

## 2 Watts IU Series

 xppower.com 


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

### Specification

#### Input

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

#### Output

- Output Voltage • See table
- Minimum Load • None<sup>1</sup>
- Line Regulation •  $\pm 0.5\%$
- Load Regulation •  $\pm 1\%$  for a 25-100% load change<sup>2</sup>
- Setpoint Accuracy •  $\pm 2\%$
- Cross Regulation •  $\pm 5\%$  on dual output models
- Ripple & Noise • 80 mV pk-pk max, 20 MHz bandwidth<sup>3</sup>
- Short Circuit Protection • Continuous with auto recovery (foldback)
- Max Capacitive Load • See table
- Remote On/Off • Optional on SIP package model<sup>4</sup>
- Temperature Coefficient • 0.02%/ $^{\circ}$ C

#### General

- Efficiency • See table
- Isolation Voltage • 1000 VDC, Optional 3000 VDC<sup>5</sup>
- Isolation Resistance •  $10^9 \Omega$
- Isolation Capacitance • 60 pF
- Switching Frequency • 100-650 kHz
- MTBF •  $> 1.61$  Miles to ML-HDBK-213T, at 25  $^{\circ}$ C, GB

#### Environmental

- Operating Temperature •  $-40^{\circ}$ C to  $+85^{\circ}$ C
- Storage Temperature •  $-40^{\circ}$ C to  $+125^{\circ}$ C
- Case Temperature •  $+100^{\circ}$ C max
- Cooling • Convection cooled

#### Safety

- Safety Approvals • UL62368-1, CE & UKCA meets all applicable directives & legislation.

#### Notes

- For dual in-line package replace 'S' in model number with 'D'.
- For optional 3 kV insulator add suffix '4F' to the model number.
- For dual output delete suffix 'W' and split output current equally between rails.
- 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.
- Output capacitor of 100  $\mu$ F required to meet quoted ripple & noise.
- Minimum load of 25% required to meet load regulation & ripple & noise specifications.
- Operation at no load will not damage device but may not meet all specifications.
- Pin pitch-tolerance:  $\pm 0.014$  ( $\pm 0.35$ ); Case tolerance:  $\pm 0.02$  ( $\pm 0.5$ ).
- Weight: SIP 0.038 lbs (0.0 g), DIP 0.013 lbs (6.0 g) **SIP 0.0214 lbs (9.7 g)**
- For the first metal can package add suffix 'M' to the model number.

Input Voltage	No Load Input Current	Output Voltage <sup>6</sup>	Output Current	Max. Capacitive Load	Efficiency	Model Number
4.5-9.0 V	10 mA	3.3 V	800 mA	2000 $\mu$ F	87%	4.02033SA
	10 mA	5.0 V	600 mA	2000 $\mu$ F	72%	4.02033SA
	20 mA	8.0 V	400 mA	210 $\mu$ F	72%	4.02033SA
	20 mA	10.0 V	300 mA	210 $\mu$ F	70%	4.02033SA
	30 mA	15.0 V	100 mA	210 $\mu$ F	72%	4.02033SA
	30 mA	20.0 V	80 mA	200 $\mu$ F	76%	4.02033SA
9.0-18.0 V	10 mA	3.3 V	800 mA	2000 $\mu$ F	87%	4.12033SA
	10 mA	5.0 V	600 mA	2000 $\mu$ F	77%	4.12033SA
	10 mA	8.0 V	400 mA	210 $\mu$ F	76%	4.12033SA
	10 mA	10.0 V	300 mA	210 $\mu$ F	80%	4.12033SA
	10 mA	15.0 V	100 mA	210 $\mu$ F	78%	4.12033SA
	10 mA	20.0 V	80 mA	200 $\mu$ F	80%	4.12033SA
18.0-36.0 V	0 mA	3.3 V	800 mA	2000 $\mu$ F	70%	4.20033SA
	0 mA	5.0 V	600 mA	2000 $\mu$ F	77%	4.20033SA
	0 mA	8.0 V	400 mA	210 $\mu$ F	80%	4.20033SA
	0 mA	10.0 V	300 mA	210 $\mu$ F	80%	4.20033SA
	0 mA	15.0 V	100 mA	210 $\mu$ F	80%	4.20033SA
	0 mA	20.0 V	80 mA	200 $\mu$ F	80%	4.20033SA
36.0-72.0 V	0 mA	3.3 V	800 mA	2000 $\mu$ F	71%	4.30033SA
	0 mA	5.0 V	600 mA	2000 $\mu$ F	70%	4.30033SA
	0 mA	8.0 V	400 mA	210 $\mu$ F	78%	4.30033SA
	0 mA	10.0 V	300 mA	210 $\mu$ F	78%	4.30033SA
	0 mA	15.0 V	100 mA	210 $\mu$ F	78%	4.30033SA
	0 mA	20.0 V	80 mA	200 $\mu$ F	80%	4.30033SA

### Mechanical Details

