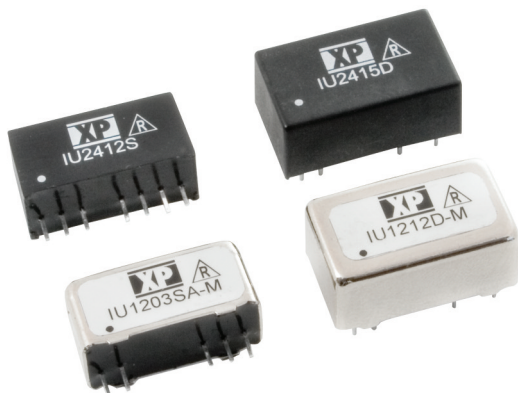


# 2 Watts IU Series



- Regulated Single & Dual Output
- Wide 2:1 Input Range
- SIP or DIP Package
- 1000 VDC Isolation (Optional 3000 VDC)
- Optional Metal Case
- Continuous Short Circuit Protection
- 3 Year Warranty

## Specification

### Input

- Input Voltage Range • See table
- Input Reflected Ripple Current • 35 mA pk-pk through 12  $\mu$ H inductor, 5-20 MHz
- Input Filter • Capacitor

### Output

- Output Voltage • See table
- Minimum Load • None<sup>(6)</sup>
- Line Regulation •  $\pm 0.5\%$
- Load Regulation •  $\pm 1\%$  for a 25-100% load change<sup>(7)</sup>
- Setpoint Accuracy •  $\pm 2\%$
- Cross Regulation •  $\pm 5\%$  on dual output models
- Ripple & Noise • 80 mV pk-pk max, 20 MHz bandwidth<sup>(8)</sup>
- Short Circuit Protection • Continuous with auto recovery (foldback)
- Max Capacitive Load • See table
- Remote On/Off • Optional on SIP package model<sup>(9)</sup>
- Temperature Coefficient • 0.02%/C

### General

- Efficiency • See table
- Isolation Voltage • 1000 VDC, Optional 3000 VDC<sup>(2)</sup>
- Isolation Resistance •  $10^9 \Omega$
- Isolation Capacitance • 60 pF
- Switching Frequency • 100-650 kHz
- MTBF • >1.61 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 inline package replace 'S' in model number with 'D'.
2. For optional 3 kV isolation add suffix '-H' to the model number.
3. For dual output delete suffix 'A' & split output current equally between rails.
4. For optional Remote On/Off on SIP models, add suffix '-R' to model number. Applying 5 V via 1 k  $\Omega$  current limiting resistor and diode turns output off.
5. For optional metal case, add suffix '-M' to model number.
6. Output capacitor of 100  $\mu$ F required to meet quoted ripple & noise.
7. Minimum load of 25% required to meet load regulation & ripple & noise specifications.
8. Operation at no load will not damage device but may not meet all specifications.
9. Pin pitch tolerance:  $\pm 0.014$  ( $\pm 0.35$ ), Case tolerance:  $\pm 0.02$  ( $\pm 0.5$ )
10. Weight: SIP 0.009 lbs (4.0 g), DIP 0.013 lbs (6.0 g), Metal case weight: SIP 0.014 lbs (6.5 g), DIP 0.017 lbs (8.0 g), consult sales for drawing

Input Voltage	No Load Input Current	Output Voltage <sup>(3)</sup>	Output Current	Max. Capacitive Load	Efficiency	Model Number (1-5)
4.5-9.0 V	15 mA	3.3 V	500 mA	3300 $\mu$ F	67%	IU0503SA†^
	15 mA	5.0 V	400 mA	3300 $\mu$ F	70%	IU0505SA†^
	30 mA	9.0 V	222 mA	470 $\mu$ F	72%	IU0509SA†^
	30 mA	12.0 V	167 mA	470 $\mu$ F	72%	IU0512SA†^
	30 mA	15.0 V	133 mA	470 $\mu$ F	73%	IU0515SA†^
	60 mA	24.0 V	83 mA	220 $\mu$ F	75%	IU0524SA†^
9.0-18.0 V	15 mA	3.3 V	500 mA	3300 $\mu$ F	67%	IU1203SA†^
	15 mA	5.0 V	400 mA	3300 $\mu$ F	77%	IU1205SA†^
	15 mA	9.0 V	222 mA	470 $\mu$ F	78%	IU1209SA†^
	15 mA	12.0 V	167 mA	470 $\mu$ F	80%	IU1212SA†^
	15 mA	15.0 V	133 mA	470 $\mu$ F	78%	IU1215SA†^
	15 mA	24.0 V	83 mA	220 $\mu$ F	80%	IU1224SA†^
18.0-36.0 V	8 mA	3.3 V	500 mA	3300 $\mu$ F	70%	IU2403SA†^
	8 mA	5.0 V	400 mA	3300 $\mu$ F	77%	IU2405SA†^
	8 mA	9.0 V	222 mA	470 $\mu$ F	80%	IU2409SA†^
	8 mA	12.0 V	167 mA	470 $\mu$ F	80%	IU2412SA†^
	8 mA	15.0 V	133 mA	470 $\mu$ F	80%	IU2415SA†^
	8 mA	24.0 V	83 mA	220 $\mu$ F	80%	IU2424SA†^
36.0-72.0 V	6 mA	3.3 V	500 mA	3300 $\mu$ F	71%	IU4803SA†^
	6 mA	5.0 V	400 mA	3300 $\mu$ F	74%	IU4805SA†^
	6 mA	9.0 V	222 mA	470 $\mu$ F	78%	IU4809SA†^
	6 mA	12.0 V	167 mA	470 $\mu$ F	78%	IU4812SA†^
	6 mA	15.0 V	133 mA	470 $\mu$ F	78%	IU4815SA†^
	6 mA	24.0 V	83 mA	220 $\mu$ F	80%	IU4824SA†^

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

^ Available from Newark. See pages 291-296.

### Mechanical Details

