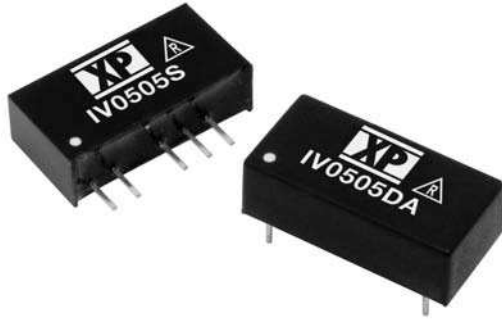


1 Watt IV Series



- Single & Dual Output
- SIP or DIP Package
- 3000 VDC Isolation
- Optional 4000 & 6000 VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >1.1 Mhrs
- 3 Year Warranty

Specification

Input

- Input Voltage Range** • Nominal $\pm 10\%$ ⁽³⁾
- Input Reflected** • 20 mA pk-pk through 12 μ H, 5 Hz to 20 MHz
- Ripple Current**
- Input Reverse Voltage Protection** • None
- Input Filter** • Capacitor

Output

- Output Voltage** • See table
- Minimum Load** • None⁽⁴⁾
- Line Regulation** • 1.2%/1% Δ Vin
- Load Regulation** • $\pm 10\%$ 20-100% load change (3.3 V models $\pm 20\%$)
- Setpoint Accuracy** • $\pm 3\%$
- Ripple & Noise** • 75 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient** • 0.02%/°C
- Maximum Capacitive Load** • Dual: $\pm 100 \mu$ F, Single: 220 μ F

General

- Efficiency** • See table
- Isolation Voltage** • 3000 VDC⁽⁶⁾
- Isolation Resistance** • $10^9 \Omega$
- Isolation Capacitance** • 60 pF typical
- Switching Frequency** • Variable, 80 KHz typical
- MTBF** • >1.1 Mhrs to MIL-HDBK-217F at 25 °C, GB

Environmental

- Operating Temperature** • -40 °C to +85 °C
- Storage Temperature** • -40 °C to +125 °C
- Case Temperature** • 100 °C max
- Cooling** • Convection-cooled

Notes

1. For dual output, delete suffix 'A', and split current equally between rails.
2. For DIP package, replace 'S' in part number with 'D'.
3. For 48 V nominal input, a 4.7-47 μ F capacitor is required across the input.
4. Operation at no load will not damage unit but it may not meet all specifications.
5. 48 V model dimension is 0.28 (7.20).
6. For 4000 VDC Isolation, add suffix '-H4'. For 6000 VDC Isolation, add suffix '-H6'.
7. All dimensions in inches (mm).
8. Pin pitch tolerance: ± 0.014 (± 0.35)
9. Case tolerance: ± 0.02 (± 0.5)
10. Weight: SIP 0.006 lbs (2.6 g), DIP 0.005 lbs (2.3 g)

Input Voltage ⁽⁵⁾	No Load Input Current	Output Voltage	Output Current	Efficiency	Model Number ^(1,2)
5 VDC	30 mA	3.3 V	300 mA	75%	IV0503SA [^]
	30 mA	5.0 V	200 mA	78%	IV0505SA ^{†^}
	30 mA	9.0 V	112 mA	75%	IV0509SA [^]
	30 mA	12.0 V	84 mA	76%	IV0512SA ^{†^}
	30 mA	15.0 V	66 mA	76%	IV0515SA ^{†^}
12 VDC	20 mA	3.3 V	300 mA	74%	IV1203SA [^]
	20 mA	5.0 V	200 mA	74%	IV1205SA ^{†^}
	20 mA	9.0 V	112 mA	75%	IV1209SA [^]
	20 mA	12.0 V	84 mA	77%	IV1212SA ^{†^}
	20 mA	15.0 V	66 mA	78%	IV1215SA ^{†^}
24 VDC	10 mA	3.3 V	300 mA	75%	IV2403SA [^]
	10 mA	5.0 V	200 mA	77%	IV2405SA [^]
	10 mA	9.0 V	112 mA	75%	IV2409SA [^]
	10 mA	12.0 V	84 mA	78%	IV2412SA [^]
	10 mA	15.0 V	66 mA	78%	IV2415SA [^]
48 VDC	6 mA	3.3 V	300 mA	72%	IV4803SA
	6 mA	5.0 V	200 mA	72%	IV4805SA
	6 mA	9.0 V	112 mA	74%	IV4809SA
	6 mA	12.0 V	84 mA	75%	IV4812SA
	6 mA	15.0 V	66 mA	75%	IV4815SA
		24.0 V	42 mA	70%	IV4824SA

[†] Available from Farnell & element14. See pages 284-290.

[^] Available from Newark. See pages 291-296.

Mechanical Details

