

IA Series



- Dual Output
- SIP Package
- DIP Package
- 1000 VDC Isolation
- Short Circuit Protection
- -40 °C to +85 °C Operation
- Industry Standard Pinout

Specification

Input

Input Voltage Range	• Nominal $\pm 10\%$
Input Current (no load)	• See table
Input Reflected Ripple	• 200 mV pk-pk
Input Reverse Voltage Protection	• None

Output

Output Voltage	• See table
Minimum Load	• None
Line Regulation	• 1.2%/1% ΔV_{in}
Load Regulation	• $\pm 8\%$ 20-80% load change
Setpoint Accuracy	• $\pm 5\%$
Ripple & Noise	• 75 mV pk-pk 20 MHz bandwidth
Temperature Coefficient	• 0.02%/°C
Short Circuit Protection	• 1 s max
Maximum Capacitive Load	• $\pm 100 \mu\text{F}$

General

Efficiency	• See table
Isolation Voltage	• 1000 VDC minimum
Isolation Resistance	• $10^9 \Omega$
Isolation Capacitance	• 60 pF typical
Switching Frequency	• 80 kHz typical

Environmental

Operating Temperature	• -40 to +85 °C
Storage Temperature	• -40 to +125 °C
Case Temperature	• 100 °C max
Cooling	• Free-air convection

Notes

1. SIP 48Vin models, dimension is 0.29 (7.37) max.
2. Replace 'S' in model number with 'D' for DIP package.
3. Outputs power-trade.
4. All dimensions in inches (mm).
5. For 48V models a 10 μF capacitor is required between Vcc and GND pins

Input Voltage	No Load Input Current	Output Voltage	Output Current ⁽³⁾	Efficiency	Model Number ⁽²⁾
3.3 VDC	25 mA	$\pm 5.0 \text{ V}$	$\pm 100 \text{ mA}$	70%	IA0305S
5 VDC	25 mA	$\pm 3.3 \text{ V}$	$\pm 151 \text{ mA}$	65%	IA0503S
	25 mA	$\pm 5.0 \text{ V}$	$\pm 100 \text{ mA}$	70%	IA0505S†
	25 mA	$\pm 9.0 \text{ V}$	$\pm 55 \text{ mA}$	70%	IA0509S†
	25 mA	$\pm 12.0 \text{ V}$	$\pm 42 \text{ mA}$	76%	IA0512S†
	25 mA	$\pm 15.0 \text{ V}$	$\pm 33 \text{ mA}$	78%	IA0515S†
	25 mA	$\pm 24.0 \text{ V}$	$\pm 21 \text{ mA}$	78%	IA0524S
12 VDC	17 mA	$\pm 3.3 \text{ V}$	$\pm 151 \text{ mA}$	70%	IA1203S
	17 mA	$\pm 5.0 \text{ V}$	$\pm 100 \text{ mA}$	70%	IA1205S†
	17 mA	$\pm 9.0 \text{ V}$	$\pm 55 \text{ mA}$	78%	IA1209S†
	17 mA	$\pm 12.0 \text{ V}$	$\pm 42 \text{ mA}$	78%	IA1212S†
	17 mA	$\pm 15.0 \text{ V}$	$\pm 33 \text{ mA}$	80%	IA1215S†
	17 mA	$\pm 24.0 \text{ V}$	$\pm 21 \text{ mA}$	80%	IA1224S
24 VDC	9 mA	$\pm 3.3 \text{ V}$	$\pm 151 \text{ mA}$	68%	IA2403S
	9 mA	$\pm 5.0 \text{ V}$	$\pm 100 \text{ mA}$	74%	IA2405S†
	9 mA	$\pm 9.0 \text{ V}$	$\pm 55 \text{ mA}$	76%	IA2409S
	9 mA	$\pm 12.0 \text{ V}$	$\pm 42 \text{ mA}$	76%	IA2412S†
	9 mA	$\pm 15.0 \text{ V}$	$\pm 33 \text{ mA}$	78%	IA2415S†
	9 mA	$\pm 24.0 \text{ V}$	$\pm 21 \text{ mA}$	80%	IA2424S
48 VDC	6 mA	$\pm 3.3 \text{ V}$	$\pm 151 \text{ mA}$	65%	IA4803S
	6 mA	$\pm 5.0 \text{ V}$	$\pm 100 \text{ mA}$	70%	IA4805S†
	6 mA	$\pm 9.0 \text{ V}$	$\pm 55 \text{ mA}$	70%	IA4809S
	6 mA	$\pm 12.0 \text{ V}$	$\pm 42 \text{ mA}$	71%	IA4812S†
	6 mA	$\pm 15.0 \text{ V}$	$\pm 33 \text{ mA}$	72%	IA4815S
	6 mA	$\pm 24.0 \text{ V}$	$\pm 21 \text{ mA}$	72%	IA4824S

† Available from Farnell InOne. See pages 236-237

Mechanical Details

