



**10 Watt, 18:1 INPUT
DC/DC Converters
Series DV10B18-72-4KV**



Features

- 10 Watt Isolated Output, Regulated
- 18 : 1 Wide Input Range
- Isolation I/O 4200Vdc
- Fixed Switching Frequency
- Remote ON/OFF
- DIP24 Metal Package
- Meets IEC62368-1
- Meets EN50155 (with external filter)
- Efficiency to 87%
- Continuous Short Circuit Protection
- Protection OCP / OVP / UVLO
- Operating Case Temperature -40 to +100°C
- Low No Load Power Consumption
- Shock & Vibration EN50155 (EN61373)
- Meets UL62368-1 (Reinforce Insulation)
- Meets Fire & Smoke EN45545-2

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [mA] MAX.	INPUT CURRENT NO LOAD [mA]	INPUT CURRENT FULL LOAD [mA]	EFF. [%] (Note (1))	EFF. [%] (Note (2))	CAP. LOAD Max. [μ F]	CASE
DV10B18-72S05-4KV	8,5-160	5	2000	6	163	83	82	2000	B
DV10B18-72S12-4KV		12	835	8	161	87	86	835	
DV10B18-72S15-4KV		15	666	8	161	86	85	666	
DV10B18-72D05-4KV		± 5	± 1000	8	169	82	80	1000	
DV10B18-72D12-4KV		± 12	± 416	8	163	85	84	416	
DV10B18-72D15-4KV		± 15	± 333	8	163	85	84	333	

NOTE:

1. Nominal Input Voltage 72 VDC.
2. Measured at 110V_{in}
3. To meet EN50155 and RIA12 refer to application note.

INPUT SPECIFICATIONS:

Input Voltage Range.....	72V	8,5-160Vdc
Input Surge Voltage.....	100ms max.	200Vdc max.
Input Under Voltage Lockout	80% Load, Turn-On Voltage	9V typ.
	80% Load, Turn-Off Voltage	7,5V typ.
	100% Load, Lockout Hysteresis Voltage	1,5V typ.
Maximum Input Current.....	Vin=12V at Full Load, Vin 8,5V at 80% Load	1,2A max.
Inrush Current.....		0,1 A ² s max.
Input Reflected Ripple Current....	P-P thru 12uH inductor, 5Hz to 20MHz.	30mA typ.
Input Filter		LC Type
Positive Logic Remote On/Off, Refer to -Vin pin.		
Logic Low (Module Off)	Von/off at Ion/off=1.0mA	0 to 1.2V
Logic High (Module On)	Von/off at Ion/off=0.0uA, Pin open=On	Open Circuit or 3,5V to 160V
On/Off Current (for both remote on/off logic).....	Ion/off at Von/off=0V	1mA max.
Leakage Current (both remote on/off logic).....	Logic High, Von/off=15V	30uA max.
Off Converter Input Current	Shutdown input idle current	5mA max.

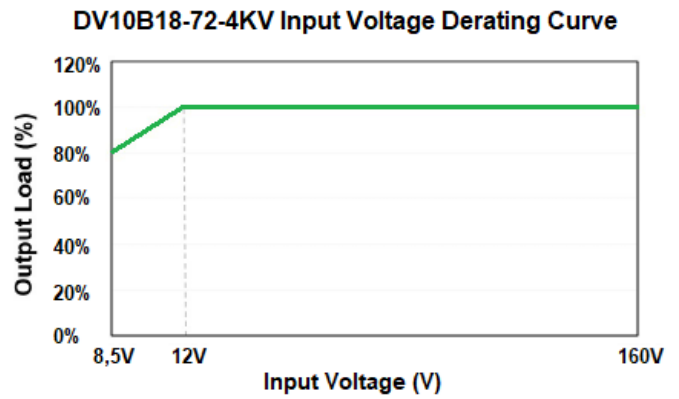
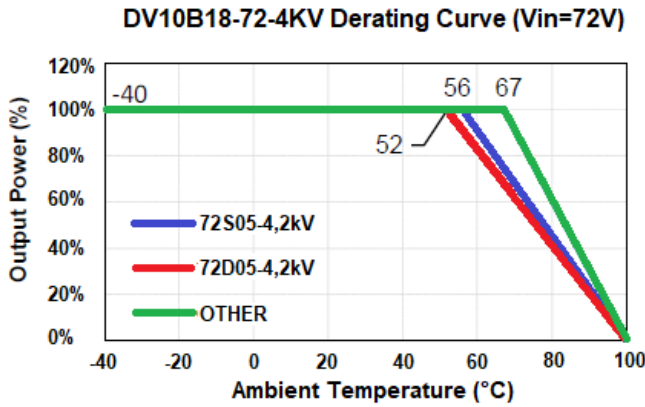
OUTPUT SPECIFICATION:

Voltage Accuracy.....	Vin=72V, Full Load, Tc=25°C	±1,0%max.
Line Regulation.....	Vin High Line to Low Line, Full Load	±0,2% max.
Load Regulation	Full Load to No Load, Single	±0,5% max.
	Full Load to No Load, Dual	±1,0% max.
Cross Regulation	Load Cross Variation 25%/100%, Dual	±5,0%max.
Temperature Coefficient.....	Tc=-40°C to 85°C	±0,02%/°C max.
Ripple and Noise (5Hz to 20 MHz BW)	(Note 4)	40mV RMS / 100mV pk-pk max.
Current Current Protection	Hiccup Mode, Auto Recovery	110%-180%
Short Circuit Protection		Continuous, Auto Recovery
Over Voltage Protection		Zener Clamp
Output Voltage Current Transient: 75% to 100% Step Load Change (within 1% Vout nominal)		
Error Band		±5% max.
Recover Time		250µ sec. max.
Output Voltage Rise Time	10%Vo_set to 90%Vo_set	10ms typ.

GENERAL SPECIFICATIONS:

Efficiency		See Table
Isolation Voltage	1 minute; Input to Output	3000Vac / 4200VDC max.
Isolation Resistance	Input to Output	1000 MΩ min.
Isolation Capacitance	Input to Output (10KHz, 0.25V)	15pF typ.
Switching Frequency		255 KHz typ.
Operating Case Temperature	At the Center Part of Case Plate	-40°C to +100°C
Storage Temperature		-55°C to +125°C
MTBF	Io=100% of Io_max; MIL-HDBK - 217F_Notice 1, GB, 25°C	TBD Khours typ.
Shock/Vibration		MIL-STD-810F/EN61373 Compliant
Thermal Shock		MIL-STD-810F
Fire & Smoke		EN45545-2 Compliant
Humidity		95% RH max. Non condensing
Altitude		3000m Operating Altitude
EMI		Meets EN55032 Class A & EN50155 (with external filter)
Dimensions		31,8x20,3x12,7 (mm)
Potting Material.....		UL 94-V0
Case Material		Plastic (UL 94-V0)
Weight.....		TBD g typ.

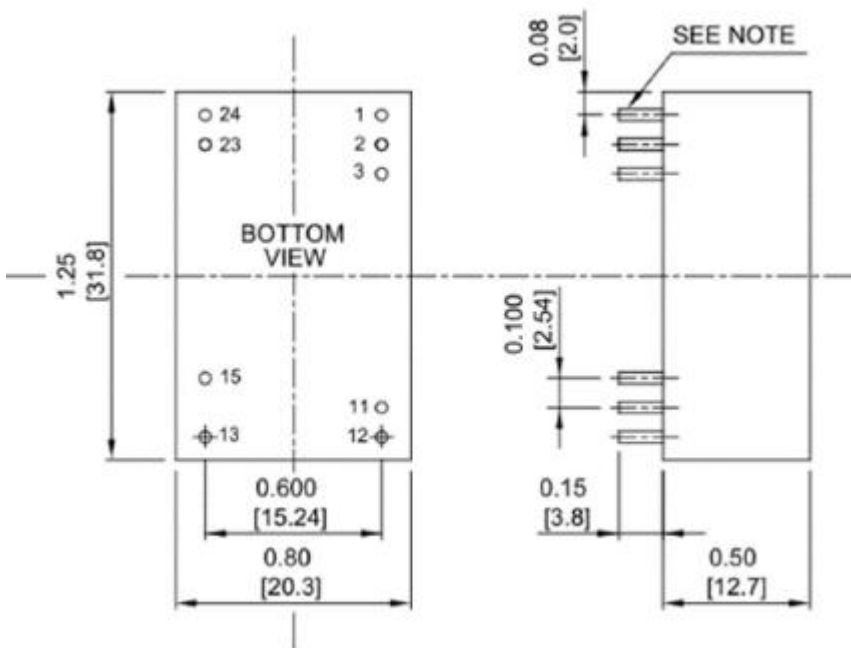
NOTE: 4. Full load, 1.0uF ceramic capacitors
All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted.



Case Dimensions

Series DV10B18-72-4KV

Pin Size is 0.02±0.002 Inch (0.5±0.05 mm)DIA
 All Dimensions In Inches (mm)
 Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010
 Millimeters: X.X= ±0.5 , X.XX=±0.25



Pin	Connection Single	Connection Dual
1	+V Input	+V Input
2	+V Input	+V Input
3	Remote ON/OFF	Remote ON/OFF
11	NP	Common
12	-V Output	NP
13	+V Output	-V Output
15	NP	+V Input
23	-V Input	-V Input
24	-V Input	-V Input

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