

2 Watts IL Series



- Single Output
- SIP Package
- 1000 VDC Isolation
- Optional 3000 VDC Isolation
- MTBF >1.2 MHrs
- -40 °C to +85 °C Operation
- 3 Year Warranty

Specification

Input

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

Output

- Output Voltage Range • See table
- Minimum Load • None⁽²⁾
- 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 • 150 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient • 0.02%/°C
- Maximum Capacitive Load • 470 μ F

General

- Efficiency • See table
- Isolation Voltage • 1000 VDC minimum (3000 VDC -H option)
- Isolation Resistance • $10^9 \Omega$
- Isolation Capacitance • 60 pF typical
- Switching Frequency • Variable, 70 KHz typical
- MTBF • >1.21 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. Add suffix 'H' to model for 3000 VDC isolation.
2. Operation at no load will not damage unit but it may not meet all specifications.
3. All dimensions in inches (mm).
4. Pin pitch tolerance: ± 0.014 (± 0.35), Case tolerance: ± 0.02 (± 0.5)
5. Weight: 0.004 lbs (1.8 g)

Input Voltage	No Load Input Current	Output Voltage	Output Current	Efficiency	Model Number ⁽¹⁾
5 VDC	35 mA	3.3 V	400 mA	71%	IL0503S
	35 mA	5.0 V	400 mA	77%	IL0505S
	35 mA	9.0 V	222 mA	80%	IL0509S
	35 mA	12.0 V	168 mA	82%	IL0512S
	35 mA	15.0 V	132 mA	82%	IL0515S
	35 mA	24.0 V	84 mA	82%	IL0524S
12 VDC	20 mA	3.3 V	400 mA	72%	IL1203S
	20 mA	5.0 V	400 mA	78%	IL1205S
	20 mA	9.0 V	222 mA	82%	IL1209S
	20 mA	12.0 V	168 mA	84%	IL1212S
	20 mA	15.0 V	132 mA	84%	IL1215S
	25 mA	24.0 V	84 mA	82%	IL1224S
24 VDC	10 mA	3.3 V	400 mA	74%	IL2403S
	10 mA	5.0 V	400 mA	80%	IL2405S
	10 mA	9.0 V	222 mA	84%	IL2409S
	10 mA	12.0 V	168 mA	84%	IL2412S
	10 mA	15.0 V	132 mA	84%	IL2415S
	10 mA	24.0 V	84 mA	84%	IL2424S
48 VDC	7 mA	3.3 V	400 mA	72%	IL4803S
	7 mA	5.0 V	400 mA	78%	IL4805S
	7 mA	9.0 V	222 mA	82%	IL4809S
	7 mA	12.0 V	168 mA	80%	IL4812S
	7 mA	15.0 V	132 mA	82%	IL4815S
	7 mA	24.0 V	84 mA	82%	IL4824S

Mechanical Details

