

3 Watts IT Series



- Regulated Single & Dual Output
- Wide 4:1 Input Range
- SIP Package
- 1500 VDC Isolation
- -40 °C to 100 °C Operation
- Remote On/Off
- 3 Year Warranty

Specification

Input

- Input Voltage Range • See table
- Input Reflected Ripple Current • 20 mA pk-pk through 12 μ H inductor and 47 μ F capacitor, 5 Hz to 20 MHz
- Input Filter • Capacitor
- Input Surge • 24 V models: 50 VDC for 100 ms
48 V models: 100 VDC for 100 ms

Output

- Output Voltage • See table
- Minimum Load • None⁽¹⁾
- Line Regulation • $\pm 0.5\%$ max
- Load Regulation • $\pm 0.5\%$ max from 10-100% load⁽¹⁾
- Setpoint Accuracy • $\pm 1\%$ max
- Ripple & Noise • 50 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient • 0.02%/°C
- Short Circuit Protection • Continuous with auto recovery (hiccup)
- Cross Regulation • $\pm 5\%$ on dual output models⁽²⁾
- Remote On/Off • Apply 2.7 to 15 VDC to pin 3 to turn output off

General

- Efficiency • See table
- Isolation Voltage • 1500 VDC
- Isolation Resistance • $10^9 \Omega$
- Isolation Capacitance • 500 pF, max
- Switching Frequency • 250 kHz typical
- MTBF • >1.2 Mhrs to MIL-HDBK-217F at 25 °C, GB

Environmental

- Operating Temperature • -40 °C to +100 °C, derate from 100% load at 75 °C to 0% load at 100 °C
- Storage Temperature • -40 °C to +125 °C
- Case Temperature • 100 °C max
- Cooling • Convection cooled

Notes

1. Operation at no load will not damage the converter but may not meet all specifications.
2. When one output is set to 100% load and the other varies between 25%-100% load.
3. Pin pitch tolerance ± 0.014 (± 0.35)
4. Case tolerance ± 0.02 (0.5)
5. Weight: 0.014 lbs (6.5 g)
6. All dimensions in inches (mm)

Input Voltage	Output Voltage	Output Current	No Load Input Current	Max Capacitive Load	Efficiency	Model Number
9.0-36.0 V	3.3 V	700 mA	10 mA	2200 μ F	77%	IT2403SA [†]
	5.0 V	600 mA	10 mA	1000 μ F	82%	IT2405SA [†]
	12.0 V	250 mA	10 mA	165 μ F	84%	IT2412SA [†]
	15.0 V	200 mA	10 mA	100 μ F	85%	IT2415SA [†]
	± 5.0 V	± 300 mA	10 mA	± 470 μ F	81%	IT2405S [†]
	± 12.0 V	± 125 mA	10 mA	± 100 μ F	84%	IT2412S [†]
18.0-75.0 V	± 15.0 V	± 100 mA	10 mA	± 47 μ F	84%	IT2415S [†]
	3.3 V	700 mA	5 mA	2200 μ F	75%	IT4803SA [†]
	5.0 V	600 mA	8 mA	1000 μ F	81%	IT4805SA [†]
	12.0 V	250 mA	5 mA	165 μ F	84%	IT4812SA [†]
	15.0 V	200 mA	5 mA	100 μ F	84%	IT4815SA [†]
	± 5.0 V	± 300 mA	5 mA	± 470 μ F	81%	IT4805S [†]
	± 12.0 V	± 125 mA	5 mA	± 100 μ F	84%	IT4812S [†]
	± 15.0 V	± 100 mA	5 mA	± 47 μ F	83%	IT4815S [†]

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

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

Mechanical Details

