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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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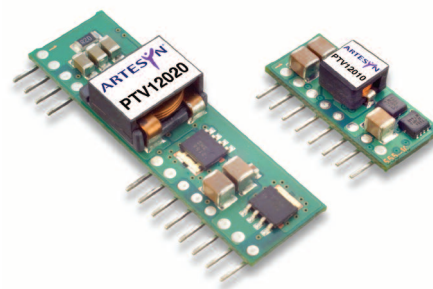
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- 8 A output current
- 3.3 V input voltage
- Wide-output voltage adjust (0.8 Vdc to 2.5 Vdc)
- Auto-track™ sequencing*
- Pre-bias start-up
- Efficiencies up to 93%
- Output ON/OFF inhibit
- Vertical through-hole mounting
- Point-of-Load-Alliance (POLA) compatible
- Undervoltage lockout
- Available RoHS compliant

NEW Product



The PTV03010 is a non-isolated dc-dc converter from Artesyn under the Point of Load Alliance (POLA) standard. The vertical mounting option of the PTV03010 module provides performance in less than 20% of the space that is required by alternative solutions. The Auto-Track™ feature provides for sequencing between multiple modules, a function, which is becoming a necessity for powering advanced silicon including DSP's, FPGA's and ASIC's requiring controlled power-up and power-down. The PTV03010 has an input voltage of 2.95 Vdc to 3.65 Vdc and offers a wide 0.8 Vdc to 2.5 Vdc output voltage range with up to 8 A output current, which allows for maximum design flexibility and a pathway for future upgrades.



2 YEAR WARRANTY

All specifications are typical at nominal input, full load at 25 °C unless otherwise stated
 $C_{in} = 100 \mu F$ and $10 \mu F$ (Ceramic), $C_{out} = 0 \mu F$

SPECIFICATIONS

OUTPUT SPECIFICATIONS

Voltage adjustability	(See Note 4)	0.8-2.5 Vdc
Setpoint accuracy	(See Note 8)	±2.0% Vo
Line regulation		±5 mV typ.
Load regulation		±5 mV typ.
Total regulation	(See Note 8)	±3.0% Vo
Minimum load		0 A
Ripple and noise	20 MHz bandwidth	20 mV pk-pk
Temperature co-efficient	-40 °C to +85 °C	±0.5% Vo
Transient response (See Note 5)	70 µs recovery time Overshoot/undershoot 100 mV	

INPUT SPECIFICATIONS

Input voltage range	(See Note 3)	2.95-3.65 Vdc
Input standby current		10 mA typ.
Remote ON/OFF	(See Note 1)	Positive logic
Undervoltage lockout	(Increasing)	2.45 V typ.
Track input current	Pin 5 (See Note 6, 7)	-0.13 mA

EMC CHARACTERISTICS

Electrostatic discharge	EN61000-4-2, IEC801-2
Conducted immunity	EN61000-4-6
Radiated immunity	EN61000-4-3

GENERAL SPECIFICATIONS

Efficiency	(See Efficiency Table)	93% max.
Insulation voltage		Non-isolated
Switching frequency	550-650 kHz	600 kHz typ.
Approvals and standards		EN60950 UL/cUL60950
Material flammability		UL94V-0
Dimensions	(L x W x H)	22.86 x 8.38 x 10.16 mm 0.90 x 0.330 x 0.400 in
Weight		2.5 g (0.09 oz)
MTBF	Telcordia SR-332	5,000,000 hours

ENVIRONMENTAL SPECIFICATIONS

Thermal performance (See Note 2)	Operating ambient, temperature Non-operating	-40 °C to +85 °C -40 °C to +125 °C
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PROTECTION

Overcurrent	Auto reset	16 A typ.
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International Safety Standard Approvals



UL/cUL CAN/CSA-C22.2 No. 60950
File No. E174104

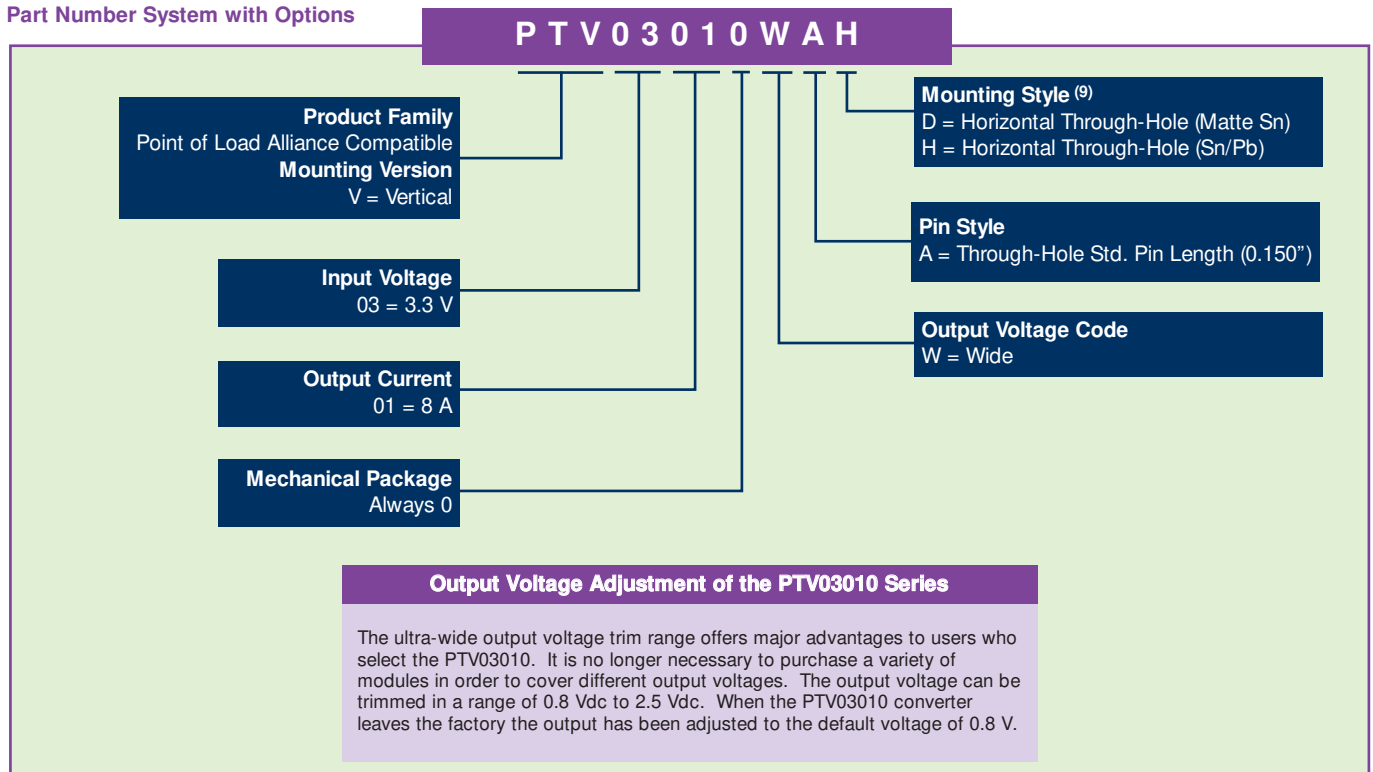


TÜV Product Service (EN60950) Certificate No. B 04 06 38572 044
CB Report and Certificate to IEC60950, Certificate No.
US/8292/UL

*Auto-track™ is a trade mark of
Texas Instruments

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.) (2)	EFFICIENCY (MAX.)	REGULATION		MODEL NUMBER (9,10)
						LINE	LOAD	
20 W	2.95-3.65 Vdc	0.8-2.5 Vdc	0 A	8 A	93%	±5 mV	±5 mV	PTV03010W

Part Number System with Options



Notes

- Remote ON/OFF: Positive logic
ON: Pin 7 open; or $V > (V_{in} - 0.5 \text{ V})$
OFF: Pin 7 GND; or $V < 0.6 \text{ V}$.
- See Figure 1 for safe operating curve.
- A 100 μF electrolytic input capacitor is required for proper operation as well as a 10 μF high-frequency ceramic capacitor. The electrolytic capacitor must be rated for a minimum of 300 mArms of ripple current.
- An external output capacitor is not required for basic operation. Adding 100 μF of distributed capacitance at the load will improve the transient response.
- 1A/ μs load step, 50 to 100% $I_{O\text{MAX}}$, $C3 = 100 \mu\text{F}$.
- If utilized V_{out} will track applied voltage by $\pm 0.3 \text{ V}$ (up to V_o set point).
- The pre-bias start-up feature is not compatible with Auto-Track™. This is because when the module is under Auto-Track™ control, it is fully active and will sink current if the output voltage is below that of a back-feeding source. Therefore to ensure a pre-bias hold-off, one of the following two techniques must be followed when input power is first applied to the module. The Auto-Track™ function must either be disabled, or the module's output held off using the Inhibit pin. Refer to Application Note 194 for more details.
- The set-point voltage tolerance is affected by the tolerance and stability of R_{set} . The stated limit is unconditionally met if R_{set} has a tolerance of 1% with 100/°C or better temperature stability.
- To order Pb-free (RoHS compatible) through-hole parts replace the mounting option 'H' with 'D', e.g. PTV03010WAD.
- NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.

EFFICIENCY TABLE ($I_O = I_{O\text{MAX}}$)	
OUTPUT VOLTAGE	EFFICIENCY
$V_o = 2.5 \text{ V}$	93
$V_o = 1.8 \text{ V}$	90
$V_o = 1.5 \text{ V}$	89
$V_o = 1.2 \text{ V}$	87
$V_o = 1.0 \text{ V}$	85

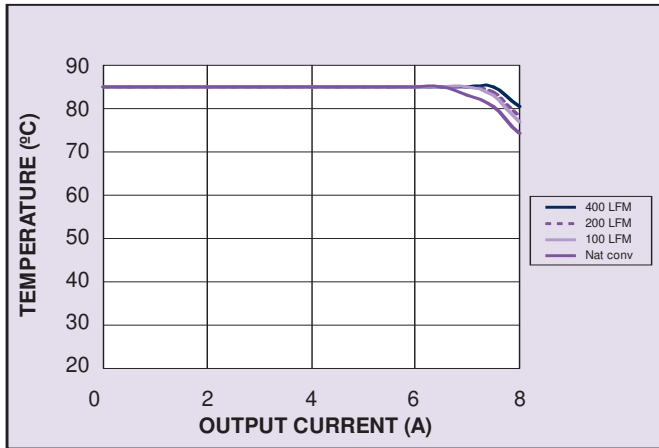


Figure 1 - Safe Operating Area
Vin = 3.3 V, Output Voltage = 2.5 V (See Note A)

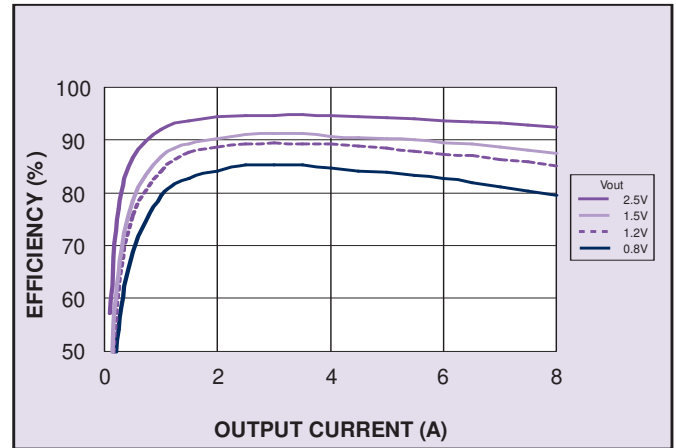


Figure 2 - Efficiency vs Load Current
Vin = 3.3 V (See Note B)

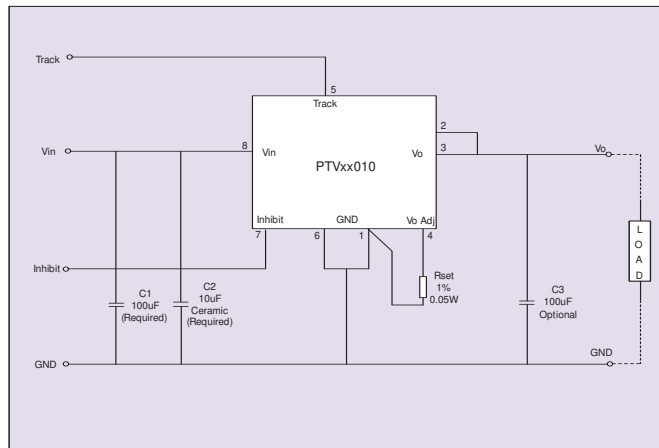


Figure 3 - Standard Application

Notes

- A** SOA curves represent the conditions at which internal components are within the Artesyn derating guidelines.
- B** Characteristic data has been developed from actual products tested at 25 °C. This data is considered typical data for the converter.

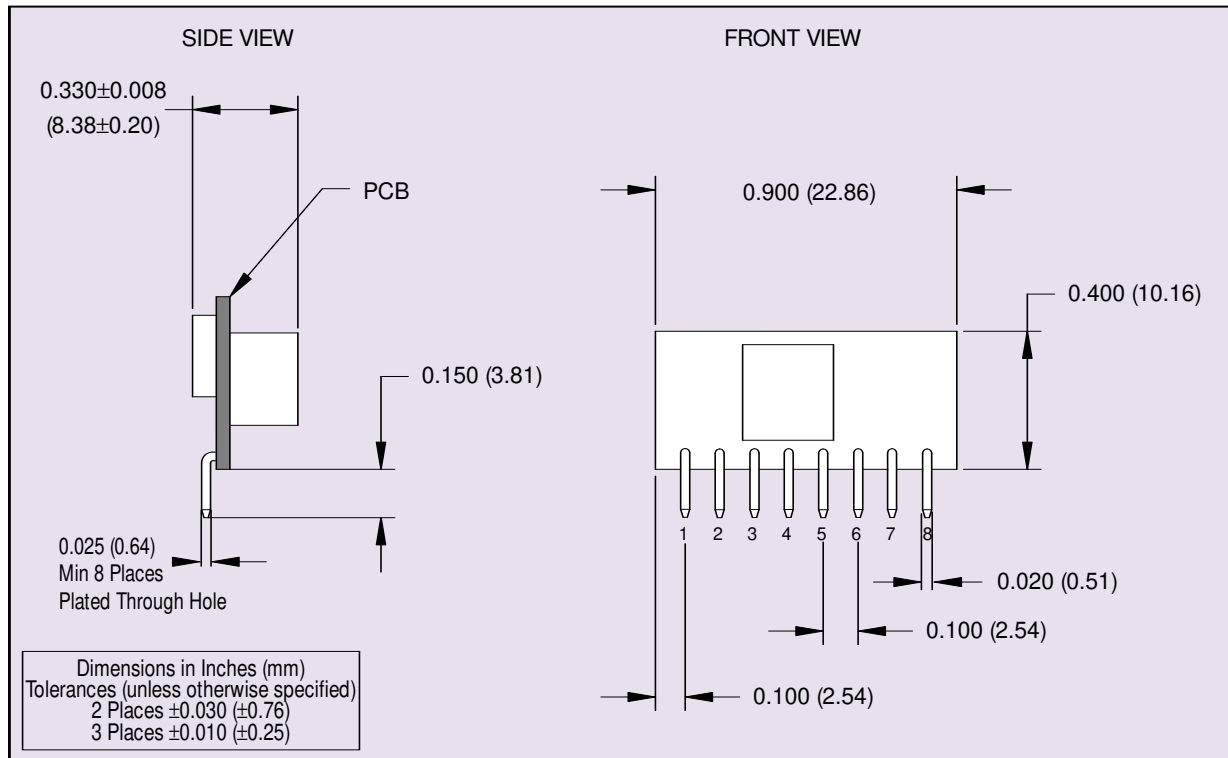


Figure 4 - Mechanical Drawing

PIN CONNECTIONS	
PIN NO.	FUNCTION
1	Ground
2	Vout
3	Vout
4	Vo Adjust
5	Track
6	Ground
7	Inhibit
8	Vin