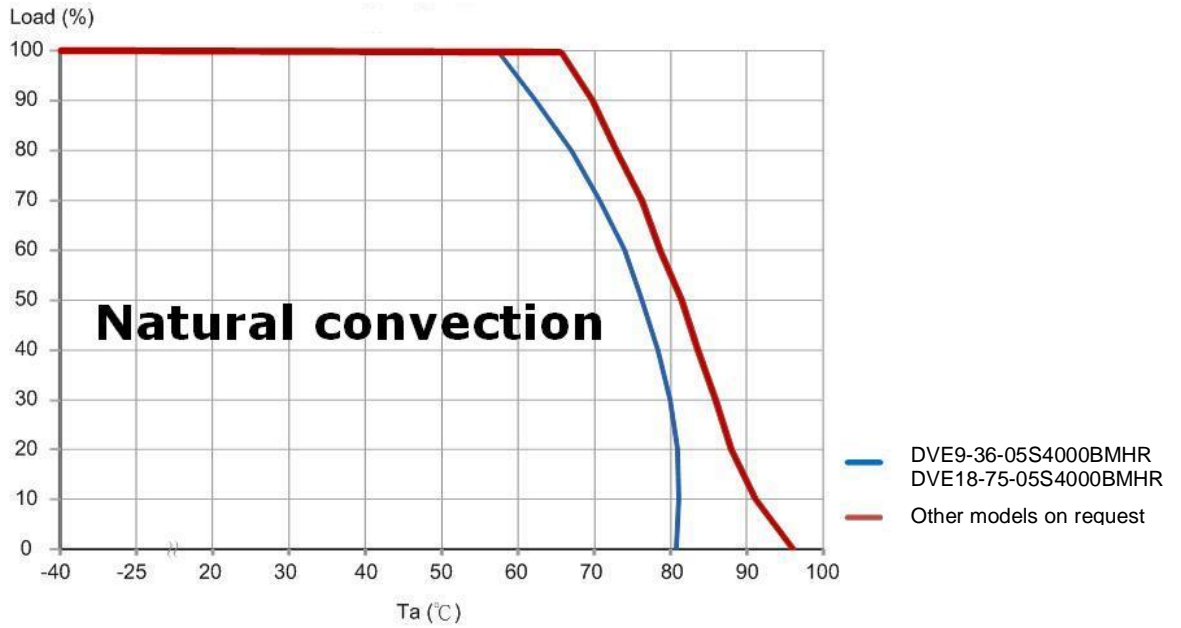
Voltage Accuracy.....		±1,0% max.
Ripple & Noise, 20MHz BW (Note 2).....	10% – 100% Load .....	75mVp-p max.
Ripple & Noise, 20MHz BW (Note 2).....	0 – 10% Load .....	< 100mVp-p max.
Temperature Coefficient.....	Full Load .....	±0,02%/°C max.
Cross Regulation .....	one 100% Load and other 25% to 100% Load .....	±5,0% max.
Line Regulation .....	100% Load .....	±0,3% max.
Load Regulation .....	From 10% to 100% Load .....	±0,5% max.
Short Circuit Protection .....		Hiccup, automatic recovery
Over Temperature Protection .....		115°C
Over Current Protection .....		yes
Over Voltage Protection .....		Zener Clamp
Trim .....		±10% typ.

**GENERAL SPECIFICATIONS:**

Efficiency .....		See Table
Isolation Voltage I/O .....		1500 VDC min.
Isolation Resistance I/O .....		1000 MOhm min.
Switching Frequency .....		400 KHz typ.
Operating Temperature Range .....		-40°C to +85°C
Derating .....		see Derating Curve
Case Temperature .....		100°C max.
Storage Temperature Range .....		-40°C to +125°C
Cooling .....		Free-Air Convection
Lead Temperature (1,5mm from case for 10 seconds) .....		265°C max.
Storage Humidity .....		Non Condensing , 95% max.
MTBF ( MIL-HDBK-217F at 25°C ) .....		1.800.000 hours
Dimension .....		31,80 x 20,30 x 10,20 (mm)
Case Material .....		Anodized Aluminum Case
Base Material.....		Plastic Base (meet UL94V-0)
Weight.....		15g

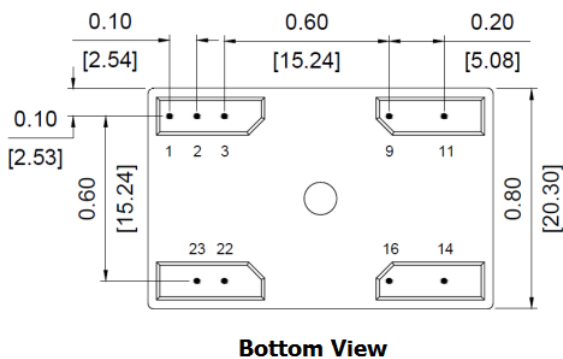
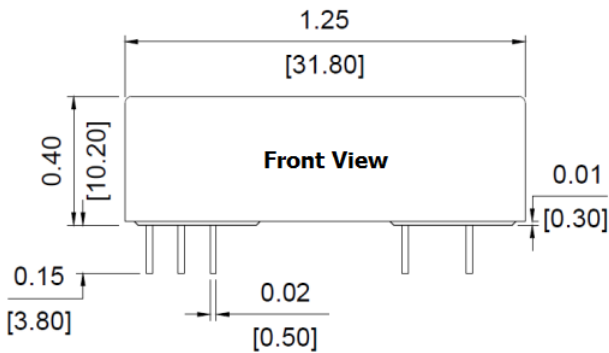
## Note:

- 1) All specifications are measured at nominal input voltage, constant resistive load between Min. and Max. Output current, and probe bandwidth should be under 20MHz, Ta = +25°C.
- 2) If Load is lower than Min. Output Current or no-Load, it will be without damage issue, however, may not meet all specifications.
- 3) An external fuse is needed at the front end of DC/DC converters, it could protect based on surge current and maximum input current , the recommended value of fuse is 4000 mA for 18Vin modules ; 2000mA for 36Vin modules , fuse is Slow-Blow Type.
- 4) Other Input Voltages, Output Voltages and Specifications may be available, please contact us.
- 5) If Ta is under 0°C and Load is less than 10% max. Load, Ripple will be bigger, but less than 100mV, and Output Voltage is steady.
- 6) Control Voltage Reference to Negative Input (-Vin).



**CASE B**

Unit: mm [inch]  
 Pin dimension tolerances:  $\pm 0.10\text{mm}$  [ $\pm 0.004\text{inch}$ ]  
 Pin pitch tolerance:  $\pm 0.25\text{mm}$  [ $\pm 0.01\text{inch}$ ]  
 General tolerances:  $\pm 0.25\text{mm}$  [ $\pm 0.010\text{inch}$ ]



PIN CONNECTION	
Pin	Single
1	Remote
2,3	-Vin
9	NP
11	NC
14	+Vout
16	-Vout
22,23	+Vin